■ Programmable Digital Panel Meter Model DM 3110

Highlights

- **LED Display, Red, 6 Decades, 14 mm**
- **DIN Housing 96 x 48 mm**
- **Voltage, Current, Thermocouples, Pt100**
- **User Configurable**
- **High Accuracy**
- **Userdefined Linearization**
- **Power Supply For Remote External Sensor**
- **2 Alarm Relay, Analog Output, Interface**
- **Plug-In Screw Terminal**
- **Many Integrated Functions**

Standard functions

Input ranges

- Voltage ± 10 V
- Current ± 20 mA
- Current 4 - 20 mA
- Thermocouple Type K, J, L, S, T, U, R
- Pt100 2-/3-/4-Wire

Software functions

- Scaling-factor
- Adjustable digital filter of 1th order
- Peak and valley detection
- Automatic reset of peak and valley detection
- Userdefined linearization up to 10 points
- Display of temperature in °C or °F
- Taring
- Display test
- Display hold
- Setting of alarm points during measurment

Display

- Display range +99999 to -99999
- Points programmable
- Data source: direct input, peak-, valley-, mean- or hold value
- Last digit: in 1, 2, 5 or 10 steps

Digital input channels

The instrument is provided with two digital input channels. The digital input channels are low active. Each input can be programmed for performing the following functions:

- No function
- Reset of peak and valley detection
- Taring
- Reset of taring
- Manual alarm reset

- Display hold
- Display test
- Display of direct input signal
- Display of peak value
- Display of valley value

Push buttons at the front

The three push buttons at the front can be programmed for performing the following functions:

- No function
- Reset of peak and valley detection
- Taring
- Reset of taring
- Manual alarm reset
- Setting of alarm point
- Showing one of following data source by pressing push button: peak-, valley- or mean value

Accessory sensor supply

At AC model the instrument is provided with a power supply (24V/50mA DC) for external sensors. This power supply is isolated of the signal inputs and the main power supply.

Alarm outputs

The instrument is provided with two alarms with relay output. For each alarm point there can be programmed following functions:

- Alarm point and hysteresis
- High or low alarms
- Alarm response time
- Data source: direct input, peak-, valley, mean- or hold value

Analog output

Options

- Isolated
- Configurable range
- Voltage: 0 - 10 V, 2 - 10 V, max. 10 mA
- Current: 0 - 20 mA, 4 - 20 mA, 500 Ohm
- Data source: direct input, peak-, valley-, mean- or hold value
- Indication of sensor break: >22 mA, >11 V

Serial interface

- RS 485-interface, isolated
- Up to 19200 baud

Input range
Voltage	: ± 10 V, ± 0,01 %

Technical data

Current	: ± 20 mA, ± 0,01 %
Thermocouple	
Ni-CrNi (K)	: -100 to +1300 °C, ±1 °C
Fe-CuNi (J)	: -100 to +1000 °C, ±1 °C
Fe-CuNi (L)	: -100 to +900 °C, ±1 °C
PtRh90/10%-Pt (S)	: 0 to +1750 °C, ±5 °C
Cu-CuNi (T)	: -100 to +400 °C, ±1 °C
Cu-CuNi (U)	: -80 to +400 °C, ±1 °C
PtRh87/13%-Pt (R)	: 0 to +1400 °C, ±2 °C
Temp. compensation	: internal/constant
Pt100	: 2-/3-/4-Wire
	: -200,0 to +600,0 °C, ±0,5 °C
Conversion rate	
Voltage, Current	: 10 per sec
Temperature	: 5 per sec
Display	: 6 decades, 14 mm, rot
Digital input channels	: 10 kΩ to +5 V
Power supply	: 95 V to 250 V/AC
Power consumption	: approx. 5 VA
Housing	: switch board mounting DIN 43700
Dimensions	: 96 x 48 x 141 mm
Depth	: 148 mm incl. screw terminal
Protection	: front IP 54
EMV	: in conform with 89/336/EWG

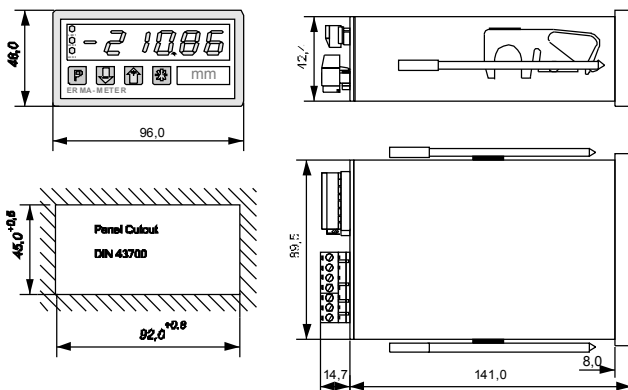|	
Operating temperature	: 0 .. 50 °C
Analog output	: resolution 16 Bit
	: accuracy 0,2% of FS
	0 - 10 V, max. 10 mA
	0/4 - 20 mA, max. 500 Ω
Alarm outputs	: relay output (closed contact)
	: AC max. 250 V, 5 A, 1250 VA
	; DC max. 250 V, 5 A, 100 W
Indication	: two LEDs at the front

Ordering information

DM 3110-								
							Housing	
							0	Swicth board mount
							1	Panel clip
						Front frame colour		
						0 Black		
					Front design			
					0	ERMA-Meter logo		
					1	No logo		
					2	Customer defined logo		
				Power supply				
				0	95 .. 250 V/AC			
				1	18 .. 36 V/DC, isolated			
			Option interface					
			0	No interface				
			1	Interface RS 485				
	0		**2**	Interface RS 232				
	0		**3**	Interface Current-Loop, TTY				
	Option analog output							
	0	No analog output						
	1	With analog output						

Dimensions

Switch board mounting

Panel clip

Mosaic Systems:

Siemens 8RU (M50x25)

Subklev

Technical Subjects To Change

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