



KL6021, KL6041 | Serial interface RS422/RS485

The KL6021 and KL6041 serial interfaces allow devices with an RS422 or RS485 interface to be connected. The device connected to the terminal communicates with the automation device via the Bus Coupler. The active communication channel operates independently of the higher-level bus system in full or half duplex mode at up to 19,200 baud or 115.2 kbaud (KL6041). The transmission of differential signals conforms to RS422 and guarantees high immunity to interference through electrically isolated signals.

Technical data	KL6021 KS6021	KL6041 KS6041
Technology	RS422/RS485	
Data transfer channels	TxD and Rx/D, full/half duplex	
Data transfer rates	1,200...19,200 baud; default: 9,600 baud, 8 data bits, no parity and one stop bit	4,800...115,200 baud; default: 9,600 baud, 8 data bits, no parity and one stop bit
Bit transfer	with differential signal	
Line impedance	120 Ω	
Cable length	approx. 1,000 m twisted pair	
Power supply	via the K-bus	
Current consumpt. K-bus	typ. 65 mA	
Current consumption power contacts	– (no power contacts)	
Electrical isolation	500 V (K-bus/signal voltage)	
Data buffer	128 bytes receive buffer, 16 bytes transmit buffer	1024 bytes receive buffer, 128 bytes transmit buffer
Bit width in the process image	input/output: 3 x 8 bit user data, 1 x 8 bit control/status (up to 5 x 8 bit user data are possible)	input/output: 22 x 8 bit user data, 2 x 8 bit control/status (up to 22 byte user data are possible)
Configuration	no address setting, configuration via Bus Coupler or controller	
Special features	high interference immunity, electrically isolated signals	
Weight	approx. 60 g	
Operating/storage temperature	0...+55 °C/-25...+85 °C	-25...+60 °C/-40...+85 °C
Relative humidity	95 %, no condensation	
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27	
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4	
Protect. class/installation pos.	IP 20/variable	
Pluggable wiring	for all KSxxxx Bus Terminals	
Approvals	CE, UL, Ex	CE, UL, Ex, GL

Special terminals	
KL6021-0020	standard format 5 bytes of user data (rest default)
KL6021-0021	standard format 5 bytes of user data (7 bits, even, 1 stop bit, 9,600 baud)
KL6021-0023	serial Bus Terminal for processing the RS485 signals from the KL6023 wireless adapter with EnOcean radio technology

Accessories	
TS6340	IEC 61131-3 software library for TwinCAT PLC for communication via serial devices
TS6341	license for using the software library for communication via serial Bus Terminals or PC COM ports using the protocol 3964R/RK512
TS6255	IEC 61131-3 software library for TwinCAT PLC with Modbus RTU function blocks for serial communication with Modbus devices

System	
RS485	For further RS485 products please see the system overview .