

KL1889 | HD Bus Terminal, 16-channel digital input 24 V DC, 0 V (ground) switching

The KL1889 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 16 channels, whose signal states are displayed by LEDs. The terminal is particularly suitable for space-saving use in control cabinets. By using the single-conductor connection technique, a multi-channel sensor can be connected in the smallest space with a minimum amount of wiring. The power contacts are looped through.


The KL1889 Bus Terminal takes the 24 V power contact as its reference for all inputs. The conductors 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	KL1889
Connection technology	1-wire
Specification	negative switching
Number of inputs	16
Nominal voltage	24 V _{DC} (-15 %/+20 %)
"0" signal voltage	18...30 V
"1" signal voltage	0...7 V
Input filter	typ. 3.0 ms
Input current	typ. 3 mA
Current consumption from power contacts	typ. 4 mA + load
Current consumption from K-Bus	typ. 20 mA
Electrical isolation	500 V (K-Bus / field potential)
Bit width in the process image	16 inputs
Configuration	no address or configuration setting

Technical data	KL1889
Conductor types	solid wire, stranded wire and ferrule
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 mm ² ; stranded wire: 0.25...1.5 mm ² ; ferrule: 0.14...0.75 mm ²
Weight	app. 55 g
Dimensions (w x h x d)	15mm x 100mm x 70mm (aligned width 12mm)
Operating/storage temperature	0 ... +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 position	IP20/variable
Approvals	CE, UL, GL, ATEX

ATEX - Special conditions

 WARNING	<p>Observe the special conditions for the intended use of Beckhoff fieldbus components in potentially explosive areas (directive 94/9/EU)!</p> <ul style="list-style-type: none"> • 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!
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 Note	<p>Operation of the Bus Terminal System in potentially explosive areas (ATEX)!</p> <p>Pay also attention to the continuative documentation</p> <p><i>Notes about operation of the Bus Terminal System in potentially explosive areas (ATEX)</i></p> <p>that is available in the download area of the Beckhoff homepage http://www.beckhoff.com!</p>
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