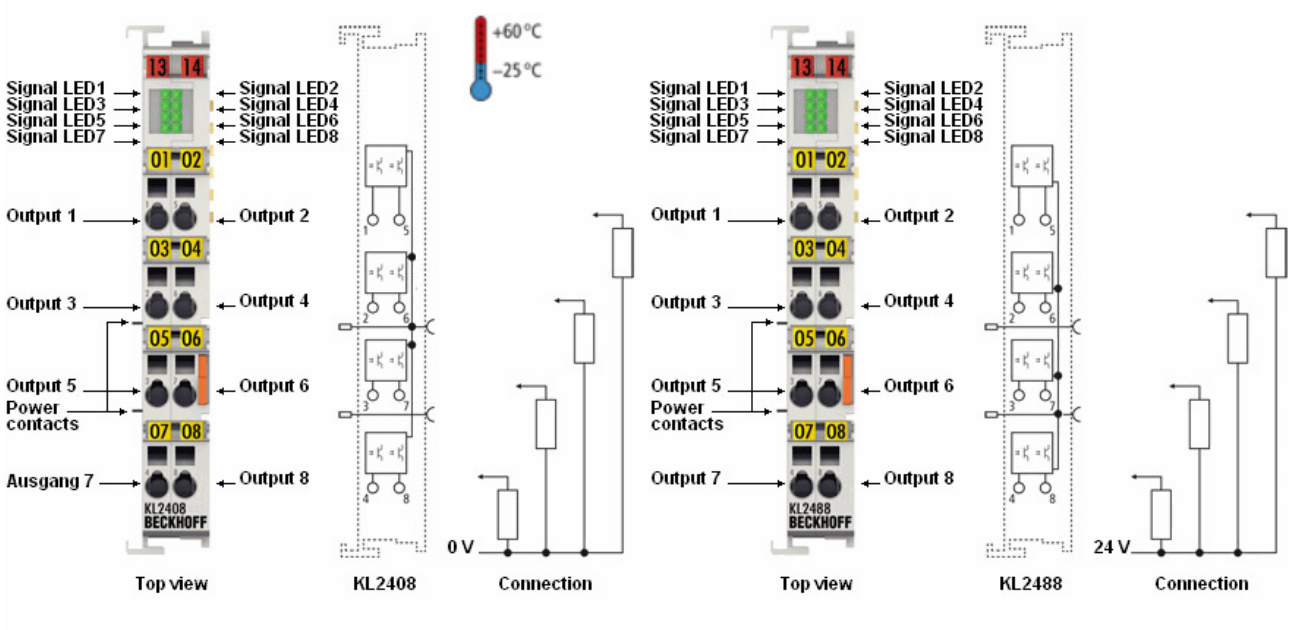

Eight-channel, digital output terminal, 24 V_{DC}

The KL2408 (positive switching) and KL2488 (negative switching) digital output terminals connect the binary control signals from the automation unit on to the actuators at the process level with electrical isolation. The KL2408/KL2488 variants are protected against reverse polarity connection. They handle load currents with outputs that are protected against overload and short circuit. The Bus Terminals contain eight channels which indicate their signal state by means of light emitting diodes. They are particularly suitable for space-saving use in control cabinets. The connection technology is particularly suitable for single-ended inputs. All components have to use the same reference point as the KL2408 or KL2488. The power contacts are looped through. In the KL2408 terminal, the outputs are supplied by the 24 V power contact. In the KL2488 terminal, they are supplied via the 0 V power contact.

Technical data	KL2408 / KS2408	KL2488 / KS2488
Connection technology	1 wire	
Number of outputs	8 (positive switching)	8 (negative switching)
Rated voltage	24 V_{DC} (-15% / +20%)	
Load type	ohmic, inductive, lamp load	
Output current max. (per channel)	0.5 A (short-circuit-proof)	
Short circuit current	< 2 A	< 7 A
Breaking energy	< 150 mJ/channel	< 100 mJ/channel
Reverse voltage protection	yes	
Electrical isolation	500 V (K-Bus/field potential)	
Current consumption K-bus	typ. 18 mA	
Current consumption power contacts	typ. 60 mA +load	
Bit width in process image	8 output bits	
Configuration	no address-or configuration settings required	
Dimensions (W x H x D)	15mm x 100mm x 70mm (connected width: 12mm)	
Weight	approx. 70 g	
Permissible ambient temperature range	-25 °C ... +60 °C in operation 0 °C ... +55 °C (according to cULus for Canada and USA) 0 °C ... +55 °C (according to ATEX, see special conditions)	-0 °C... +55 °C in operation
	-40 °C... +85 °C during storage	-25 °C... +85 °C during storage
Relative humidity	5% ... 95%, no condensation	
Vibration / shock resistance	conforms to EN 60068-2-6 / EN 60068-2-27	

Technical data	KL2408 / KS2408	KL2488 / KS2488
EMC resistance/emission	conforms to EN 61000-6-2 / EN 61000-6-4	
Protection class/installation position	variable / IP20	
Pluggable wiring	at all KSxxxx series terminals	
Approvals	CE, cULus, ATEX, GL	CE, ATEX

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!

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!