



Compatibility

The DX-Series have a matching DIN case style that is complementary to the Leopard and Tiger family of meters. DX-Meters are the OEM's choice for switchboard and process indication. Each model is dedicated to a specific application and designed for quick and easy installation.



DX-Series

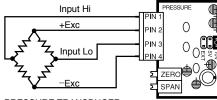
SPECIFIC METERS

General Features

The DX-35-SG has two header selectable transducer output ranges of 2mV/V and 20mV/V. These ranges can provide a full scale display of 2000 counts from the precision ratiometrically compensated 5V or 10V DC excitation provided by the meter. The meter accepts 4 Wire transducers, and like all DX-Series meters, is easily scaled to display in engineering units such as psi, bar, kbar, kpa, feet, lbs, and tons.

Typical Application Connections

IS05 : Pressure/Load Cell 2/20mV/V, 5/10V Exc 4-wire



PRESSURE TRANSDUCER

Low Range Adjustment : 0-1000 counts Hi Range Adjustment : 1001-1999 counts **DX-35-SG** Pressure or Load Cell Meter 3 1/2 Digit with 0.56" or 0.8" LEDs in a 1/8 DIN Case

Cost-effective meter to measure 4 wire pressure transducers, strain gauges and load cells.

Specifications

Input Configuration: Differential		
Full Scale Ranges: Accepts inpu 20mV/V tran		
•	DC. Ratiometrically d to operate with all putput ranges.	
A/D Converter:12 bit dual slo	ре	
Accuracy:±(0.05% of real	ading + 3 counts)	
Temp. Coeff.:100 ppm/°C (Typical)	
Warm up time:1 minute to sp	pecified accuracy.	
Conversion Rate:3 reading per	second	
Display:3 1/2 digit 0.5	6" Red LED display (std),	
0.56" GREEN	, 0.8" RED/GREEN or	
0.56" Super B	Bright RED are optional.	
Decimal Selection:Header under	face plate, X•X•X•X	
Positive Overrange:The MSD digit 1 is displayed with all		
other digits bl	ank.	
Power Supply:AC/DC Auto s	ensing wide range supply	
PS1 (std)85-265 VAC, 50	-400Hz / 95-300 VDC @1.5W	
PS215-48 VAC,50-4	400Hz / 10-72 VDC @4.0W	
Operating Temp.:10 to 50 °C		
Storage Temp:20 °C to 70 °	°C.	
Relative Humidity:95% (non con	densing)	
Plus 11.8 mm	bezel: 117 mm (4.61") (0.47") for Right-angled blus 20 mm (0.79") for	
Weight:8 oz., 11 oz w Certification:UL Listed.	hen packed.	

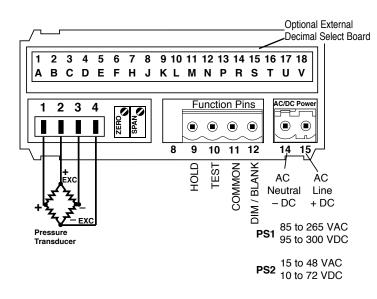
DX-Series, the OEMs choice for switchboard and process indication

DX-35-DCV	. DC volts ±2V/±20V/±200V Header Selectable Ranges, 3.5 digit
DX-35-DCA	DC mV ±50mV, ±100mV, ±200mV Header Selectable Ranges, 3.5 digit
DX-35-ACV	AC volts, Scaled RMS (True RMS Opt.). 199.9/300V AC Header
	Selectable Ranges, 3.5 digit
DX-35-ACA	.AC amps, Scales RMS (True RMS Opt.). (5 Amp Internal Shunt), 3.5digit
DX-35-CL	. Process 4 to 20mA (100.0), easily user scalable, 3.5 digit w/Exc. opt
DX-35-HZ	AC Line Frequency 15.0Hz to 199.9Hz. Up to 300V AC input, 3.5 digit

	DX-35-TC-KF	K Thermocouple with °F, optional °C, 3.5 digit
it	DX-35-TC-JF	J Thermocouple with °F, optional °C, 3.5 digit
	DX-35-RTD-F	100Ω platinum RTD, 3 or 4 wire, °F in 1° resolution, optional °C ,3.5 digit
	DX-40-ACV	AC volts, Scaled RMS (True RMS Opt.). 300.0V AC full scale, 4 digit
it	DX-45-ACA	AC amps, Scaled RMS (True RMS Opt.). (5 Amp Internal shunt), 4.5 digit
t	DX-45-DCV	DC volts ±2V/±20V/±200V Header Selectable Ranges, 4.5 digit
t	DX-45-DCA	DC mV ±50mV/±100mV/±200mV Header Selectable Ranges, 4.5 digit
	DX-45-CL	Process 4 to 20mA (100.00), easily user scalable, 4.5 digit w.Exc opt.

Connector Pinouts

This meter uses plug-in type screw terminal connectors for all connections.



Pin Descriptions

Pin 1 - Signal Input High

Pin 2 - Positive Excitation: +5V/10VDC excitation for pressure transducer

Pin 3 - Signal Input Low

Pin 4 - Negative Excitation: Negative end of 5V/10VDC excitation for pressure transducer

Pin 9 - Hold: If this pin is left unconnected the meter will operate in a free running mode. When this pin is connected to the Common Pin 11, the meter display will be latched. A/D conversions will continue, but the display will not be updated until Pin 9 is disconnected from Pin 11.

Pin 10 - Display Test: When this pin is connected to the Common Pin 11, all segments of the display light up and 1888 is displayed. This is used to detect any missing segments in the display.

Pin 11 - Common: To Hold, Test or Dim the display, the respective pins have to be connected to this Common Pin. **Pin 12** - Dim/Blank: When this pin is connected to the Common Pin 11 the display is blanked out. If it is connected through an external 1K Ω pot, the display may be dimmed. **Pin 14 & 15** - AC/DC Power Input: These pins are the power pins of the meter and they only accept a special polarized screw terminal plug that can not be inserted into any other input socket. The standard meter has a auto sensing AC/DC power supply that operates from 85-265 VAC/95-300 VDC (PS1 Std). An optional isolated low voltage power supply that operates from 15-48 VAC/10-72 VDC (PS2) is also available.

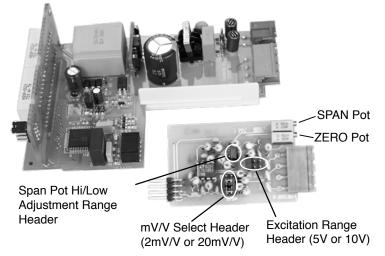
OPTIONAL EXTERNAL DECIMAL POINT SELECTION BOARD

- Pins 6, F Decimal Common: Connect to these pins to activate decimals.
- Pins 7, H Decimal XXXX.: Connect to pin 6 or pin F to activate decimal XXXX..
- Pins 8, J Decimal XXX.X: Connect to pin 6 or pin F to activate decimal XXX.X.
- Pins 9, K Decimal XX.XX: Connect to pin 6 or pin F to activate decimal XX.XX.
- Pins 10, L Decimal X.XXX: Connect to pin 6 or pin F to activate decimal X.XXX.

Calibration Procedure

- Select the appropriate position on the INPUT RANGE SELECT Header, to correspond with the mV/V output of the transducer being used.
- 2. Connect the transducer to the DX-35-SG as shown in the connection diagram.
- 3. With no pressure or load being applied to the transducer, adjust the ZERO pot so that the display reads 000.
- 4. Apply a known input, and adjust the SPAN pot until the meter displays the required reading for the pressure or load being applied.
- The DX-35-SG meter is now calibrated and ready for use.

Component Layout



Signal Conditioning Compenets



SPAN Potentiometer (Pot)

To the Right Front Turn Clockwise to Increase Reading

The 15 turn SPAN pot is always on the right side (as viewed from the back of the meter). Typical adjustment is 100% of the input signal range.



Turn Clockwise to

Increase Reading

ZERO Potentiometer (Pot)

The ZERO pot when installed is always to the left of the SPAN pot (as viewed from the back of the meter).

Typically it enables the input signal to be offset $\pm 100\%$ of full scale.



Span Pot Adjustment Range Header

Low : 0-1000 Counts Hi : 1001-1999 Counts

Opening Back Panel

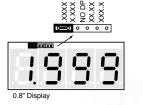


To open back panel, insert a flat screwdriver or similar instrument in both slots on the top of the case and pry open. The DX-Series meters slide out from the rear of the case as a complete assembly.

Decimal Point Selection







Decimal selection is made by moving the jumper to the indicated position on the header for the decimal required on the front of the display board.



An optional output board is available that provides access to all decimal points via a rear PCB edge connector.

Right-angled

Sc

Optional External Decimal Point Selection Board Part No.OP-DXEXTDP

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.

Header





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.

Installation Guidelines

1. Install and wire meter per local applicable codes/regulations, the particular application, and good installation practices.

2. Install meter in a location that does not exceed the maximum operating temperature and that provides good air circulation.

3. Separate input/output leads from power lines to protect the meter from external noise. Input/output leads should be routed as far away as possible from contactors, control relays, transformers and other noisy components. Shielding cables for input/output leads is recommended with shield connection to earth ground near the meter preferred.

4. A circuit breaker or disconnect switch is required to disconnect power to the meter. The breaker/switch should be in close proximity to the meter and marked as the disconnecting device for the meter or meter circuit. The circuit breaker or wall switch must be rated for the applied voltage (e.g., 120VAC or 240VAC) and current appropriate for the electrical application (e.g., 15A or 20A).

5. See Case Dimensions section for panel cutout information.

6. See Connector Pinouts section for wiring.

7. Use 28-12 AWG wiring, minimum 90°C (HH) tem-

perature rating. Strip wire approximately 0.3 in. (7-8 mm). 8. Recommended torque on all terminal plug screws is 4.5 lb-in (0.51 N-m).

Metal Surround Case Option

The meter's plastic case is made from fire retardant polycarbonate. A metal surround case can be ordered to enhance the meter's fire retardant capabilities and also provide shielding against electromagnetic interference (EMI). The metal case slides over the polycarbonate case and is held firmly in place by spring-type non-return clips. The Metal Surround Case must be factory installed on the polycarbonate case and once installed, it cannot be removed in the field.

With the metal case in place, the meter's standard ratchet-type mounting clips can not be used. Instead a pair of screw-type DIN standard mounting clips are provided, which clip into holes on the side of the metal case and tighten against the rear of the panel. A ground tab on the metal case enables the metal case to be easily connected to the panel ground.

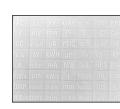


Clear Lockable Water-proof Cover

The clear lockable cover is designed to be dust and water proof to NEMA-4X, IP65 standards. The assembly consists of a base and 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



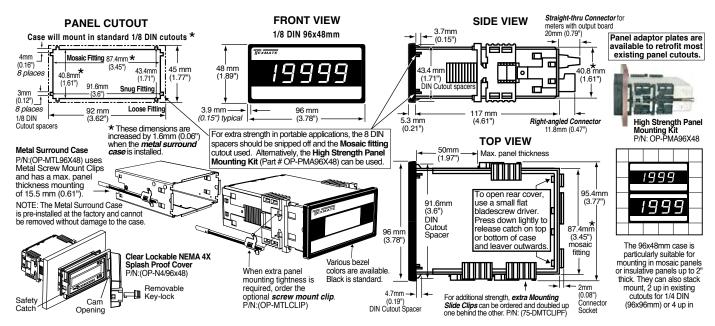
Optional Face Plate Descriptors



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

DX Case Dimensions and Panel Cutouts



Ordering Information

Standard Options	for this Model Number			
Part Number	Description	List		
 ▶ BASIC MODEL NUMBER Includes plug in type screw terminals, standard display and standard power supply unless optional versions are ordered. DX-35-SG				
► DISPLAY				
DRRed LED, 0.56 inch highDBSuper-bright Red LED, 0.56 inch highDGGreen LED, 0.56 inch highLGLarge Green LED, 0.8 inch highLRLarge Red LED, 0.8 inch high				
► POWER SUPPLY PS1 85-265VAC/95- PS2 15-48VAC/10-	300VDC			

Part Number	Description	List	
► SPECIAL OPTIONS (Specify Inputs or Outputs & Req. Reading)			
ZS	Range Change from Standard Range shown in BOLD typ. Custom display scaling within standard range. External Decimal Point Selection Board.Factory Instal Connector may be purchased (P/N:CN-L18)	S .	
► ACCESSORIES	(Specify Serial # for Custom Artwork Installation)		
75-DMTCLIPF. 76-D35G-N4. 76-D35LG-N4. 76-D35LR-N4. 76-D35R-N4. CN-L18. DN.CAS96X48E OP-MTLCILP. OP-MTLO6X48 OP-N4X/96X48. OP-PSA/96X48.	Extra Black Bezel for 96x48mm Case	h . ed ed for PP) sos pof et .	

Special Options and Accessories

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 sat-isfaction 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 pur-chase price. The aforementioned provisions do not extend the original warranty period of any product which has been either repaired or replaced by Texmate. Texmate warrants that its products are free from defects in material and workmanship under

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