

## Product Information

**Transmitter DMS50****PROFIBUS**

- **Weight – Force – Pressure – Torque with DMS-strain gauges**
- **Bridge sensitivity 0.100..5.000 mV/V**
- **Teach-in function**
- **Tare function**
- **Min- and Max peak storage (not voltage safe)**
- **Integrated bridge supply 2.5 V, 5 V, 10 V max. 120 mA**
- **Bus-interface Modbus / Profibus**

**Characteristics**

The DMS50 converts the output signal of standard strain gauges (DMS measuring bridges) into a standard signal 0/4..20 mA or 0/2..10 DC. The bridge supply and an external control input for the tare function are integrated.

If several strain gauges are required in an application, these must be connected parallel. The bridge current must not exceed 120 mA in this case. Where appropriate, a SBB1616 measuring amplifier is to be interposed for a feed current up to 200 mA.

**Technical data****Power supply**

Supply voltage : 230 V AC  $\pm 10\%$ ; 115 V AC  $\pm 10\%$   
or 24 V DC  $\pm 15\%$

Power consumption : max. 7 VA

Operating temperature : -10..+55 °C

CE-conformity : EN 61326-1:2013; EN 60664-1:2007

**Input****DMS**

Bridge-supply : 2.5 V/ 5 V/ 10 V DC ;  
programmable; max. 120 mA

Bridge sensitivity : 0.100..5.000 mV/V

Sense line : compensated line resistance  
of max. 10  $\Omega$

Accuracy : < 0.025 %  $\pm 2$  digit

Tare external : ext. contact or 24 V DC signal

Display : graphic LCD-Display 128x64 pixel,  
backlight white

Indicating range :  $\pm 9999$  Digit

**Outputs**

Relay SPDT, A1-A4 : < 250 V AC < 250 VA < 2 A  
 $\cos \varphi \geq 0.3$

< 300 V DC < 40 W < 2 A

Analog output : 0/4..20 mA burden  $\leq 500 \Omega$ ;  
0/2..10 V burden > 500  $\Omega$ , isolated  
output changes automatically

Accuracy : 0.2 %; TK 0.01 %/K

*Fault indication at error in the DMS measuring circuit*

→ Analog output 0 mA, < 3.6 mA or >21.5 mA, programmable

→ Alarm contact(s) min. or max. programmable

**Bus system**

Modbus : RS485, RTU or ASCII max. 38400 Bd

Profibus : Profibus DP

Connection : 9 pole D-SUB plug in the front

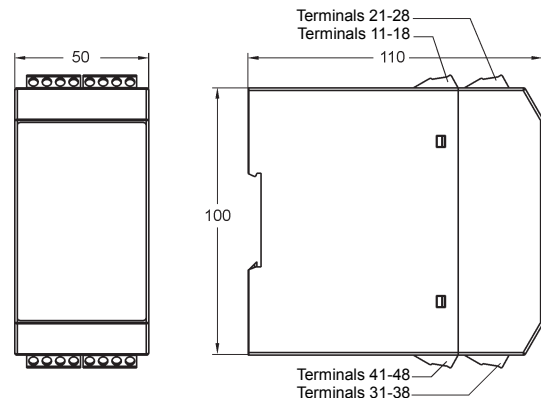
**Case**

: Polyamide (PA) 6.6, UL94V-0,  
acc. to DIN EN 60715

Weight : approx. 450 g

Connection : screw terminals 0.14..2.5 mm<sup>2</sup>  
AWG 26..AWG14

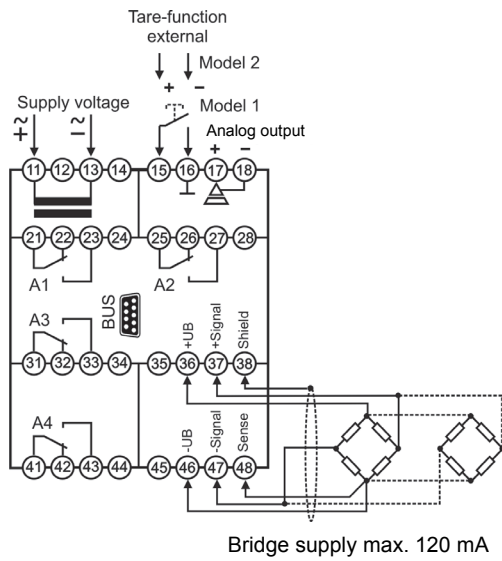
Protection class : case IP30,  
terminals IP20 acc. to BGV A3

**Dimensions**

Continue next page

**Product Information**

**Connection diagram**



**Ordering code**

DMS50 -  1. -  2. -  3. -  4. -  5. -  6.

<b>1. Model</b>	
1	input DMS strain gauge, input ext. tare-function via contact
2	as 1, but isolated input for external tare function via 24 V DC electronic signal
<b>2. Alarm outputs</b>	
00	not installed
2R	2 relay outputs, A1, A2 SPDT
<b>3. Alarm outputs/BUS configuration</b>	
00	not installed
2R	2 relay outputs, A3, A4 SPDT
MB	Modbus RTU/ASCII, RS485
PB	Profibus DP
<b>4. Analog output</b>	
AO	0/4..20 mA; 0/2..10 V DC
<b>5. Supply voltage</b>	
0	230 V AC, ± 10 % 50-60 Hz
1	115 V AC, ± 10 % 50-60 Hz
5	24 V DC, ± 15 %
<b>6. Options</b>	
00	without option

**Bus connection**

Modbus		
PIN	Signal	EIA / TIA-485 name
5	D1	B / B'
9	D0	A / A'
1	Common	C / C'
Profibus		
3	RxD / TxD-P	
5	DGND	
6	VP / +5V max 10 mA	
8	RxD / TxD-N	

9 pole D-Sub connector in the front

