Fluidcontrol

easyMont

IO-Link

Display and control unit Multitronik

Multifunctional device for displaying and controlling various measurements measured variables such as level, temperature, and pressure

Main controllers do not process all parameters recorded for monitoring hydraulic systems and oil supply systems. There are a number of systems which are monitored and controlled as autonomous units.

The necessary monitoring tools are often installed throughout the entire system and quite difficult for operating and service personnel to read.

The easyMont mounting system is a cost-effective and easy option for installing Multitronik display and control units on conventional rails in visible locations. The universal menu structure ensures devices can very quickly be configured to all parameters common in hydraulics and lubrication, such as pressure, temperature, humidity, etc., and to link these with other system components.

- Compact design
- Easy to read LED display with switching output statuses
- Virtually any cable length between measuring point and display
- Programmable for units such as cm, inch, °C, °F, bar or psi
- Up to 6 programmable switching outputs
- Alternative analogue output (configurable to current or voltage) plus 1, 2 or 4 programmable switching outputs
- Switching output configurable as frequency output (1-100 Hz)
- Switching outputs characteristics configurable as window or hysteresis
- Standard menu structure based on VDMA standard sheet 24574 ff.
- Min/Max memory. Logbook function

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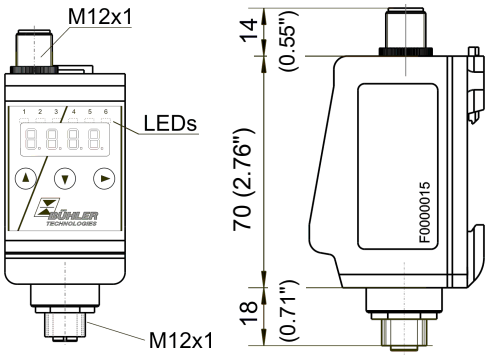
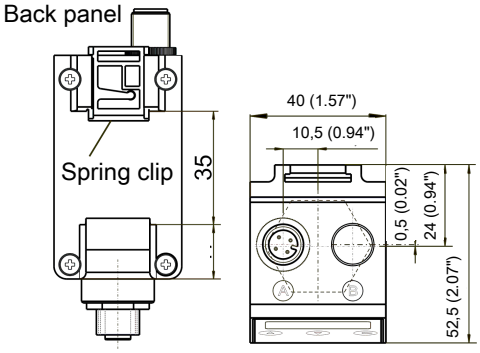
Multitronik Technical Data

Version		
Housing material	PA	
Mount	35 mm (1.38 inch) top-hat rail mounting	
Weight	approx. 100 g (0.2 lb)	
Degree of protection	IP65	
Analysis/display electronics		
Display	4 character 7 segment LED	
Operation	Via 3 keys	
Memory	Min. / Max. Data memory	
Starting current input	approx. 100 mA for 100 ms	
Current input during operation	approx. 50 mA (without current- and switching outputs)	
Supply voltage (U_B)	10 – 30 V DC (nominal voltage 24 V DC)	
Ambient temperature	-20 °C to +70°C (-4 °F to 158 °F)	
Display units	Level	Temperature
	%, cm, L, i, Gal	°C / °F
Display range	adjustable	-20 °C to +120 °C (-4 °F to 248 °F)
Alarm setting range	e.g. 0 – 100 %	0 °C to 100 °C (32 °F to 212 °F)
Display accuracy	± 1 % from end value	± 1 % from end value
Response time	< 10 ms	
Input values		
Display units	b (bar), P (psi), °C, °F, L (litre) as well as various other letters and symbols to choose from	
Input signal	-4 – 20 mA	





Optional switching outputs

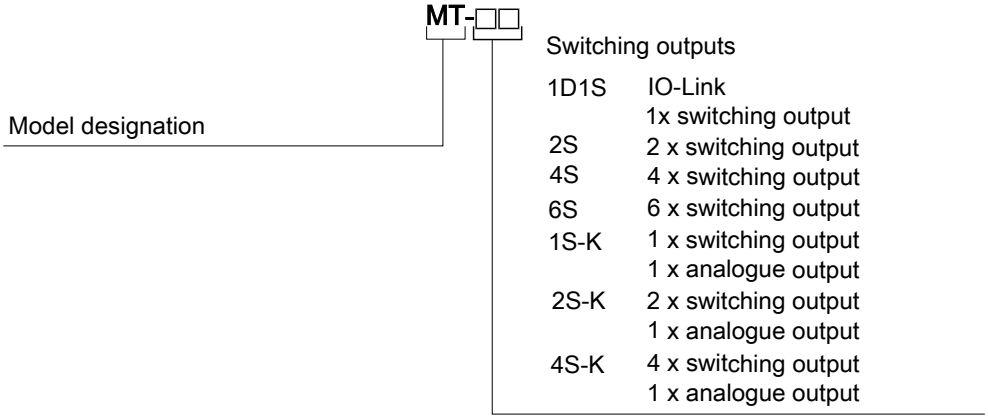
	-1D1S	-2S	-4S	-6S
Plug (base)	1 x M12 – 4-pin	1 x M12 – 4-pin	1 x M12 – 8-pin	1 x M12 – 8-pin
Switching outputs	IO-Link and 1x freely programmable (set to level or temperature)	2 x freely programmable*	4 x freely programmable*	6 x freely programmable*
Alarm memory	with 1 x assignable to alarm logbook	with 1 x assignable to alarm logbook	with 1 x assignable to alarm logbook	with 1 x assignable to alarm logbook
Contact load	max. 1 A total (output 1 max 0.2 A)			
*also programmable as frequency output				

	-1S-K	-2S-K	-4S-K
Plug (base)	1 x M12 – 4-pin	1 x M12 – 5-pin	1 x M12 – 8-pin
Switching outputs	1 x freely programmable	2 x freely programmable	4 x freely programmable
Alarm memory	with 1 x assignable to alarm logbook	with 1 x assignable to alarm logbook	with 1 x assignable to alarm logbook
Contact load	max. 1 A total (output 1 max 0.2 A)		
*also programmable as frequency output			

Analogue outputs			
Programmable as	1 x 4 - 20 mA, 2 - 10 V DC, 0 - 10 V DC, 0 - 5 V DC	1 x 4 - 20 mA, 2 - 10 V DC, 0 - 10 V DC, 0 - 5 V DC	1 x 4 - 20 mA, 2 - 10 V DC, 0 - 10 V DC, 0 - 5 V DC
Max. load Ω as current output	$(U_B - 8V) / 0.02$ A	$(U_B - 8V) / 0.02$ A	$(U_B - 8V) / 0.02$ A
Min. input load as voltage input	10 kΩ	10 kΩ	10 kΩ

Multitronik ordering instructions

Model key



Item no.	Type
18770099	-1D1S
18770199	-2S
18770299	-4S
18770499	-6S
18770399	-1S-K
18770599	-2S-K
18770699	-4S-K

Accessories

Item no. 4-pin	Item no. 5-pin	Item no. 8-pin	Description
9144050010	9144050016	9144050048	Connecting cable M12x1, 1.5 m, angular coupling and straight plug
9144050046	9144050017	9144050049	Connecting cable M12x1, 3.0 m, angular coupling and straight plug
9144050047	9144050018	9144050033	Connecting cable M12x1, 5.0 m, angular coupling and strands

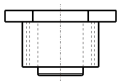
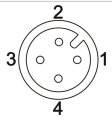
Note

The following Bühler sensors feature a 4-20 mA output and are compatible with the display and control unit

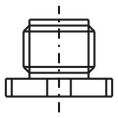
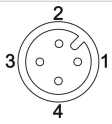
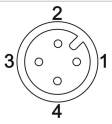
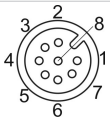
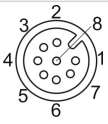
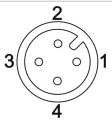
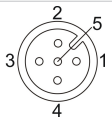
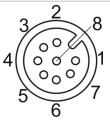
Level measurement	Temperature measurement
Nivotemp NT63 (see data sheet no. 100210)	MK2/EK2 temperature sensor (see data sheet no. 110202)
Nivovent NV 64 (see data sheet no. 100206)	All level switches with KT option

Multitronik standard pin assignment

Remote display sensor supply

Panel jack	1x M12x1
	4-pin
	
Panel jack	
Pin	
1	+24 V DC
3 / 4	4 - 20 mA

Plug connections

Version	1D1S	2S	4S	6S	1S-K	2S-K	4S-K
Panel plug	**1x M12x1 (base)**						
	4-pin	4-pin	8-pin	8-pin	4-pin	5-pin	8-pin
							
Panel plug							
Pin							
1	+24 V DC	+24 V DC	+24 V DC	+24 V DC	+24 V DC	+24 V DC	+24 V DC
2	S2 (PNP)	S2 (PNP)	S2 (PNP)	S2 (PNP)	Analogue (out)	S2 (PNP)	S2 (PNP)
3	GND	GND	GND	GND	GND	GND	GND
4	C/Q (IO-Link)	S1 (PNP)	S1 (PNP)	S1 (PNP)	S1 (PNP)	S1 (PNP)	S1 (PNP)
5			S3 (PNP)	S3 (PNP)		Analogue (out)	S3 (PNP)
6			S4 (PNP)	S4 (PNP)			S4 (PNP)
7				S5 (PNP)			Analogue (out)
8				S6 (PNP)			