# **Differential Pressure Transducers**

This series of pressure transducers have been designed as a simple low cost device to monitor pressure difference between a high and a low pressure. For example across filters, through boilers etc. These transducers can be used to measure flow using orifice plates, pitot tubes etc (see pages 21-23 for suitable digital displays with square root output). CE marked models are fully certified in accordance with EN 50081 & EN 50082.

#### **Features**

- Hall Effect (magnetic) Sensor
- Differential pressure ranges up to 25 bar
- 0 -10V dc or 4 20 mA output
- Supplied with a plug & socket
- Weight 1.2 Kg



<b>TYPE 4312</b>	<b>TYPE 4412</b>	<b>TYPE 4512</b>	
Ranges	Ranges	Ranges	
250 mbar	25 mbar	10 mbar	
400 mbar	50 mbar	20 mbar	
1 bar	100 mbar		
2 bar	160 mbar		
4 bar			
7 bar			
10 bar			
25 bar			
1 bar vacuum			
Max. line pressure 90 bar	Max. line pressure 34 bar	Max. line pressure 10 bar	
intermediate ranges available	intermediate ranges available	intermediate ranges available	

The units can be calibrated to intermediate ranges but the accuracy will relate to the appropriate sensor range shown above.

Accuracy		Alternative wetted parts		Ordering Information - Example	
Linearity & Hysteresis combined ± 2% of range		Pressure Connection	316 Stainless steel	Туре	4412A Differential Pressure Transducer.
Materials of construction		Diaphragm	17/7 ph Stainless steel	Range	50 mbar differential pressure.
		– Seal	according to fluid		
Pressure			-	Line Pressure	20 bar.
Connection	Brass	Part No. Suffixes		Connection	1/8" bspp female.
Diaphragm	Beryllium Copper	CEA	4 - 20 mA output	Fluid	For use on water.
Seal	Nitrile rubber		(CE marked).		
Cover	Anodised Aluminium	CEB	0 - 10 V dc output (CE marked).		



Baltimore Road, Birmingham B42 1DE, UK Tel +44 (0)121 357 5351 · Fax +44 (0)121 357 8319 enquiries@baileymackey.com · www.baileymackey.com

# General Specification

# Calibration

Gain (span) and offset (zero) adjustment of approx.  $\pm$  5% of range is provided under cover.

### **Temperature Effects**

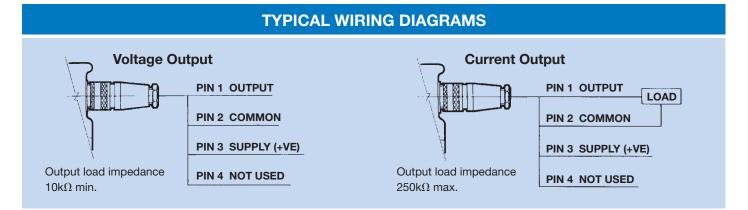
Typically  $\pm 0.14\%$  per °C between 15–30 °C. Calibrated at 20 °C.

#### **Overpressure**

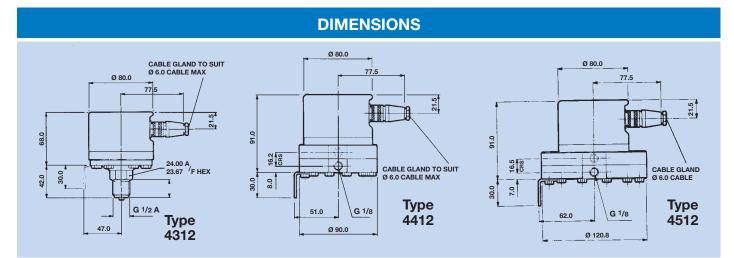
All ranges will accept range plus 10%

## Maintenance

No maintenance is required on these transducers. On critical applications, periodic checks of offset at zero pressure, with slight adjustment, if necessary, will maintain optimum performance.



NOTE It is important that the connections are made correctly. Reverse voltage application will damage the transducer.



#### Optional Addition to Series 4000 Transducers

All Hall Effect Pressure Transducers can be fitted with a digital display in the lid.

#### Features

- **31/2 digit 10 mm high LCD display**
- 4-20 mA or 0-10V dc output
- Offset & Gain adjustment through cover
- Scaled in any pressure units

When ordering state Fitted with LCD display' after the pressure transducer specification.





Baltimore Road, Birmingham B42 1DE, UK Tel +44 (0)121 357 5351 · Fax +44 (0)121 357 8319 enquiries@baileymackey.com · www.baileymackey.com