

■ Programmable Digital Panel Meter Model DM 3102

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 Typ 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 measurement

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

For new applications
use DM 3110!



- 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

Options

Analog output

- 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

Technical data

Input range

Voltage	: ± 10 V, ± 0,01 %	
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

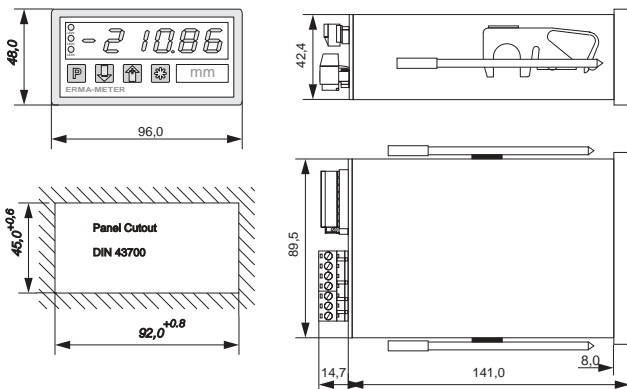
Depth	: 148 mm incl. screw terminal
Protection	: front IP 54
EMV	: in conform with 89/336/EWG
Operating temperature	: 0 .. 50 °C
Analog output	: resolution 16 Bit
	: accuracy 0,2% of FS
	0 - 10 V, max. 10 mA
	0/4 - 20 mA, max. 500 Ω
Alarm outputs	: relay output (closed contact)
	: AC max. 250 V, 5 A, 1250 VA
	: DC max. 250 V, 5 A, 100 W
Indication	: two LEDs at the front

Ordering information

DM 3102-							
Housing							
0 Switch 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

