

## Upgraded Safety Limit Switches Based on the Popular D4D, Providing a Full Lineup Conforming to International Standards

**Note:** Contact your sales representative for details on models with safety standard certification.



- Lineup includes three contact models with 2NC/1NO and 3NC contact forms in addition to the previous contact forms 1NC/1NO, and 2NC. Models with MBB contacts are also available.
- M12-connector models are available, saving on labor and simplifying replacement.
- Standardized gold-clad contacts provide high contact reliability. Can be used with both standard loads and microloads.
- Conforms to EN115, EN81-1, and EN81-2 (slow-action models only).
- Lineup includes both slow-action and snap-action models with Zb contacts.
- Certified standards: UL, EN (TÜV), and CCC



**!** Be sure to read the "Safety Precautions" on page 18 and the "Precautions for All Safety Limit Switches" .

## Model Number Structure

### Model Number Legend

D4N-□□□□  
1 2 3

#### 1. Conduit size

- 1: Pg13.5 (1-conduit)
- 2: G1/2 (1-conduit)
- 3: 1/2-14NPT (1-conduit)
- 4: M20 (1-conduit)
- 5: Pg13.5 (2-conduit)
- 6: G1/2 (2-conduit)
- 7: 1/2-14NPT (2-conduit)
- 8: M20 (2-conduit)
- 9: M12 connector (1-conduit)

#### 2. Built-in Switch

- 1: 1NC/1NO (snap-action)
- 2: 2NC (snap-action)
- A: 1NC/1NO (slow-action)
- B: 2NC (slow-action)
- C: 2NC/1NO (slow-action)
- D: 3NC (slow-action)
- E: 1NC/1NO (MBB contact) (slow-action)
- F: 2NC/1NO (MBB contact) (slow-action)

#### 3. Head and Actuator

- 20: Roller lever (resin lever, resin roller)
- 22: Roller lever (metal lever, resin roller)
- 25: Roller lever (metal lever, metal roller)
- 26: Roller lever (metal lever, bearing roller)
- 2G: Adjustable roller lever, form lock (metal lever, resin roller)
- 2H: Adjustable roller lever, form lock (metal lever, rubber roller)
- 31: Top Plunger
- 32: Top Roller Plunger
- 62: One-way roller arm lever (horizontal)
- 72: One-way roller arm lever (vertical)
- 80: Cat whisker
- 87: Plastic rod
- RE: Fork lever lock (right operation)
- LE: Fork lever lock (left operation)

## Ordering Information

### List of Models

Consult with your OMRON representative when ordering any models that are not listed in this table.

### Switches with Two Contacts (with Direct Opening Mechanism)

| Actuator                                                                                                                                               | Conduit size |               | Built-in switch mechanism |                                                                                     |                      |                                                                                     |                          |                                                                                       |                      |                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------|---------------------------|-------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------|
|                                                                                                                                                        |              |               | 1NC/1NO<br>(Snap-action)  |                                                                                     | 2NC<br>(Snap-action) |                                                                                     | 1NC/1NO<br>(Slow-action) |                                                                                       | 2NC<br>(Slow-action) |                                                                                       |
|                                                                                                                                                        |              |               | Model                     | Direct opening                                                                      | Model                | Direct opening                                                                      | Model                    | Direct opening                                                                        | Model                | Direct opening                                                                        |
| Roller lever (resin lever, resin roller)<br>                          | 1-conduit    | Pg13.5        | D4N-1120                  |    | D4N-1220             |    | D4N-1A20                 |    | D4N-1B20             |    |
|                                                                                                                                                        |              | G1/2          | D4N-2120                  |                                                                                     | D4N-2220             |                                                                                     | D4N-2A20                 |                                                                                       | D4N-2B20             |                                                                                       |
|                                                                                                                                                        |              | 1/2-14NPT     | D4N-3120                  |                                                                                     | D4N-3220             |                                                                                     | D4N-3A20                 |                                                                                       | D4N-3B20             |                                                                                       |
|                                                                                                                                                        |              | M20           | D4N-4120                  |                                                                                     | D4N-4220             |                                                                                     | D4N-4A20                 |                                                                                       | D4N-4B20             |                                                                                       |
|                                                                                                                                                        |              | M12 connector | D4N-9120                  |                                                                                     | D4N-9220             |                                                                                     | D4N-9A20                 |                                                                                       | D4N-9B20             |                                                                                       |
|                                                                                                                                                        | 2-conduit    | Pg13.5        | D4N-5120                  |    | D4N-5220             |    | D4N-5A20                 |    | D4N-5B20             |    |
|                                                                                                                                                        |              | G1/2          | D4N-6120                  |                                                                                     | D4N-6220             |                                                                                     | D4N-6A20                 |                                                                                       | D4N-6B20             |                                                                                       |
|                                                                                                                                                        |              | M20           | D4N-8120                  |                                                                                     | D4N-8220             |                                                                                     | D4N-8A20                 |                                                                                       | D4N-8B20             |                                                                                       |
| Roller lever (metal lever, resin roller)<br>                          | 1-conduit    | Pg13.5        | D4N-1122                  |    | D4N-1222             |    | D4N-1A22                 |    | D4N-1B22             |    |
|                                                                                                                                                        |              | G1/2          | D4N-2122                  |                                                                                     | D4N-2222             |                                                                                     | D4N-2A22                 |                                                                                       | D4N-2B22             |                                                                                       |
|                                                                                                                                                        |              | 1/2-14NPT     | D4N-3122                  |                                                                                     | D4N-3222             |                                                                                     | D4N-3A22                 |                                                                                       | D4N-3B22             |                                                                                       |
|                                                                                                                                                        |              | M20           | D4N-4122                  |                                                                                     | D4N-4222             |                                                                                     | D4N-4A22                 |                                                                                       | D4N-4B22             |                                                                                       |
|                                                                                                                                                        |              | M12 connector | D4N-9122                  |                                                                                     | D4N-9222             |                                                                                     | D4N-9A22                 |                                                                                       | D4N-9B22             |                                                                                       |
|                                                                                                                                                        | 2-conduit    | Pg13.5        | D4N-5122                  |    | D4N-5222             |    | D4N-5A22                 |    | D4N-5B22             |    |
|                                                                                                                                                        |              | G1/2          | D4N-6122                  |                                                                                     | D4N-6222             |                                                                                     | D4N-6A22                 |                                                                                       | D4N-6B22             |                                                                                       |
|                                                                                                                                                        |              | M20           | D4N-8122                  |                                                                                     | D4N-8222             |                                                                                     | D4N-8A22                 |                                                                                       | D4N-8B22             |                                                                                       |
| Roller lever (metal lever, metal roller)<br>                          | 1-conduit    | Pg13.5        | D4N-1125                  |    | D4N-1225             |    | D4N-1A25                 |    | D4N-1B25             |    |
|                                                                                                                                                        |              | G1/2          | D4N-2125                  |                                                                                     | D4N-2225             |                                                                                     | D4N-2A25                 |                                                                                       | D4N-2B25             |                                                                                       |
|                                                                                                                                                        |              | 1/2-14NPT     | D4N-3125                  |                                                                                     | D4N-3225             |                                                                                     | D4N-3A25                 |                                                                                       | D4N-3B25             |                                                                                       |
|                                                                                                                                                        |              | M20           | D4N-4125                  |                                                                                     | D4N-4225             |                                                                                     | D4N-4A25                 |                                                                                       | D4N-4B25             |                                                                                       |
|                                                                                                                                                        |              | M12 connector | D4N-9125                  |                                                                                     | D4N-9225             |                                                                                     | D4N-9A25                 |                                                                                       | D4N-9B25             |                                                                                       |
|                                                                                                                                                        |              |               |                           |                                                                                     |                      |                                                                                     |                          |                                                                                       |                      |                                                                                       |
| Roller lever (metal lever, bearing roller)<br>                        | 1-conduit    | Pg13.5        | D4N-1126                  |    | D4N-1226             |    | D4N-1A26                 |    | D4N-1B26             |    |
|                                                                                                                                                        |              | G1/2          | D4N-2126                  |                                                                                     | D4N-2226             |                                                                                     | D4N-2A26                 |                                                                                       | D4N-2B26             |                                                                                       |
|                                                                                                                                                        |              | 1/2-14NPT     | D4N-3126                  |                                                                                     | D4N-3226             |                                                                                     | D4N-3A26                 |                                                                                       | D4N-3B26             |                                                                                       |
|                                                                                                                                                        |              | M20           | D4N-4126                  |                                                                                     | D4N-4226             |                                                                                     | D4N-4A26                 |                                                                                       | D4N-4B26             |                                                                                       |
|                                                                                                                                                        |              | M12 connector | D4N-9126                  |                                                                                     | D4N-9226             |                                                                                     | D4N-9A26                 |                                                                                       | D4N-9B26             |                                                                                       |
|                                                                                                                                                        |              |               |                           |                                                                                     |                      |                                                                                     |                          |                                                                                       |                      |                                                                                       |
| Plunger<br>                                                         | 1-conduit    | Pg13.5        | D4N-1131                  |   | D4N-1231             |   | D4N-1A31                 |   | D4N-1B31             |   |
|                                                                                                                                                        |              | G1/2          | D4N-2131                  |                                                                                     | D4N-2231             |                                                                                     | D4N-2A31                 |                                                                                       | D4N-2B31             |                                                                                       |
|                                                                                                                                                        |              | 1/2-14NPT     | D4N-3131                  |                                                                                     | D4N-3231             |                                                                                     | D4N-3A31                 |                                                                                       | D4N-3B31             |                                                                                       |
|                                                                                                                                                        |              | M20           | D4N-4131                  |                                                                                     | D4N-4231             |                                                                                     | D4N-4A31                 |                                                                                       | D4N-4B31             |                                                                                       |
|                                                                                                                                                        |              | M12 connector | D4N-9131                  |                                                                                     | D4N-9231             |                                                                                     | D4N-9A31                 |                                                                                       | D4N-9B31             |                                                                                       |
|                                                                                                                                                        | 2-conduit    | Pg13.5        | D4N-5131                  |  | D4N-5231             |  | D4N-5A31                 |  | D4N-5B31             |  |
|                                                                                                                                                        |              | G1/2          | D4N-6131                  |                                                                                     | D4N-6231             |                                                                                     | D4N-6A31                 |                                                                                       | D4N-6B31             |                                                                                       |
|                                                                                                                                                        |              | M20           | D4N-8131                  |                                                                                     | D4N-8231             |                                                                                     | D4N-8A31                 |                                                                                       | D4N-8B31             |                                                                                       |
| Roller plunger<br>                                                  | 1-conduit    | Pg13.5        | D4N-1132                  |  | D4N-1232             |  | D4N-1A32                 |  | D4N-1B32             |  |
|                                                                                                                                                        |              | G1/2          | D4N-2132                  |                                                                                     | D4N-2232             |                                                                                     | D4N-2A32                 |                                                                                       | D4N-2B32             |                                                                                       |
|                                                                                                                                                        |              | 1/2-14NPT     | D4N-3132                  |                                                                                     | D4N-3232             |                                                                                     | D4N-3A32                 |                                                                                       | D4N-3B32             |                                                                                       |
|                                                                                                                                                        |              | M20           | D4N-4132                  |                                                                                     | D4N-4232             |                                                                                     | D4N-4A32                 |                                                                                       | D4N-4B32             |                                                                                       |
|                                                                                                                                                        |              | M12 connector | D4N-9132                  |                                                                                     | D4N-9232             |                                                                                     | D4N-9A32                 |                                                                                       | D4N-9B32             |                                                                                       |
|                                                                                                                                                        | 2-conduit    | Pg13.5        | D4N-5132                  |  | D4N-5232             |  | D4N-5A32                 |  | D4N-5B32             |  |
|                                                                                                                                                        |              | G1/2          | D4N-6132                  |                                                                                     | D4N-6232             |                                                                                     | D4N-6A32                 |                                                                                       | D4N-6B32             |                                                                                       |
|                                                                                                                                                        |              | M20           | D4N-8132                  |                                                                                     | D4N-8232             |                                                                                     | D4N-8A32                 |                                                                                       | D4N-8B32             |                                                                                       |
| One-way roller arm lever (horizontal)<br>                           | 1-conduit    | Pg13.5        | D4N-1162                  |  | D4N-1262             |  | D4N-1A62                 |  | D4N-1B62             |  |
|                                                                                                                                                        |              | G1/2          | D4N-2162                  |                                                                                     | D4N-2262             |                                                                                     | D4N-2A62                 |                                                                                       | D4N-2B62             |                                                                                       |
|                                                                                                                                                        |              | 1/2-14NPT     | D4N-3162                  |                                                                                     | D4N-3262             |                                                                                     | D4N-3A62                 |                                                                                       | D4N-3B62             |                                                                                       |
|                                                                                                                                                        |              | M20           | D4N-4162                  |                                                                                     | D4N-4262             |                                                                                     | D4N-4A62                 |                                                                                       | D4N-4B62             |                                                                                       |
|                                                                                                                                                        |              | M12 connector | D4N-9162                  |                                                                                     | D4N-9262             |                                                                                     | D4N-9A62                 |                                                                                       | D4N-9B62             |                                                                                       |
|                                                                                                                                                        | 2-conduit    | Pg13.5        | D4N-5162                  |  | D4N-5262             |  | D4N-5A62                 |  | D4N-5B62             |  |
|                                                                                                                                                        |              | G1/2          | D4N-6162                  |                                                                                     | D4N-6262             |                                                                                     | D4N-6A62                 |                                                                                       | D4N-6B62             |                                                                                       |
|                                                                                                                                                        |              | M20           | D4N-8162                  |                                                                                     | D4N-8262             |                                                                                     | D4N-8A62                 |                                                                                       | D4N-8B62             |                                                                                       |
| One-way roller arm lever (vertical)<br>                             | 1-conduit    | Pg13.5        | D4N-1172                  |  | D4N-1272             |  | D4N-1A72                 |  | D4N-1B72             |  |
|                                                                                                                                                        |              | G1/2          | D4N-2172                  |                                                                                     | D4N-2272             |                                                                                     | D4N-2A72                 |                                                                                       | D4N-2B72             |                                                                                       |
|                                                                                                                                                        |              | 1/2-14NPT     | D4N-3172                  |                                                                                     | D4N-3272             |                                                                                     | D4N-3A72                 |                                                                                       | D4N-3B72             |                                                                                       |
|                                                                                                                                                        |              | M20           | D4N-4172                  |                                                                                     | D4N-4272             |                                                                                     | D4N-4A72                 |                                                                                       | D4N-4B72             |                                                                                       |
|                                                                                                                                                        |              | M12 connector | D4N-9172                  |                                                                                     | D4N-9272             |                                                                                     | D4N-9A72                 |                                                                                       | D4N-9B72             |                                                                                       |
|                                                                                                                                                        | 2-conduit    | Pg13.5        | D4N-5172                  |  | D4N-5272             |  | D4N-5A72                 |  | D4N-5B72             |  |
|                                                                                                                                                        |              | G1/2          | D4N-6172                  |                                                                                     | D4N-6272             |                                                                                     | D4N-6A72                 |                                                                                       | D4N-6B72             |                                                                                       |
|                                                                                                                                                        |              | M20           | D4N-8172                  |                                                                                     | D4N-8272             |                                                                                     | D4N-8A72                 |                                                                                       | D4N-8B72             |                                                                                       |
| Adjustable roller lever, form lock (metal lever, resin roller)<br>  | 1-conduit    | Pg13.5        | D4N-112G                  |  | D4N-122G             |  | D4N-1A2G                 |  | D4N-1B2G             |  |
|                                                                                                                                                        |              | G1/2          | D4N-212G                  |                                                                                     | D4N-222G             |                                                                                     | D4N-2A2G                 |                                                                                       | D4N-2B2G             |                                                                                       |
|                                                                                                                                                        |              | 1/2-14NPT     | D4N-312G                  |                                                                                     | D4N-322G             |                                                                                     | D4N-3A2G                 |                                                                                       | D4N-3B2G             |                                                                                       |
|                                                                                                                                                        |              | M20           | D4N-412G                  |                                                                                     | D4N-422G             |                                                                                     | D4N-4A2G                 |                                                                                       | D4N-4B2G             |                                                                                       |
|                                                                                                                                                        |              | M12 connector | D4N-912G                  |                                                                                     | D4N-922G             |                                                                                     | D4N-9A2G                 |                                                                                       | D4N-9B2G             |                                                                                       |
|                                                                                                                                                        | 2-conduit    | G1/2          | D4N-612G                  |  | D4N-622G             |  | D4N-6A2G                 |  | D4N-6B2G             |  |
| Adjustable roller lever, form lock (metal lever, rubber roller)<br> | 1-conduit    | Pg13.5        | D4N-112H                  |  | D4N-122H             |  | D4N-1A2H                 |  | D4N-1B2H             |  |
|                                                                                                                                                        |              | G1/2          | D4N-212H                  |                                                                                     | D4N-222H             |                                                                                     | D4N-2A2H                 |                                                                                       | D4N-2B2H             |                                                                                       |
|                                                                                                                                                        |              | 1/2-14NPT     | D4N-312H                  |                                                                                     | D4N-322H             |                                                                                     | D4N-3A2H                 |                                                                                       | D4N-3B2H             |                                                                                       |
|                                                                                                                                                        |              | M20           | D4N-412H                  |                                                                                     | D4N-422H             |                                                                                     | D4N-4A2H                 |                                                                                       | D4N-4B2H             |                                                                                       |
|                                                                                                                                                        |              | M12 connector | D4N-912H                  |                                                                                     | D4N-922H             |                                                                                     | D4N-9A2H                 |                                                                                       | D4N-9B2H             |                                                                                       |
|                                                                                                                                                        | 2-conduit    | G1/2          | D4N-612H                  |  | D4N-622H             |  | D4N-6A2H                 |  | D4N-6B2H             |  |
|                                                                                                                                                        |              | M20           | D4N-812H                  |                                                                                     | D4N-822H             |                                                                                     | D4N-8A2H                 |                                                                                       | D4N-8B2H             |                                                                                       |
|                                                                                                                                                        |              |               |                           |                                                                                     |                      |                                                                                     |                          |                                                                                       |                      |                                                                                       |

**Note:** It is recommended that M20 be used for Switches to be exported to Europe and 1/2-14NPT be used for Switches to be exported to North American countries.

## Switches with Three Contacts and MBB Contacts (with Direct Opening Mechanism)

| Actuator                                                                                                                                               | Conduit size                                                                                                                  |               | Built-in switch mechanism |                                                                                     |                                                                                   |                                                                                     |                                                                                   |                                                                                       |                                                                                     |                                                                                       |                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                                                                                                        |                                                                                                                               |               | 2NC/1NO<br>(Slow-action)  |                                                                                     | 3NC<br>(Slow-action)                                                              |                                                                                     | 1NC/1NO MBB<br>(Slow-action)                                                      |                                                                                       | 2NC/1NO MBB<br>(Slow-action)                                                        |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               |               | Model                     | Direct opening                                                                      | Model                                                                             | Direct opening                                                                      | Model                                                                             | Direct opening                                                                        | Model                                                                               | Direct opening                                                                        |                                                                                     |
| Roller lever (resin lever, resin roller)<br>                          | 1-conduit                                                                                                                     | Pg13.5        | D4N-1C20                  |    | D4N-1D20                                                                          |    | D4N-1E20                                                                          |    | D4N-1F20                                                                            |    |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | G1/2          | D4N-2C20                  |                                                                                     | D4N-2D20                                                                          |                                                                                     | D4N-2E20                                                                          |                                                                                       | D4N-2F20                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | 1/2-14NPT     | D4N-3C20                  |                                                                                     | D4N-3D20                                                                          |                                                                                     | D4N-3E20                                                                          |                                                                                       | D4N-3F20                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-4C20                  |                                                                                     | D4N-4D20                                                                          |                                                                                     | D4N-4E20                                                                          |                                                                                       | D4N-4F20                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M12 connector | ---                       |                                                                                     | ---                                                                               |                                                                                     | D4N-9E20                                                                          |                                                                                       | ---                                                                                 |                                                                                       |                                                                                     |
|                                                                                                                                                        | 2-conduit                                                                                                                     | Pg13.5        | D4N-5C20                  |    | D4N-5D20                                                                          |    | D4N-5E20                                                                          |    | D4N-5F20                                                                            |    |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | G1/2          | D4N-6C20                  |                                                                                     | D4N-6D20                                                                          |                                                                                     | D4N-6E20                                                                          |                                                                                       | D4N-6F20                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-8C20                  |                                                                                     | D4N-8D20                                                                          |                                                                                     | D4N-8E20                                                                          |                                                                                       | D4N-8F20                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        | Roller lever (metal lever, resin roller)<br> | 1-conduit     | Pg13.5                    | D4N-1C22                                                                            |  | D4N-1D22                                                                            |  | D4N-1E22                                                                              |  | D4N-1F22                                                                              |  |
|                                                                                                                                                        |                                                                                                                               |               | G1/2                      | D4N-2C22                                                                            |                                                                                   | D4N-2D22                                                                            |                                                                                   | D4N-2E22                                                                              |                                                                                     | D4N-2F22                                                                              |                                                                                     |
| 1/2-14NPT                                                                                                                                              |                                                                                                                               |               | D4N-3C22                  | D4N-3D22                                                                            |                                                                                   | D4N-3E22                                                                            |                                                                                   | D4N-3F22                                                                              |                                                                                     |                                                                                       |                                                                                     |
| M20                                                                                                                                                    |                                                                                                                               |               | D4N-4C22                  | D4N-4D22                                                                            |                                                                                   | D4N-4E22                                                                            |                                                                                   | D4N-4F22                                                                              |                                                                                     |                                                                                       |                                                                                     |
| M12 connector                                                                                                                                          |                                                                                                                               |               | ---                       | ---                                                                                 |                                                                                   | D4N-9E22                                                                            |                                                                                   | ---                                                                                   |                                                                                     |                                                                                       |                                                                                     |
| 2-conduit                                                                                                                                              |                                                                                                                               | Pg13.5        | D4N-5C22                  |    | D4N-5D22                                                                          |    | D4N-5E22                                                                          |    | D4N-5F22                                                                            |    |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | G1/2          | D4N-6C22                  |                                                                                     | D4N-6D22                                                                          |                                                                                     | D4N-6E22                                                                          |                                                                                       | D4N-6F22                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-8C22                  |                                                                                     | D4N-8D22                                                                          |                                                                                     | D4N-8E22                                                                          |                                                                                       | D4N-8F22                                                                            |                                                                                       |                                                                                     |
| Roller lever (metal lever, metal roller)<br>                          |                                                                                                                               | 1-conduit     | Pg13.5                    | D4N-1C25                                                                            |  | D4N-1D25                                                                            |  | D4N-1E25                                                                              |  | D4N-1F25                                                                              |  |
|                                                                                                                                                        |                                                                                                                               |               | G1/2                      | D4N-2C25                                                                            |                                                                                   | D4N-2D25                                                                            |                                                                                   | D4N-2E25                                                                              |                                                                                     | D4N-2F25                                                                              |                                                                                     |
|                                                                                                                                                        | 1/2-14NPT                                                                                                                     |               | D4N-3C25                  | D4N-3D25                                                                            |                                                                                   | D4N-3E25                                                                            |                                                                                   | D4N-3F25                                                                              |                                                                                     |                                                                                       |                                                                                     |
|                                                                                                                                                        | M20                                                                                                                           |               | D4N-4C25                  | D4N-4D25                                                                            |                                                                                   | D4N-4E25                                                                            |                                                                                   | D4N-4F25                                                                              |                                                                                     |                                                                                       |                                                                                     |
|                                                                                                                                                        | M12 connector                                                                                                                 |               | ---                       | ---                                                                                 |                                                                                   | D4N-9E25                                                                            |                                                                                   | ---                                                                                   |                                                                                     |                                                                                       |                                                                                     |
|                                                                                                                                                        | 2-conduit                                                                                                                     | Pg13.5        | D4N-5C25                  |    | D4N-5D25                                                                          |    | D4N-5E25                                                                          |    | D4N-5F25                                                                            |    |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | G1/2          | D4N-6C25                  |                                                                                     | D4N-6D25                                                                          |                                                                                     | D4N-6E25                                                                          |                                                                                       | D4N-6F25                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-8C25                  |                                                                                     | D4N-8D25                                                                          |                                                                                     | D4N-8E25                                                                          |                                                                                       | D4N-8F25                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               |               |                           |                                                                                     |                                                                                   |                                                                                     |                                                                                   |                                                                                       |                                                                                     |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               |               |                           |                                                                                     |                                                                                   |                                                                                     |                                                                                   |                                                                                       |                                                                                     |                                                                                       |                                                                                     |
| Roller lever (metal lever, bearing roller)<br>                        | 1-conduit                                                                                                                     | Pg13.5        | D4N-1C26                  |    | D4N-1D26                                                                          |    | D4N-1E26                                                                          |    | D4N-1F26                                                                            |    |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | G1/2          | D4N-2C26                  |                                                                                     | D4N-2D26                                                                          |                                                                                     | D4N-2E26                                                                          |                                                                                       | D4N-2F26                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | 1/2-14NPT     | D4N-3C26                  |                                                                                     | D4N-3D26                                                                          |                                                                                     | D4N-3E26                                                                          |                                                                                       | D4N-3F26                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-4C26                  |                                                                                     | D4N-4D26                                                                          |                                                                                     | D4N-4E26                                                                          |                                                                                       | D4N-4F26                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M12 connector | ---                       |                                                                                     | ---                                                                               |                                                                                     | D4N-9E26                                                                          |                                                                                       | ---                                                                                 |                                                                                       |                                                                                     |
|                                                                                                                                                        | 2-conduit                                                                                                                     | Pg13.5        | D4N-5C26                  |   | D4N-5D26                                                                          |   | D4N-5E26                                                                          |   | D4N-5F26                                                                            |   |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | G1/2          | D4N-6C26                  |                                                                                     | D4N-6D26                                                                          |                                                                                     | D4N-6E26                                                                          |                                                                                       | D4N-6F26                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-8C26                  |                                                                                     | D4N-8D26                                                                          |                                                                                     | D4N-8E26                                                                          |                                                                                       | D4N-8F26                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               |               |                           |                                                                                     |                                                                                   |                                                                                     |                                                                                   |                                                                                       |                                                                                     |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               |               |                           |                                                                                     |                                                                                   |                                                                                     |                                                                                   |                                                                                       |                                                                                     |                                                                                       |                                                                                     |
| Plunger<br>                                                          | 1-conduit                                                                                                                     | Pg13.5        | D4N-1C31                  |   | D4N-1D31                                                                          |   | D4N-1E31                                                                          |   | D4N-1F31                                                                            |   |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | G1/2          | D4N-2C31                  |                                                                                     | D4N-2D31                                                                          |                                                                                     | D4N-2E31                                                                          |                                                                                       | D4N-2F31                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | 1/2-14NPT     | D4N-3C31                  |                                                                                     | D4N-3D31                                                                          |                                                                                     | D4N-3E31                                                                          |                                                                                       | D4N-3F31                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-4C31                  |                                                                                     | D4N-4D31                                                                          |                                                                                     | D4N-4E31                                                                          |                                                                                       | D4N-4F31                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M12 connector | ---                       |                                                                                     | ---                                                                               |                                                                                     | D4N-9E31                                                                          |                                                                                       | ---                                                                                 |                                                                                       |                                                                                     |
|                                                                                                                                                        | 2-conduit                                                                                                                     | Pg13.5        | D4N-5C31                  |  | D4N-5D31                                                                          |  | D4N-5E31                                                                          |  | D4N-5F31                                                                            |  |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | G1/2          | D4N-6C31                  |                                                                                     | D4N-6D31                                                                          |                                                                                     | D4N-6E31                                                                          |                                                                                       | D4N-6F31                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-8C31                  |                                                                                     | D4N-8D31                                                                          |                                                                                     | D4N-8E31                                                                          |                                                                                       | D4N-8F31                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               |               |                           |                                                                                     |                                                                                   |                                                                                     |                                                                                   |                                                                                       |                                                                                     |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               |               |                           |                                                                                     |                                                                                   |                                                                                     |                                                                                   |                                                                                       |                                                                                     |                                                                                       |                                                                                     |
| Roller plunger<br>                                                  | 1-conduit                                                                                                                     | Pg13.5        | D4N-1C32                  |  | D4N-1D32                                                                          |  | D4N-1E32                                                                          |  | D4N-1F32                                                                            |  |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | G1/2          | D4N-2C32                  |                                                                                     | D4N-2D32                                                                          |                                                                                     | D4N-2E32                                                                          |                                                                                       | D4N-2F32                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | 1/2-14NPT     | D4N-3C32                  |                                                                                     | D4N-3D32                                                                          |                                                                                     | D4N-3E32                                                                          |                                                                                       | D4N-3F32                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-4C32                  |                                                                                     | D4N-4D32                                                                          |                                                                                     | D4N-4E32                                                                          |                                                                                       | D4N-4F32                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M12 connector | ---                       |                                                                                     | ---                                                                               |                                                                                     | D4N-9E32                                                                          |                                                                                       | ---                                                                                 |                                                                                       |                                                                                     |
|                                                                                                                                                        | 2-conduit                                                                                                                     | Pg13.5        | D4N-5C32                  |  | D4N-5D32                                                                          |  | D4N-5E32                                                                          |  | D4N-5F32                                                                            |  |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | G1/2          | D4N-6C32                  |                                                                                     | D4N-6D32                                                                          |                                                                                     | D4N-6E32                                                                          |                                                                                       | D4N-6F32                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-8C32                  |                                                                                     | D4N-8D32                                                                          |                                                                                     | D4N-8E32                                                                          |                                                                                       | D4N-8F32                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               |               |                           |                                                                                     |                                                                                   |                                                                                     |                                                                                   |                                                                                       |                                                                                     |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               |               |                           |                                                                                     |                                                                                   |                                                                                     |                                                                                   |                                                                                       |                                                                                     |                                                                                       |                                                                                     |
| One-way roller arm lever (horizontal)<br>                           | 1-conduit                                                                                                                     | Pg13.5        | D4N-1C62                  |  | D4N-1D62                                                                          |  | D4N-1E62                                                                          |  | D4N-1F62                                                                            |  |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | G1/2          | D4N-2C62                  |                                                                                     | D4N-2D62                                                                          |                                                                                     | D4N-2E62                                                                          |                                                                                       | D4N-2F62                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | 1/2-14NPT     | D4N-3C62                  |                                                                                     | D4N-3D62                                                                          |                                                                                     | D4N-3E62                                                                          |                                                                                       | D4N-3F62                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-4C62                  |                                                                                     | D4N-4D62                                                                          |                                                                                     | D4N-4E62                                                                          |                                                                                       | D4N-4F62                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M12 connector | ---                       |                                                                                     | ---                                                                               |                                                                                     | D4N-9E62                                                                          |                                                                                       | ---                                                                                 |                                                                                       |                                                                                     |
|                                                                                                                                                        | 2-conduit                                                                                                                     | Pg13.5        | D4N-5C62                  |  | D4N-5D62                                                                          |  | D4N-5E62                                                                          |  | D4N-5F62                                                                            |  |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | G1/2          | D4N-6C62                  |                                                                                     | D4N-6D62                                                                          |                                                                                     | D4N-6E62                                                                          |                                                                                       | D4N-6F62                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-8C62                  |                                                                                     | D4N-8D62                                                                          |                                                                                     | D4N-8E62                                                                          |                                                                                       | D4N-8F62                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               |               |                           |                                                                                     |                                                                                   |                                                                                     |                                                                                   |                                                                                       |                                                                                     |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               |               |                           |                                                                                     |                                                                                   |                                                                                     |                                                                                   |                                                                                       |                                                                                     |                                                                                       |                                                                                     |
| One-way roller arm lever (vertical)<br>                             | 1-conduit                                                                                                                     | Pg13.5        | D4N-1C72                  |  | D4N-1D72                                                                          |  | D4N-1E72                                                                          |  | D4N-1F72                                                                            |  |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | G1/2          | D4N-2C72                  |                                                                                     | D4N-2D72                                                                          |                                                                                     | D4N-2E72                                                                          |                                                                                       | D4N-2F72                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | 1/2-14NPT     | D4N-3C72                  |                                                                                     | D4N-3D72                                                                          |                                                                                     | D4N-3E72                                                                          |                                                                                       | D4N-3F72                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-4C72                  |                                                                                     | D4N-4D72                                                                          |                                                                                     | D4N-4E72                                                                          |                                                                                       | D4N-4F72                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M12 connector | ---                       |                                                                                     | ---                                                                               |                                                                                     | D4N-9E72                                                                          |                                                                                       | ---                                                                                 |                                                                                       |                                                                                     |
|                                                                                                                                                        | 2-conduit                                                                                                                     | Pg13.5        | D4N-5C72                  |  | D4N-5D72                                                                          |  | D4N-5E72                                                                          |  | D4N-5F72                                                                            |  |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | G1/2          | D4N-6C72                  |                                                                                     | D4N-6D72                                                                          |                                                                                     | D4N-6E72                                                                          |                                                                                       | D4N-6F72                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-8C72                  |                                                                                     | D4N-8D72                                                                          |                                                                                     | D4N-8E72                                                                          |                                                                                       | D4N-8F72                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               |               |                           |                                                                                     |                                                                                   |                                                                                     |                                                                                   |                                                                                       |                                                                                     |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               |               |                           |                                                                                     |                                                                                   |                                                                                     |                                                                                   |                                                                                       |                                                                                     |                                                                                       |                                                                                     |
| Adjustable roller lever, form lock (metal lever, resin roller)<br>  | 1-conduit                                                                                                                     | Pg13.5        | D4N-1C2G                  |  | D4N-1D2G                                                                          |  | D4N-1E2G                                                                          |  | D4N-1F2G                                                                            |  |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | G1/2          | D4N-2C2G                  |                                                                                     | D4N-2D2G                                                                          |                                                                                     | D4N-2E2G                                                                          |                                                                                       | D4N-2F2G                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | 1/2-14NPT     | D4N-3C2G                  |                                                                                     | D4N-3D2G                                                                          |                                                                                     | D4N-3E2G                                                                          |                                                                                       | D4N-3F2G                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-4C2G                  |                                                                                     | D4N-4D2G                                                                          |                                                                                     | D4N-4E2G                                                                          |                                                                                       | D4N-4F2G                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M12 connector | ---                       |                                                                                     | ---                                                                               |                                                                                     | D4N-9E2G                                                                          |                                                                                       | ---                                                                                 |                                                                                       |                                                                                     |
|                                                                                                                                                        | 2-conduit                                                                                                                     | G1/2          | D4N-6C2G                  |  | D4N-6D2G                                                                          |  | D4N-6E2G                                                                          |  | D4N-6F2G                                                                            |  |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-8C2G                  |                                                                                     | D4N-8D2G                                                                          |                                                                                     | D4N-8E2G                                                                          |                                                                                       | D4N-8F2G                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               |               |                           |                                                                                     |                                                                                   |                                                                                     |                                                                                   |                                                                                       |                                                                                     |                                                                                       |                                                                                     |
| Adjustable roller lever, form lock (metal lever, rubber roller)<br> | 1-conduit                                                                                                                     | Pg13.5        | D4N-1C2H                  |  | D4N-1D2H                                                                          |  | D4N-1E2H                                                                          |  | D4N-1F2H                                                                            |  |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | G1/2          | D4N-2C2H                  |                                                                                     | D4N-2D2H                                                                          |                                                                                     | D4N-2E2H                                                                          |                                                                                       | D4N-2F2H                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | 1/2-14NPT     | D4N-3C2H                  |                                                                                     | D4N-3D2H                                                                          |                                                                                     | D4N-3E2H                                                                          |                                                                                       | D4N-3F2H                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-4C2H                  |                                                                                     | D4N-4D2H                                                                          |                                                                                     | D4N-4E2H                                                                          |                                                                                       | D4N-4F2H                                                                            |                                                                                       |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M12 connector | ---                       |                                                                                     | ---                                                                               |                                                                                     | D4N-9E2H                                                                          |                                                                                       | ---                                                                                 |                                                                                       |                                                                                     |
|                                                                                                                                                        | 2-conduit                                                                                                                     | G1/2          | D4N-6C2H                  |  | D4N-6D2H                                                                          |  | D4N-6E2H                                                                          |  | D4N-6F2H                                                                            |  |                                                                                     |
|                                                                                                                                                        |                                                                                                                               | M20           | D4N-8C2H                  |                                                                                     | D4N-8D2H                                                                          |                                                                                     | D4N-8E2H                                                                          |                                                                                       | D4N-8F2H                                                                            |                                                                                       |                                                                                     |

## General-purpose Switches with Two Contacts

| Actuator                                                                                                                  | Conduit size |           | Built-in switch mechanism |                |                      |                |                          |                |                      |                |     |
|---------------------------------------------------------------------------------------------------------------------------|--------------|-----------|---------------------------|----------------|----------------------|----------------|--------------------------|----------------|----------------------|----------------|-----|
|                                                                                                                           |              |           | 1NC/1NO<br>(Snap-action)  |                | 2NC<br>(Snap-action) |                | 1NC/1NO<br>(Slow-action) |                | 2NC<br>(Slow-action) |                |     |
|                                                                                                                           |              |           | Model                     | Direct opening | Model                | Direct opening | Model                    | Direct opening | Model                | Direct opening |     |
| Fork lever lock<br>(right operation)<br> | 1-conduit    | G1/2      | ---                       | ---            | ---                  | ---            | D4N-2ARE                 | ---            | D4N-2BRE             | ---            |     |
|                                                                                                                           |              | 1/2-14NPT |                           |                |                      |                | D4N-3ARE                 |                | D4N-3BRE             |                |     |
|                                                                                                                           |              | M20       |                           |                |                      |                | D4N-4ARE                 |                | D4N-4BRE             |                |     |
|                                                                                                                           | 2-conduit    | G1/2      |                           | ---            | ---                  | D4N-6ARE       | ---                      | D4N-6BRE       | ---                  |                |     |
|                                                                                                                           |              | M20       |                           |                |                      | D4N-8ARE       |                          | D4N-8BRE       |                      |                |     |
|                                                                                                                           |              |           |                           |                |                      |                |                          |                |                      |                |     |
| Fork lever lock<br>(left operation)<br>  | 1-conduit    | G1/2      |                           | ---            | ---                  | ---            | D4N-2ALE                 | ---            | D4N-2BLE             | ---            |     |
|                                                                                                                           |              | 1/2-14NPT |                           |                |                      |                | D4N-3ALE                 |                | D4N-3BLE             |                |     |
|                                                                                                                           |              | M20       |                           |                |                      |                | D4N-4ALE                 |                | D4N-4BLE             |                |     |
|                                                                                                                           | 2-conduit    | G1/2      |                           |                | ---                  | ---            | D4N-6ALE                 | ---            | D4N-6BLE             | ---            |     |
|                                                                                                                           |              | M20       |                           |                |                      |                | D4N-8ALE                 |                | D4N-8BLE             |                |     |
|                                                                                                                           |              |           |                           |                |                      |                |                          |                |                      |                |     |
| Cat whisker<br>                          | 1-conduit    | G1/2      | D4N-2180                  |                | ---                  | D4N-2280       | ---                      | ---            | D4N-2B80             | ---            |     |
|                                                                                                                           |              | 1/2-14NPT | D4N-3180                  |                |                      | D4N-3280       |                          |                | D4N-3B80             |                |     |
|                                                                                                                           |              | M20       | D4N-4180                  |                |                      | D4N-4280       |                          |                | D4N-4B80             |                |     |
|                                                                                                                           | 2-conduit    | G1/2      | D4N-6180                  |                | ---                  | D4N-6280       |                          | ---            | ---                  | D4N-6B80       | --- |
|                                                                                                                           |              | M20       | D4N-8180                  |                |                      | D4N-8280       |                          |                |                      | D4N-8B80       |     |
|                                                                                                                           |              |           |                           |                |                      |                |                          |                |                      |                |     |
| Plastic rod<br>                          | 1-conduit    | G1/2      | D4N-2187                  | ---            | D4N-2287             | ---            |                          | ---            | D4N-2B87             | ---            |     |
|                                                                                                                           |              | 1/2-14NPT | D4N-3187                  |                | D4N-3287             |                |                          |                | D4N-3B87             |                |     |
|                                                                                                                           |              | M20       | D4N-4187                  |                | D4N-4287             |                |                          |                | D4N-4B87             |                |     |
|                                                                                                                           | 2-conduit    | G1/2      | D4N-6187                  | ---            | D4N-6287             |                |                          | ---            | ---                  | D4N-6B87       | --- |
|                                                                                                                           |              | M20       | D4N-8187                  |                | D4N-8287             |                |                          |                |                      | D4N-8B87       |     |
|                                                                                                                           |              |           |                           |                |                      |                |                          |                |                      |                |     |

**Note: 1.** It is recommended that M20 be used for Switches to be exported to Europe and 1/2-14NPT be used for Switches to be exported to North American countries.

**2.** Mechanically speaking, these models are general-purpose switches with no direct opening mechanism.

## General-purpose Switches with Three Contacts and MBB Contacts

| Actuator                                                                                                                    | Conduit size |           | Built-in switch mechanism |                |                      |                |                              |                |                              |                |     |     |     |
|-----------------------------------------------------------------------------------------------------------------------------|--------------|-----------|---------------------------|----------------|----------------------|----------------|------------------------------|----------------|------------------------------|----------------|-----|-----|-----|
|                                                                                                                             |              |           | 2NC/1NO<br>(Slow-action)  |                | 3NC<br>(Slow-action) |                | 1NC/1NO MBB<br>(Slow-action) |                | 2NC/1NO MBB<br>(Slow-action) |                |     |     |     |
|                                                                                                                             |              |           | Model                     | Direct opening | Model                | Direct opening | Model                        | Direct opening | Model                        | Direct opening |     |     |     |
| Fork lever lock<br>(right operation)<br> | 1-conduit    | G1/2      | D4N-2CRE                  | ---            | D4N-2DRE             | ---            | D4N-2ERE                     | ---            | D4N-2FRE                     | ---            |     |     |     |
|                                                                                                                             |              | 1/2-14NPT | D4N-3CRE                  |                | D4N-3DRE             |                | D4N-3ERE                     |                | D4N-3FRE                     |                |     |     |     |
|                                                                                                                             |              | M20       | D4N-4CRE                  |                | D4N-4DRE             |                | D4N-4ERE                     |                | D4N-4FRE                     |                |     |     |     |
|                                                                                                                             | 2-conduit    | G1/2      | D4N-6CRE                  | ---            | D4N-6DRE             | ---            | D4N-6ERE                     | ---            | D4N-6FRE                     | ---            |     |     |     |
|                                                                                                                             |              | M20       | D4N-8CRE                  |                | D4N-8DRE             |                | D4N-8ERE                     |                | D4N-8FRE                     |                |     |     |     |
| Fork lever lock<br>(left operation)<br>  | 1-conduit    | G1/2      | D4N-2CLE                  | ---            | D4N-2DLE             | ---            | D4N-2ELE                     | ---            | D4N-2FLE                     | ---            |     |     |     |
|                                                                                                                             |              | 1/2-14NPT | D4N-3CLE                  |                | D4N-3DLE             |                | D4N-3ELE                     |                | D4N-3FLE                     |                |     |     |     |
|                                                                                                                             |              | M20       | D4N-4CLE                  |                | D4N-4DLE             |                | D4N-4ELE                     |                | D4N-4FLE                     |                |     |     |     |
|                                                                                                                             | 2-conduit    | G1/2      | D4N-6CLE                  | ---            | D4N-6DLE             | ---            | D4N-6ELE                     | ---            | D4N-6FLE                     | ---            |     |     |     |
|                                                                                                                             |              | M20       | D4N-8CLE                  |                | D4N-8DLE             |                | D4N-8ELE                     |                | D4N-8FLE                     |                |     |     |     |
| Cat whisker<br>                          | 1-conduit    | G1/2      | ---                       | ---            | D4N-2D80             | ---            | ---                          | ---            | ---                          | ---            |     |     |     |
|                                                                                                                             |              | 1/2-14NPT |                           |                | D4N-3D80             |                |                              |                |                              |                |     |     |     |
|                                                                                                                             |              | M20       |                           |                | D4N-4D80             |                |                              |                |                              |                |     |     |     |
|                                                                                                                             | 2-conduit    | G1/2      |                           | ---            | D4N-6D80             | ---            |                              | ---            |                              | ---            | --- |     |     |
|                                                                                                                             |              | M20       |                           |                | D4N-8D80             |                |                              |                |                              |                |     |     |     |
| Plastic rod<br>                          | 1-conduit    | G1/2      |                           | ---            | ---                  | D4N-2D87       |                              | ---            |                              | ---            | --- | --- | --- |
|                                                                                                                             |              | 1/2-14NPT |                           |                |                      | D4N-3D87       |                              |                |                              |                |     |     |     |
|                                                                                                                             |              | M20       |                           |                |                      | D4N-4D87       |                              |                |                              |                |     |     |     |
|                                                                                                                             | 2-conduit    | G1/2      |                           | ---            | ---                  | D4N-6D87       |                              | ---            |                              | ---            | --- | --- |     |
|                                                                                                                             |              | M20       |                           |                |                      | D4N-8D87       |                              |                |                              |                |     |     |     |

**Note: 1.** It is recommended that M20 be used for Switches to be exported to Europe and 1/2-14NPT be used for Switches to be exported to North American countries.

**2.** Mechanically speaking, these models are general-purpose switches with no direct opening mechanism.

## Specifications

### Standards and EC Directives

Conforms to the following EC Directives:

- Machinery Directive
- Low Voltage Directive
- EN50047
- EN60204-1
- EN1088
- GS-ET-15

### Certified Standards

| Certification body | Standard                                  | File No.         |
|--------------------|-------------------------------------------|------------------|
| TÜV SÜD            | EN60947-5-1<br>(certified direct opening) | *1               |
| UL *2              | UL508, CSA C22.2 No.14                    | E76675           |
| CQC (CCC) *3       | GB14048.5                                 | 2004010305105973 |

\*1. Consult your OMRON representative for details.

\*2. Certification for CSA C22.2 No. 14 is authorized by the UL mark.

\*3. Ask your OMRON representative for information on certified models.

### Certified Standard Ratings

TÜV (EN60947-5-1), CCC (GB14048.5)

| Item                              | Utilization category | AC-15 | DC-13  |
|-----------------------------------|----------------------|-------|--------|
| Rated operating current ( $I_e$ ) |                      | 3 A   | 0.27 A |
| Rated operating voltage ( $U_e$ ) |                      | 240 V | 250 V  |

**Note:** Use a 10 A fuse type gI or gG that conforms to IEC60269 as a short-circuit protection device. This fuse is not built into the Switch.

### UL/CSA (UL508, CSA C22.2 No. 14)

#### A300

| Rated voltage | Carry current | Current (A) |       | Volt-amperes (VA) |       |
|---------------|---------------|-------------|-------|-------------------|-------|
|               |               | Make        | Break | Make              | Break |
| 120 VAC       | 10 A          | 60          | 6     | 7,200             | 720   |
| 240 VAC       |               | 30          | 3     |                   |       |

#### Q300

| Rated voltage | Carry current | Current (A) |       | Volt-amperes (VA) |       |
|---------------|---------------|-------------|-------|-------------------|-------|
|               |               | Make        | Break | Make              | Break |
| 125 VDC       | 2.5 A         | 0.55        | 0.55  | 69                | 69    |
| 250 VDC       |               | 0.27        | 0.27  |                   |       |

## Characteristics

|                                                               |                                                                      |                                                                                                                        |
|---------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>Degree of protection *1</b>                                |                                                                      | IP67 (EN60947-5-1)                                                                                                     |
| <b>Durability *2</b>                                          | <b>Mechanical</b>                                                    | 15,000,000 operations min. *5                                                                                          |
|                                                               | <b>Electrical</b>                                                    | 500,000 operations min. (3 A resistive load at 250 VAC) *3<br>300,000 operations min. (10 A resistive load at 250 VAC) |
| <b>Operating speed</b>                                        |                                                                      | 1 to 500 mm/s (D4N-1120)                                                                                               |
| <b>Operating frequency</b>                                    |                                                                      | 30 operations/minute max.                                                                                              |
| <b>Contact resistance</b>                                     |                                                                      | 25 mΩ max.                                                                                                             |
| <b>Minimum applicable load *4</b>                             |                                                                      | 1 mA resistive load at 5 VDC (N-level reference value)                                                                 |
| <b>Rated insulation voltage (U<sub>i</sub>)</b>               |                                                                      | 300 V                                                                                                                  |
| <b>Rated frequency</b>                                        |                                                                      | 50/60 Hz                                                                                                               |
| <b>Protection against electric shock</b>                      |                                                                      | Class II (double insulation)                                                                                           |
| <b>Pollution degree (operating environment)</b>               |                                                                      | 3 (EN60947-5-1)                                                                                                        |
| <b>Impulse withstand voltage (EN60947-5-1)</b>                | <b>Between terminals of same polarity</b>                            | 2.5 kV                                                                                                                 |
|                                                               | <b>Between terminals of different polarity</b>                       | 4 kV                                                                                                                   |
|                                                               | <b>Between each terminal and non-current carrying metallic parts</b> | 6 kV                                                                                                                   |
| <b>Insulation resistance</b>                                  |                                                                      | 100 MΩ min.                                                                                                            |
| <b>Contact gap</b>                                            |                                                                      | Snap-action: 2 × 0.5 mm min.<br>Slow-action: 2 × 2 mm min.                                                             |
| <b>Vibration resistance</b>                                   | <b>Malfunction</b>                                                   | 10 to 55 Hz, 0.75 mm single amplitude                                                                                  |
| <b>Shock resistance</b>                                       | <b>Destruction</b>                                                   | 1,000 m/s <sup>2</sup> min.                                                                                            |
|                                                               | <b>Malfunction</b>                                                   | 300 m/s <sup>2</sup> min.                                                                                              |
| <b>Conditional short-circuit current</b>                      |                                                                      | 100 A (EN60947-5-1)                                                                                                    |
| <b>Conventional free air thermal current (I<sub>th</sub>)</b> |                                                                      | 10 A (EN60947-5-1)                                                                                                     |
| <b>Ambient operating temperature</b>                          |                                                                      | −30 to 70°C (with no icing)                                                                                            |
| <b>Ambient operating humidity</b>                             |                                                                      | 95% max.                                                                                                               |
| <b>Weight</b>                                                 |                                                                      | Approx. 82 g (D4N-1120)<br>Approx. 99 g (D4N-5120)                                                                     |

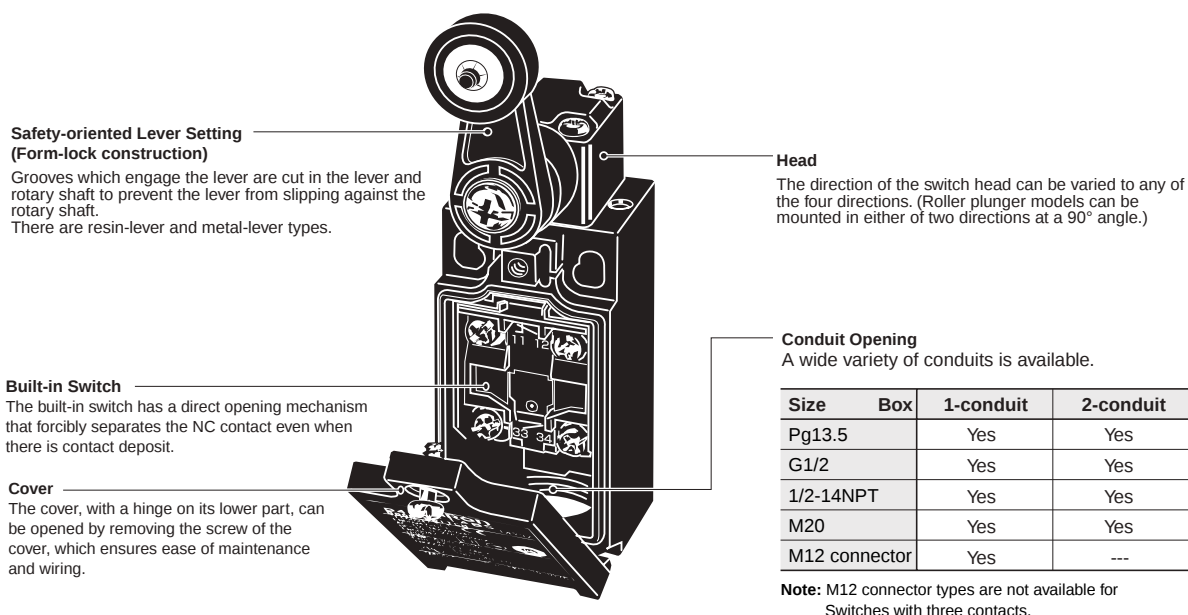
**Note: 1.** The above values are initial values.

- 2.** Once a contact has been used to switch a standard load, it cannot be used for a load of a smaller capacity. Doing so may result in roughening of the contact surface and contact reliability may be lost.

- \*1.** The degree of protection is tested using the method specified by the standard (EN60947-5-1). Confirm that sealing properties are sufficient for the operating conditions and environment beforehand. Although the switch box is protected from dust or water penetration, do not use the D4N in places where foreign material such as dust, dirt, oil, water, or chemicals may penetrate through the head. Otherwise, accelerated wear, switch damage or malfunctioning may occur.
- \*2.** The durability is for an ambient temperature of 5 to 35°C and an ambient humidity of 40% to 70%. For more details, consult your OMRON representative.
- \*3.** Do not pass the 3 A, 250 VAC load through more than 2 circuits.
- \*4.** This value will vary with the switching frequency, environment, and reliability level. Confirm that correct operation is possible with the actual load beforehand.
- \*5.** The mechanical durability of fork lever lock models is 10,000,000 operations min.

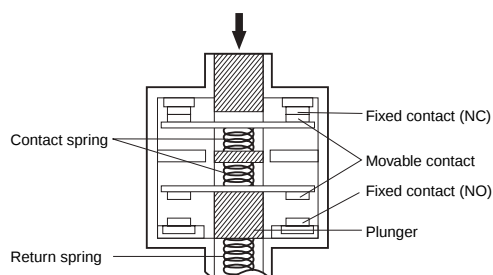
## Structure and Nomenclature

### Structure



### Direct Opening Mechanism

#### 1NC/1NO Contact (Slow-action)

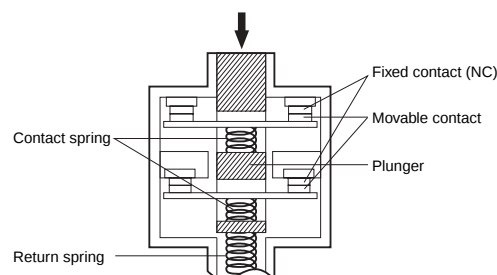


Conforms to EN60947-5-1 Direct Opening Operation ⊖

(Only the NC contact side has a direct opening mechanism.)

When contact welding occurs, the contacts are separated from each other by the plunger being pushed in.

#### 2NC Contact (Slow-action)



Conforms to EN60947-5-1 Direct Opening Operation ⊖

(Both NC contacts have a direct opening mechanism.)

When contact welding occurs, the contacts are separated from each other by the plunger being pushed in.

## Contact Form

| Model   | Contact                        | Contact form | Operating pattern | Remarks                                                                                                                                                           |
|---------|--------------------------------|--------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D4N-□1□ | 1NC/1NO<br>(Snap-action)       |              |                   | Only NC contacts 31-32 have a certified direct opening mechanism. (→)<br><br>The terminals 13-14 and 31-32 can be used as unlike poles.                           |
| D4N-□2□ | 2NC (Snap-action)              |              |                   | Only NC contacts 11-12 and 31-32 have a certified direct opening mechanism. (→)<br><br>The terminals 11-12 and 31-32 can be used as unlike poles.                 |
| D4N-□A□ | 1NC/1NO<br>(Slow-action)       |              |                   | Only NC contacts 11-12 have a certified direct opening mechanism. (→)<br><br>The terminals 11-12 and 33-34 can be used as unlike poles.                           |
| D4N-□B□ | 2NC (Slow-action)              |              |                   | Only NC contacts 11-12 and 31-32 have a certified direct opening mechanism. (→)<br><br>The terminals 11-12 and 31-32 can be used as unlike poles.                 |
| D4N-□C□ | 2NC/1NO<br>(Slow-action)       |              |                   | Only NC contacts 11-12 and 21-22 have a certified direct opening mechanism. (→)<br><br>The terminals 11-12, 21-22, and 33-34 can be used as unlike poles.         |
| D4N-□D□ | 3NC (Slow-action)              |              |                   | Only NC contacts 11-12, 21-22, and 31-32 have a certified direct opening mechanism. (→)<br><br>The terminals 11-12, 21-22, and 31-32 can be used as unlike poles. |
| D4N-□E□ | 1NC/1NO MBB *<br>(Slow-action) |              |                   | Only NC contacts 11-12 have a certified direct opening mechanism. (→)<br><br>The terminals 11-12 and 33-34 can be used as unlike poles.                           |
| D4N-□F□ | 2NC/1NO MBB *<br>(Slow-action) |              |                   | Only NC contacts 11-12 and 21-22 have a certified direct opening mechanism. (→)<br><br>The terminals 11-12, 21-22 and 33-34 can be used as unlike poles.          |

**Note:** Terminals are numbered according to EN50013 and the contact forms are according to IEC947-5-1.

\* MBB (Make Before Break) contacts have an overlapping structure, so that before the normally closed contact (NC) opens, the normally open contact (NO) closes.

# Dimensions and Operating Characteristics

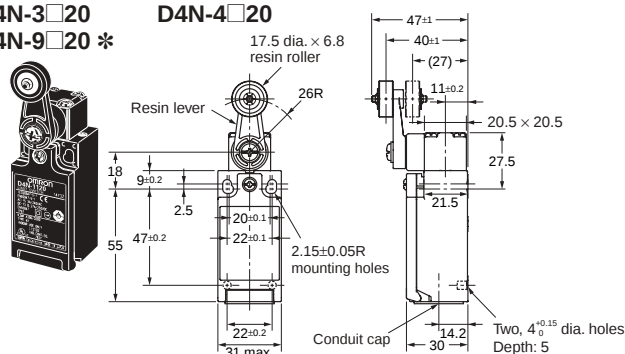
(Unit: mm)

## Switches

### 1-conduit Models

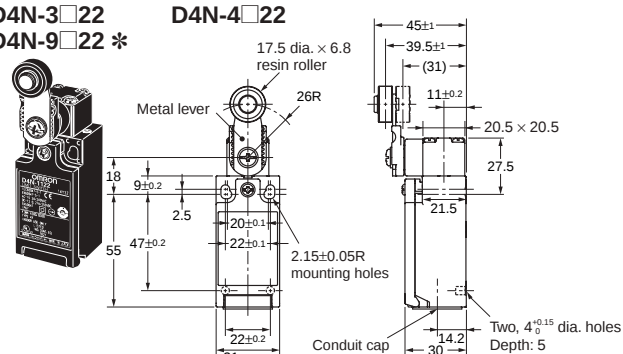
#### Roller Lever (Resin Lever, Resin Roller)

D4N-1□20 D4N-2□20  
D4N-3□20 D4N-4□20  
D4N-9□20 \*



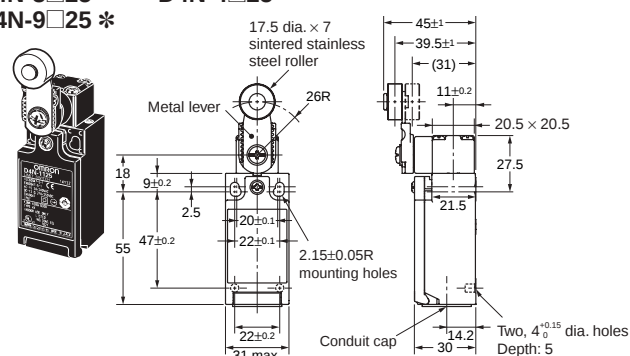
#### Roller Lever (Metal Lever, Resin Roller)

D4N-1□22 D4N-2□22  
D4N-3□22 D4N-4□22  
D4N-9□22 \*



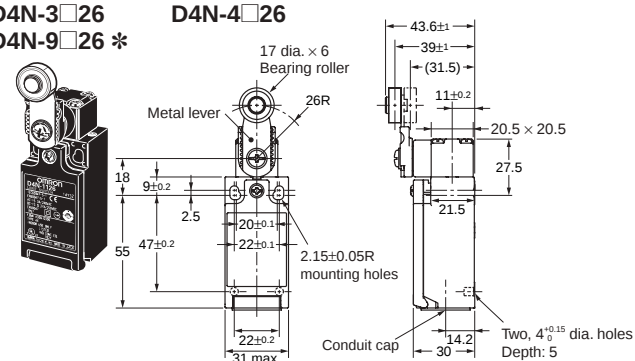
#### Roller Lever (Metal Lever, Metal Roller)

D4N-1□25 D4N-2□25  
D4N-3□25 D4N-4□25  
D4N-9□25 \*



#### Roller Lever (Metal Lever, Bearing Roller)

D4N-1□26 D4N-2□26  
D4N-3□26 D4N-4□26  
D4N-9□26 \*



**Note:** Unless otherwise specified, a tolerance of  $\pm 0.4$  mm applies to all dimensions.

\* Refer to page 12 for details on M12 connectors.

### Snap-action (1NC/1NO) (2NC), Slow-action (2NC) (3NC)

| Model                     | D4N-□120 | D4N-□122   | D4N-□125 | D4N-□126 |
|---------------------------|----------|------------|----------|----------|
|                           | D4N-□220 | D4N-□222   | D4N-□225 | D4N-□226 |
|                           | D4N-□B20 | D4N-□B22   | D4N-□B25 | D4N-□B26 |
|                           | D4N-□D20 | D4N-□D22   | D4N-□D25 | D4N-□D26 |
| Operating characteristics |          |            |          |          |
| Operating force           | OF max.  | 5.0 N      |          |          |
| Release force             | RF min.  | 0.5 N      |          |          |
| Pretravel                 | PT       | 18° to 27° |          |          |
| Overtravel                | OT min.  | 40°        |          |          |
| Movement differential     | MD max.  | 14°        |          |          |
|                           | *1       |            |          |          |
| Operating position        | OP       | ---        |          |          |
| Total travel              | TT *2    | (80°)      |          |          |
| Direct opening travel     | DOT min. | 50°        |          |          |
|                           | *3       |            |          |          |
| Direct opening force      | DOF min. | 20 N       |          |          |
|                           | *3       |            |          |          |

**Note:** Variation occurs in the simultaneity of contact opening/closing operations of 2NC, 2NC/1NO, and 3NC contacts. Check contact operation.

\*1. Only for snap-action models.

\*2. Reference value.

\*3. For safe use, always make sure that the minimum values or greater are provided.

### Slow-action (1NC/1NO) (2NC/1NO)

| Model                     | D4N-□A20 | D4N-□A22       | D4N-□A25 | D4N-□A26 |
|---------------------------|----------|----------------|----------|----------|
|                           | D4N-□C20 | D4N-□C22       | D4N-□C25 | D4N-□C26 |
|                           | D4N-□E20 | D4N-□E22       | D4N-□E25 | D4N-□E26 |
|                           | D4N-□F20 | D4N-□F22       | D4N-□F25 | D4N-□F26 |
| Operating characteristics |          |                |          |          |
| Operating force           | OF max.  | 5.0 N          |          |          |
| Release force             | RF min.  | 0.5 N          |          |          |
|                           | PT (NC)  | 18° to 27°     |          |          |
|                           | PT (NO)  | (44°)          |          |          |
|                           | *1       |                |          |          |
|                           | PT (NC)  | 27.5° to 36.5° |          |          |
|                           | *2       |                |          |          |
|                           | PT (NO)  | (18°)          |          |          |
|                           | *1, *2   |                |          |          |
| Overtravel                | OT min.  | 40°            |          |          |
| Operating position        | OP       | ---            |          |          |
| Total travel              | TT *1    | (80°)          |          |          |
| Direct opening travel     | DOT min. | 50°            |          |          |
|                           | *3       |                |          |          |
| Direct opening force      | DOF min. | 20 N           |          |          |
|                           | *3       |                |          |          |

\*1. Reference values.

\*2. Only for MBB models. (D4N-□E□□ or D4N-□F□□)

\*3. For safe use, always make sure that the minimum values or greater are provided.

## 1-conduit Models

## Plunger

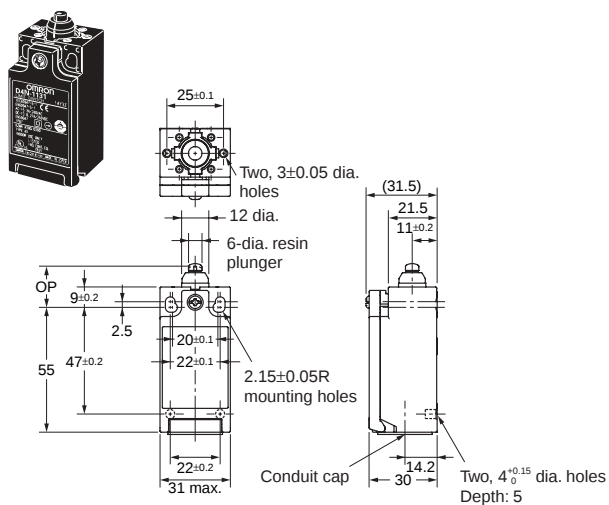
D4N-1□31

D4N-2□31

D4N-3□31

D4N-4□31

D4N-9□31 \*



## Roller Plunger

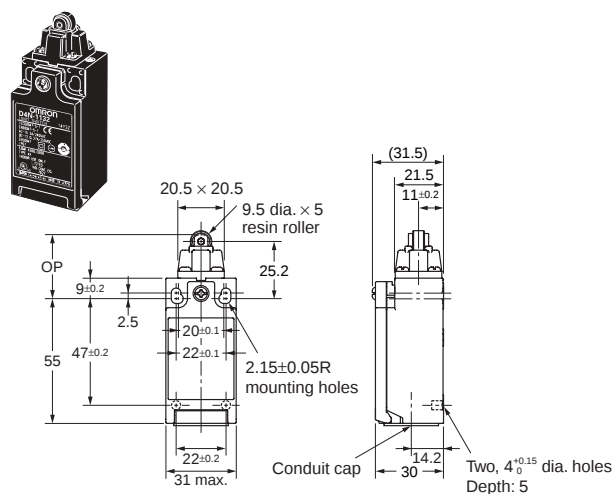
D4N-1□32

D4N-2□32

D4N-3□32

D4N-4□32

D4N-9□32 \*

One-way Roller Arm Lever  
(Horizontal)

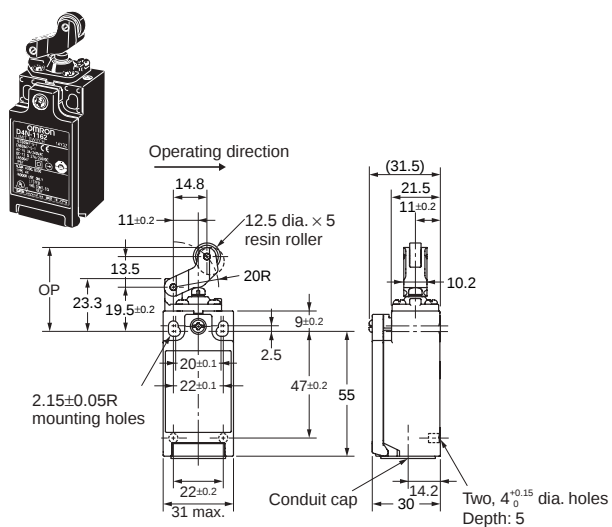
D4N-1□62

D4N-2□62

D4N-3□62

D4N-4□62

D4N-9□62 \*

One-way Roller Arm Lever  
(Vertical)

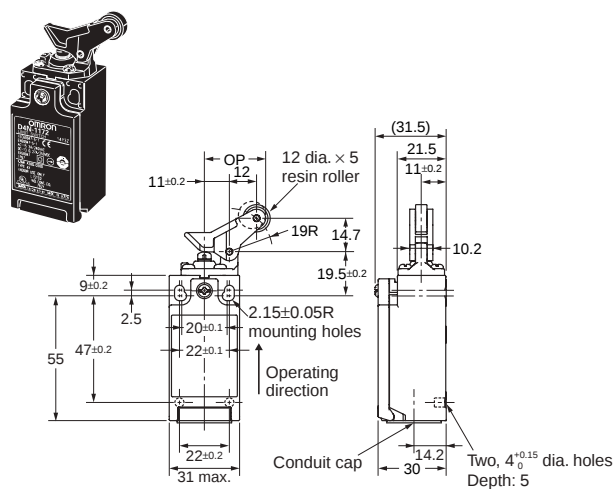
D4N-1□72

D4N-2□72

D4N-3□72

D4N-4□72

D4N-9□72 \*



**Note:** Unless otherwise specified, a tolerance of ±0.4 mm applies to all dimensions.

\* Refer to page 12 for details on M12 connectors.

### Snap-action (1NC/1NO) (2NC), Slow-action (2NC) (3NC)

| Model                     |             | D4N-□131<br>D4N-□231<br>D4N-□B31<br>D4N-□D31 | D4N-□132<br>D4N-□232<br>D4N-□B32<br>D4N-□D32 | D4N-□162<br>D4N-□262<br>D4N-□B62<br>D4N-□D62 | D4N-□172<br>D4N-□272<br>D4N-□B72<br>D4N-□D72 |
|---------------------------|-------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| Operating characteristics |             |                                              |                                              |                                              |                                              |
| Operating force           | OF max.     | 6.5 N                                        | 6.5 N                                        | 5.0 N                                        | 5.0 N                                        |
| Release force             | RF min.     | 1.5 N                                        | 1.5 N                                        | 0.8 N                                        | 0.8 N                                        |
| Pretravel                 | PT max.     | 2 mm                                         | 2 mm                                         | 4 mm                                         | 4 mm                                         |
| Overtravel                | OT min.     | 4 mm                                         | 4 mm                                         | 5 mm                                         | 5 mm                                         |
| Movement differential     | MD max. *1  | 1 mm                                         | 1 mm                                         | 1.5 mm                                       | 1.5 mm                                       |
| Operating position        | OP          | 18.2 ±0.5 mm                                 | 28.6 ±0.8 mm                                 | 37 ±0.8 mm                                   | 27 ±0.8 mm                                   |
| Total travel              | TT *2       | (6 mm)                                       | (6 mm)                                       | (9 mm)                                       | (9 mm)                                       |
| Direct opening travel     | DOT min. *3 | 3.2 mm                                       | 3.2 mm                                       | 5.8 mm                                       | 4.8 mm                                       |
| Direct opening force      | DOF min. *3 | 20 N                                         | 20 N                                         | 20 N                                         | 20 N                                         |

**Note:** Variation occurs in the simultaneity of contact opening/closing operations of 2NC, 2NC/1NO, and 3NC contacts. Check contact operation.

\*1. Only for snap-action models.

\*2. Reference value.

\*3. For safe use, always make sure that the minimum values or greater are provided.

### Slow-action (1NC/1NO) (2NC/1NO)

| Model                     |                 | D4N-□A31<br>D4N-□C31<br>D4N-□E31<br>D4N-□F31 | D4N-□A32<br>D4N-□C32<br>D4N-□E32<br>D4N-□F32 | D4N-□A62<br>D4N-□C62<br>D4N-□E62<br>D4N-□F62 | D4N-□A72<br>D4N-□C72<br>D4N-□E72<br>D4N-□F72 |
|---------------------------|-----------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| Operating characteristics |                 |                                              |                                              |                                              |                                              |
| Operating force           | OF max.         | 6.5 N                                        | 6.5 N                                        | 5.0 N                                        | 5.0 N                                        |
| Release force             | RF min.         | 1.5 N                                        | 1.5 N                                        | 0.8 N                                        | 0.8 N                                        |
| Pretravel                 | PT max. (NC)    | 2 mm                                         | 2 mm                                         | 4 mm                                         | 4 mm                                         |
|                           | PT (NO) *1      | (2.9 mm)                                     | (2.9 mm)                                     | (5.2 mm)                                     | (4.3 mm)                                     |
|                           | PT max. (NC) *2 | 2.8 mm                                       | 2.8 mm                                       | 4 mm                                         | 4 mm                                         |
|                           | PT (NO) *1, *2  | (1 mm)                                       | (1 mm)                                       | (1.5 mm)                                     | (1.5 mm)                                     |
| Overtravel                | OT min.         | 4 mm                                         | 4 mm                                         | 5 mm                                         | 5 mm                                         |
| Operating position        | OP              | 18.2 ±0.5 mm                                 | 28.6 ±0.8 mm                                 | 37 ±0.8 mm                                   | 27 ±0.8 mm                                   |
|                           | OP *2           | 17.4 ±0.5 mm                                 | 28 ±0.8 mm                                   | 36 ±0.8 mm                                   | 26.1 ±0.8 mm                                 |
| Total travel              | TT *1           | (6 mm)                                       | (6 mm)                                       | (9 mm)                                       | (9 mm)                                       |
| Direct opening travel     | DOT min. *3     | 3.2 mm                                       | 3.2 mm                                       | 5.8 mm                                       | 4.8 mm                                       |
| Direct opening force      | DOF min. *3     | 20 N                                         | 20 N                                         | 20 N                                         | 20 N                                         |

\*1. Reference values.

\*2. Only for MBB models. (D4N-□E□□ or D4N-□F□□)

\*3. For safe use, always make sure that the minimum values or greater are provided.

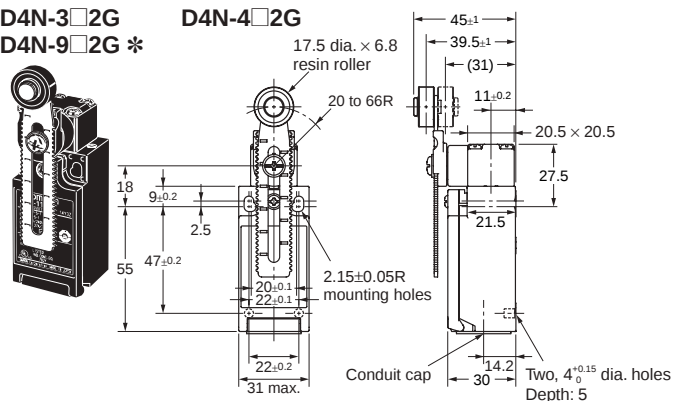
## 1-conduit Models

### Adjustable Roller Lever, Form Lock (with Metal Lever, Resin Roller)

D4N-1□2G D4N-2□2G

D4N-3□2G D4N-4□2G

D4N-9□2G \*

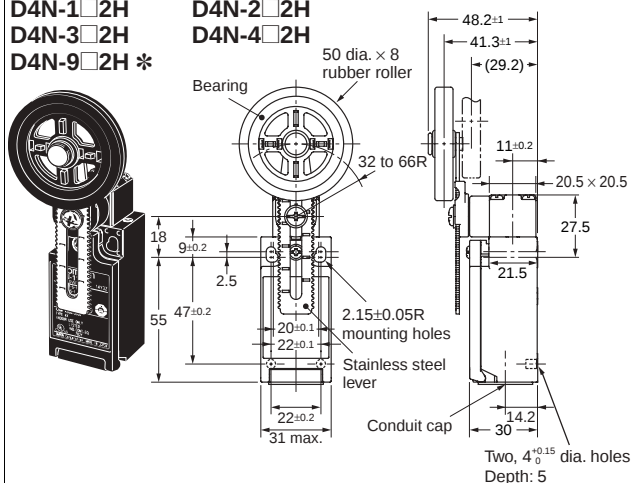


### Adjustable Roller Lever, Form Lock (with Metal Lever, Rubber Roller)

D4N-1□2H D4N-2□2H

D4N-3□2H D4N-4□2H

D4N-9□2H \*



**Note:** Unless otherwise specified, a tolerance of  $\pm 0.4$  mm applies to all dimensions.

\* Refer to following diagrams for details on M12 connectors.

## Snap-action (1NC/1NO) (2NC), Slow-action (2NC) (3NC)

| Model                     |             | D4N-□12H<br>D4N-□22H<br>D4N-□B2H<br>D4N-□D2H | D4N-□12G<br>D4N-□22G<br>D4N-□B2G<br>D4N-□D2G<br>*1 |
|---------------------------|-------------|----------------------------------------------|----------------------------------------------------|
| Operating characteristics |             |                                              |                                                    |
| Operating force           | OF max.     | 4.5 N                                        |                                                    |
| Release force             | RF min.     | 0.4 N                                        |                                                    |
| Pretravel                 | PT          | 18° to 27°                                   |                                                    |
| Overtravel                | OT min.     | 40°                                          |                                                    |
| Movement differential     | MD max. *2  | 14°                                          |                                                    |
| Operating position        | OP          | ---                                          |                                                    |
| Total travel              | TT *3       | (80°)                                        |                                                    |
| Direct opening travel     | DOT min. *4 | 50°                                          |                                                    |
| Direct opening force      | DOF min. *4 | 20 N                                         |                                                    |

**Note:** Variation occurs in the simultaneity of contact opening/closing operations of 2NC, 2NC/1NO, and 3NC contacts. Check contact operation.

\*1. The operating characteristics of these Switches were measured with the roller lever set at 32 mm.

\*2. Only for snap-action models.

\*3. Reference value.

\*4. For safe use, always make sure that the minimum values or greater are provided.

## Slow-action (1NC/1NO) (2NC/1NO)

| Model                     |                | D4N-□A2H<br>D4N-□C2H<br>D4N-□E2H<br>D4N-□F2H | D4N-□A2G<br>D4N-□C2G<br>D4N-□E2G<br>D4N-□F2G<br>*1 |
|---------------------------|----------------|----------------------------------------------|----------------------------------------------------|
| Operating characteristics |                |                                              |                                                    |
| Operating force           | OF max.        | 4.5 N                                        |                                                    |
| Release force             | RF min.        | 0.4 N                                        |                                                    |
| Pretravel                 | PT (NC)        | 18° to 27°                                   |                                                    |
|                           | PT (NO) *2     | (44°)                                        |                                                    |
|                           | PT (NC) *3     | 27.5° to 36.5°                               |                                                    |
|                           | PT (NO) *2, *3 | (18°)                                        |                                                    |
| Overtravel                | OT min.        | 40°                                          |                                                    |
| Operating position        | OP             | ---                                          |                                                    |
| Total travel              | TT *2          | (80°)                                        |                                                    |
| Direct opening travel     | DOT min.       | 50°                                          |                                                    |
| Direct opening force      | DOF min. *4    | 20 N                                         |                                                    |

\*1. The operating characteristics of these Switches were measured with the roller lever set at 32 mm.

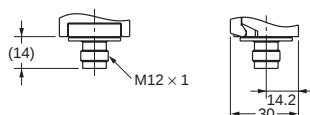
\*2. Reference values.

\*3. Only for MBB models. (D4N-□E□□ or D4N-□F□□)

\*4. For safe use, always make sure that the minimum values or greater are provided.

## 1-conduit M12 Connector

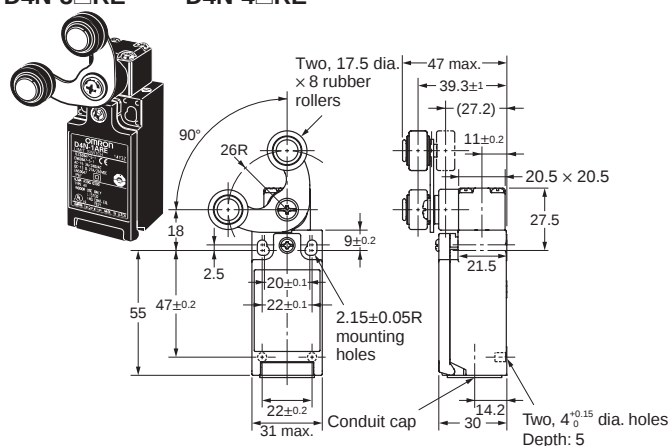
D4N-9□□□



## 1-conduit Models

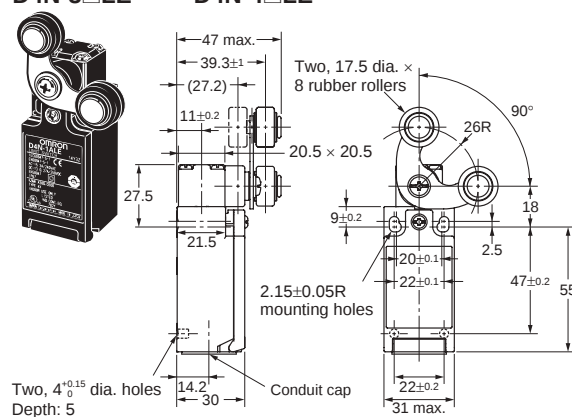
### Fork Lever Lock (Right Operation) \*2

D4N-1□RE D4N-2□RE  
D4N-3□RE D4N-4□RE



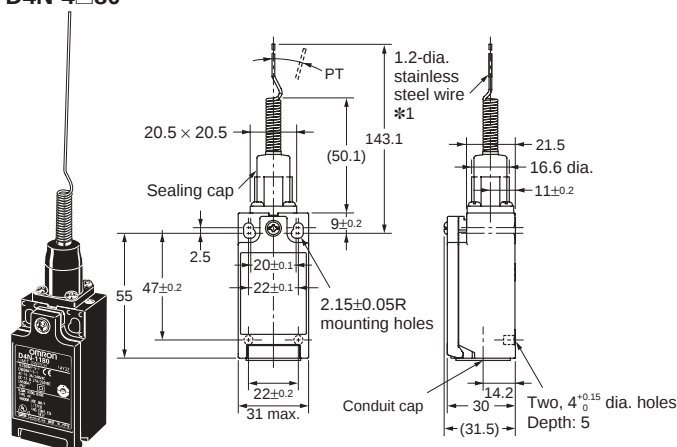
### Fork Lever Lock (Left Operation) \*2

D4N-1□LE D4N-2□LE  
D4N-3□LE D4N-4□LE



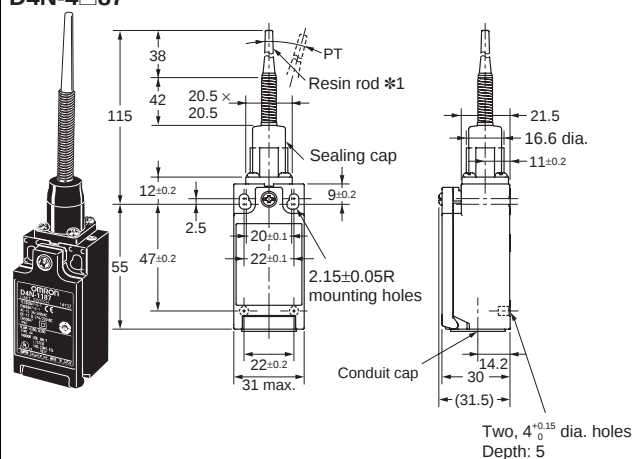
### Cat Whisker \*2

D4N-2□80 D4N-3□80  
D4N-4□80



### Plastic Rod \*2

D4N-2□87 D4N-3□87  
D4N-4□87



**Note:** Unless otherwise specified, a tolerance of  $\pm 0.4$  mm applies to all dimensions.

\*1. The usable range for stainless steel wires and resin rods is 35 mm max. from the end with a total travel of 70 mm max.

\*2. In terms of construction, the Switch is a General-purpose Limit Switch rather than a Safety Limit Switch.

## Slow-action (1NC/1NO) (2NC/1NO) (2NC) (3NC)

| Model                                                       | D4N-□□RE             | D4N-□□LE             |
|-------------------------------------------------------------|----------------------|----------------------|
| Operating characteristics                                   |                      |                      |
| Force necessary to reverse the direction of the lever: max. | 6.4 N                | 6.4 N                |
| Movement until the lever reverses                           | $55 \pm 10^\circ$    | $55 \pm 10^\circ$    |
| Movement until switch operation (NC)                        | (6.5°)<br>(MBB: 10°) | (6.5°)<br>(MBB: 10°) |
| Movement until switch operation (NO)                        | (18.5°)<br>(MBB: 5°) | (18.5°)<br>(MBB: 5°) |

**Note:** Variation occurs in the simultaneity of contact opening/closing operations of 2NC, 2NC/1NO, and 3NC contacts. Check contact operation.

## Snap-action (1NC/1NO) (2NC), Slow-action (2NC) (3NC)

| Model                     | D4N-□□80 | D4N-□□87 |
|---------------------------|----------|----------|
| Operating characteristics |          |          |
| Operating force OF max.   | 1.5 N    | 1.5 N    |
| Pretravel PT max.         | 15°      | 15°      |

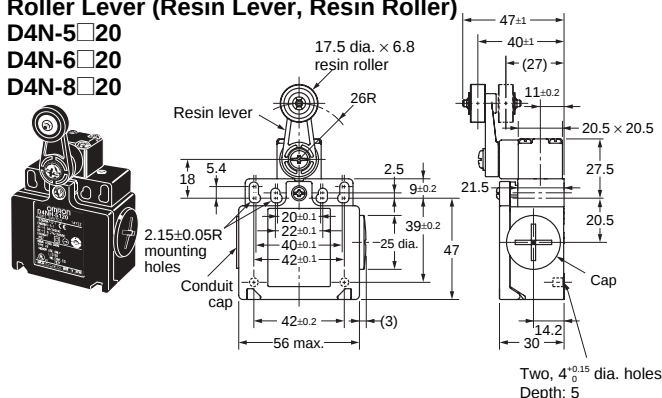
## 2-conduit Models

## Roller Lever (Resin Lever, Resin Roller)

D4N-5□20

D4N-6□20

D4N-8□20

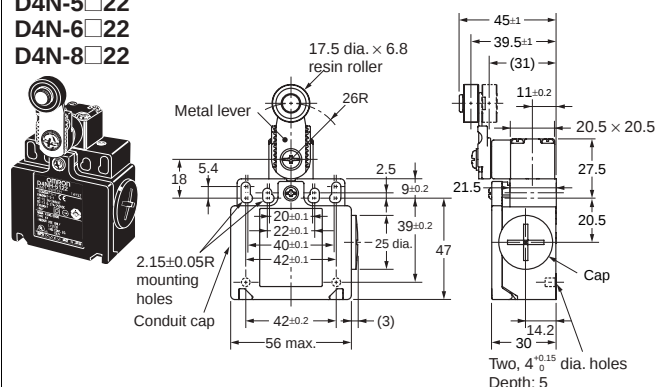


## Roller Lever (Metal Lever, Resin Roller)

D4N-5□22

D4N-6□22

D4N-8□22

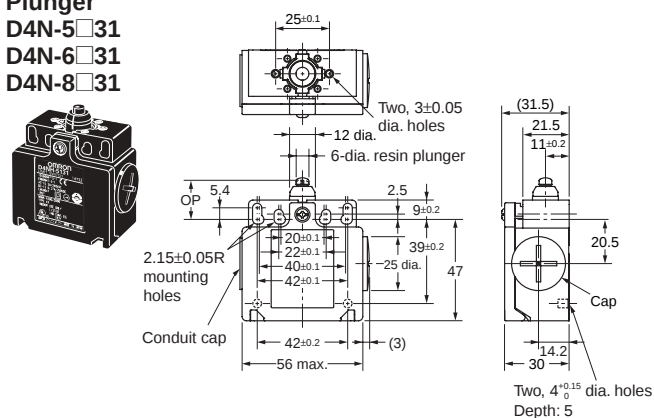


## Plunger

D4N-5□31

D4N-6□31

D4N-8□31

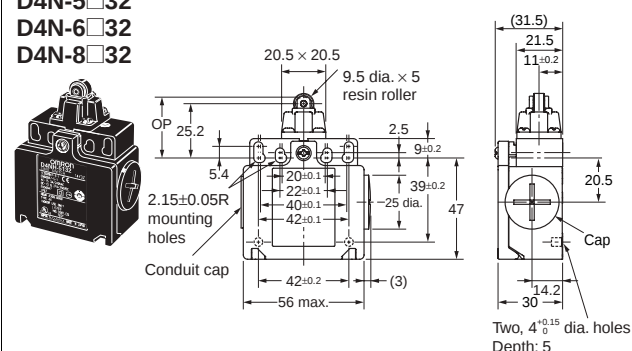


## Roller Plunger

D4N-5□32

D4N-6□32

D4N-8□32



Note: Unless otherwise specified, a tolerance of  $\pm 0.4$  mm applies to all dimensions.

## Snap-action (1NC/1NO) (2NC), Slow-action (2NC) (3NC)

| Model                     | D4N-□120 | D4N-□122   | D4N-□131   | D4N-□132     |
|---------------------------|----------|------------|------------|--------------|
|                           | D4N-□220 | D4N-□222   | D4N-□231   | D4N-□232     |
|                           | D4N-□B20 | D4N-□B22   | D4N-□B31   | D4N-□B32     |
|                           | D4N-□D20 | D4N-□D22   | D4N-□D31   | D4N-□D32     |
| Operating characteristics |          |            |            |              |
| Operating force           | OF max.  | 5 N        | 5 N        | 6.5 N        |
| Release force             | RF min.  | 0.5 N      | 0.5 N      | 1.5 N        |
| Pretravel                 | PT       | 18° to 27° | 18° to 27° | 2 mm         |
| Overtravel                | OT min.  | 40°        | 40°        | 4 mm         |
| Movement differential     | MD max.  | 14°        | 14°        | 1 mm         |
| Operating position        | OP       | ---        | 18 ±0.5 mm | 28.2 ±0.8 mm |
| Total travel              | TT #2    | (80°)      | (80°)      | (6 mm)       |
| Direct opening travel     | DOT min. | 50°        | 50°        | 3.2 mm       |
| Direct opening force      | DOF min. | 20 N       | 20 N       | 20 N         |

Note: Variation occurs in the simultaneity of contact opening/closing operations of 2NC, 2NC/1NO, and 3NC contacts. Check contact operation.

\*1. Only for snap-action models.

\*2. Reference value.

\*3. For safe use, always make sure that the minimum values or greater are provided.

## Slow-action (1NC/1NO) (2NC/1NO)

| Model                     | D4N-□A20 | D4N-□A22       | D4N-□A31       | D4N-□A32     |
|---------------------------|----------|----------------|----------------|--------------|
|                           | D4N-□C20 | D4N-□C22       | D4N-□C31       | D4N-□C32     |
|                           | D4N-□E20 | D4N-□E22       | D4N-□E31       | D4N-□E32     |
|                           | D4N-□F20 | D4N-□F22       | D4N-□F31       | D4N-□F32     |
| Operating characteristics |          |                |                |              |
| Operating force           | OF max.  | 5 N            | 5 N            | 6.5 N        |
| Release force             | RF min.  | 0.5 N          | 0.5 N          | 1.5 N        |
| Pretravel                 | PT (NC)  | 18° to 27°     | 18° to 27°     | 2 mm         |
|                           | PT (NO)  | (44°)          | (44°)          | (2.9 mm)     |
|                           | #1       |                |                |              |
|                           | PT (NC)  | 27.5° to 36.5° | 27.5° to 36.5° | 2.8 mm       |
|                           | PT (NO)  | (18°)          | (18°)          | (1 mm)       |
|                           | #1, #2   |                |                |              |
| Overtravel                | OT min.  | 40°            | 40°            | 4 mm         |
| Operating position        | OP       | ---            | 18 ±0.5 mm     | 28.2 ±0.8 mm |
|                           | OP #2    | ---            | 17.4 ±0.5 mm   | 28 ±0.8 mm   |
| Total travel              | TT #1    | (80°)          | (80°)          | (6 mm)       |
| Direct opening travel     | DOT min. | 50°            | 50°            | 3.2 mm       |
| Direct opening force      | DOF min. | 20 N           | 20 N           | 20 N         |

\*1. Reference values.

\*2. Only for MBB models. (D4N-□E□□ or D4N-□F□□)

\*3. For safe use, always make sure that the minimum values or greater are provided.

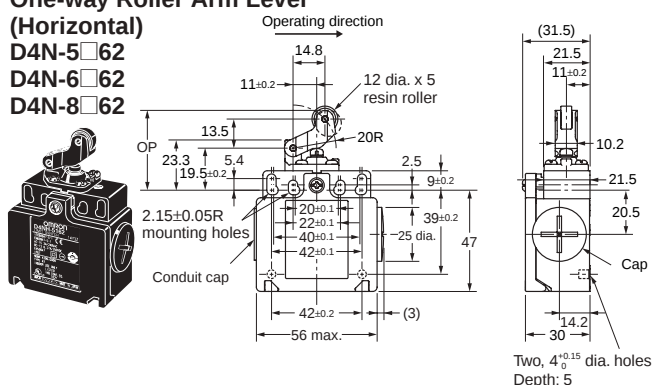
## 2-conduit Models

### One-way Roller Arm Lever (Horizontal)

D4N-5□62

D4N-6□62

D4N-8□62

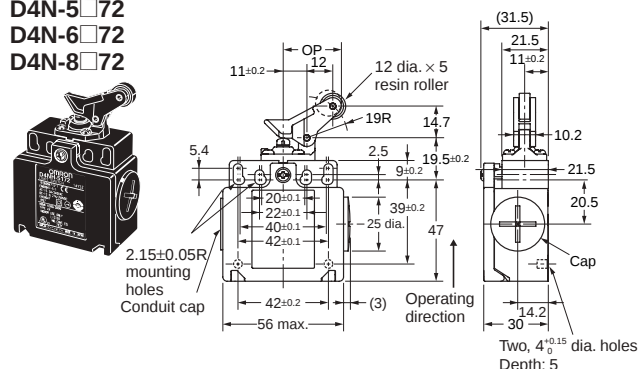


### One-way Roller Arm Lever (Vertical)

D4N-5□72

D4N-6□72

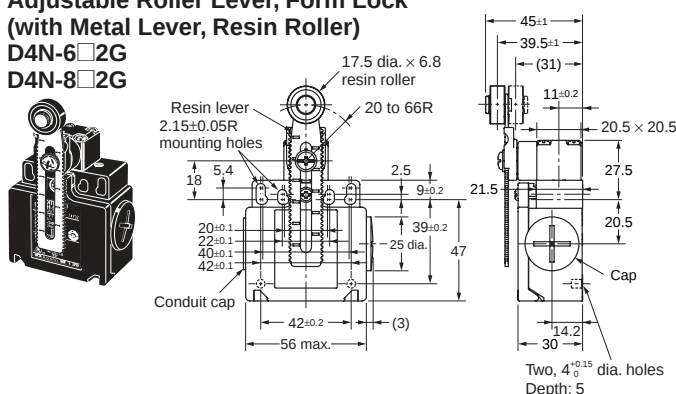
D4N-8□72



### Adjustable Roller Lever, Form Lock (with Metal Lever, Resin Roller)

D4N-6□2G

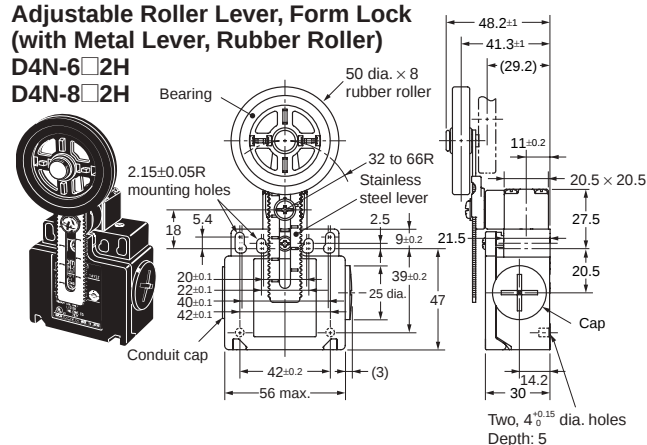
D4N-8□2G



### Adjustable Roller Lever, Form Lock (with Metal Lever, Rubber Roller)

D4N-6□2H

D4N-8□2H



**Note:** Unless otherwise specified, a tolerance of  $\pm 0.4$  mm applies to all dimensions.

### Snap-action (1NC/1NO) (2NC), Slow-action (2NC) (3NC)

| Model                     | D4N-□162<br>D4N-□262<br>D4N-□B62<br>D4N-□D62 | D4N-□172<br>D4N-□272<br>D4N-□B72<br>D4N-□D72 | D4N-□12G<br>D4N-□22G<br>D4N-□B2G<br>D4N-□D2G | D4N-□12H<br>D4N-□22H<br>D4N-□B2H<br>D4N-□D2H |
|---------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| Operating characteristics |                                              |                                              | *1                                           | *2                                           |
| Operating force           | OF max.                                      | 5.0 N                                        | 5.0 N                                        | 4.5 N                                        |
| Release force             | RF min.                                      | 0.8 N                                        | 0.8 N                                        | 0.4 N                                        |
| Pretravel                 | PT max.                                      | 4 mm                                         | 4 mm                                         | 18° to 27°                                   |
| Overtravel                | OT min.                                      | 5 mm                                         | 5 mm                                         | 40°                                          |
| Movement differential     | MD max. *3                                   | 1.5 mm                                       | 1.5 mm                                       | 14°                                          |
| Operating position        | OP                                           | 37 ±0.8 mm                                   | 27 ±0.8 mm                                   | ---                                          |
| Total travel              | TT *4                                        | (9 mm)                                       | (9 mm)                                       | (70°)                                        |
| Direct opening travel     | DOT min. *5                                  | 5.8 mm                                       | 4.8 mm                                       | 50°                                          |
| Direct opening force      | DOF min. *5                                  | 20 N                                         | 20 N                                         | 20 N                                         |

**Note:** Variation occurs in the simultaneity of contact opening/closing operations of 2NC, 2NC/1NO, and 3NC contacts. Check contact operation.

\*1. The operating characteristics of these Switches were measured with the roller lever set at 30 mm.

\*2. The operating characteristics of these Switches were measured with the roller lever set at 31 mm.

\*3. Only for snap-action models.

\*4. Reference value.

\*5. For safe use, always make sure that the minimum values or greater are provided.

### Slow-action (1NC/1NO) (2NC/1NO)

| Model                     | D4N-□A62<br>D4N-□C62<br>D4N-□E62<br>D4N-□F62 | D4N-□A72<br>D4N-□C72<br>D4N-□E72<br>D4N-□F72 | D4N-□A2G<br>D4N-□C2G<br>D4N-□E2G<br>D4N-□F2G | D4N-□A2H<br>D4N-□C2H<br>D4N-□E2H<br>D4N-□F2H |
|---------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|
| Operating characteristics |                                              |                                              | *1                                           | *2                                           |
| Operating force           | OF max.                                      | 5.0 N                                        | 5.0 N                                        | 4.5 N                                        |
| Release force             | RF min.                                      | 0.8 N                                        | 0.8 N                                        | 0.4 N                                        |
| Pretravel                 | PT max.<br>(NC)                              | 4 mm                                         | 4 mm                                         | 18° to 27°                                   |
|                           | PT (NO)                                      | (5.2 mm)                                     | (4.3 mm)                                     | (44°)                                        |
|                           | PT max.<br>(NC) *4                           | 4 mm                                         | 4 mm                                         | 27.5° to 36.5°                               |
|                           | PT (NO)                                      | (1.5 mm)                                     | (1.5 mm)                                     | (18°)                                        |
| Overtravel                | OT min.                                      | 5 mm                                         | 5 mm                                         | 40°                                          |
| Operating position        | OP                                           | 37 ±0.8 mm                                   | 27 ±0.8 mm                                   | ---                                          |
|                           | OP *4                                        | 36 ±0.8 mm                                   | 26.1 ±0.8 mm                                 | ---                                          |
| Total travel              | TT *3                                        | (9 mm)                                       | (9 mm)                                       | (70°)                                        |
| Direct opening travel     | DOT min. *5                                  | 5.8 mm                                       | 4.8 mm                                       | 50°                                          |
| Direct opening force      | DOF min. *5                                  | 20 N                                         | 20 N                                         | 20 N                                         |

\*1. The operating characteristics of these Switches were measured with the roller lever set at 30 mm.

\*2. The operating characteristics of these Switches were measured with the roller lever set at 31 mm.

\*3. Reference values.

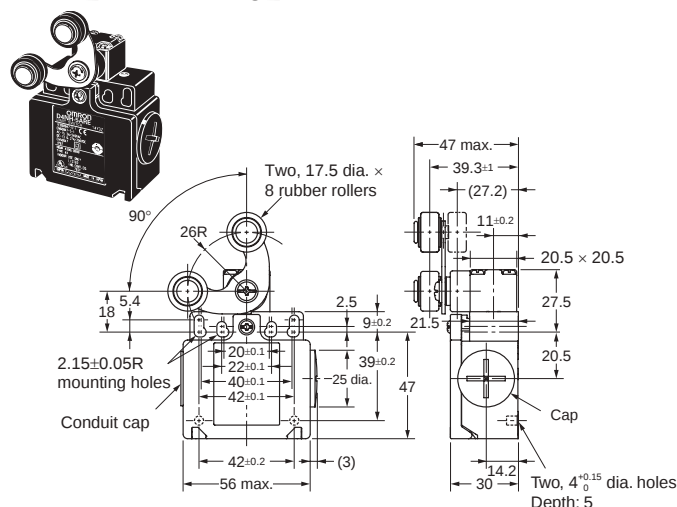
\*4. Only for MBB models. (D4N-□E□□ or D4N-□F□□)

\*5. For safe use, always make sure that the minimum values or greater are provided.

## 2-conduit Models

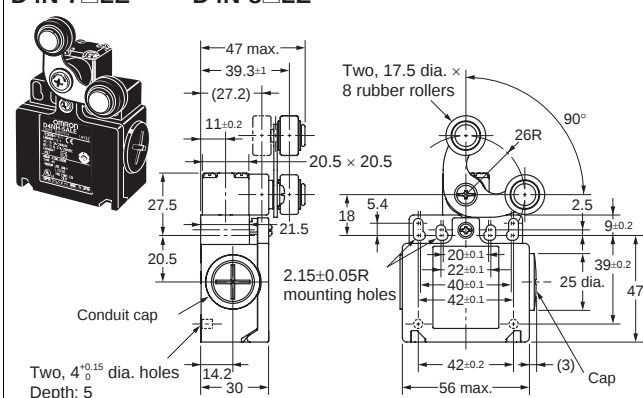
### Fork Lever Lock (Right Operation) \*2

D4N-5□RE D4N-6□RE  
D4N-7□RE D4N-8□RE



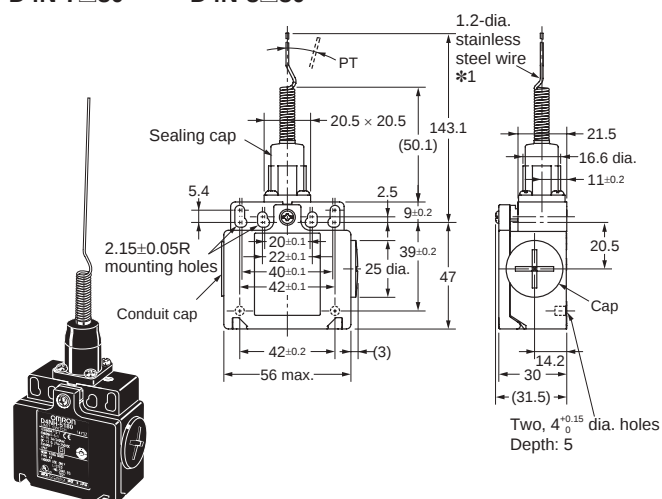
### Fork Lever Lock \*2 (Left Operation)

D4N-5□LE D4N-6□LE  
D4N-7□LE D4N-8□LE



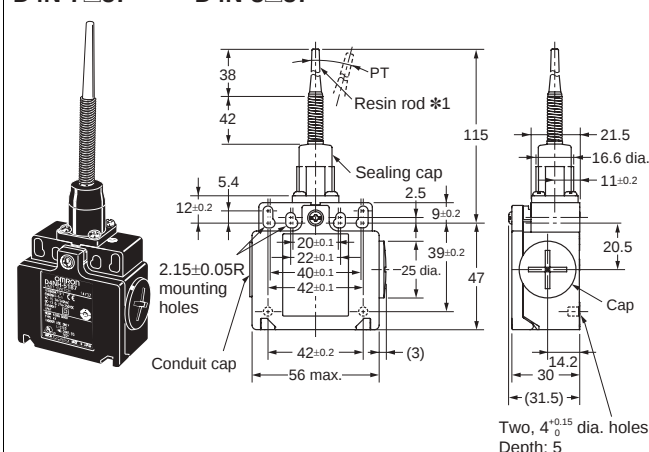
### Cat Whisker \*2

D4N-5□80 D4N-6□80  
D4N-7□80 D4N-8□80



### Plastic Rod \*2

D4N-5□87 D4N-6□87  
D4N-7□87 D4N-8□87



**Note:** Unless otherwise specified, a tolerance of  $\pm 0.4$  mm applies to all dimensions.

\*1. The usable range for stainless steel wires and resin rods is 35 mm max. from the end with a total travel of 70 mm max.

\*2. In terms of construction, the Switch is a General-purpose Limit Switch rather than a Safety Limit Switch.

## Slow-action (1NC/1NO) (2NC), Slow-action (2NC) (3NC)

| Model                                                       | D4N-□□RE     | D4N-□□LE             |
|-------------------------------------------------------------|--------------|----------------------|
| Operating characteristics                                   |              |                      |
| Force necessary to reverse the direction of the lever: max. | 6.4 N        | 6.4 N                |
| Movement until the lever reverses                           | 55 $\pm$ 10° | 55 $\pm$ 10°         |
| Movement until switch operation (NC)                        | (6.5°)       | (6.5°)<br>(MBB: 10°) |
| Movement until switch operation (NO)                        | (18.5°)      | (18.5°)<br>(MBB: 5°) |

**Note:** Variation occurs in the simultaneity of contact opening/closing operations of 2NC, 2NC/1NO, and 3NC contacts. Check contact operation.

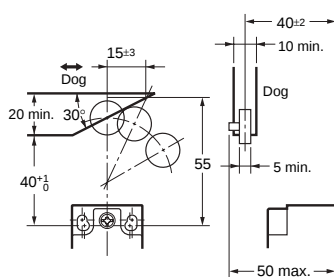
## Snap-action (1NC/1NO), Slow-action (2NC) (3NC)

| Model                     | D4N-□□80 | D4N-□□87 |
|---------------------------|----------|----------|
| Operating characteristics |          |          |
| Operating force OF max.   | 1.5 N    | 1.5 N    |
| Pretravel PT max.         | 15°      | 15°      |

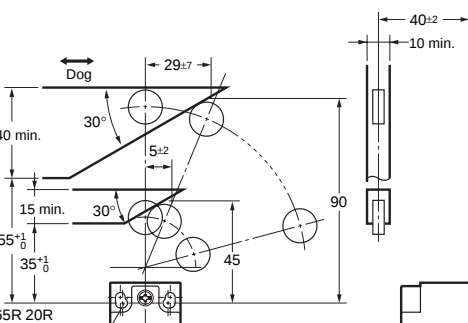
## Levers

Refer to the following for the angles and positions of the watchdogs (source: EN50047.)

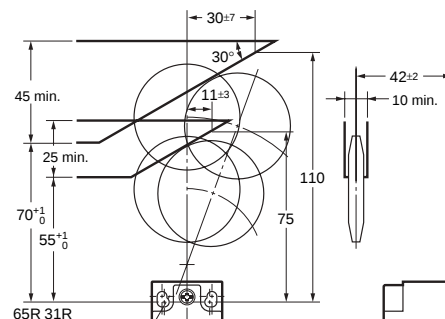
### Roller Lever (D4N-□□20)



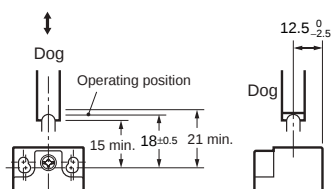
### Adjustable Roller Lever, Form Lock (with Metal Lever, Resin Roller) (D4N-□□2G) (Reference Values)



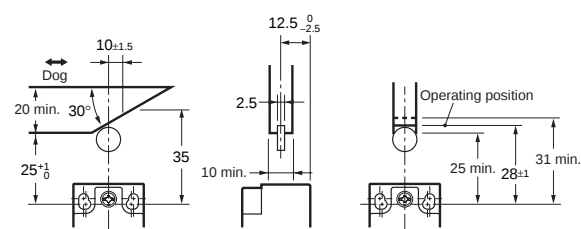
### Adjustable Roller Lever, Form Lock (with Metal Lever, Rubber Roller) (D4N-□□2H) (Reference Values)



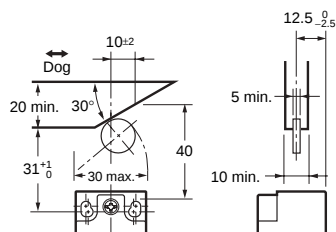
### Sealed Plunger (D4N-□□31)



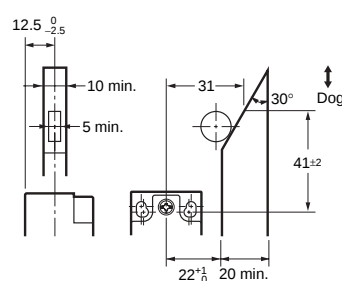
### Roller Plunger (D4N-□□32)



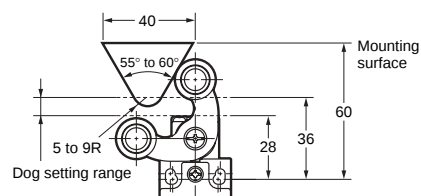
### One-way Roller Arm Lever (Horizontal) (D4N-□□62)



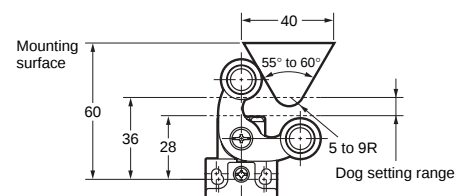
### One-way Roller Arm Lever (Vertical) (Reference Values) (D4N-□□72)



### Fork Lever Lock (Right Operation) (D4N-□□RE)



### Fork Lever Lock (Left Operation) (D4N-□□LE)



**Note:** Unless otherwise specified, a tolerance of  $\pm 0.4$  mm applies to all dimensions.

## Safety Precautions

Refer to the “*Precautions for All Switches*” and “*Precautions for All Safety Limit Switches*”.

### CAUTION

Electric shock may occasionally occur.  
Do not use metal connectors or metal conduits.



### Precautions for Safe Use

- Do not use the Switch submerged in oil or water, or in locations continuously subject to splashes of oil or water. Doing so may result in oil or water entering the Switch interior. (The IP67 degree of protection specification for the Switch refers to water penetration while the Switch is submersed in water for a specified period of time.)
- Always attach the cover after completing wiring and before using the Switch. Also, do not turn ON the Switch with the cover open. Doing so may result in electric shock.
- Do not switch circuits for two or more standard loads (250 VAC, 3 A). Doing so may adversely affect insulation performance.

### Precautions for Correct Use

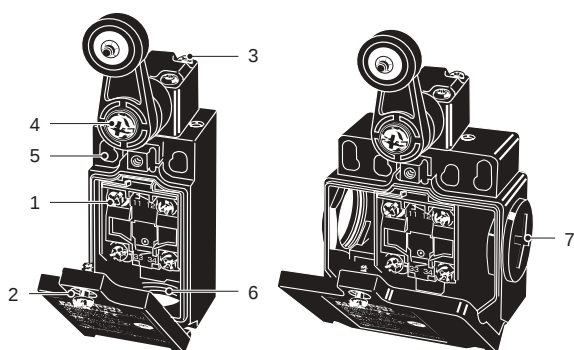
The Switch contacts can be used with either standard loads or microloads. Once the contacts have been used to switch a load, however, they cannot be used to switch smaller loads. The contact surfaces will become rough once they have been used and contact reliability for smaller loads may be reduced.

## Mounting Method

### Appropriate Tightening Torque

Tighten each of the screws to the specified torque. Loose screws may result in malfunction of the Switch within a short time.

|   |                        |                                                                     |
|---|------------------------|---------------------------------------------------------------------|
| 1 | Terminal screw         | 0.6 to 0.8 N·m                                                      |
| 2 | Cover mounting screw   | 0.5 to 0.7 N·m                                                      |
| 3 | Head mounting screw    | 0.5 to 0.6 N·m                                                      |
| 4 | Lever mounting screw   | 1.6 to 1.8 N·m                                                      |
| 5 | Body mounting screw    | 0.5 to 0.7 N·m                                                      |
| 6 | Connector, M12 adaptor | 1.8 to 2.2 N·m (except 1/2-14NPT)<br>1.4 to 1.8 N·m (for 1/2-14NPT) |
| 7 | Cap screw              | 1.3 to 1.7 N·m                                                      |

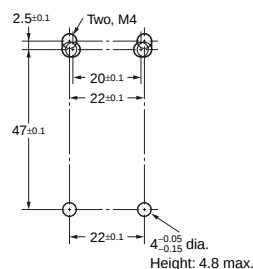


### Switch Mounting

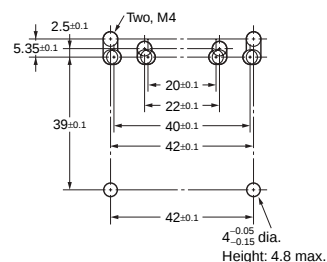
- Mount the Switch using M4 screws and spring washers and tighten the screws to the specified torque.
- For safety, use screws that cannot be easily removed, or use an equivalent measure to ensure that the Switch is secure.
- As shown below, two studs with a maximum height of 4.8 mm and a diameter of  $4_{-0.05}^{+0.15}$  mm can be provided, the studs inserted into the holes on the bottom of the Switch, and the Switch secured at four locations to increase the mounting strength.

### Switch Mounting Holes

#### One-conduit Type



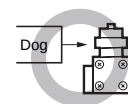
#### Two-conduit Type



- Make sure that the dog contacts the actuator at a right angle. Applying a load to the switch actuator (roller) on a slant may result in deformation or damage of the actuator or rotary shaft.



Incorrect



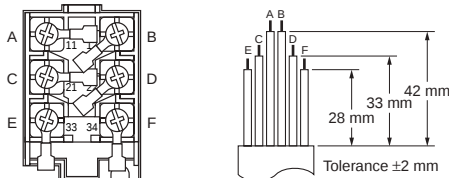
Correct

## Wiring

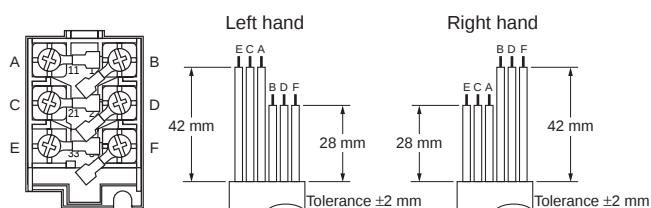
### Wiring

- When connecting to the terminals via insulating tube and M3.5 crimp terminals, arrange the crimp terminals as shown below so that they do not rise up onto the case or the cover.
- Applicable lead wire size: AWG20 to AWG18 (0.5 to 0.75 mm<sup>2</sup>).
- Use lead wires of an appropriate length, as shown below. Not doing so may result in excess length causing the cover to rise and not fit properly.

### One-conduit Type (3 Poles)



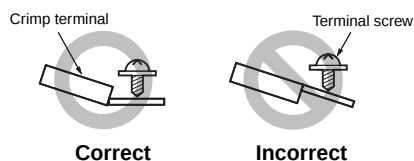
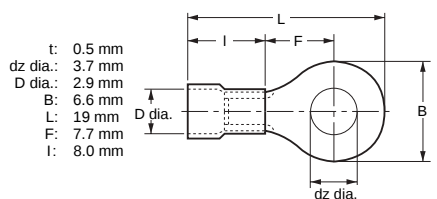
### Two-conduit Type (3 Poles)



- Do not push crimp terminals into gaps in the case interior. Doing so may cause damage or deformation of the case.
- Use crimp terminals not more than 0.5 mm in thickness. Otherwise, they will interfere with other components inside the case.

**[Reference]** The crimp terminals shown below are not more than 0.5 mm thick.

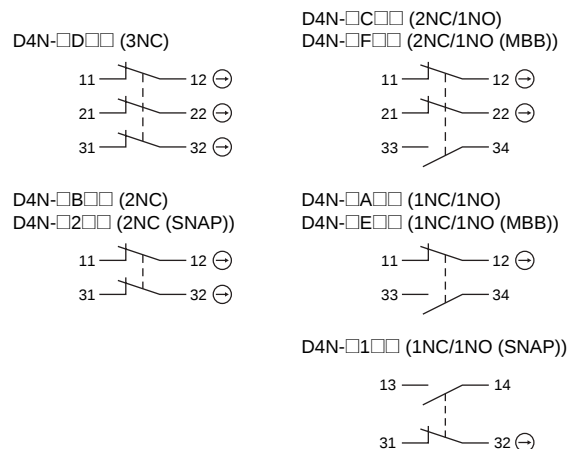
| Manufacturer    | Type                     |
|-----------------|--------------------------|
| J.S.T. Mfg. Co. | FN0.5-3.7 (F Type)       |
|                 | N0.5-3.7 (Straight Type) |



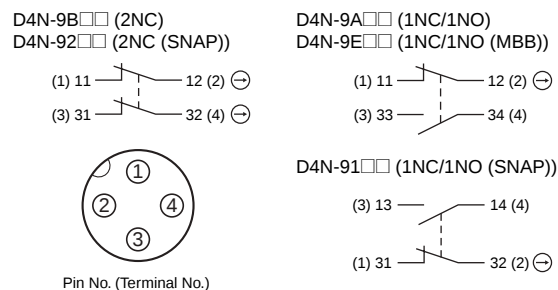
### Contact Arrangement

- The contact arrangements are shown below.

### Screw Terminal Type



### Connector Type



Pin No. (Terminal No.)

- Applicable socket: XS2F-D421 series (OMRON).
- Refer to the *Connector Catalog* for details on socket pin numbers and lead wire colors.

### Socket Tightening (Connector Type)

- Turn the socket connector screws by hand and tighten until no space remains between the socket and the plug.
- Make sure that the socket connector is tightened securely.
- Otherwise, the rated degree of protection (IP67) may not be maintained and vibration may loosen the socket connector.

### Conduit Opening

- Connect a recommended connector to the opening of the conduit and tighten the connector to the specified torque. The case may be damaged if an excessive tightening torque is applied.
- When using 1/2-14NPT, wind sealing tape around the joint between the connector and conduit opening so that the enclosure will conform to IP67.
- Use a cable with a suitable diameter for the connector.
- Attach and tighten a conduit cap to the unused conduit opening when wiring. Tighten the conduit cap to the specified torque. The conduit cap is provided with the Switch (2-conduit types).

### Changing the Lever

The lever mounting screws can be used to set the lever position to any position in a 360° angle at 7.5° increments. Grooves are incised on the lever and rotary shaft that engage to prevent the lever from slipping against the rotary shaft. The screws on adjustable roller lever models can also loosened to change the length of the lever. Remove the screws from the front of the lever before mounting the lever in reverse (front/back), and set the level so that operation will be completed before exceeding a range of 180° on the horizontal.

## Recommended Connectors

Use connectors with screws not exceeding 9 mm, otherwise the screws will protrude into the case interior, interfering with other components in the case.

The connectors listed in the following table have connectors with thread sections not exceeding 9 mm.

Use the recommended connectors to ensure conformance to IP67.

| Size      | Manufacturer | Model                     | Applicable cable diameter |
|-----------|--------------|---------------------------|---------------------------|
| G1/2      | LAPP         | ST-PF1/2<br>5380-1002     | 6.0 to 12.0 mm            |
| Pg13.5    | LAPP         | ST-13.5<br>5301-5030      | 6.0 to 12.0 mm            |
| M20       | LAPP         | ST-M20 × 1.5<br>5311-1020 | 7.0 to 13.0 mm            |
| 1/2-14NPT | LAPP         | ST-NPT1/2<br>5301-6030    | 6.0 to 12.0 mm            |

Use LAPP connectors together with seal packing (JPK-16, GP-13.5, or GPM20), and tighten to the specified tightening torque. Seal packing is sold separately.

- LAPP is a German manufacturer.
- Before using a 2-conduit 1/2-14NPT type, attach the provided changing adaptor to the Switch and then connect the recommended connector.

## Others

- When attaching a cover, be sure that the seal rubber is in place and that there is no foreign material present. If the cover is attached with the seal rubber out of place or if foreign material is stuck to the rubber, a proper seal will not be obtained.
- Do not use any screws to connect the cover other than the specified ones. The seal characteristics may be reduced.
- Make sure that foreign particles do not enter the head when removing the screws from the four corners to change the head position in any of the four directions.
- Use the following recommended countermeasures to prevent telegraphing when using adjustable or long levers.
  1. Make the rear edge of the dog smooth with an angle of 15° to 30° or make it in the shape of a quadratic curve.
  2. Design the circuit so that no error signal will be generated.

## Production Discontinuation

Following the release of the D4N, production of the D4D-N was discontinued.

### Date of Production Discontinuation

Production of the D4D-N Series was discontinued as of the end of March 2006.

### Recommended Substitute Product

Sales of the D4N series commenced in January 2004.

### Product Substitution

#### 1. Dimensions

The D4D-N and D4N use the same mounting method, and mounting hole. The multi-contact structure and the extra 4 mm in length, however, are different.

#### 2. Terminal Numbers

For the 2-contact slow-action model, the terminals 21, 22, 23, and 24 on the D4D-N are 31, 32, 33, and 34 on the D4N.

#### 3. Recommended Terminals

If the recommended terminals are not used, the Switch may not be compatible. Make sure that the Switch is compatible with the terminals.

### Comparison with Discontinued Products

| Item                      | Model | D4N                     |
|---------------------------|-------|-------------------------|
| Switch color              |       | Very similar            |
| Dimensions                |       | Very similar            |
| Wiring/connection         |       | Significantly different |
| Mounting method           |       | Completely compatible   |
| Ratings/performance       |       | Very similar            |
| Operating characteristics |       | Very similar            |
| Operating method          |       | Completely compatible   |

### Dimensions (Unit: mm)

| Discontinued Product (1-conduit Plunger-type D4D-N)                                                                                                                                                                                                                                                                                                                                                                                | Recommended Substitute Product (1-conduit Plunger-type D4N)                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>25 dia. <math>\pm 0.1</math><br/>Two, 3 <math>\pm 0.05</math> dia. holes<br/>12 dia.<br/>6-dia. resin plunger<br/>OP<br/>9<math>\pm 0.2</math><br/>2.5<br/>51<br/>47<math>\pm 0.2</math><br/>2.15<math>\pm 0.05R</math> mounting holes<br/>22<math>\pm 0.1</math><br/>31 max.<br/>Two, 4 <math>\frac{0}{15}</math> dia. holes depth: 5</p>                                                                                      | <p>25<math>\pm 0.1</math><br/>Two, 3 <math>\pm 0.05</math> dia. holes<br/>12 dia.<br/>6-dia. resin plunger<br/>OP<br/>9<math>\pm 0.2</math><br/>2.5<br/>55<br/>47<math>\pm 0.2</math><br/>2.15<math>\pm 0.05R</math> mounting holes<br/>20<math>\pm 0.1</math><br/>22<math>\pm 0.1</math><br/>22<math>\pm 0.2</math><br/>31 max.<br/>Two, 4 <math>\frac{0}{15}</math> dia. holes depth: 5<br/>Conduit cap<br/>(31.5)<br/>21.5<br/>11<math>\pm 0.2</math><br/>14.2<br/>30</p>                           |
| Discontinued product (2-conduit Plunger-type D4D-N)                                                                                                                                                                                                                                                                                                                                                                                | Recommended Substitute Product (2-conduit Plunger-type D4N)                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p>Two, 3 <math>\pm 0.05</math> dia. holes depth: 6<br/>25<math>\pm 0.1</math><br/>12 dia.<br/>6 dia.<br/>OP<br/>5.4<br/>2.5<br/>54<br/>47<math>\pm 0.2</math><br/>2.15<math>\pm 0.05R</math> mounting holes<br/>22<math>\pm 0.1</math><br/>40<math>\pm 0.1</math><br/>42<math>\pm 0.1</math><br/>56 max.<br/>Two, 4 <math>\frac{0}{15}</math> dia. holes depth: 5<br/>Cap<br/>21.5<br/>11<math>\pm 0.2</math><br/>14.2<br/>30</p> | <p>25<math>\pm 0.1</math><br/>Two, 3 <math>\pm 0.05</math> dia. holes<br/>12 dia.<br/>6-dia. resin plunger<br/>OP<br/>5.4<br/>2.5<br/>39<math>\pm 0.2</math><br/>47<br/>2.15<math>\pm 0.05R</math> mounting holes<br/>20<math>\pm 0.1</math><br/>22<math>\pm 0.1</math><br/>40<math>\pm 0.1</math><br/>42<math>\pm 0.1</math><br/>56 max.<br/>Two, 4 <math>\frac{0}{15}</math> dia. holes depth: 5<br/>Conduit cap<br/>(31.5)<br/>21.5<br/>11<math>\pm 0.2</math><br/>14.2<br/>30<br/>20.5<br/>Cap</p> |

## List of Recommended Substitute Products

■ : The actuator on the D4D-N is a non-safety type. The D4N is recommended for safety applications (form lock type). Be sure to mount it correctly.

■ : M screws are recommended to comply with European standards. Therefore, the M20 type is recommended as a substitute when the Pg13.5 conduit-type is not available in a D4N model.

### Safety Limit Switches

| Discontinued product | Recommended substitute product | Discontinued product | Recommended substitute product | Discontinued product | Recommended substitute product |
|----------------------|--------------------------------|----------------------|--------------------------------|----------------------|--------------------------------|
| D4D-1120N            | D4N-1120                       | D4D-1520N            | D4N-1A20                       | D4D-1A20N            | D4N-1B20                       |
| D4D-2120N            | D4N-2120                       | D4D-2520N            | D4N-2A20                       | D4D-2A20N            | D4N-2B20                       |
| D4D-3120N            | D4N-3120                       | D4D-3520N            | D4N-3A20                       | D4D-3A20N            | D4N-3B20                       |
| D4D-5120N            | D4N-5120                       | D4D-5520N            | D4N-5A20                       | D4D-5A20N            | D4N-5B20                       |
| D4D-6120N            | D4N-6120                       | D4D-6520N            | D4N-6A20                       | D4D-6A20N            | D4N-6B20                       |
| D4D-1122N            | D4N-1122                       | D4D-1522N            | D4N-1A22                       | D4D-1A22N            | D4N-1B22                       |
| D4D-2122N            | D4N-2122                       | D4D-2522N            | D4N-2A22                       | D4D-2A22N            | D4N-2B22                       |
| D4D-3122N            | D4N-3122                       | D4D-3522N            | D4N-3A22                       | D4D-3A22N            | D4N-3B22                       |
| D4D-5122N            | D4N-5122                       | D4D-5522N            | D4N-5A22                       | D4D-5A22N            | D4N-5B22                       |
| D4D-6122N            | D4N-6122                       | D4D-6522N            | D4N-6A22                       | D4D-6A22N            | D4N-6B22                       |
| D4D-1125N            | D4N-1125                       | D4D-1525N            | D4N-1A25                       | D4D-1A25N            | D4N-1B25                       |
| D4D-2125N            | D4N-2125                       | D4D-2525N            | D4N-2A25                       | D4D-2A25N            | D4N-2B25                       |
| D4D-3125N            | D4N-3125                       | D4D-3525N            | D4N-3A25                       | D4D-3A25N            | D4N-3B25                       |
| D4D-1131N            | D4N-1131                       | D4D-1531N            | D4N-1A31                       | D4D-1A31N            | D4N-1B31                       |
| D4D-2131N            | D4N-2131                       | D4D-2531N            | D4N-2A31                       | D4D-2A31N            | D4N-2B31                       |
| D4D-3131N            | D4N-3131                       | D4D-3531N            | D4N-3A31                       | D4D-3A31N            | D4N-3B31                       |
| D4D-5131N            | D4N-5131                       | D4D-5531N            | D4N-5A31                       | D4D-5A31N            | D4N-5B31                       |
| D4D-6131N            | D4N-6131                       | D4D-6531N            | D4N-6A31                       | D4D-6A31N            | D4N-6B31                       |
| D4D-1132N            | D4N-1132                       | D4D-1532N            | D4N-1A32                       | D4D-1A32N            | D4N-1B32                       |
| D4D-2132N            | D4N-2132                       | D4D-2532N            | D4N-2A32                       | D4D-2A32N            | D4N-2B32                       |
| D4D-3132N            | D4N-3132                       | D4D-3532N            | D4N-3A32                       | D4D-3A32N            | D4N-3B32                       |
| D4D-5132N            | D4N-5132                       | D4D-5532N            | D4N-5A32                       | D4D-5A32N            | D4N-5B32                       |
| D4D-6132N            | D4N-6132                       | D4D-6532N            | D4N-6A32                       | D4D-6A32N            | D4N-6B32                       |
| D4D-1162N            | D4N-1162                       | D4D-1562N            | D4N-1A62                       | D4D-1A62N            | D4N-1B62                       |
| D4D-2162N            | D4N-2162                       | D4D-2562N            | D4N-2A62                       | D4D-2A62N            | D4N-2B62                       |
| D4D-3162N            | D4N-3162                       | D4D-3562N            | D4N-3A62                       | D4D-3A62N            | D4N-3B62                       |
| D4D-5162N            | D4N-5162                       | D4D-5562N            | D4N-5A62                       | D4D-5A62N            | D4N-5B62                       |
| D4D-6162N            | D4N-6162                       | D4D-6562N            | D4N-6A62                       | D4D-6A62N            | D4N-6B62                       |
| D4D-1172N            | D4N-1172                       | D4D-1572N            | D4N-1A72                       | D4D-1A72N            | D4N-1B72                       |
| D4D-2172N            | D4N-2172                       | D4D-2572N            | D4N-2A72                       | D4D-2A72N            | D4N-2B72                       |
| D4D-3172N            | D4N-3172                       | D4D-3572N            | D4N-3A72                       | D4D-3A72N            | D4N-3B72                       |
| D4D-5172N            | D4N-5172                       | D4D-5572N            | D4N-5A72                       | D4D-5A72N            | D4N-5B72                       |
| D4D-6172N            | D4N-6172                       | D4D-6572N            | D4N-6A72                       | D4D-6A72N            | D4N-6B72                       |
| D4D-112HN            | D4N-112H                       | D4D-152HN            | D4N-1A2H                       | D4D-1A2HN            | D4N-1B2H                       |
| D4D-212HN            | D4N-212H                       | D4D-252HN            | D4N-2A2H                       | D4D-2A2HN            | D4N-2B2H                       |
| D4D-312HN            | D4N-312H                       | D4D-352HN            | D4N-3A2H                       | D4D-3A2HN            | D4N-3B2H                       |

## General-purpose Limit Switches

| Discontinued product | Recommended substitute product |
|----------------------|--------------------------------|
| D4D-1121N            | D4N-112G                       |
| D4D-2121N            | D4N-212G                       |
| D4D-3121N            | D4N-312G                       |
| D4D-5121N            | D4N-512G                       |
| D4D-6121N            | D4N-612G                       |
| D4D-1127N            | D4N-112H                       |
| D4D-2127N            | D4N-212H                       |
| D4D-3127N            | D4N-312H                       |
| D4D-5127N            | D4N-512H                       |
| D4D-6127N            | D4N-612H                       |
| D4D-1180N            | D4N-4180                       |
| D4D-2180N            | D4N-2180                       |
| D4D-3180N            | D4N-3180                       |
| D4D-5180N            | D4N-8180                       |
| D4D-6180N            | D4N-6180                       |
| D4D-1187N            | D4N-4187                       |
| D4D-2187N            | D4N-2187                       |
| D4D-3187N            | D4N-3187                       |
| D4D-5187N            | D4N-8187                       |
| D4D-6187N            | D4N-6187                       |

| Discontinued product | Recommended substitute product |
|----------------------|--------------------------------|
| D4D-15REN            | D4N-1ARE                       |
| D4D-25REN            | D4N-2ARE                       |
| D4D-35REN            | D4N-3ARE                       |
| D4D-55REN            | D4N-5ARE                       |
| D4D-65REN            | D4N-6ARE                       |
| D4D-15LEN            | D4N-1ALE                       |
| D4D-25LEN            | D4N-2ALE                       |
| D4D-35LEN            | D4N-3ALE                       |
| D4D-55LEN            | D4N-5ALE                       |
| D4D-65LEN            | D4N-6ALE                       |
| D4D-1521N            | D4N-1A2G                       |
| D4D-2521N            | D4N-2A2G                       |
| D4D-3521N            | D4N-3A2G                       |
| D4D-5521N            | D4N-5A2G                       |
| D4D-6521N            | D4N-6A2G                       |
| D4D-1527N            | D4N-1A2H                       |
| D4D-2527N            | D4N-2A2H                       |
| D4D-3527N            | D4N-3A2H                       |
| D4D-5527N            | D4N-5A2H                       |
| D4D-6527N            | D4N-6A2H                       |

| Discontinued product | Recommended substitute product |
|----------------------|--------------------------------|
| D4D-1AREN            | D4N-1BRE                       |
| D4D-2AREN            | D4N-2BRE                       |
| D4D-3AREN            | D4N-3BRE                       |
| D4D-5AREN            | D4N-5BRE                       |
| D4D-6AREN            | D4N-6BRE                       |
| D4D-1ALEN            | D4N-1BLE                       |
| D4D-2ALEN            | D4N-2BLE                       |
| D4D-3ALEN            | D4N-3BLE                       |
| D4D-5ALEN            | D4N-5BLE                       |
| D4D-6ALEN            | D4N-6BLE                       |
| D4D-1A21N            | D4N-1B2G                       |
| D4D-2A21N            | D4N-2B2G                       |
| D4D-3A21N            | D4N-3B2G                       |
| D4D-5A21N            | D4N-5B2G                       |
| D4D-6A21N            | D4N-6B2G                       |
| D4D-1A27N            | D4N-1B2H                       |
| D4D-2A27N            | D4N-2B2H                       |
| D4D-3A27N            | D4N-3B2H                       |
| D4D-5A27N            | D4N-5B2H                       |
| D4D-6A27N            | D4N-6B2H                       |
| D4D-1A80N            | D4N-4B80                       |
| D4D-2A80N            | D4N-2B80                       |
| D4D-3A80N            | D4N-3B80                       |
| D4D-5A80N            | D4N-8B80                       |
| D4D-6A80N            | D4N-6B80                       |
| D4D-1A87N            | D4N-4B87                       |
| D4D-2A87N            | D4N-2B87                       |
| D4D-3A87N            | D4N-3B87                       |
| D4D-5A87N            | D4N-8B87                       |
| D4D-6A87N            | D4N-6B87                       |

## Read and Understand This Catalog

Please read and understand this catalog before purchasing the products. Please consult your OMRON representative if you have any questions or comments.

## Warranty and Limitations of Liability

### WARRANTY

OMRON's exclusive warranty is that the products are free from defects in materials and workmanship for a period of one year (or other period if specified) from date of sale by OMRON.

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The following are some examples of applications for which particular attention must be given. This is not intended to be an exhaustive list of all possible uses of the products, nor is it intended to imply that the uses listed may be suitable for the products:

- Outdoor use, uses involving potential chemical contamination or electrical interference, or conditions or uses not described in this catalog.
- Nuclear energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government regulations.
- Systems, machines, and equipment that could present a risk to life or property.

Please know and observe all prohibitions of use applicable to the products.

NEVER USE THE PRODUCTS FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCTS ARE PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

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## Disclaimers

### CHANGE IN SPECIFICATIONS

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It is our practice to change model numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the products may be changed without any notice. When in doubt, special model numbers may be assigned to fix or establish key specifications for your application on your request. Please consult with your OMRON representative at any time to confirm actual specifications of purchased products.

### DIMENSIONS AND WEIGHTS

Dimensions and weights are nominal and are not to be used for manufacturing purposes, even when tolerances are shown.

### PERFORMANCE DATA

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