

Modular MULTIPLEXER - Switching Type

MUM 10/ 20/ 30/ 40



Our MULTIPLEXER Type MUM is characterized by its flexibility and its possibilities of different expansion stages. There are various sizes of MULTIPLEXER depending on the number of measuring points necessary. These are available with expansion stages in groups of 10 (with regard to the sensors). MULTIPLEXER are amplifications for sensors which are suitable for our data acquisition systems / measuring stations Type MCC. In a structure they are installed one after the other like a chain (routed via bus system) and connected to the central data acquisition system / measuring station.

The communication cable can have a length of up to 2.000m, if an optional power supply unit will be provided for each MULTIPLEXER. Each supply unit needs to be connected to the main power supply. In direct connection between MULTIPLEXER and measuring system, distances of up to 500 m are possible.

When the MULTIPLEXER Type MUM is equipped with an additional connection module, it is possible to take control measurements with a handheld readout unit. Control measurements can also be taken during the automatic operation of the measuring station.

Expansion Modules:

- Additional external supply unit
- Overvoltage protection
- Measuring board for manual readouts
- Mounting bracket for tube
- WLAN Adapter (in connection with main power supply)

Technical data	MUM 10	MUM 20	MUM 30	MUM 40
No. of channels:	10	20	30	40
Dimensions W x H x D:	40 x 25 x 12,5 cm	40 x 25 x 12,5 cm	60 x 25 x 13 cm	60 x 25 x 13 cm
Weight:	5.6 kg	6.4 kg	7.6 kg	8.4 kg
Switching time per channel:	3 sec	3 sec	3 sec	3 sec
Operating voltage::	15-30 V _{DC}	15-30 V _{DC}	15-30 V _{DC}	15-30 V _{DC}
Power consumption:	130 mA	130 mA	130 mA	130 mA
Galvanic separation:	yes	yes	yes	yes
Protection class:	IP66	IP66	IP66	IP66
Temperature range:	-15°C - +70°C	-15°C - +70°C	-15°C - +70°C	-15°C - +70°C
Protocol:	GL-Bus	GL-Bus	GL-Bus	GL-Bus
Transmission rate:	1.200 Baud	1.200 Baud	1.200 Baud	1.200 Baud
Resolution:	16 Bit	16 Bit	16 Bit	16 Bit
Power-up delay:	yes	yes	yes	yes
External supply unit:	optional	optional	optional	optional
Cable connection:	7-12 mm	7-12 mm	7-12 mm	7-12 mm
Overvoltage protection on sensor side:	optional	optional	optional	optional
Supply on board:	1 mA 0,1 mA 1 V 4-20 mA	1 mA 0,1 mA 1 V 4-20 mA	1 mA 0,1 mA 1 V 4-20 mA	1 mA 0,1 mA 1 V 4-20 mA
Additional supply::	1 Slot	1 Slot	1 Slot	1 Slot
Expansion modules::	VW or DMS or LVDT	VW or DMS or LVDT	VW or DMS or LVDT	VW or DMS or LVDT
Compatibility:	MCC	MCC	MCC	MCC

TECHNICAL SPECIFICATIONS

Three Voltage Measuring Ranges (16bit A/D-Converter)

Measuring Range [mV]	Resolution [mV]	Resolution [% FS]
+/- 2400 mV	0.078 mV	0.0016 %
+/- 300 mV	0.0098 mV	0.0016 %
+/- 18 mV	0.00061 mV	0.0016 %

Three controlled, harmonized Supplies

Supply	Tolerance	Tolerance [% FS]
1 mA	0.0002 mA	0.02 %
0.1 mA	0.00002 mA	0.02 %
1 V	0.0002 V	0.02 %

- Additional selectable Supplies +12 V (+/- 1 %) or Bus-Supply Voltage.
For example for a Supply of 4-20 mA Sensors
- Switchable measurement input current / voltage measurement
- Current measurement 100 Ohm (0.01 %) 25 ppm

With additional VW-Module

Excitation:	60 V pulse excitation
Measuring range:	0.5 kHz up to 3,5kHz (2000 us up to 285 us)
Measuring accuracy:	0.0625 us equals 0.003 up to 0.02 % VE Output as period [us], linear value [f²] or natural value [NW]

Examples of resolution of measured values:

Sensor:	GWO 22/100	PP3 SS AU 10	PT100	DBA 250
Supply:	1 V	1 mA	1 mA	60 V Imp.
Measuring Range:	+/- 2400 mV	+/- 300 mV	+/- 300 mV	NW
Measuring Range:	0 up to 100 mm	0 up to 10 bar	-20 °C up to +80 °C	0 up to 250 um
Resolution:	0.0078 mm	0.0005 bar	0.025 °C	0.075 um