KL1808 | HD Bus Terminal, 8-channel digital input 24 V DC, 2-wire connection

The KL1808 digital input terminal acquires the binary control signals from the process level and transmits them, in an electrically isolated form, to the higher-level automation device. The Bus Terminal contains eight channels, consisting of a signal input and 24 V DC. The signal states are displayed by LEDs. The power contacts are looped through.

For the KL1808 Bus Terminal, the reference ground for all inputs is the 0 V power contact. The wires can be connected without tools in the case of solid wires using a direct plug-in technique.

The HD Bus Terminals (High Density) with increased packing density feature 16 connection points in the housing of a 12 mm terminal block.

Technical data	KL1808
Connection technology	2-wire
Specification	EN 61131-2, type 1/3
Number of inputs	8
Nominal voltage	24 V_{DC} (-15%/+20%)
"0" signal voltage	-3…+5 V (EN 61131-2, type 1/3)
"1" signal voltage	11…30 V (EN 61131-2 type 3)
Input filter	typ. 3.0 ms
Input current	typ. 3 mA (EN 61131-2, type 3)
Current consumption from power contacts	typ. 2 mA + load
Current consumption from K-Bus	typ. 15 mA
Electrical isolation	500 V (K-Bus / field potential)
Bit with in the process image	8 inputs
Configuration	no address or configuration setting
Conductor types	solid wire, stranded wire and ferrule

Technical data	KL1808
Conductor connection	solid wire conductors: direct plug-in technique; stranded wire conductors and ferrules: spring actuation by screwdriver
Rated cross-section	solid wire: 0.08…1.5 mm²; stranded wire: 0.25…1.5 mm²; ferrule: 0.14…0.75 mm²
Weight	app. 60 g
Dimensions (w x h x d)	15mm x 100mm x 70mm (aligned width 12mm)
Operating/storage temperature	-0°C ... +55°C/-25°…+85 °C
Relative humidity	95%, no condensation
Vibration/shock resistance	conforms to EN60068-2-6 / EN60068-2-27
EMC immunity/emission	conforms to EN61000-6-2 / EN61000-6-4
Protection class/installation pos.	IP20/variable (see documentation)
Approval	CE, UL, Ex

ATEX - Special conditions

⚠️ **WARNING**	**Observe the special conditions for the intended use of Beckhoff fieldbus components in potentially explosive areas (directive 94/9/EU)!** • The certified components are to be installed in a suitable housing that guarantees a protection class of at least IP54 in accordance with EN 60529! The environmental conditions during use are thereby to be taken into account! • If the temperatures during rated operation are higher than 70°C at the feed-in points of cables, lines or pipes, or higher than 80°C at the wire branching points, then cables must be selected whose temperature data correspond to the actual measured temperature values! • Observe the permissible ambient temperature range of 0 - 55°C for the use of Beckhoff fieldbus components in potentially explosive areas! • Measures must be taken to protect against the rated operating voltage being exceeded by more than 40% due to short-term interference voltages! • The individual terminals may only be unplugged or removed from the Bus Terminal system if the supply voltage has been switched off or if a non-explosive atmosphere is ensured! • The connections of the certified components may only be connected or disconnected if the supply voltage has been switched off or if a non-explosive atmosphere is ensured! • The fuses of the KL92xx power feed terminals may only be exchanged if the supply voltage has been switched off or if a non-explosive atmosphere is ensured! • Address selectors and ID switches may only be adjusted if the supply voltage has been switched off or if a non-explosive atmosphere is ensured!

ℹ️ **Note**	**Operation of the Bus Terminal System in potentially explosive areas (ATEX)!** Pay also attention to the continuative documentation *Notes about operation of the Bus Terminal System in potentially explosive areas (ATEX)* that is available in the download area of the Beckhoff homepage http://www.beckhoff.com!