Output 1, 2
Output 3, 4
Diagnostic 1, 2
Diagnostic 3, 4

Output 1, 2

Power contact +24 V

Output 3, 4

Power contact 0 V

Top view   Contact assembly

KL6904 | TwinSAFE Logic Bus Terminal

TwinSAFE enables networks with up to 1,024 TwinSAFE devices. The KL6904 TwinSAFE Logic Bus Terminal can establish 15 connections (TwinSAFE connections). Multiple Logic Terminals are cascadable within a network. The Bus Terminal features certified safety function blocks, which are configured according to the application to be realised. Functions such as emergency stop, safety door monitoring, etc. can thus easily be selected and linked. All blocks can be freely connected among each other and are complemented by operators such as AND, OR, etc. The required functions are configured via the TwinCAT System Manager and loaded into the KL6904 Logic Terminal via the fieldbus. The TwinSAFE logic terminal has four safe, local outputs, so that safety applications can be realised with only two components (KL1904 and KL6904).

Technical data	KL6904
Connection technology	2-wire
Specification	link unit between safe input and output signals
Number of outputs	4
Max. output current	0.5 A/20 mA min. (per channel)
Protocol	TwinSAFE/Safety over EtherCAT
Cycle time	4…100 ms
Fault response time	≤ watchdog time (parameterisable)
Current consumption power contacts	load-dependent
Current consumption K-bus	max. 250 mA
Installation position	horizontal
Safety standard	DIN EN ISO 13849-1:2008 (Cat. 4, PL e) and EN 61508:2010 (SIL 3)
Weight	approx. 100 g
Protection class	IP 20
Approvals/markings	Overview of TwinSAFE Certifications (PDF)
Ex-Marking	II 3 G Ex nA IIC T4 Gc

Ordering information	
KL6904	TwinSAFE Logic Bus Terminal, 4 safe outputs
KL6904-0001	TwinSAFE Logic Bus Terminal, pre-configured ex factory to 15 TwinSAFE connections