GREYSTONE ENERGY SYSTEMS INC

TECHNICAL DATA SHEET **PWRD Series**



c UL us LISTED

PRESSURE WET REMOTE DIFFERENTIAL TRANSMITTER

The differential pressure transmitter features a dual remote pressure sensor capable of detecting pressures up to 500 psi, 35 bar, or 3500 kPa. It can withstand overpressure up to twice the maximum pressure and burst pressure up to ten times the maximum pressure. This versatile sensor allows for various on-site parameter adjustments, including changing pressure ranges, selecting output signal types, reversing output, setting signal reactivity time, swapping ports, and performing bidirectional measurements. The output signal is factory calibrated to ensure maximum accuracy.

This differential pressure transmitter with a remote pressure sensor has a wide range of applications across various industries: Industrial Processes, Oil and Gas Industry, Processing, Pharmaceutical Manufacturing, Water and Wastewater Treatment, HVAC applications like Chiller Pumps.

SPECIFICATIONS

ACCURACY	Accuracy by range +/- 1% FS for the three highest rangesper model +/- 2% FS for the lowest range per model @ 22°C (72°F) including hysteresis, non-linearity and repeatability	
STABILITY	±0.25% FS typical (1 year)	
MEDIA COMPATIBILITY	Any gas or liquid compatible with 316 Stainless steel	
PRESSURE RANGE	4 per model (see Ordering grid, switch selectable)	
OVERLOAD PRESSURE	2 x Full scale	
BURST PRESSURE	10 x Full Scale	
MAXIMUM LINE PRESSURE	= highest range available per Model#	
PRESSURE CYCLE	over 50 million	
ZERO ADJUST	Push Button & Auto Zero remote input terminals	
OPERATING TEMP RANGE	**Transducer Sensor**: -40 to 105°C (-40 to 221°F) **Enclosure and Cable**: 0 to 60°C (32 to 140°F)	
OPERATING HUMIDITY	10 - 90% RH, non-condensing	
PROTECTION CIRCUITRY.	Reverse voltage protected and output limited	
SURGE DAMPING	1-60sec(selectable)	
ZERO/SPAN SHIFT %FS/100°F (50°C)	2	
WARM SHIFT	1s	
RESPONSE TIME	1ms	
VOLTAGE OUTPUT DATA		
OUTPUT	0-5VDC, 0-10VDC (switch selectable, 3-wire sourcing)	
SUPPLY VOLTAGE	13-30VDC ; 13-26VAC	
EXTERNAL LOAD RESISTANCE	10KΩ min	
SUPPLY CURRENT	DC: 6mA max AC: 16mA max	
CURRENT OUTPUT DATA		
OUTPUT	4-20mA	4-20mA
CIRCUIT	2-wire (loop powered)	3-wire
MIN SUPPLY VOLTAGE	14VDC + 0.02 x (resistance of receiver plus line)	11VAC + (0.02 x (resistance of receiver plus line)) / SQRT (2)
MAX SUPPLY VOLTAGE	30 VDC	26 VDC
SUPPLY CURRENT	20mA	38mA
EXTERNAL LOAD RESISTANCE	0-500 ohms	0-500 ohms

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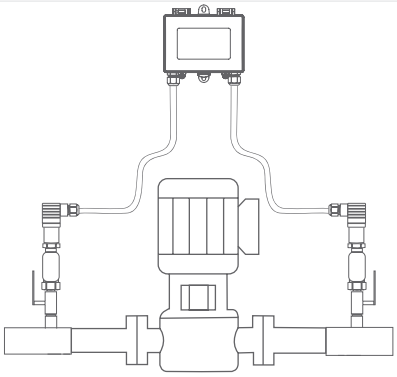
PHYSICAL DESCRIPTION	
ENCLOSURE	**B:** Polycarbonate, UL94-V0, IP65 (NEMA 4X) **F:** Same as B with thread adapter (1/2" NPT to M16) and cable gland fitting
LCD DISPLAY	3-1/2 digits LCD
PRESSURE FITTING	1/4" -18 NPT male for the remote sensor
ELECTRICAL CONNECTION	1/2" conduit
SIZE	112.5mm x 116.5mm x 53.7mm (4.43" x 4.59" x 2.11")
REMOTE SENSOR CABLE	**S:** FT-6 plenum rated cable **A:** Armored Flexible S/S **C:** Customer supplied pressure conduit
WEIGHT	650g (26.5 oz) - Including remote cables and sensors
GENERAL INFORMATION	
CERTIFICATION	UL 60730 & CSA E60730, (UL E539555 file#)
UL MODEL	MPWRDPXSL
POWER SOURCE UL	24Vac/Vdc; SELV (class 2) supply
PURPOSE OF CONTROL	Operating control
TYPE OF ACTION	Type 1
IMPULSE VOLTAGE	330 V
POLLUTION DEGREE	2
UL 2043 / ULC S142 COMPLIANT	Suitable for Use in Air Handling Spaces in Accordance with Section 300.22,(C) of the National Electrical Code
EU CONFORMITY / APPROVALS	CE / RoHS
OUTPUTS	Limited Energy < 15W
COUNTRY OF ORIGIN	Canada

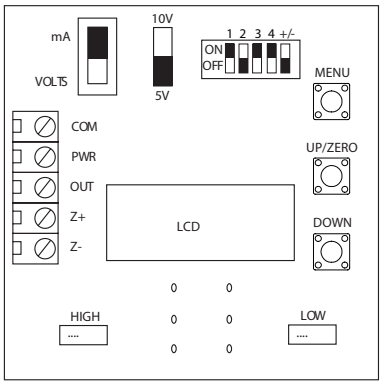
TYPICAL INSTALLATION



For complete installation and wiring details, please refer to the product installation instructions.

The transmitter mounts on a vertical surface using the two integrated mounting holes. The remote sensor cable connection should be located on the bottom of the enclosure. The two mounting holes will facilitate a #10 size screw (not supplied). Ensure there is enough space around the unit to make the electrical connections and ensure that it is within an acceptable distance for the length of remote sensor cable. Avoid locations with severe vibrations or excessive moisture.

WIRING INFORMATION



TERMINAL	FUNCTION
COM	Common
PWR	24 Vac/Vdc
OUT	Analog Output
Z +	Remote zero switch positive
Z -	Remote zero switch negative

WARNING: Ensure that the maximum individual port pressure does not exceed 2x the highest pressure range of the unit. For example, the highest individual port pressure on a 02 Range Code is 100 PSI. Exceeding this may damage the sensors and give erroneous readings. See Ordering Chart for ratings.

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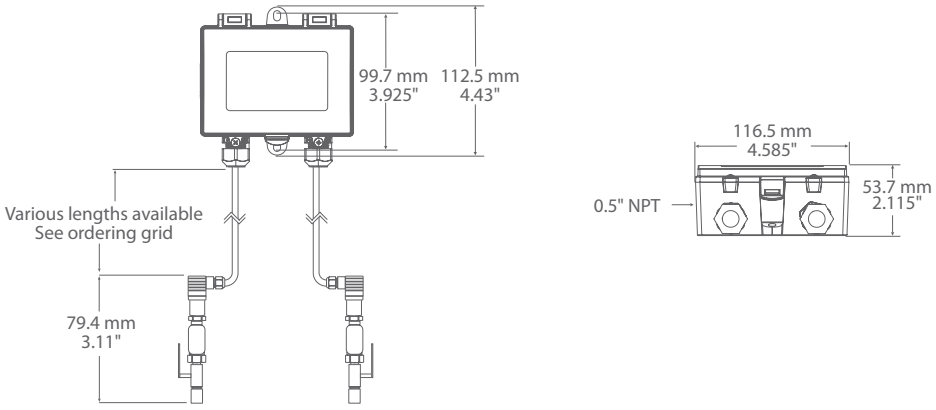
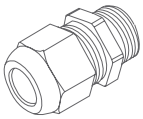
DIMENTIONS



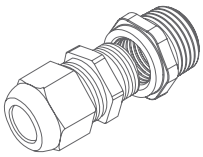
ACCESSORIES - INCLUDED WITH F ENCLOSURE OPTION



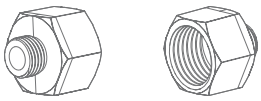
CABLE GLAND FITTING (QTY OF 2)

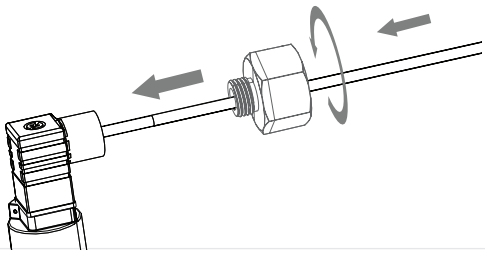


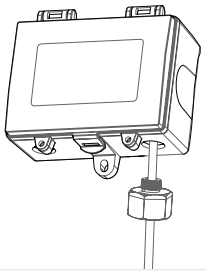
THREAD ADAPTER 1/2" NPT TO M16 (QTY OF 2)



ACCESSORIES - INCLUDED WITH C CABLE TYPE OPTION

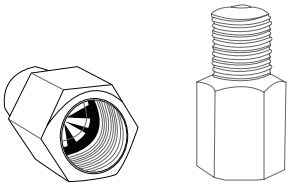






FITTING ADAPTER FOR CONDUIT CONNECTIVITY (QTY OF 4)

ACCESSORY OPTION FOR CONSIDERATION IN APPLICATION



A515 BRASS SNUBBER 1/4" (M/F) THREADING
LESSENS PULSATION EFFECT



A525 STEEL SYPHON 1/4" (M) THREADING
STEAM AP>37 °C (100 °F)

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ORDERING

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PRODUCT	ENCLOSURE		PRESSURE RANGES		CABLE TYPES		CABLE LENGTH	
PWRD	**B**	Polycarbonate, with hinged and gasketed cover	**01**	5, 10, 25, and 50 PSI ranges	**S**	FT-6 plenum rated	**00**	No Cable (For Conduit Only)
			02	10, 20, 50, and 100 PSI ranges	**A**	Armored Cable	**03**	3m (10')
			03	25, 50, 125, and 250 PSI ranges	**C**	Conduit Connections	**09**	9m (30')
Pressure Wet Remote Differential Transmitter	**F**	Same as B, with thread adapter and cable gland fitting	**04**	50, 100, 250, and 500 PSI ranges			**15**	15m (50')
			05	0.5, 1.0, 2.5, and 5.0 Bar				
			06	0.7, 1.40, 3.5, and 7.0 Bar				
			07	1, 2, 5, and 10 Bar				
			08	3.5, 7, 17.5, and 35 Bar				
			09	50, 100, 250, and 500 kPa				
			10	70, 140, 350, and 700 kPa				
			11	100, 200, 500, and 1000 kPa				
			12	350, 700, 1750, and 3500 kPa				
			13	40,80,200,400 psi				

NOTE: Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.

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