



KL1809, KL1819 | HD Bus Terminals, 16-channel digital input 24 V DC

The KL1809 and KL1819 digital input terminals acquire the binary control signals from the process level and transmit them, in an electrically isolated form, to the higher-level automation device. The Bus Terminals each contain 16 channels, whose signal states are displayed by LEDs. The terminals are 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.

For the KL1809 and KL1819 Bus Terminals, the reference ground for all inputs is the 0 V power contact. The versions have input filters with different speeds. 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	KL1809	KL1819
Connection technology	1-wire	
Specification	EN61131-2, type 1/3	
Number of inputs	16	
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	typ. 0.2 ms
Input current	typ. 3 mA (EN 61131-2, type 3)	
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)	

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Bit with in the process image	16 inputs	
Configuration	no address or configuration setting	
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. 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 position	IP 20/variable (see documentation)	
Approval	CE, UL, Ex	

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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