MNS *i*S Motor Control Center
Interface Manual M*Link* HW 1TGE120021
System Release V7.0



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Hardware Types and Technical Data

The configuration of M*Link* depends on the selected communication protocol to the DCS. Following communication interface protocols are available:

- PROFIBUS DP (-V0) and PROFIBUS DP-V1
- MODBUS RTU / TCP
- PROFINET IO



The PROFINET interface is supported for use with the ABB 800xA System only

System functions such as M*Link* web interface (M*View*), OPC connectivity and time stamp are possible with all M*Link* types.

For communication to MControl a dedicated interface plug (switchgear bus connector) has to be used dependent on system configuration (redundant, non redundant system).

Protocol	**Modbus**			**Profinet IO**	**Profibus**
Hardware Interface	RS 485 & Ethernet TCP IEEE 802.3	RS 422 & Ethernet TCP IEEE 802.3	RS232 & Ethernet TCP IEEE 802.3	Ethernet TCP IEEE 802.3	DP & DPV1
MLink ID	1TGE120021R0010				1TGE120021R0110
Swg. bus connector **non-redundant** (with termination)	1TGE120016R0104				
Swg. bus connector **dual redundant** (w/o termination)	1TGE120016R0103				

Table 1 Hardware Selection

Electrical Data	
Power Supply	24V DC (19 – 31V DC)
Power Consumption	Typical 800mA, Maximum 1000mA
Mechanical Data	
Weight	2.5 kg
Dimensions H x W x D	140 x 160 x 165 mm
Environmental Data	
Storage Temperature	-20°C to +70°C
Operating Temperature	0°C to +55°C
Degree of Protection	IP 51
MTBF (Mean Time Between Failures)	46 years @ 40°C

Table 2 Technical Data

Interfaces

Front view

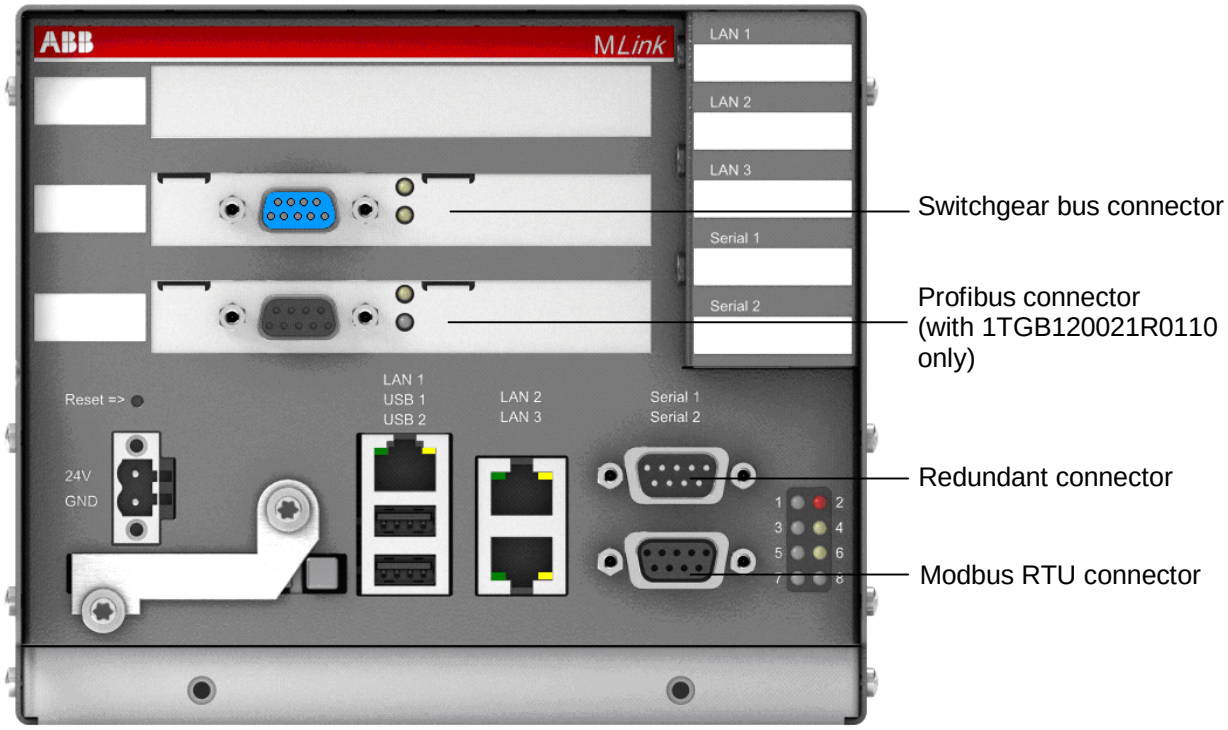


Fig. 1 M*Link* front view

Swg Bus Switchgear Bus Interface (female blue plug)	
Swg Bus – upper LED, yellow	Switchgear Bus Rx Indication
Swg Bus – lower LED, yellow	Switchgear Bus Tx Indication
Profibus PROFIBUS DP Slave Interface (female black plug)	
Profibus – upper LED, yellow	Profibus Communication running
Profibus – lower LED, green	Profibus READY for communication
Power Supply	
Button Reset	Reset button (Restart of M*Link*)
24V	Power Supply +24VDC
GND	Power Supply 0V
CF card	
CF card	CF card is protected against unintentional removal after closing the flap and connecting the power supply (details see page 24)

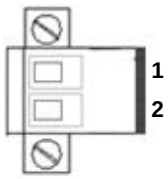
LAN	
LAN 1	LAN1 Interface (Modbus TCP/ Profinet)
LAN 1 – LED left, green	Link LAN1 active
LAN 1 – LED right, yellow	Communication Ethernet LAN1
LAN 2	LAN2 Interface
LAN 2 – LED left, green	Link LAN2 active
LAN 2 – LED right, yellow	Communication Ethernet LAN2
LAN 3	Not used
LAN 3 – LEDs	Not used
USB 1, 2	Not used
Serial 1	Redundancy Interface (male plug)
Serial 2	Modbus RTU Interface (female plug)
LED indications	
LED 1	M*Link* Run indication (CF card application loaded and running)
LED 2	M*Link* Fault
LED 3	Application dependent (see section LED indication, page 27)
LED 4	Application dependent (see section LED indication, page 27)
LED 5	Application dependent (see section LED indication, page 27)
LED 6	DCS Communication active (PROFIBUS or Modbus)
LED 7	M*Link* Power On Indication
LED 8	Application dependent (see section LED indication, page 27) In redundant configurations: M*Link* primary

Table 3 Front View Connectors, LED and Push Buttons

Power Supply

The M*Link* requires 24V DC supply voltage. The connection is on the right side of the device with terminal plugs:

- Terminal 1 connects to +24V DC
- Terminal 2 connects to 0V DC



1 Power Supply +24VDC

2 Power Supply 0VDC

Fig. 2 Power Supply Connector