



**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 <sub>DC</sub> (-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)	

Technical data	KL1809	KL1819
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 <sup>2</sup> ; stranded wire: 0.25...1.5 mm <sup>2</sup> ; ferrule: 0.14...0.75 mm <sup>2</sup>	
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**

 <b>WARNING</b>	<p><b>Observe the special conditions for the intended use of Beckhoff fieldbus components in potentially explosive areas (directive 94/9/EU)!</b></p> <ul style="list-style-type: none"> <li>• 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!</li> <li>• 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!</li> <li>• Observe the permissible ambient temperature range of 0 - 55°C for the use of Beckhoff fieldbus components in potentially explosive areas!</li> <li>• Measures must be taken to protect against the rated operating voltage being exceeded by more than 40% due to short-term interference voltages!</li> <li>• 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!</li> <li>• 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!</li> <li>• 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!</li> <li>• 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!</li> </ul>
--	---

 <b>Note</b>	<p><b>Operation of the Bus Terminal System in potentially explosive areas (ATEX)!</b></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 <a href="http://www.beckhoff.com">download area</a> of the Beckhoff homepage <a href="http://www.beckhoff.com">http://www.beckhoff.com!</a></p>
--	--