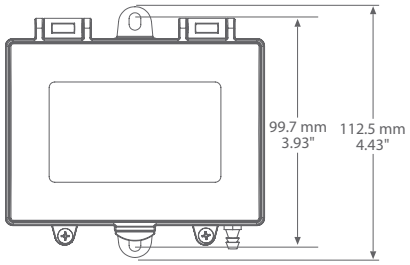
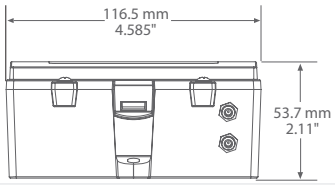
GREYSTONE ENERGY SYSTEMS INC

ULTRA LOW PRESSURE TRANSMITTER







UP SERIES

PRODUCT DESCRIPTION

The Ultra Low Pressure Transmitter is used to measure differential pressure up to 1"wc or 250 Pa and transmit via Analog and BACnet® Communications. It combines precision high sensitivity silicon sensing capabilities and the latest ASIC technology to substantially reduce offset errors due to changes in temperature, stability to warm-up, long term instability and position sensitivity. It is ideal for monitoring pressure for air or other clean inert gas. It features bi-directional pressure measurement, an on-board auto-zero function, a backlight LCD to display the pressure value and an alarm relay with variable trip points. The device is field-configurable via the local menu or the BACnet® connection. A weatherproof Polycarbonate enclosure with a hinged and gasketed cover is provided for ease of installation.

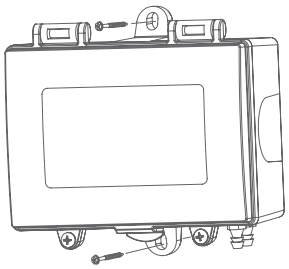
TYPICAL INSTALLATION

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

The UP mounts on any surface using the two holes provided on the base of the unit. Make sure there is enough space around the unit to connect the pressure tubing without kinking and avoid locations where severe vibrations or excessive moisture are present.

The unit may be mounted in any position but typically is installed on a vertical surface with pressure ports on the bottom and the cable entrance on the bottom. The enclosure has a standard opening for a 1/2" conduit and may be installed with either conduit and a conduit coupler or a cable gland type fitting.

The enclosure provides mounting tabs for ease of installation.

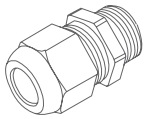


SPECIFICATIONS

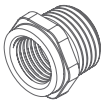
PRESSURE RANGES	**UPB1B:** ±1"WC / ±250Pa **UPB2B:** ±0.25"WC / ±60Pa **UPB1A:** ±1", 0-1", ±0.5", 0-0.5"WC / ±250, 0-250, ±125, 0-125Pa **UPB2A:** ±0.25", 0-0.25", ±0.125", 0-0.125"WC / ±60, 0-60, ±30, 0-30Pa
MEDIA COMPATIBILITY	Dry air or inert gas
PROOF PRESSURE	**UPB1:** 100"WC (24.9 kPa) **UPB2:** 40"WC (9.96 kPa)
BURST PRESSURE	**UPB1:** 200"WC (49.8kPa) **UPB2:** 80"WC (19.9kPa
RESPONSE TIME	**BACnet®:** 1 to 60 seconds, menu or BACnet® selectable **Analog:** 1 to 60 seconds, menu selectable
ZERO ADJUST	**BACnet®:** Pushbutton or via BACnet® communication **Analog:** Pushbutton or via remote auto zero
ACCURACY	±1% F.S. of selected range @ 22°C (72°F) including hysteresis, non-linearity and repeatability
STABILITY	<±1% F.S.O. / year @ 22°C (72°F)
THERMAL EFFECTS	±2% F.S. maximum, 10 to 40°C (50 to 104°F)
OPERATING ENVIRONMENT	0 to 50°C (32 to 122°F), 0 to 95%RH non-condensing
STORAGE TEMPERATURE	-30 to 60°C (-22 to 140°F)
WIRING CONNECTION	14-22 AWG screw terminal block
PRESSURE CONNECTION	6.35 mm (1/4") Nylon barb fitting for 3.175 mm (1/8") to 4.762 mm (3/16") ID tubing
CONDUIT CONNECTION	Access hole for 1/2" NPT conduit or cable gland
POWER SOURCE UL	24Vac/Vdc (±10%); SELV (Class 2), non-isolated half-wave rectified Consumption: **Analog** @ 37mA max, **BACnet®** @ 52mA max
OUTPUTS	Analog: 4-20mA (3-wire), 0-5 or 0-10Vdc (field select) Relay: N.O. SPST, 2 Amps @ 120Vac or 30Vdc Relay Trip Point: Upper & lower alarms adjust over pressure range Relay Delay: 0 to 10 minutes via keypad or BACnet®
OUTPUT DRIVE	Current: 750Ω max; Voltage: 2000Ω min
BACnet®	Communications: 2-Wire RS-485, BACnet® MS/TP protocol Baud Rate: Locally set to 9600, 19200, 38400, or 76800 MAC Address Range: Locally set to 0-127 (factory default is 3)
LCD DISPLAY	Size: 38.1 x 16.5 mm (1.5" x 0.65") Digit Height: 11.43 mm (0.45") Symbols: "WC, Pa Backlight: Enable/disable/auto
PROTECTION CLASS	III
PROTECTION CIRCUITRY	Reverse voltage protected and output limited
UL MODEL	MDPRSMCSUP
CERTIFICATION	UL 60730 & CSA E60730, (UL E539555 file#)
UL 2043 / CSA/ULC S142 COMPLIANT	Suitable for Use in Air Handling Spaces in Accordance with Section 300.22, (C) of the National Electrical Code
PURPOSE OF CONTROL	Operating Control
TYPE OF ACTION	Type 1
IMPULSE VOLTAGE	330V
POLLUTION DEGREE	2
ENCLOSURE	**B:** IP65 & NEMA 4X, Grey Polycarbonate UL94-V0 **F:** Same as B w/thread adapter (1/2" NPT to M16) & cable gland fitting Liquid tight cable gland cord grip 1.7-5.8mm (0.067-0.228")
EU CONFORMITY / APPROVALS	CE / RoHS
COUNTRY OF ORIGIN	Canada

GREYSTONE
ENERGY SYSTEMS INC

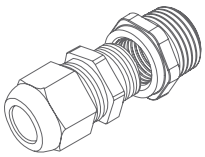
ACCESSORIES - INCLUDED WITH F ENCLOSURE OPTION



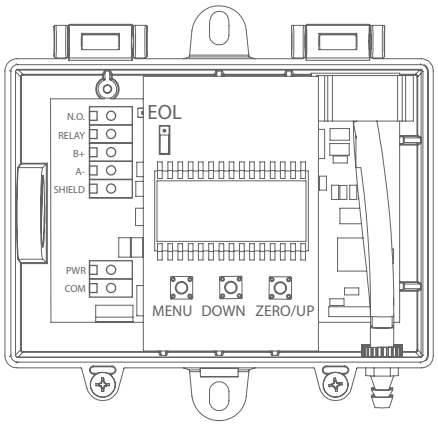
CABLE GLAND FITTING



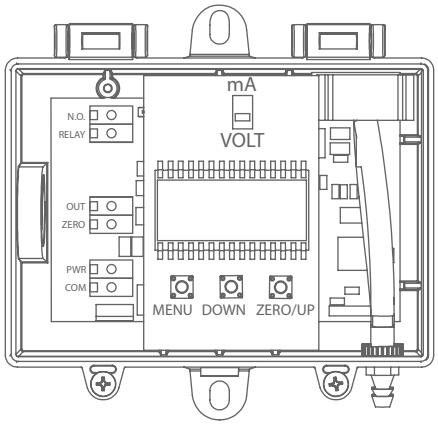
THREAD ADAPTER 1/2" NPT TO M16



PCB CONFIGURATIONS



BACnet® UP



Analog UP

ORDERING

PRODUCT	**UP**	Ultra Low Pressure Transmitter
ENCLOSURE	**B** **F**	Polycarbonate with hinged and gasketed cover Same as B, with thread adapter & cable gland fitting
PRESSURE RANGES - SELECTABLE	**1** **2**	**Analog:** ±1 "WC, ±0.5 "WC, ±250 Pa, ±125 Pa **BACnet®:** ±1 "WC or ±250 Pa **Analog:** ±0.25 "WC, ±0.125 "WC, ±60 Pa, ±30 Pa **BACnet®:** ±0.25 "WC or ±60 Pa
OUTPUT	**A** **B**	Analog BACnet®
OPTIONS	**X** **R**	No relay Relay

PART NUMBER

UP

NOTE: Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.
NOTE: All ranges field selectable, 0-XX or -XX to XX

RoHS COMPLIANT

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