



## Digital panel meter 5-digit

### M3

- red display of -19999...99999 digits (optional green, orange, blue or tricolour display)
- minimal installation depth: 120 mm without plug-in terminal
- min-/max memory
- 30 additional adjustable setpoints (parameter driven)
- display flashing at threshold exceedance / undercut
- zero-key for actuation of tara- / hold-function
- permanent min-/max-value recording
- zero point tranquilization
- volume measurement (totaliser)
- arithmetic function
- programming interlock via access code
- protection class IP65 at the front
- plug-in terminal
- 2 or 4 relay outputs optional
- sensor supply optional
- 1 or 2 analog outputs optional
- digital input optional
- interface RS232 or RS485 optional
- accessories: PC-based configuration software PM-TOOL (Modbus)

## Digital panel meters

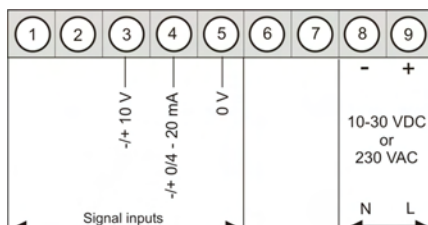
- Direct voltage
- Potentiometer
- Thermocouple
- DMS-4-wire
- Direct current
- Resistance
- Frequency
- Weighing technology
- Shunt
- PT100
- AC-RMS



## ORDER NUMBER

(without options)

- **Direct current, direct voltage**



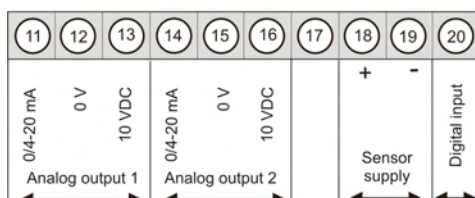
Supply 230 VAC

**M3-1VR5B.0001.570AD**

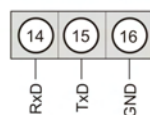
Supply 10-30 VDC

**M3-1VR5B.0001.670AD**

**Options:**

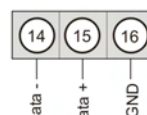


alternative to analog output 2

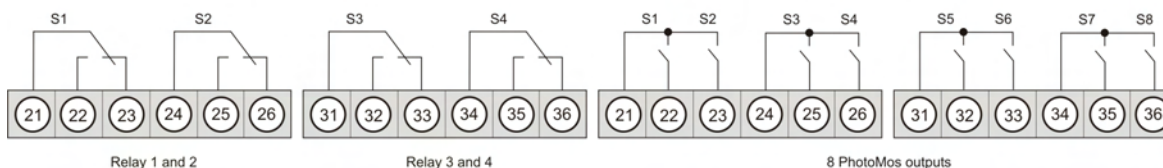


Interface RS232  
(Modbus protocol)

or



Interface RS485  
(Modbus protocol)



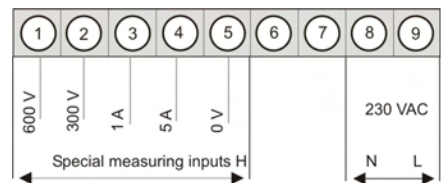
**Product key options:**

M	3-	1	V	R	5	B.	0	0	0	1.	5	7	0	A	D
M	3-	1	V	R	5	B.	0	0	0	1.	6	7	0	A	D

2	2 relay outputs	
4	4 relay outputs	
8	8 PhotoMos outputs – analog output 2 is not applicable	
1	Without keypad, operation on the back	on demand
X	Analog output 0/4-20 mA, 0-10 VDC with 230 VAC Analog output 0/4-20 mA, 0-10 VDC with 10-30 VDC	
Y	2 analog outputs with 230 VAC 2 analog outputs with 10-30 VDC	
2	Sensor supply 10 VDC / 20 mA incl. digital input with 230 VAC Sensor supply 10 VDC / 20 mA incl. digital input with 10-30 VDC	
3	Sensor supply 24 VDC / 50 mA incl. digital input with 230 VAC Sensor supply 24 VDC / 50 mA incl. digital input with 10-30 VDC	
3	Interface RS232 with 230 VAC Interface RS232 with 10-30 VDC	
4	Interface RS485 with 230 VAC Interface RS485 with 10-30 VDC	
I	Digital input	
B	Blue	
G	Green	
Y	Orange	
T	Tricolour (Red-Green-Orange)	

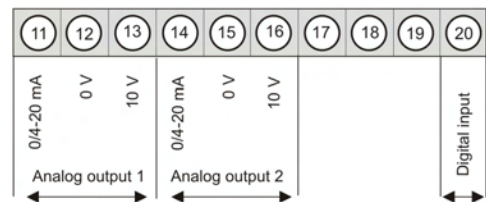
**Attention! For devices with a supply of 230 VAC there are maximum 2 options possible, e.g. a combination of 1 AA and sensor supply or e.g. sensor supply and interface. A full version with 3 options is not possible (as it is possible for devices with a supply of 10.30 VDC). Setpoints are excluded therefrom.**

• Direct current, direct voltage – Special measuring inputs H

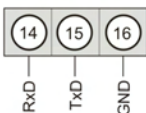


Supply 230 VAC  
**M3-1VR5B.0H01.570AD**  
Special measuring inputs: 600 V, 300 V, 50 V, 1 ADC

Options:

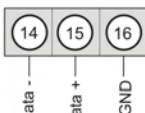


alternative to analog output 2

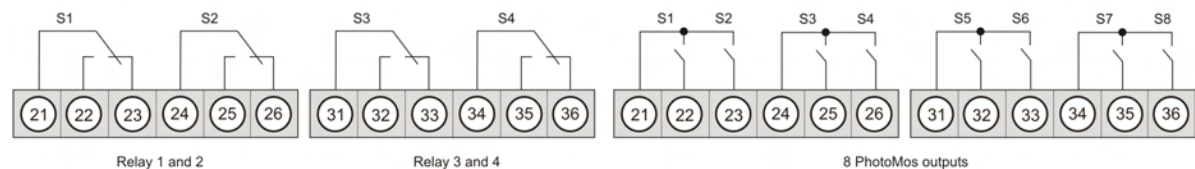


Interface RS232  
(Modbus protocol)

or



Interface RS485  
(Modbus protocol)

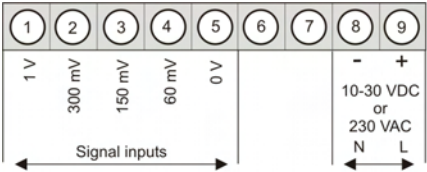


Product key options:

M	3-	1	V	R	5	B.	0	H	0	1.	5	7	0	A	D
---	----	---	---	---	---	----	---	---	---	----	---	---	---	---	---

2	2 relay outputs
4	4 relay outputs
8	8 PhotoMos outputs – analog output 2 is not applicable
1	Without keypad, operation on the back on demand
X	Analog output 0/4-20 mA, 0-10 VDC
Y	2 analog outputs
3	Interface RS232
4	Interface RS485
I	Digital input
B	Blue
G	Green
Y	Orange
T	Tricolour (Red-Green-Orange)

• Direct voltage (Shunt)



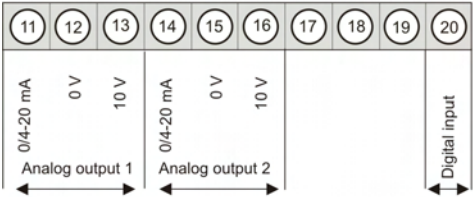
Supply 230 VAC

**M3-1VR5B.0002.570AD**

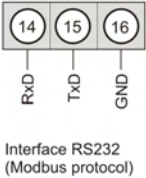
Supply 10-30 VDC

**M3-1VR5B.0002.670AD**

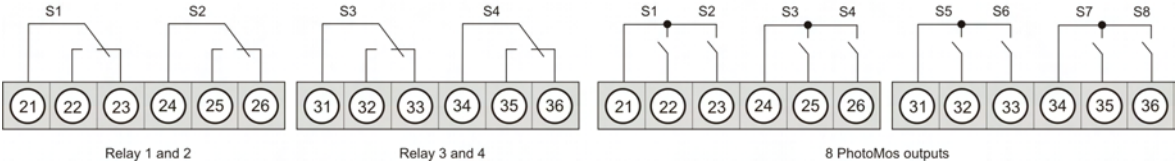
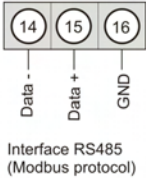
Options:



alternative to analog output 2



or



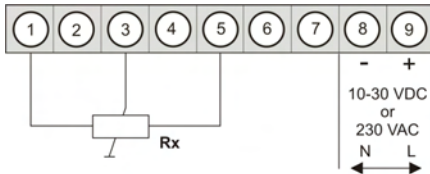
Product key options:

M	3-	1	V	R	5	B.	0	0	0	2.	5	7	0	A	D
M	3-	1	V	R	5	B.	0	0	0	2.	6	7	0	A	D

2	2 relay outputs	
4	4 relay outputs	
8	8 PhotoMos outputs – analog output 2 is not applicable	
1	Without keypad, operation on the back	on demand
X	Analog output 0/4-20 mA, 0-10 VDC with 230 VAC Analog output 0/4-20 mA, 0-10 VDC with 10-30 VDC	
Y	2 analog outputs with 230 VAC 2 analog outputs with 10-30 VDC	
3	Interface RS232 with 230 VAC Interface RS232 with 10-30 VDC	
4	Interface RS485 with 230 VAC Interface RS485 with 10-30 VDC	
I	Digital input	
B	Blue	
G	Green	
Y	Orange	
T	Tricolour (Red-Green-Orange)	

**ORDER NUMBER**  
(without options)

• **Potentiometer 0-100 % (>1 kΩ ... <1000 kΩ)**



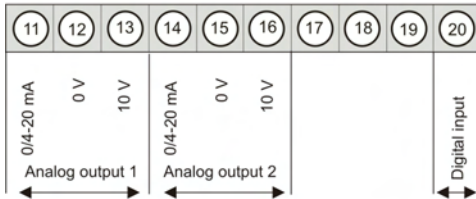
Supply 230 VAC

**M3-1VR5B.0005.570AD**

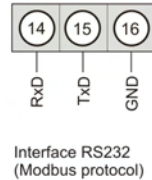
Supply 10-30 VDC

**M3-1VR5B.0005.670AD**

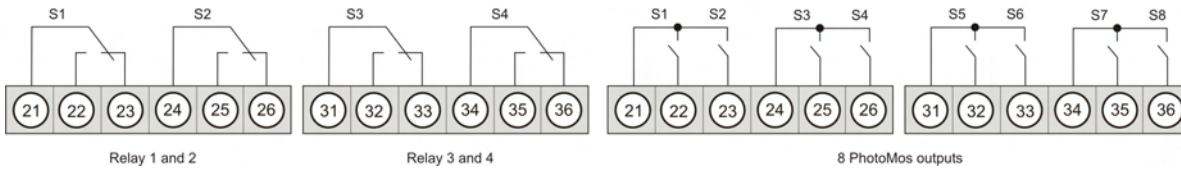
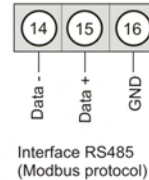
**Options:**



**alternative to analog output 2**



oder

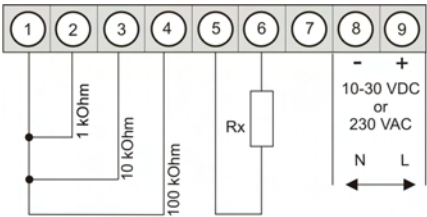


**Product key options:**

M	3-	1	V	R	5	B.	0	0	0	5.	5	7	0	A	D
M	3-	1	V	R	5	B.	0	0	0	5.	6	7	0	A	D

2	2 relay outputs
4	4 relay outputs
8	8 PhotoMos outputs – analog output 2 is not applicable
1	Without keypad, operation on the back <span style="float: right;">on demand</span>
X	Analog output 0/4-20 mA, 0-10 VDC with 230 VAC Analog output 0/4-20 mA, 0-10 VDC with 10-30 VDC
Y	2 analog outputs with 230 VAC 2 analog outputs with 10-30 VDC
3	Interface RS232 with 230 VAC Interface RS232 with 10-30 VDC
4	Interface RS485 with 230 VAC Interface RS485 with 10-30 VDC
I	Digital input
B	Blue
G	Green
Y	Orange
T	Tricolour (Red-Green-Orange)

• Resistance (1 kΩ, 10 kΩ or 100 kΩ)



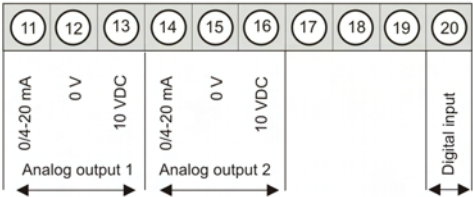
Supply 230 VAC

M3-1VR5B.0006.570AD

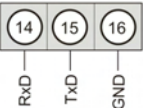
Supply 10-30 VDC

M3-1VR5B.0006.670AD

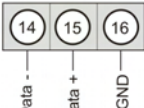
Options:



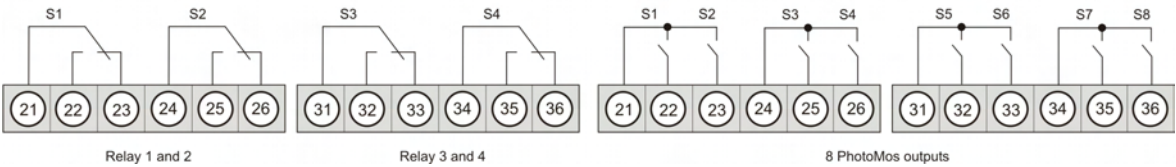
alternative to analog output 2



Interface RS232  
(Modbus protocol)



Interface RS485  
(Modbus protocol)

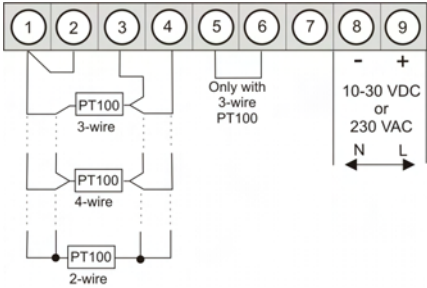


Product key options:

M	3-	1	V	R	5	B.	0	0	0	6.	5	7	0	A	D
M	3-	1	V	R	5	B.	0	0	0	6.	6	7	0	A	D

2	2 relay outputs	
4	4 relay outputs	
8	8 PhotoMos outputs – analog output 2 is not applicable	
1	Without keypad, operation on the back	on demand
X	Analog output 0/4-20 mA, 0-10 VDC with 230 VAC	
	Analog output 0/4-20 mA, 0-10 VDC with 10-30 VDC	
Y	2 analog outputs with 230 VAC	
	2 analog outputs with 10-30 VDC	
3	Interface RS232 with 230 VAC	
	Interface RS232 with 10-30 VDC	
4	Interface RS485 with 230 VAC	
	Interface RS485 with 10-30 VDC	
I	Digital input	
B	Blue	
G	Green	
Y	Orange	
T	Tricolour (Red-Green-Orange)	

• PT100 (3-/4-wire) -200,0°C...850,0°C / -328,0°F...1562,0°F



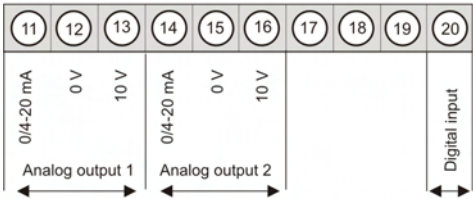
Supply 230 VAC

**M3-1TR5B.010C.570AD**

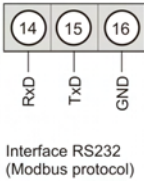
Supply 10-30 VDC

**M3-1TR5B.010C.670AD**

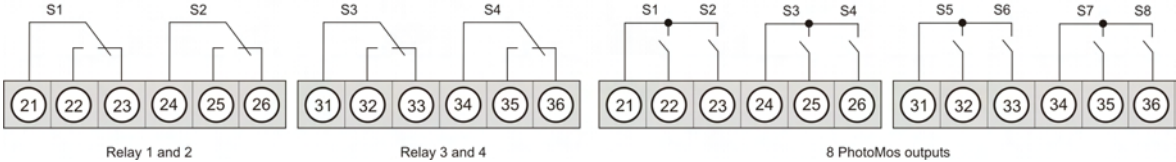
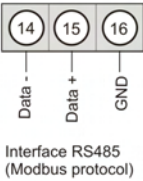
Options:



alternative to analog output 2



or



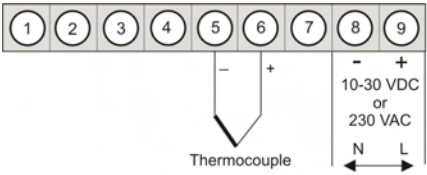
Product key options:

M	3-	1	T	R	5	B.	0	1	0	C.	5	7	0	A	D
M	3-	1	T	R	5	B.	0	1	0	C.	6	7	0	A	D

2	2 relay outputs	
4	4 relay outputs	
8	8 PhotoMos outputs – analog output 2 is not applicable	
1	Without keypad, operation on the back	on demand
X	Analog output 0/4-20 mA, 0-10 VDC with 230 VAC Analog output 0/4-20 mA, 0-10 VDC with 10-30 VDC	
Y	2 analog outputs with 230 VAC 2 analog outputs with 10-30 VDC	
3	Interface RS232 with 230 VAC Interface RS232 with 10-30 VDC	
4	Interface RS485 with 230 VAC Interface RS485 with 10-30 VDC	
I	Digital input	
B	Blue	
G	Green	
Y	Orange	
T	Tricolour (Red-Green-Orange)	



• Thermocouple type L, J, K, B, S, N, E, T, R



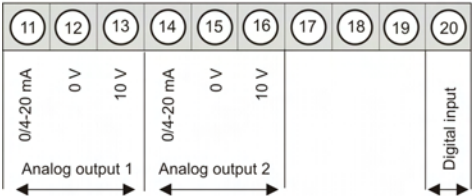
Supply 230 VAC

M3-1TR5B.040X.570AD

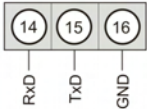
Supply 10-30 VDC

M3-1TR5B.040X.670AD

Options:



alternative to analog output 2

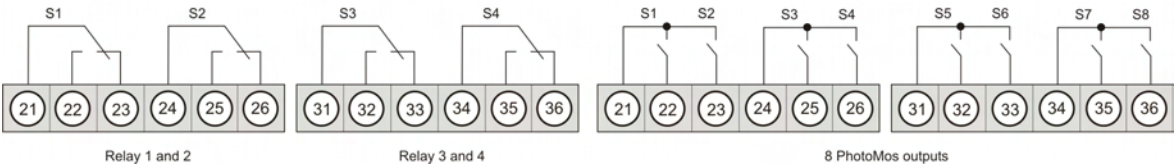


Interface RS232  
(Modbus protocol)

or



Interface RS485  
(Modbus protocol)



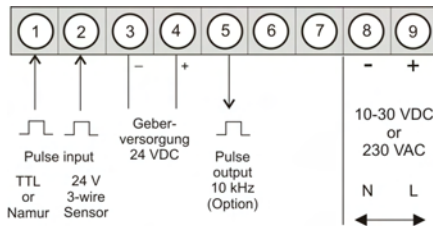
Product key options:

M	3-	1	T	R	5	B.	0	4	0	X.	5	7	0	A	D
M	3-	1	T	R	5	B.	0	4	0	X.	6	7	0	A	D

2	2 relay outputs
4	4 relay outputs
8	8 PhotoMos outputs – analog output 2 is not applicable
1	Without keypad, operation on the back on demand
X	Analog output 0/4-20 mA, 0-10 VDC with 230 VAC Analog output 0/4-20 mA, 0-10 VDC with 10-30 VDC
Y	2 analog outputs with 230 VAC 2 analog outputs with 10-30 VDC
3	Interface RS232 with 230 VAC Interface RS232 with 10-30 VDC
4	Interface RS485 with 230 VAC Interface RS485 with 10-30 VDC
I	Digital input
B	Blue
G	Green
Y	Orange
T	Tricolour (Red-Green-Orange)



• **Frequency (0.01Hz to 999.99 kHz)**



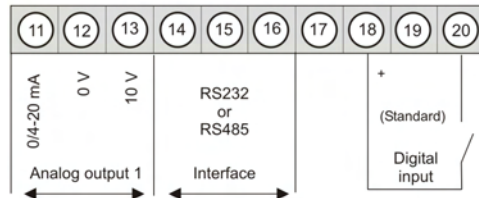
Supply 230 VAC

**M3-1FR5B.0307.570AD**

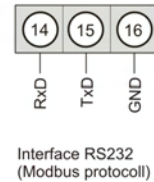
Supply 10-30 VDC

**M3-1FR5B.0307.670AD**

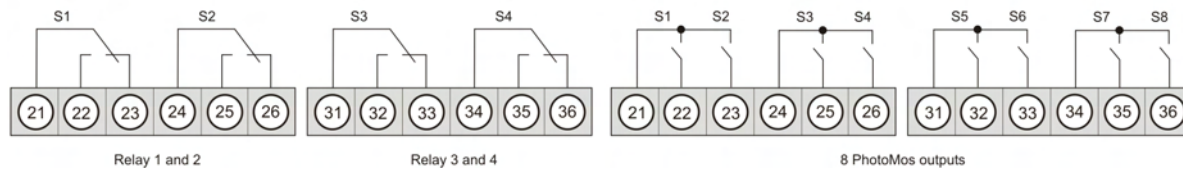
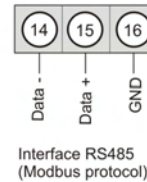
**Options:**



alternative to analog output



or



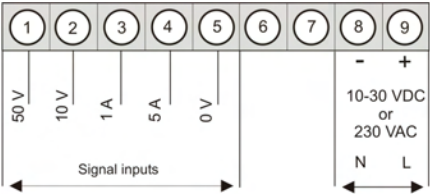
**Product key options:**

M	3-	1	F	R	5	B.	0	3	0	7.	5	7	0	A	D
M	3-	1	F	R	5	B.	0	3	0	7.	6	7	0	A	D

2	2 relay outputs	
4	4 relay outputs	
8	8 PhotoMos outputs – analog output 2 is not applicable	
1	Without keypad, operation on the back	on demand
X	Analog output 0/4-20 mA, 0-10 VDC with 230 VAC Analog output 0/4-20 mA, 0-10 VDC with 10-30 VDC	
K	Pulse output maximum 10 kHz	
3	Interface RS232 with 230 VAC Interface RS232 with 10-30 VDC	
4	Interface RS485 with 230 VAC Interface RS485 with 10-30 VDC	
B	Blue	
G	Green	
Y	Orange	
T	Tricolour (Red-Green-Orange)	

ORDER NUMBER  
(without options)

• AC voltage, alternating current (true RMS)



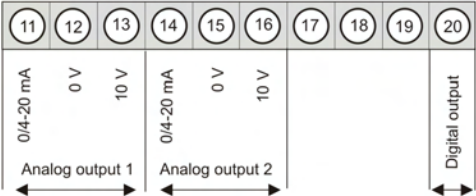
Supply 230 VAC

M3-1VR5B.0004.570AD

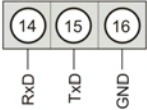
Supply 10-30 VDC

M3-1VR5B.0004.670AD

Options:

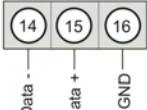


alternative to analog output 2

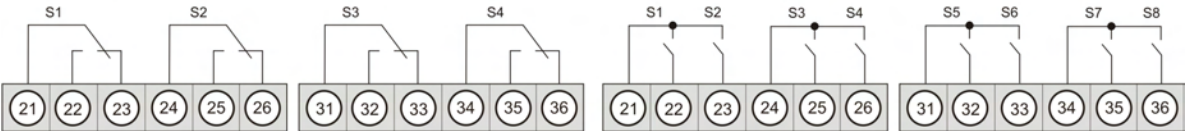


Interface RS232  
(Modbus protocol)

or



Interface RS485  
(Modbus protocol)

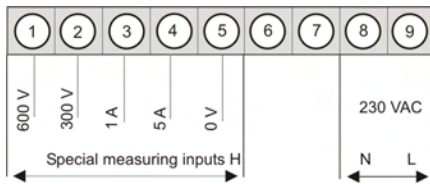


Product key options:

M	3-	1	V	R	5	B.	0	0	0	4.	5	7	0	A	D
M	3-	1	V	R	5	B.	0	0	0	4.	6	7	0	A	D

2	2 relay outputs	
4	4 relay outputs	
8	8 PhotoMos outputs – analog output 2 is not applicable	
1	Without keypad, operation on the back	on demand
X	Analog output 0/4-20 mA, 0-10 VDC with 230 VAC Analog output 0/4-20 mA, 0-10 VDC with 10-30 VDC	
Y	2 analog outputs with 230 VAC 2 analog outputs with 10-30 VDC	
3	Interface RS232 with 230 VAC Interface RS232 with 10-30 VDC	
4	Interface RS485 with 230 VAC Interface RS485 with 10-30 VDC	
I	Digital input	
B	Blue	
G	Green	
Y	Orange	
T	Tricolour (Red-Green-Orange)	

• **AC voltage, alternating current (true RMS) – Special measuring inputs H**

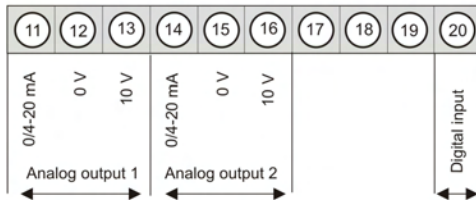


Supply 230 VAC

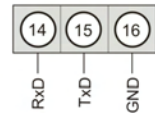
**M3-1VR5B.0H04.570AD**

**Special measuring input:** 300 V, 600 V, 1 A, 5 AAC

**Options:**

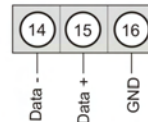


alternative to analog output 2

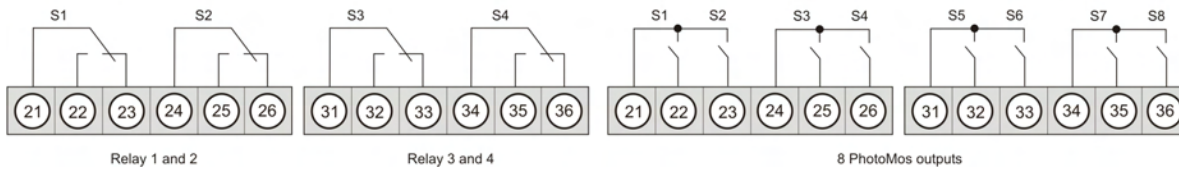


Interface RS232  
(Modbus protocol)

or



Interface RS485  
(Modbus protocol)



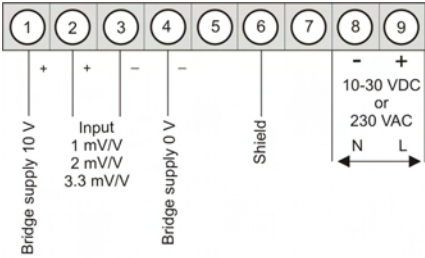
**Product key options:**

**M 3- 1 V R 5 B. 0 H 0 4. 5 7 0 A D**

2	2 relay outputs
4	4 relay outputs
8	8 PhotoMos outputs – analog output 2 is not applicable
1	Without keypad, operation on the back <span style="float: right;">on demand</span>
X	Analog output 0/4-20 mA, 0-10 VDC with 230 VAC Analog output 0/4-20 mA, 0-10 VDC with 10-30 VDC
Y	2 analog outputs with 230 VAC 2 analog outputs with 10-30 VDC
3	Interface RS232 with 230 VAC Interface RS232 with 10-30 VDC
4	Interface RS485 with 230 VAC Interface RS485 with 10-30 VDC
I	Digital input
B	Blue
G	Green
Y	Orange
T	Tricolour (Red-Green-Orange)

ORDER NUMBER  
(without options)

• DMS-4-wire with calibration



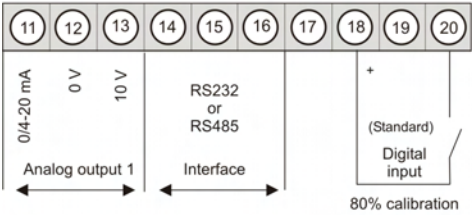
Supply 230 VAC

M3-1MR5B.020X.570AD

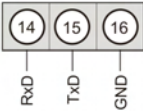
Supply 10-30 VDC

M3-1MR5B.020X.670AD

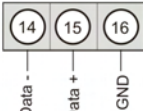
Options:



alternative to analog output

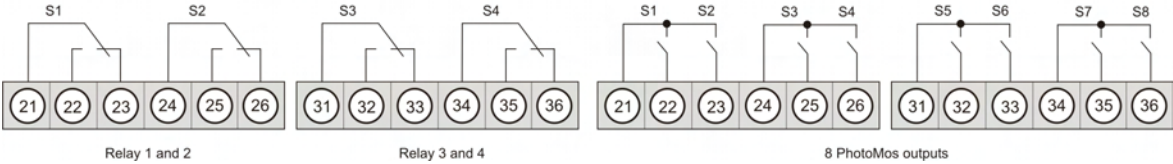


or



Interface RS232  
(Modbus protocol)

Interface RS485  
(Modbus protocol)

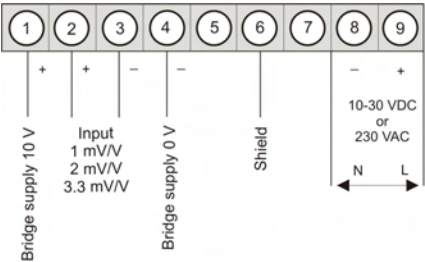


Product key options:

M	3-	1	M	R	5	B.	0	2	0	X.	5	7	0	A	D
M	3-	1	M	R	5	B.	0	2	0	X.	6	7	0	A	D

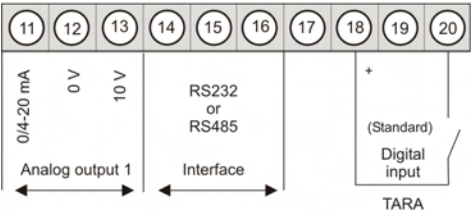
2	2 relay outputs
4	4 relay outputs
8	8 PhotoMos outputs – analog output 2 is not applicable
1	Without keypad, operation on the back on demand
X	Analog output 0/4-20 mA, 0-10 VDC with 230 VAC Analog output 0/4-20 mA, 0-10 VDC with 10-30 VDC
Y	2 analog outputs with 230 VAC 2 analog outputs with 10-30 VDC
3	Interface RS232 with 230 VAC Interface RS232 with 10-30 VDC
4	Interface RS485 with 230 VAC Interface RS485 with 10-30 VDC
B	Blue
G	Green
Y	Orange
T	Tricolour (Red-Green-Orange)

• Weighing technology

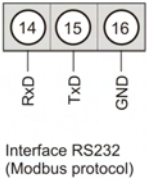


Supply 230 VAC      **M3-1WR5B.020X.570AD**  
Supply 10-30 VDC      **M3-1WR5B.020X.670AD**

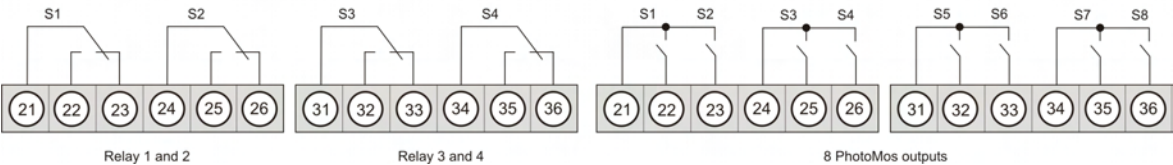
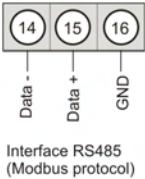
Options:



alternative to analog output 2



or



Product key options:

M	3-	1	W	R	5	B.	0	2	0	X.	5	7	0	A	D
M	3-	1	W	R	5	B.	0	2	0	X.	6	7	0	A	D

2	2 relay outputs
4	4 relay outputs
8	8 PhotoMos outputs – analog output 2 is not applicable
1	Without keypad, operation on the back on demand
X	Analog output 0/4-20 mA, 0-10 VDC with 230 VAC Analog output 0/4-20 mA, 0-10 VDC with 10-30 VDC
Y	2 analog outputs with 230 VAC 2 analog outputs with 10-30 VDC
3	Interface RS232 with 230 VAC Interface RS232 with 10-30 VDC
4	Interface RS485 with 230 VAC Interface RS485 with 10-30 VDC
B	Blue
G	Green
Y	Orange
T	Tricolour (Red-Green-Orange)

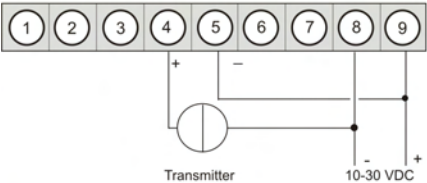
• **Accessories**

Parametrisation software  
Incl. USB-cable and device adapter  
Programming is made via an interface on the back

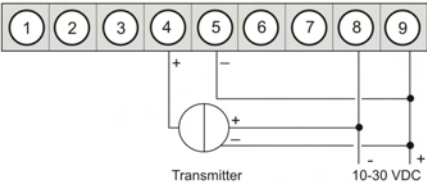
**PM-TOOL-MUSB6**

**M3 devices with direct current input / direct voltage input**

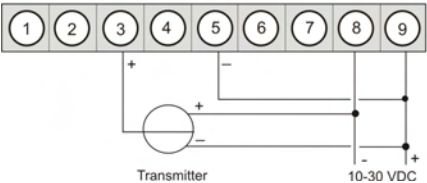
M3 in combination with a  
2-wire-sensor 4-20 mA



M3 in combination with a  
3-wire-sensor 0/4-20 mA

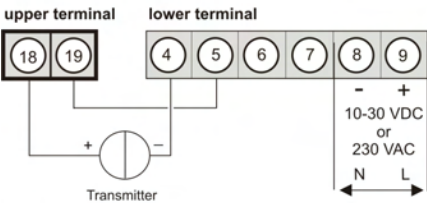


M3 in combination with a  
3-wire-sensor 0-10 V

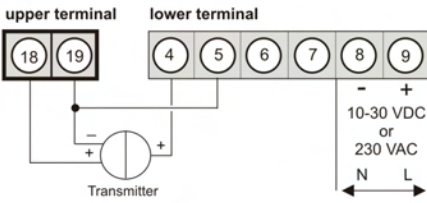


**M3 devices with direct current input / direct voltage input and sensor supply**

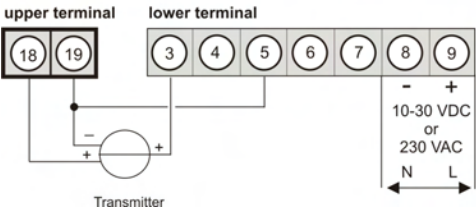
2-wire-sensor 4-20 mA



3-wire-sensor 0-20 mA

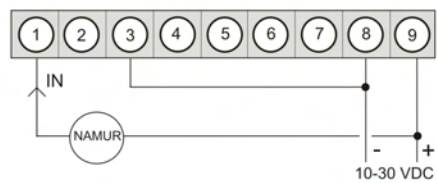


3-wire-sensor 0-10 V

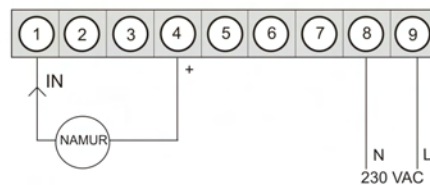


## M3 devices with frequency input / impulse input

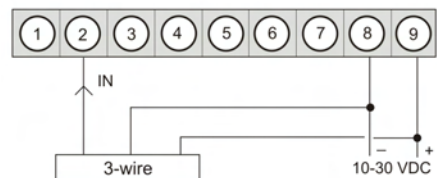
Namur



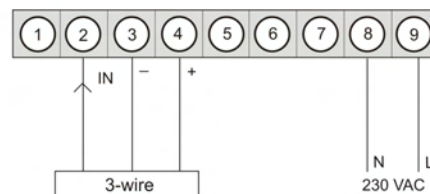
Namur



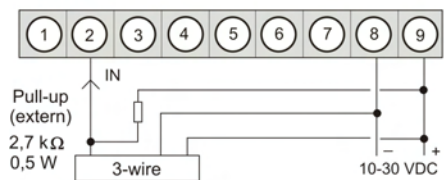
3-wire PNP



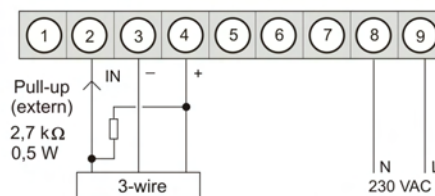
3-wire PNP



3-wire NPN



3-wire NPN





# Technical data

## Dimensions

Housing	B96 x H48 x D120 mm, (incl. plug-in terminal D = 139 mm)
Panel cut-out	92.0 <sup>+0.8</sup> x 45.0 <sup>+0.6</sup> mm
Fixing	screw elements for insulation thickness up to 3 mm
Housing material	PC Polycarbonate, black
Sealing material	EPDM, 65 Shore, black
Protection type	front side IP65 standard back side IP00
Weight	approx. 350 g
Connection	plug-in terminal; line cross-section up to 2.5 mm <sup>2</sup>

## Display

Display	5-digit
Digit height	14 mm
Segment colour	red (standard), optional available in green, blue and orange
Range of display	-19999 to 99999
Threshold	optical display flashing
Overflow	horizontal bars at the top
Underflow	horizontal bars at the bottom
Display time	0.1 to 10.0 seconds

## Measuring input

M3-1VR5B.0001...

Direct voltage/

Direct current

Span	-12...12 V	/ -22...24 mA
Measuring range	0-10 VDC	/ 0/4-20 mA
Input resistance	Ri at ~200 kΩ	/ Ri at ~100 Ω
Measuring fault	0.1% of measuring range, ± 1 Digit	/ 0.1% of measuring range, ± 1 Digit
Temperature drift	100 ppm/K	
Measuring time	0.1 ... 10.0 seconds	
Measuring principle	U/F- conversion	
Resolution	approx. 18 Bit at 1s measuring time	

## Measuring input

M3-1VR5B.0H01...

H Direct current /

Direct voltage

Span	0 – 600 VDC	/ 0 – 300 VDC	/ 0 – 50 VDC	/ 0 – 1 ADC
Input resistance	Ri at ~ 2 MΩ	/ Ri at ~ 1 MΩ	/ Ri at ~200 kΩ	/ Ri at ~0,2 Ω
Measuring fault	0.5 % of measuring range			
Temperature drift	100 ppm/K			
Measuring time	0.1 ... 10.0 seconds			
Measuring principle	U/F-conversion			
Resolution	approx. 18 Bit at 1s measuring time			

## Measuring input

M3-1VR5B.0002...

Shunt

Span	-5...75 mV	/ -15...180 mV	/ -30...360 mV	/ -100...1200 mV
Measuring range	0...60 mV	/ 0...150 mV	/ 0...300 mV	/ 0...1000 mV
Input resistance	Ri at ~12 kΩ	/ Ri at ~60 kΩ	/ Ri at ~30 kΩ	/ Ri at ~200 kΩ
Measuring fault	0.2% of measuring range, ± 1 Digit	/ 0.1% of measuring range, ± 1 Digit		
Temperature drift	100 ppm/K			
Measuring time	0.1 ... 10.0 seconds			
Measuring principle	U/F- conversion			
Resolution	approx. 18 Bit at 1s measuring time			

## Measuring input

M3-1VR5B.0005...

Potentiometer

Span	>1 kΩ ... <1000 kΩ
Measuring range	0-100 %
Measuring fault	0.1% of measuring range, ± 1 Digit
Temperature drift	100 ppm/K
Measuring time	0.1 ... 10.0 seconds
Measuring principle	U/F-conversion
Resolution	approx. 18 Bit at 1s measuring time

## Measuring input

M3-1VR4B.0x06...

Resistance

Span	0...1.1 kΩ / 0...11 kΩ / 0...110 kΩ
Measuring range	0...1 kΩ / 0...10 kΩ / 0...100 kΩ
Measuring fault	0.1% of measuring range, ± 1 Digit
Temperature drift	100 ppm/K
Measuring time	0.1 ... 10.0 seconds
Measuring principle	U/F-conversion
Resolution	approx. 18 Bit at 1s measuring time

## Measuring input

M3-1TR2B.010C...

PT100

Measuring range	-200.0...850.0°C / -328.0...1562.0°F
Measuring fault	0.1% of measuring range, ± 1 Digit
Temperature drift	100 ppm/K
Measuring time	0.1 ... 10.0 seconds
Measuring principle	U/F-conversion
Resolution	0.1°C or 0.1°F

<b>Measuring input</b> <i>M3-1TR5B.040X...</i> <i>Thermocouple</i>	Measuring range	Type L -200...900°C Type J -210...1200°C Type K -270...1372°C Type B 80...1820°C Type S -50...1768°C Type N -270...1300°C Type E -270...1000°C Type T -270...400°C Type R -50...1768°C
	Measuring fault Temperature drift Measuring time Measuring principle Resolution Characteristic curve fault Reference junction	2 K, ± 1 Digit 100 ppm/K 0.1 ... 10.0 seconds U/F-conversions 0.1°C ≤±1 K Thermistor
<b>Measuring input</b> <i>M3-1FR5B.0007...</i> <i>Frequency</i>	Signal Input resistance	Impulse input, TTL, Namur, 3-wire initiator PNP/NPN R <sub>i</sub> at 24 V / 4 kΩ High/Low level >10 V / < 6 V High/Low TTL level >4.6 V / <1.9 V
	Input frequency Measuring fault	0.01 Hz selectable up to 999.99 kHz 0.005% of measuring range
<b>Measuring input</b> <i>M3-1VR5B.0004...</i> <i>AC voltage</i>	Measuring range Input resistance Measuring fault	50 VAC / 10 VAC / 5 AAC / 1 AAC R <sub>i</sub> at ~200 kΩ / R <sub>i</sub> at ~40 kΩ / R <sub>i</sub> at ~0.05 Ω / R <sub>i</sub> at ~200 Ω 0.5% of measuring range at 50 Hz...1 kHz up to crestfactor 4 for input signals of 1...100% of final value
	Temperature drift Measuring time Measuring principle Resolution	100 ppm/K 0.1 ... 10.0 seconds U/F-conversion approx. 18 Bit at 1 second measuring time
<b>Measuring input</b> <i>M3-1VR5B.0H04...</i> <i>H AC voltage</i>	Measuring range Input resistance Measuring fault	600 VAC / 300 VAC / 5 AAC / 1 AAC R <sub>i</sub> at ~2 MΩ / R <sub>i</sub> at ~1 MΩ / R <sub>i</sub> at ~0.05 Ω / R <sub>i</sub> at ~200 Ω 0.5% of measuring range at 50 Hz...1 kHz up to crestfactor 4 for input signals of 1...100% of final value
	Temperature drift Measuring time Measuring principle Resolution	100 ppm/K 0.1 ... 10.0 seconds U/F-conversion approx. 18 Bit at 1 second measuring time
<b>Measuring input</b> <i>M3-1MR5B.020X...</i> <i>M3-1WR5B.020X...</i>	Sensor sensitivity Sensor sensitivity	1 mV/V, 2 mV/V, 3.3 mV/V with 80% calibration 1 mV/V, 2 mV/V, 3.3 mV/V
	<b>Output</b> Relays Switching cycles	with change-over contact 250 V / 2 AAC, 30 V / 2 ADC 0.5 * 10 <sup>5</sup> at max. contact rate 5 * 10 <sup>6</sup> mechanically Separation in accordance with DIN EN50178 / Specifications in accordance with DIN EN 60255 PhotoMos NOC contacts: 30 VDC/AC, 4 A
	Impulse output Analog output Sensor supply	max. 10 kHz 0-10 VDC, 0/4-20 mA (16 Bit) switchable 24 VDC / 50 mA 10 VDC / 20 mA
	Bridge supply	10 VDC / 20-40 mA / 250-500 Ω
<b>Digital input</b>	Input	< 2.4 V OFF; 10 V ON; max. 30 VDC, R <sub>i</sub> ~ 5 kΩ
<b>Interface</b>	Protocol RS232 Wire length	manufacturer's specifics ASCII 9.600 Baud, no parity, 8 DataBit, 1 StopBit max. 3 m
	RS485 Wire length	9.600 Baud, no parity, 8 DataBit, 1 StopBit max. 1000 m
<b>Power pack</b>	Supply	230 VAC +/- 10 % (max. 10 VA) 10-30 VDC, galvanic insulated (max. 4 VA)
<b>Memory</b>	EEPROM Data life	≥ 100 years

**Ambient conditions**

Working temperature	0 to + 60 °C
Storing temperature	-20 to + 80 °C
Climatic density	relative humidity 0-85% on years average without dew

**CE-sign**

Conformity to directive 2004/108/EG

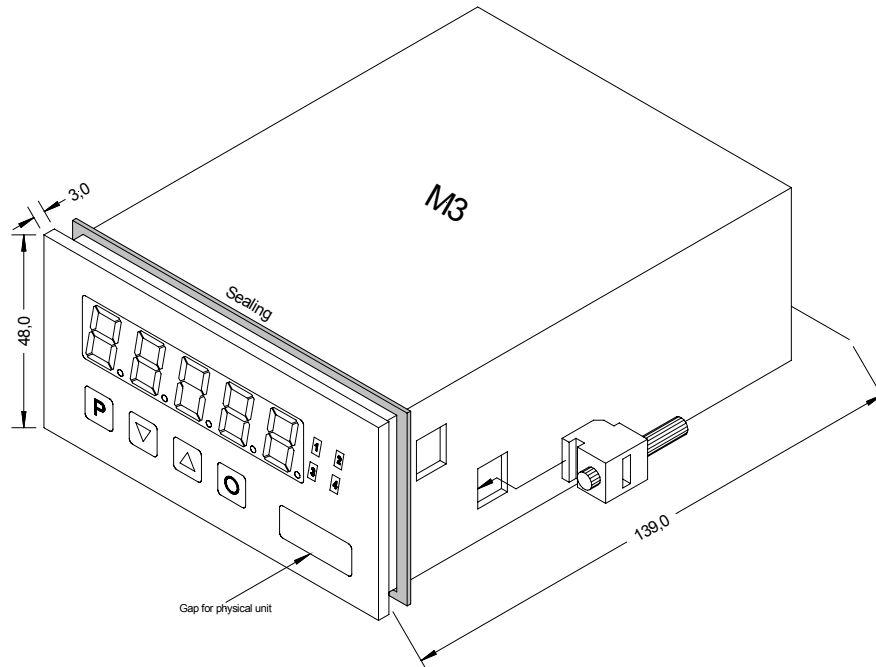
**EMV**

DIN 61326

**Safety standard**

DIN 61010

**Housing:**



# Ordering code M3 – Digital panel meter (standard)

		M	3-	1	V	R	5	B.	0	0	0	1.	6	7	0	A	D		
<b>Basic type M-Line</b>																		<b>Dimension</b>	
																		D physical unit	
<b>Installation depth</b>																		<b>Version</b>	
139 mm (incl. plug-in terminal) <input type="text" value="3"/>																		A A	
<b>Housing size</b>																		<b>Setpoints</b>	
96x48x120 mm (BxHxD) <input type="text" value="1"/>																		0 no setpoints	
<b>Display type</b>																		2 2 relay outputs	
DMS <input type="text" value="M"/>																		4 4 relay outputs	
Frequency <input type="text" value="F"/>																		8 8 PhotoMos outputs	
Temperature <input type="text" value="T"/>																		<b>Analog output is not applicable</b>	
V, A, Ohm <input type="text" value="V"/>																		<b>Protection class</b>	
Weighing technology <input type="text" value="W"/>																		1 Without keypad, operation on the back	
<b>Display colours</b>																		7 IP65 / plug-in terminal	
Blue <input type="text" value="B"/>																		<b>Supply voltage</b>	
Green <input type="text" value="G"/>																		4 115 VAC plus 10,25€	
Red <input type="text" value="R"/>																		5 230 VAC	
Red/Green/Yellow <input type="text" value="T"/>																		6 10-30 VDC galv. insulated	
Orange <input type="text" value="Y"/>																		<b>Measuring input</b>	
<b>Number of digits</b>																		1 Direct voltage, direct current	
5-digit <input type="text" value="5"/>																		2 Shunt	
<b>Digit height</b>																		4 AC, TRUE RMS	
14 mm <input type="text" value="B"/>																		5 Potentiometer	
<b>Digital input</b>																		6 Resistance	
without <input type="text" value="0"/>																		7 Frequency	
1 digital input <input type="text" value="I"/>																		C PT100 up to 800°C	
2 digital inputs <input type="text" value="Z"/>																		X Thermo Type B,E,J,K,L,N,R,S,T	
Interfaces RS232 <input type="text" value="3"/> galv. insulated																		X DMS/Weighing technology	
Interfaces RS485 <input type="text" value="4"/> galv. insulated																		1 – 3.3 mV	
Interfaces RS232 <input type="text" value="C"/> incl. digital input																		<b>Analog output</b>	
Interfaces RS485 <input type="text" value="D"/> incl. digital input																		0 without	
<b>DC-devices</b>																		X 1x 0-10 VDC, 0/4-20 mA	
600 VDC, 300 VDC, <input type="text" value="H"/>																		Y 2x 0-10 VDC, 0/4-20 mA	
50 VDC, 1 ADC																		<b>Sensor supply</b>	
<b>AC-devices</b>																		0 without	
300 VAC, 600 VAC, <input type="text" value="H"/>																		2 10 VDC / 20 mA	
1 AAC, 5 AAC																		(incl. digital input)	
<b>Temperature devices</b>																		3 24 VDC / 50 mA	
PT100-4-wire <input type="text" value="1"/>																		(incl. digital input)	
Thermocouple <input type="text" value="4"/>																		K 24 VD / 50 mA incl. digital	
																		input and impulse output	
																		(10 kHz only for frequency devices)	