GREYSTONE ENERGY SYSTEMS INC

ULTRA LOW PRESSURE TRANSDUCERS

ULP Series

Precision low pressure control/sensing

FEATURES:

- 3 jumper selectable current or voltage outputs
- 24 Vac/dc power supply standard
- 2 jumper selectable pressure ranges per model
- Functional weather resistant ABS Enclosure
- Optional LCD display available
- Optional relay output

Peace of mind through reliable pressure transducers

GREYSTONE HAS AN **ISO 9001** REGISTERED QUALITY SYSTEM

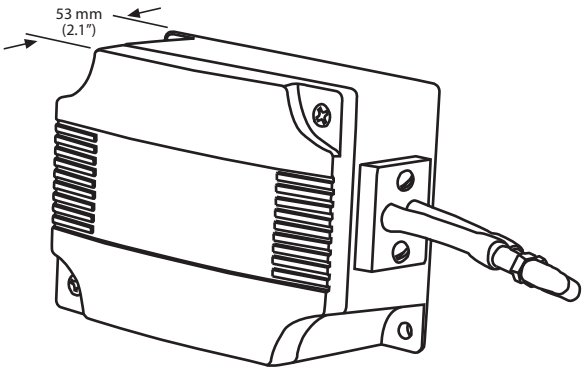
APPLICATIONS:

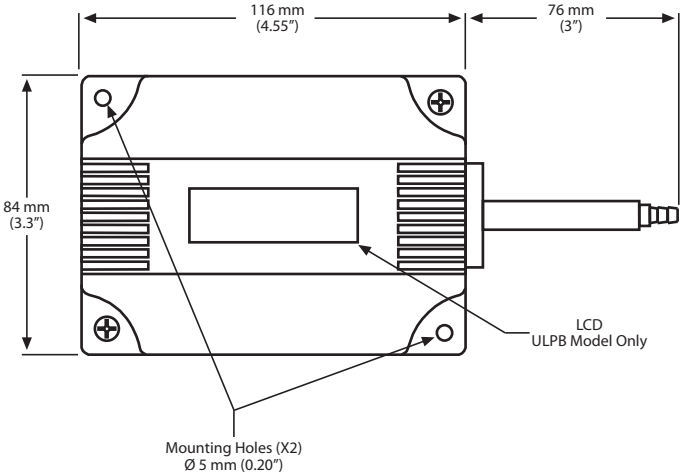
- HVAC/VAV
- Process Control
- Air Flow Monitoring
- Drop Across Air Filters
- Building Pressures
- Pneumatic Pressures

SPECIFICATION:

Accuracy:	±1% F.S.O.
Measurement Type:	Differential (two port)
Response Time:	0.5 ms
Thermal Effects:	< ±3% over compensated range
Compensated Range:	0 - 50˚ C (32 - 122˚F)
Over Pressure:	100" W.C. (24.9 kPa)
Operating Conditions:	0 - 70˚C (32 - 158˚F), 10 - 90 %RH, non-condensing
Media Compatibility:	Low Port: dry gases only, media must be compatible with epoxy adhesive High Port: wetted materials compatible with nylon housing, epoxy adhesive and silicon
Power Supply:	13 - 28 Vac, 18 - 35 Vdc (non-isolated half-wave rectified)
Supply Current:	< 30 mA (50mA with relay option)
Input Voltage Effect:	Negligible over specified operating range
Protection Circuitry:	Reverse voltage protected and out limited
Output Signal:	4-20 mA (3-wire), 0-5 or 0-10 Vdc (3-wire), jumper selectable
Output Drive Capabilities:	Current 4-20mA: 550 ohms Voltage 0-5 Vdc: 2K ohms min Voltage 0-10 Vdc: 10K ohms min
Zero Adjustments:	Pushbutton auto-zero (On device or remote)
Optional Relay Output:	N.O. contact, % Amps @ 250 Vac, 5 Amps @ 30 Vdc
Relay Trip Point:	Adjustable ZERO to SPAN via trimpots
Relay Delay:	5 seconds on / 5 seconds off
Wiring Connections:	Screw terminal block (14 to 22 AWG)
Pressure Connection:	Barbed ports for 4.3 mm (0.170") ID flexible tubing
Conduit Connection:	Access hole for ½" NPT conduit or cable gland
Optional Display:	3½ digit LCD, 10 mm (0.4") digit height
Enclosures:	High Impact Black ABS, plenum rated with optional gasket 116 mm W x 84 mm H x 53 mm D (4.55" x 3.3" x 2.1")

DIMENSIONS:





DESCRIPTION:

The ULP Ultra Low Pressure Transducer is used to measure differential pressure in the ranges of 0.125"W.C. to 1"W.C. (30 to 250Pa). It combines precision high sensitivity silicon sensing capabilities and the latest ASIC technology with Dynamic Self Compensation to substantially reduce offset errors due to changes in temperature, stability to warmup, long term instability and position sensitivity. It is ideal for monitoring pressure for air and other clean inert gas and is limited only to those media which will not attack silicon, nylon and epoxy adhesive.

The ULP features a field selectable uni- or bi-directional pressure ranges and output signal types for the most flexible applications. An optional on-board relay output, which is field adjustable, allows for an alarm function. Available options include an LCD and static pressure probes.

Please read the installation instructions carefully before installing and commissioning the pressure transducer. Failure to follow the instructions may result in product damage. A qualified technician must install this device.

The ULP Pressure Transducer 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. Mount the enclosure with two user-supplied screws but do not over-tighten.

The unit may be mounted in any position but typically is installed on a vertical surface with the pressure ports on the right and the cable entrance on the left. 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.

Do not use in an explosive or hazardous environment, with combustible or flammable gasses, as a safety or emergency stop device or in any other application where failure of the product could result in personal injury. Take electrostatic discharge precautions during installation and do not exceed the device ratings.

PRODUCT ORDERING INFORMATION:

MODEL	Product Description
ULP	Jumper Selectable Ultra Low Pressure Transducer

CODE	Options
A	Standard
B	LCD Display

CODE	Pressure Ranges
01	0-1" W.C., ± 1"W.C.
02	0-0.5"W.C., ± 0.5"W.C.
03	0-0.25"W.C., ± 0.25"W.C.
04	0-0.125"W.C., ±0.125"W.C.
05	0-250 Pa, ± 250 Pa
06	0-125 Pa, ± 125 Pa
07	0-60 Pa, ± 60 Pa
08	0-30 Pa, ± 30 Pa

CODE	Alarm Output
A	Alarm relay, N.O. 5 Amp

ULP	B	01	A	← Typical Model Number

Example: LCD, 0-1" or ±1"W.C., Alarm Relay

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

ACCESSORIES:

RPV
Stainless Steel Pick-up Port

The EPV is a stainless steel wall plate that incorporates a filtered port with a 1/4" barb connection for pneumatic tubing. It can me mounted on a standard junction box and used in conjunction with a low pressure transducer to monitor room pressure.

EPV
Executive ABS Pick-up Port

The EPV is a low profile, decorative ABS enclosure that incorporates a port with a 1/4" barb connection for pneumatic tubing. It can me mounted on a standard junction box and used in conjunction with a low pressure transducer to monitor room pressure.

OPV
Outside Pick-up Port

The OPV, is a weatherproof ABS enclosure with wind shield that incoporates an filtered port with 1/4" barb fitting for connection of pneumatic tubing. It can be mounted on the side of a building and used in conjunction with a low pressure transducer to monitor building pressure.

HFO & HSO Series
Pitot Tube

The HFO and HSO series are used to sense velocity pressure or static pressure respectively. Available in 152 mm (6") length. Kits are available for differential and static that are complete with pneumatic tubing.

DPFS Series
Differential Pressure Probe

The DPFS series Averaging Flow Sensor is ideal for sensing differential pressure in the inlet section of variable air volume terminal units and fan terminal units. Units can also be used to sense differential pressure at other locations in the main or branch duct systems. They are made of ABS/polycarbonate (UL94-5V) and available in lengths from 100 mm (4") to 560 mm (22")

MP Series
Differential Pressure Probes

The MP series Air Velocity Pitot Tubes are used in conjunction with a DP transducer to calculate airflow in larger ducts or in areas of turbulent airflow. The units come in pairs in either ABS or 316 S/S and are available in various lengths from 610 mm (24") to 2000 mm (80"). Gasketed mounting collars for both probes are included.

GREYSTONE
ENERGY SYSTEMS INC

Greystone Energy Systems Inc.
150 English Drive, Moncton, NB
Canada E1E 4G7

(506) 853-3057 Fax: (506) 853-6014
North America: 1-800-561-5611
e-mail: mail@greystoneenergy.com
web site: www.greystoneenergy.com

RoHS COMPLIANT

Greystone Energy Systems Inc. is one of North America's largest ISO registered manufacturers of HVAC sensors and transducers for Building Automation Management Systems. We have conscientiously established a worldwide reputation as an industry leader by maintaining leading-edge design technology, prompt technical support, and a commitment to on-time deliveries. We take pride in our Quality Management System which is ISO 9001 certified, assuring our customers of consistent product reliability.

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