

M905—PANEL CONDITION DEVICE WITH DISPLAY

Programmable Digital Display Meter

Multiple output options available

Casing mounted ABS in option

The M905 is an all-in-one digital meter, supplying the sensor with power and providing general purpose 4½ digit readout for sensors and transducers.

Standard features include a tare function, MAX/MIN value detection and storage, and a hold function. Optional relays and digital or analogue outputs can be added to provide control outputs.

The M905, is a programmable device which offers as standard many conditioning technologies:

- Strain gages sensor in Wheatstone bridge
- Potentiometers
- Process transducers $\pm 10V$ and 4-20mA
- Temperature probes PT100
- Thermocouples J, K, T

Through easy front panel or remote programming, the M905 adapts to a wide range of applications and works with most of TE Connectivity sensors. Additionally, it can be mounted in an ABS case.

FEATURES

- Suited for Process, strain gages, potentiometers and thermocouple sensors
- Display: -19999 to 19999
- Compact 96x48x60 mm Housing
- Front Panel Programming
- 11-point scaling
- Plug-in Option Boards

APPLICATIONS

- Instrumentation Laboratory
- Test stand
- Process monitoring
- Rack Mounts

M905 PANEL CONDITIONING DEVICE WITH DISPLAY

PERFORMANCE SPECIFICATIONS (Typical values at 23±3°C)

CHARACTERISTICS

GENERAL

| | |
|-----------------------------|--------------------------------------|
| Dimensions (L x W x H) | 96 x 48 x 60 mm [3.9 x 1.9 x 2.4 in] |
| Panel Cut out | 92 x 45 mm [3.6 x 1.8 in] |
| Operating Temperature Range | -10° C to 60° C [14 to 140° F] |
| Storage Temperature | -25° C to 85° C [-13 to 185° F] |
| Relative Humidity | <95% at 40° C [104° F] |
| Weight | 160 g [0.35 lb] |
| Mounting clips supplied | |
| Case Material | UL94 V-0 Polycarbonate |
| Front Panel Protection | IP65 |

ELECTRICAL

| | |
|----------------------|------------------------|
| Operating power M905 | 85-265 Vac, 11-300 Vdc |
| Optional M905-M6 | 10.5-70 Vdc, 22-53 Vac |
| Consumption | 5W w/o options, 8W max |

DISPLAY

| | |
|------------------|--|
| Main Display | 5 Digits, programmable colors (red, green, amber), 14mm high digits |
| Front Panel LEDs | 4 threshold indicators, 4 function indicators [Tare, Peak, Valley, Hold] |
| Update Rate | 20/s |

A/D CONVERSION

| | |
|------------|---------|
| Resolution | ±15bits |
| Read Rate | 20/s |

PROCESS/POTENTIOMETRIC SIGNAL CONDITIONING

| | |
|-------------------|---------------------|
| Input | ±10Vdc or ±20mA |
| Resolution | 1µV |
| Input Impedance | 1MΩ or 12.1Ω |
| Sensor Excitation | 5, 10 Vdc or 24 Vdc |

STRAIN GAUGE SIGNAL CONDITIONING

| | |
|-------------------|----------------------|
| Input | ±15mV, ±30mV, ±150mV |
| Resolution | 1µV |
| Input Impedance | 100MΩ |
| Sensor Excitation | 10Vdc |

ACCURACY

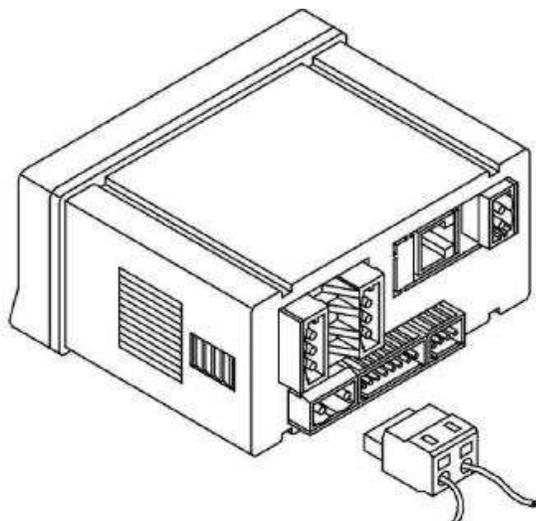
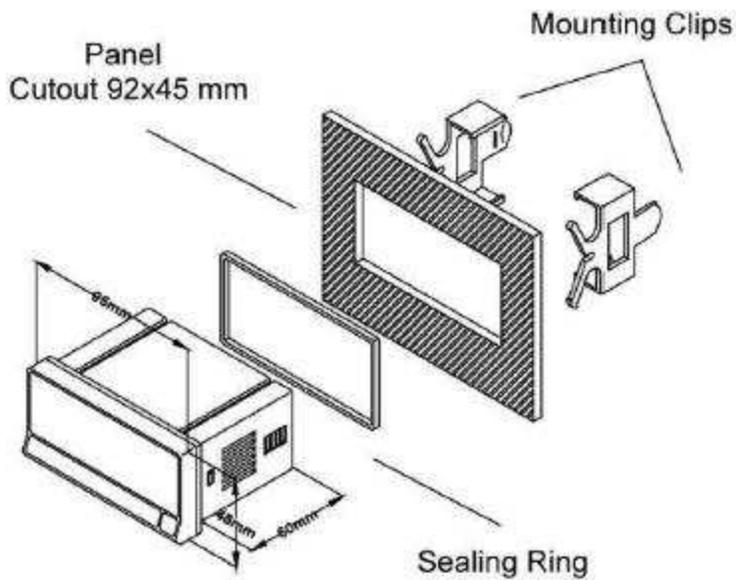
| | |
|-------------------------|------------|
| Temperature Coefficient | 100ppm/° C |
| Warm Up Time | 10 minuets |

M905 PANEL CONDITIONING DEVICE WITH DISPLAY

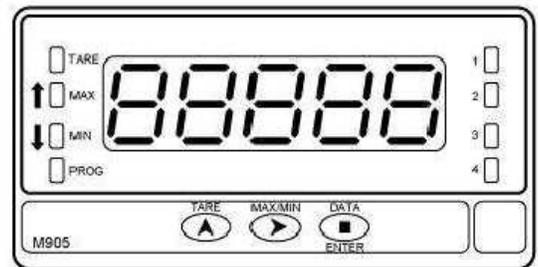
STANDARD FEATURES

| | |
|-----------------|---|
| Tare | Accomplished by operating front panel key or remote programming |
| Peak Max/Min | Detection and storage since last reset |
| Hold | Hold the current display value |
| Reset | Back to default TARE and PEAK values |
| PC-Configurable | Software supplied on request with options RS2 or RS4 |

DIMENSIONS & WIRING SCHEMATICS



FRONT VIEW



M905 PANEL CONDITIONING DEVICE WITH DISPLAY

OPTIONS

| | |
|-------------|---|
| M6 | : Low Voltage |
| NMV | : Voltage output 0-10Vdc |
| NMA | : Current output 4/20mA |
| 2RE | : 2 Threshold relays SPDT |
| 4RE | : 4 Threshold relays SPST |
| 4OP | : 4 NPN setpoint outputs |
| 4OPP | : 4 PNP setpoint outputs |
| RS2 | : RS232 interface |
| RS4 | : RS485 interface |
| ABS | : Casing including front panel with on/off switch |
| LN | : Low pass filter 30Hz-3db (Only with ABS option) |

ORDERING INFORMATION

M905—M6—/ABS

| | | _____ **Other Options** (RS2, RS4, ABS, ...)
| | _____ **Power Supply** (None or M6)
| _____ **Model**

ACCESSORIES SUPPLIED WITH DEVICE

| | |
|---------------|------------|
| EU Power Cord | ZELEACC001 |
|---------------|------------|

OPTIONAL ACCESSORIES

| | |
|--------------------------|------------|
| Cordon secteur UK | ZELEACC002 |
| Cordon secteur US/CANADA | ZELEACC003 |