



RP-35A

A Precision Autozeroing High Input Impedance Differential Panel Meter with Switching AC/DC Power supply

3 1/2 Digit 0.56" LED In a NEMA Style Case



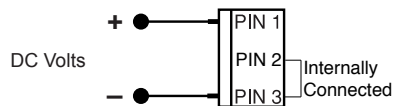
General Features

The Texmate Model RP-35A is a precision, autozeroing when 0V applied, 3^{1/2} digit meter designed to fit most other manufacturers' panel cutouts, including DIN/NEMA standard. It measures bipolar differential and single-ended DC voltages over three user-programmable ranges from ±1.999 to ±199.9VDC full-scale. For other 4-20 mA, ACV, ACA and DCA applications, the suggested meter in the same case size is the UM-35-CL, UM-35-DCA, UM-35-ACV and UM-35-ACA.

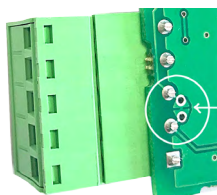
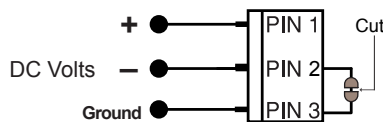
The UM-Series also has temperature and pressure meters that are in the same case size as the RP-35A.

Typical Application Connections

DC Volts Single-Ended measurement with a resolution of 100 mV.



DC Volts Differential measurement with a resolution of 100 mV.



On the back side of PCB, cut track of pin 2 and pin 3 for differential function

Specifications

Input Configuration:.....True differential and single-ended

Full Scale Ranges:±1.999VDC (standard)
 ±19.99VDC
 ±199.9VDC

Input Impedance:.....Exceeds 1000MΩ on 2V range;
 >1MΩ on all other ranges

Input Protection:.....Do not exceed ± 400VDC

Accuracy:±(0.05% of reading = 1 digit)

Temperature Coefficient: ..5PPM/°C in ratiometric operation;
 60PPM/°C Typ. using internal reference on 2V range.

Warm Up Time:.....10 minutes to specified accuracy

Conversion Rate:.....3 readings per second nominal,
 controllable from 1 to 20 readings per second

Display:.....0.56" LED

Decimal Selection:User programmable to 4 positions

Overrange Indication: ...When input exceeds full scale on any range being used, most significant "1" digit & "-" symbol (for negative inputs) is displayed with all other digits blanked

Power Requirements: ...85-305 VAC, 120-420VDC, 50/60Hz
 Approx. 1.5W

Operating Temperature:....-10° to +50°C

Storage Temperature: ...-20° to +70°C

Relative Humidity95% (non-condensing)

Case Dimensions:Bezel 3.78" Wx1.89" H (96mm x 48mm)
 Depth behind bezel 3.36" (83.5mm)
 Plus 0.66" (17 mm) connectors

Weight:.....5.6 oz (0.16 kg)
 8 oz (0.23 kg). when packed.

Calibration Procedure

Apply power to the meter. Then with a precision DC reference source apply +1.900 VDC between the Signal High Input Pin 1 and Signal Low Input Pin 3. Adjust SPAN potentiometer until the display reads +1.900 V. **Note:** The voltage applied in this case is for a +2.000 V full-scale meter. For other ranges, the voltage applied should be similarly proportional to the particular full-scale voltage.



To open meter, insert a flat head screwdriver or similar instrument in both slots on the side of the cover and pry open. The RP-Series meters slide out from the front of the case as a complete assembly.

Optional Face Plate Descriptors

AC	Ω	kV	kVAR	m/hr	Hz	RPM
V	mV	min	PF	F	C	Cosθ
DC	x10kN	μA	PSIG	mS	kg/cm ²	psi
kW	W	kWH	pH	%	K	kPa
A	mbar	mA	MW	kA	RPS	MWH
mWs	μm	kW/s	l	l/sec	ml	cm
ORP	mm/s	1/min	mm	kg/sec	lbs	kg/hr
FT	bars	min	m/min	Mvars	μV	dB

To customize the face plate, clear adhesive label containing various popular descriptors may be ordered. Choose the descriptor desired, peel off the adhesive backing and align the descriptor in the center right of the faceplate.

P.N.: DU-CASEDES

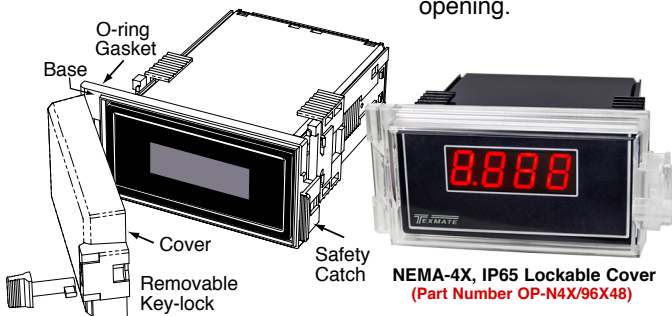
Custom Face Plates

Texmate Produces Thousands of Custom OEM Face Plates. Have Texmate Design and produce a Custom Face Plate for your next project!

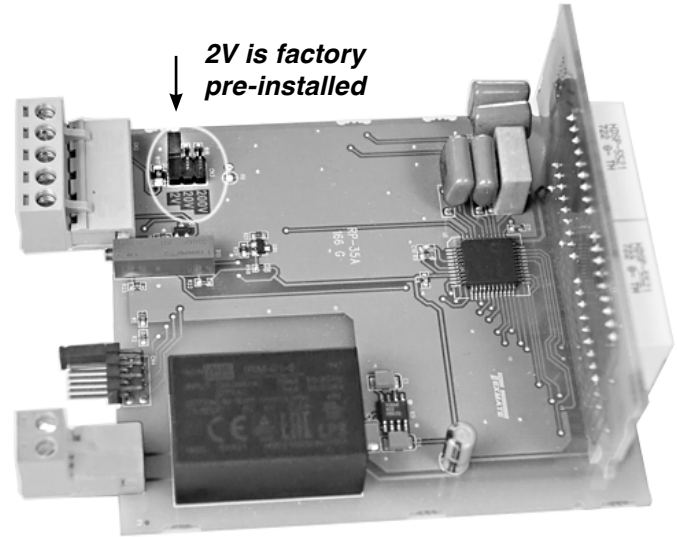
• Custom face plates have a non-recurring artwork charge. A serial number is then assigned to each artwork to facilitate reordering.

Clear Lockable Water-proof Cover

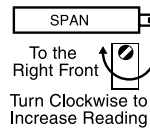
The clear lockable cover is designed to be dust and waterproof to NEMA-4X, IP65 standards. The assembly consists of a base and a cover with a cam hinge and key-lock fastening mechanism. An O-ring, or neoprene gasket forms a seal between the base and the panel. The cam hinge prevents the cover from closing when opened until pushed closed. The cover has a tapered recess that, when closed, forms a seal with a tapered spigot on the base. A key-lock employs a cam locking device to force the spigot into the recess, ensuring seal integrity. A safety catch keeps the cover closed even when the key is removed, and the keyhole can be used to attach a safety seal clip, preventing unauthorized opening.



Select Input Range



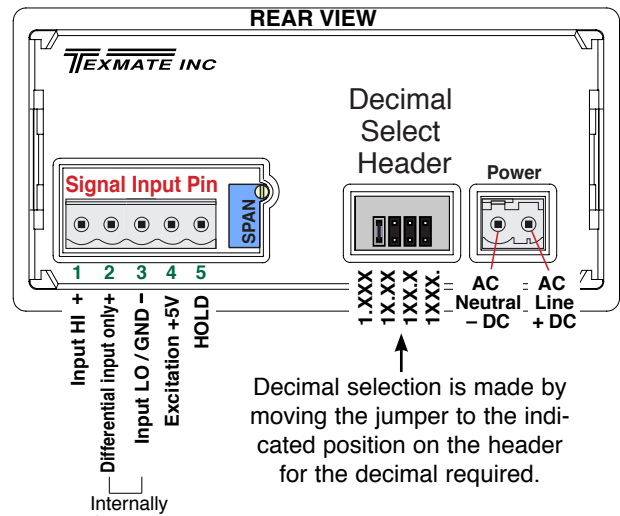
Signal Conditioning Components



SPAN Potentiometer (Pot)

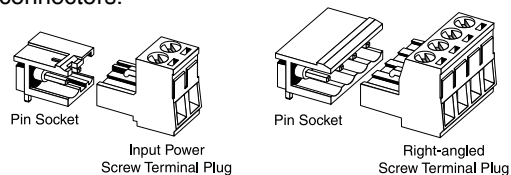
The SPAN pot is on the right side of the signal input. Typical adjustment is 20% of the input signal range.

Connector Pinouts



Connectors

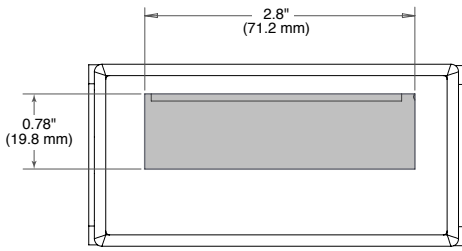
This meter uses plug-in type screw terminal connectors for all input and output connections. The power supply connections (pins 14 and 15) have a unique plug and socket outline to prevent cross connection. The main board uses standard right-angled connectors.



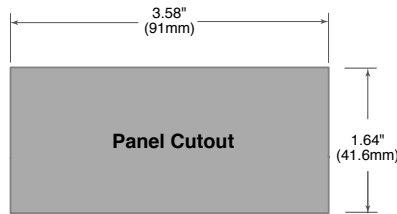
WARNING: AC and DC input signals and power supply voltages can be hazardous. Do Not connect live wires to screw terminal plugs, and do not insert, remove or handle screw terminal plugs with live wires connected.



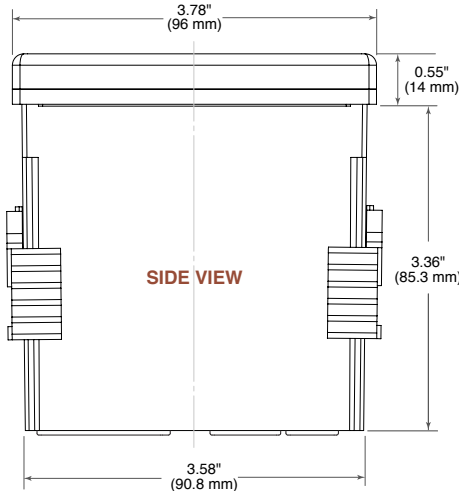
RP Case Dimensions and Panel Cutouts



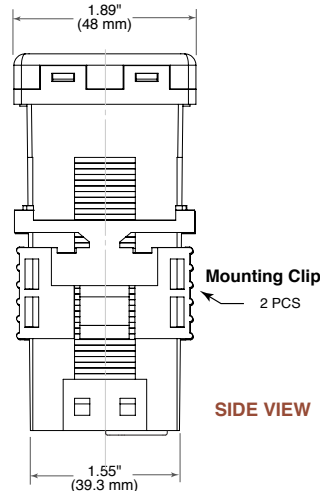
FRONT VIEW



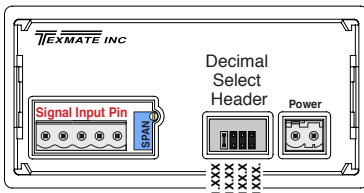
Panel Cutout



SIDE VIEW



SIDE VIEW



REAR VIEW

Ordering Information

Standard Options for this Model Number

Part Number Description

► BASIC MODEL NUMBER

RP-35A 3.5 digit Red LED, w/Differential Inputs, 2VDC std. .

Special Options and Accessories

► SPECIAL OPTIONS (Specify Inputs & Req. Reading)

ZR-RP35-20V 20VDC Range Change (scale: 0-19.99)
 ZR-RP35-200V 200VDC Range Change (scale: 0-199.9)

User's Responsibility

USER'S RESPONSIBILITY

We are pleased to offer suggestions on the use of our various products either by way of printed matter or through direct contact with our sales/application engineering staff. However, since we have no control over the use of our products once they are shipped, NO WARRANTY WHETHER OF MERCHANTABILITY, FITNESS FOR PURPOSE, OR OTHERWISE is made beyond the repair, replacement, or refund of purchase price at the sole discretion of Texmate. Users shall determine the suitability of the product for the intended application before using, and the users assume all risk and liability whatsoever in connection therewith, regardless of any of our suggestions or statements as to application or construction. In no event shall Texmate's liability, in law or otherwise, be in excess of the purchase price of the product.

Texmate cannot assume responsibility for any circuitry described. No circuit patent or software licenses are implied. Texmate reserves the right to change circuitry, operating software, specifications, and prices without notice at any time.

Warranty

WARRANTY

Texmate warrants that its products are free from defects in material and workmanship under normal use and service for a period of one year from date of shipment. Texmate's obligations under this warranty are limited to replacement or repair, at its option, at its factory, of any of the products which shall, within the applicable period after shipment, be returned to Texmate's facility, transportation charges pre-paid, and which are, after examination, disclosed to the satisfaction of Texmate to be thus defective. The warranty shall not apply to any equipment which shall have been repaired or altered, except by Texmate, or which shall have been subjected to misuse, negligence, or accident. In no case shall Texmate's liability exceed the original purchase price. The aforementioned provisions do not extend the original warranty period of any product which has been either repaired or replaced by Texmate.

RP Series Technical Manual Copyright © 2022 Texmate Inc. All rights reserved. Published by: Texmate Inc. USA. Information in this Technical Manual is subject to change without notice due to correction or enhancement. The information described in this manual is proprietary to Texmate, Inc. and may not be copied, reproduced or transmitted, in whole or in part, in connection with the design, manufacture, or sale of apparatus, device or private label product without the express written consent of Texmate, Inc.



1934 Kellogg Ave., Carlsbad, CA 92008
 Tel: 1-760-598-9899 • 1-800-TEXMATE • Email: orders@texmate.com