User Manual

4 Digit Digital Panel Meter

Display for PT / NI Sensors and Resistors

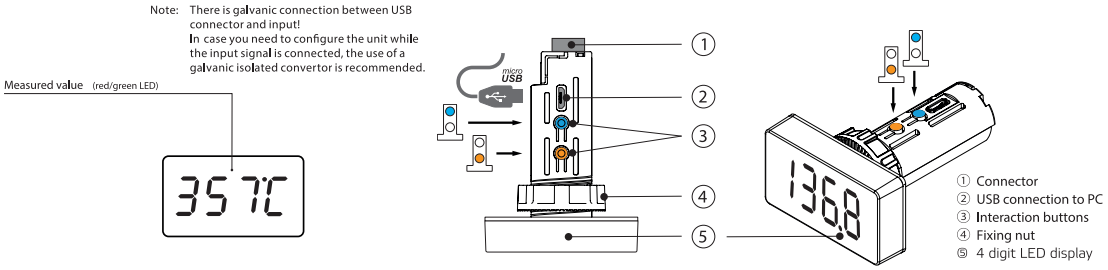
Part Number: MP-335RTD-01 & MP-335RTD-21

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
sg.element14.com/b/multicomp-pro

Description

- Input Pt 100 / 1000, Ni 1000, resistance 390 / 3900Ω
- 4-digit programmable projection
- 2- or 3-wire connection
- Scaling of measured value
- Setting from PC via USB
- Linearization
- Password protection to prevent unauthorised changes of settings
- Protection IP65
- Easy mounting into standardised Ø22.5mm hole

Diagram



DANGER

HAZARD OF ELECTRIC SHOCK

Disconnect all power before servicing equipment and other supply lines

Failure to follow this instruction will result in death or serious injury.

WARNING

EQUIPMENT OPERATION HAZARD

Do not use this product in safety critical system.
Do not disassemble, repair or modify this product.
Do not operate beyond the recommended operating environment.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

CAUTION

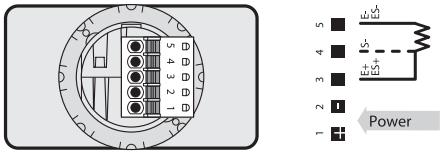
EQUIPMENT OPERATION HAZARD

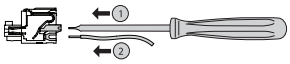
- Install 100mA fuse UL...Class CC ; IEC...gG if unable to determine loop input current is within 4mA to 20mA

Failure to follow this instruction can result in injury or equipment damage

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel.
No responsibility is assumed by Multicomp for any consequences arising out of the use of this material.

Product Connection

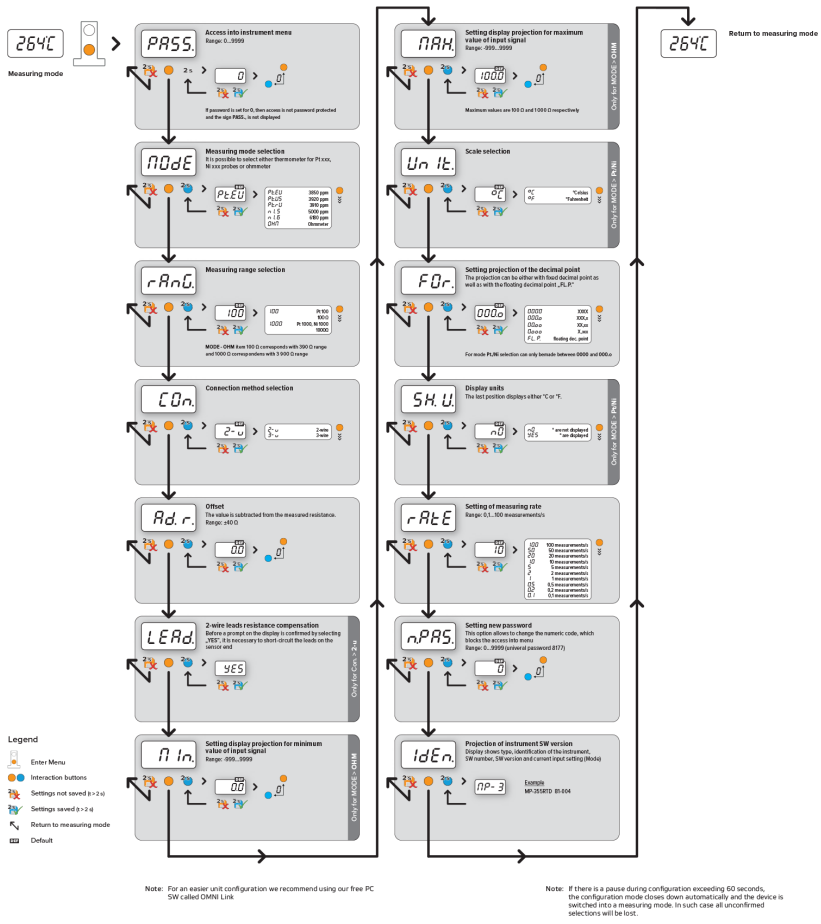




①		Ø 2 mm / *0,08* in
②	mm / inch 6..8 / 0,24 ..0,31	
	mm^2	0,2…1,3
	AWG	24…16

Note: Contactors, high power electric motors, frequency drives and other power devices should not be in a close proximity of the meter. Input signal leads (measured value) should be separated from all power lines and power devices. Even though the meters has been designed and tested according to standards for industrial environment, we strongly advise to adhere to the above presented rules

Setting Instructions

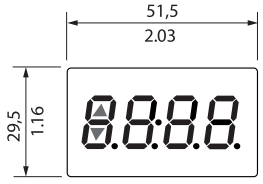


Error conditions

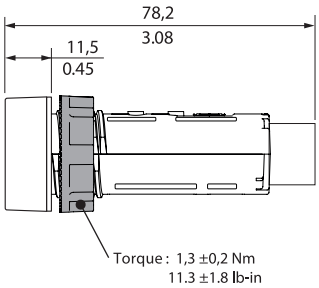
Error	Cause	Elimination
E. d_	number is too small (large negative) to be displayed	change DP setting, channel constant setting
E. d¯	number is too high to be displayed	change DP setting, channel constant setting
E. t_	number is below the linearization table value; Error table underflow	change input signal value or linearization table
E. t¯	number is above the linearization table value; Error table overflow	change input signal value or linearization table

Instrument dimensions and installation

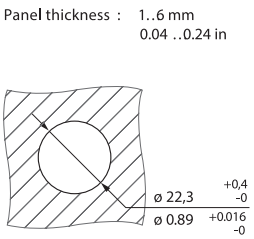
Front view



Side view



Panel cut



mm / inch

Technical Data

INPUT			
Number of inputs		1	
OHM	Range	0…390Ω (calibration 100 Ω) 0…3 900Ω (calibration 1 000 Ω)	
	Connection	2- or 3-wire	
RTD	Range	EU > 100/1 000Ω, 3 850 ppm US > 100Ω, 3 920 ppm/°C RU > 100Ω, 3 910 ppm/°C	-50°C to +450°C -50°C to +450°C -200°C to +450°C
	Connection	2- or 3-wire	
Ni	Range	Ni 1 000, 5 000 ppm/°C Ni 1 000, 6 180 ppm/°C	-50°C to +250°C -200°C to +250°C
	Connection	2- or 3-wire	

PROJECTION	
Display	9999, 7-segment LED
Digit height	14mm
Display colour	red or green
Projection	-999…9999
Decimal point	Setting - in menu
Brightness	Fixed
INSTRUMENT ACCURACY	
TC	50ppm/°C
Accuracy	±0.15% of FS + 1 digit
Rate	0.1…100 measurements/s
Overload capacity	2x
Linearizace	Linear interpolation in 50 points only via OM Link
OM Link	Company communication interface for operation, setting and update of instruments. (microUSB)
Watch-dog	Reset after 500ms
Calibration	At 25°C and 40% r.h.
POWER SUPPLY	
Power supply	24V DC/24V AC, ±10%, 0.2VA, 10…30V DC/24V AC, ±10%, 0.2VA, isolated
MECHANIC PROPERTIES	
Material	PA66, Incombustible UL 94 V-0
Dimensions	51.5mm × 29.5mm × 78.2mm
Panel cutout	Ø22.5mm
OPERATING CONDITIONS	
Connection	Connector terminal blocks, section 0.2mm² to 1.3mm²
Stabilization period	Within 5 minutes after switch-on
Working temp.	-20°C to +60°C
Storage temp.	-20°C to +85°C
Protection	IP65 (front panel only)
Construction	Safety class I
El. safety	EN 61010-1, A2
Dielectric strength	700 VAC after 1 min. between power supply and signal input

Insulation resist.*	For pollution degree II, measurement cat. II power supply, input > 250 V (PI)
EMC	EN 61326-1 (Industrial area)
RoHS	EN IEC 63000 : 2018
Seismic qualification	IEC/IEEE 60980-344 Edition 1.0, 2020, par. 6, 9
Mechanical resistance	EN 60068-2-6 ed. 2:2008

* PI - Primary insulation, DI - Double insulation

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Measuring instruments of the MP-335 series conform to the European regulation 2014/30/EU, 2014/35/EU and 2011/65/EU, 2015/863/EU.

This product must be installed, connected and used in compliance with prevailing standards and/or installation regulations.
As standards, specifications and designs develop from time to time, always ask for confirmation of the information given in this publication.