



KL6781 | M-Bus master terminal

The KL6781 M-Bus master terminal enables the direct connection of M-Bus devices. The M-Bus (Meter Bus) is a fieldbus for the acquisition of consumption data from electricity, water, gas or energy meters. The KL6781 does not contain the M-Bus protocol; instead, it converts the data present on the terminal bus into M-Bus compliant physics. 24 byte data are available on the K-bus for this. In conjunction with the TwinCAT M-Bus library, it is possible to work without an external M-Bus gateway, i.e. the M-Bus devices can be connected directly to the KL6781. With a total cable length of 300 m, up to 40 M-Bus devices (each with a current consumption of 1.5 mA) can be connected.

Technical data	KL6781
Technology	M-Bus
Data transfer channels	1
M-Bus devices	max. 40 each with a current consumption of 1.5 mA
Data transfer standard	M-Bus physics
Data transfer rates	300...9,600 baud (default 2,400 baud)
Bus access	master-slave mode (polling)
Cable length	max. 300 m
Current consumpt. K-bus	typ. 65 mA
Current consumption power contacts	max. 250 mA
Short-circuit-proof	yes
Electrical isolation	500 V (K-bus/M-Bus)
Bit width in the process image	input/output: 24 bytes
Configuration	TwinCAT (M-Bus function blocks)
Nominal voltage	24 V DC (-15 %/+20 %)
Input voltage	24 V DC (-15 %/+20 %)
Special features	connection of up to 40 M-Bus devices; TwinCAT library available
Weight	approx. 60 g
Operating/storage temperature	0...+55 °C/-25...+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
Approvals	CE, UL

Accessories	
TwinCAT PLC M-Bus	The library is installed free of charge together with TwinCAT from V2.11 Build 2229 (R3 and x64 engineering).
System	
subsystem	For further subsystem products please see the system overview .