

■ Programmable Digital Panel Meter Model DM 3103 with Integrator

Highlights

- LED Display, Red, 6 Decades, 14 mm
- DIN Housing 96 x 48 mm
- Voltage, Current, Thermocouples, Pt100
- User Configurable
- High Accuracy
- Integral Function 1/s, 1/min or 1/h
- Summary Memory
- Userdefined Linearization
- Power Supply For Remote External Sensor
- 2 Alarm Relay, Analog Output
- Plug-In Screw Terminal

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
- Integral function 1/s, 1/min or 1/h
- Summary memory
- Masked quantity suppression

Display

- Display range -99999 to 99999
- Programmable decimal point
- Data source: direct input, peak-, valley-, mean-, hold- or summary memory value
- Last digit: 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
- Display of summary memory
- Reset of summary memory
- 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/125mA 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

- 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

Technical data

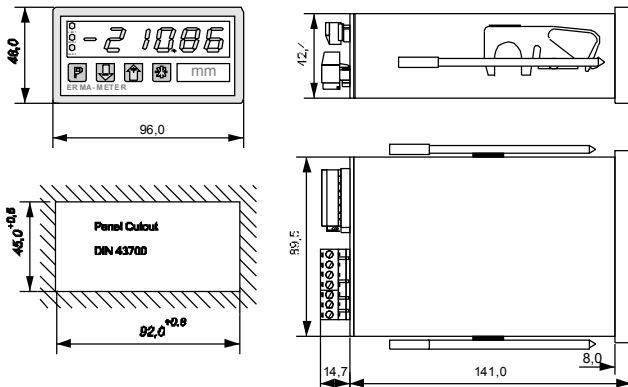
- Input range
- Voltage : ± 10 V, ± 0,01 %
Current : ± 20 mA, ± 0,01 %
- Thermocouple
- Ni-CrNi (K) : -100 to +1300 °C, ±1 °C
Fe-CuNi (J) : -100 to +1000 °C, ±1 °C
Fe-CuNi (L) : -100 to +900 °C, ±1 °C
PtRh90/10%-Pt (S) : 0 to +1750 °C, ±5 °C
Cu-CuNi (T) : -100 to +400 °C, ±1 °C
Cu-CuNi (U) : 0 to +400 °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, ±0,3 °C
- Conversion rate
- Voltage, Current : 10 per sec
Temperature : 5 per sec
- Display : 6 decades, 14 mm, red
- 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 behind the panel : 148 mm incl. screw terminal
- Protection : front IP 54
- EMV : in conform with 89/336/EWG
- Operating temperature : 0 .. 50 °C

Ordering information

DM 3103-	0				
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 analog output					
0 No analog output					
1 With analog output					

Dimensions

Switch board mounting



Panel clip

