

ASIC 'Performer'

Pressure Transducers and Transmitters

20, 60, 100, 250, 400 and 700 bar

Brochure: HYD030GB1

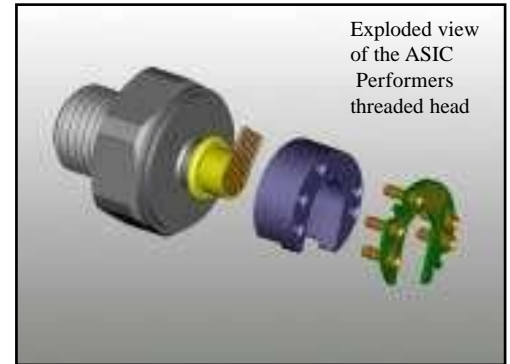


ASIC 'Performer'

Pressure Transducers and Transmitters

APPLICATIONS FOR THE ASIC PERFORMER

- Fork lift trucks - braking and load systems.
- Truck mounted cranes - load safety systems.
- Earth moving machinery - hydraulic gearbox control.
- Racing car - gearbox, fuel, cooling and suspension systems.
- Earth moving machinery - hydraulic gearbox control.
- Water usage systems - pressurised systems for industrial and hi-rise usage.
- Forest Machinery - felling and logging.
- Paper mills - speed control and weighing systems.



The Parker Filtration ASIC Performer Pressure Transducers and Transmitters.

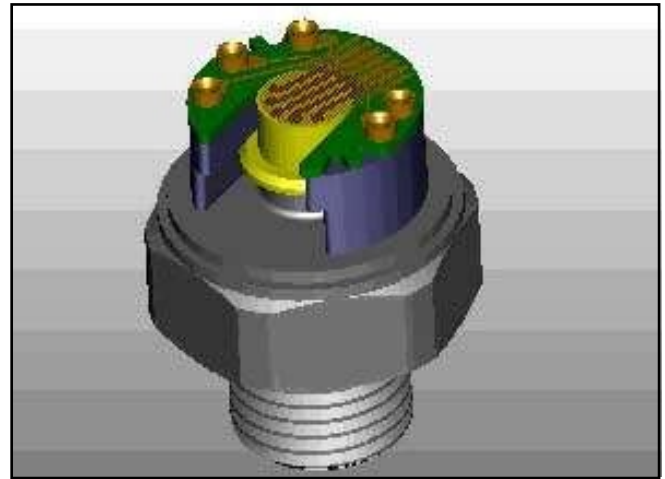
To overcome the historical problems caused by "gauge creep" of thick film sensors and the fragility of piezo-electric/ceramic based sensors, the new 'Performer' range uses a high-grade Stainless Steel element, which is coated with layers of both insulative and alloy materials. These are trimmed to a very close tolerance using state of the art, semiconductor grade, laser and ion beam methods. This extremely accurate "front end" is then coupled with Application Specific Integrated Circuitry (ASIC) to produce a sensor that is both accurate

and repeatable over a wide, fully compensated, temperature range, -40°C to +125°C. The "Performer" is now available in a variety of thread-form and connector options.

This new design offers a high stability, very low drift device, which can operate over a wide thermal range. Powered from an extended working supply range (9-35vdc {PTD} and 11-35vdc {PTX}).



In addition to the standard 6 pressure ranges available, using the ASIC technology (Application Specific Integrated Circuit) programmable software, any variation can be manufactured. Consult Parker for any additional information.



A comprehensive range of Pressure Transducers and Transmitters are available from Parker Filtration.

- One-piece body and diaphragm machining ensures long-term product stability.
- All Stainless Steel construction.
- 6 Transducer pressure ratings, 0-5V and 1-6V outputs.
- 6 Transmitter pressure ratings - 2-wire 4-20mA output.
- Micro plug and M12 connector options.



SPECIFICATION

Pressure ranges:
20, 60, 100, 250, 400, 700 Bar.

Minimum over pressure:
Rated pressure times 1.5min

Minimum burst pressure:
Rated pressure times 6 min

Vibration:
>50g

Installation:
Spanner size 22A/F.

Max. (recommended)
tightening torque = 30Nm

ELECTRICAL

Supply voltage
9 - 35v DC
9 - 35v DC
11- 35v DC

Output
0 - 5v
1 - 6v
4 - 20mA

Transducer current draw = 8mA

THREAD FORM OPTIONS

G¹/₄ (1/4BSP) for bonded seal

G¹/₄ (1/4BSP) with integral seal

M12 x 1.5-6g

7/16 UNF (37° Flare to SAE J514, size 4)

9/16 UNF (37° Flare to SAE J514, size 6)

NPTF¹/₄ (ANSI B1.20 3-1976)

NPTF¹/₈ (ANSI B1.20 3-1976)

All thread forms and sensor interface are made from 17-4PH Stainless Steel

LINEARITY, HYSTERESIS, REPEATABILITY, RESPONSE AND TEMPERATURE

Linearity:
(over any 80°C temp range)
<+/-0.05%

Hysteresis:
(over any 80°C temp range)
<+/-0.05% Full Scale

Repeatability:
(over any 80°C temp range)
<+/-0.05% Full Scale

Functional Temp Range:
-40°C to +125°C

Temperature error:
(over any 80°C temp range)
<1%

Stability:
<0.1%FS after 1m Cycles

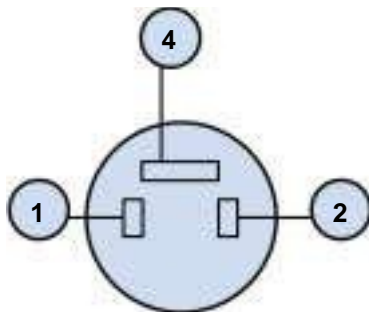
Response Time:
<1mS

Initial Calibration Accuracy:

+/- 1% Zero
+/- 1% Span

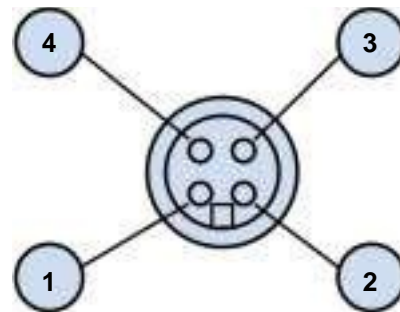
WIRING INFORMATION

Micro DIN Option



Micro DIN Option		
Pin Number	Transmitter	Transducer
1	N/A	Signal Output
2	Supply +ve	Supply +ve
4	Return	Supply Ref (0v)

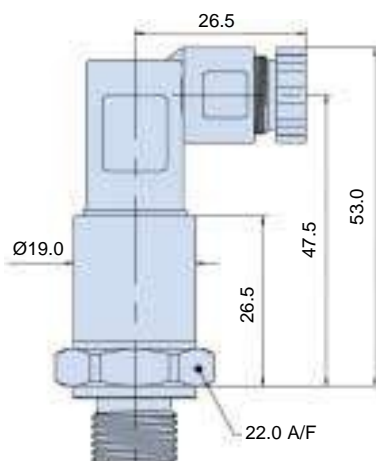
M12 Option



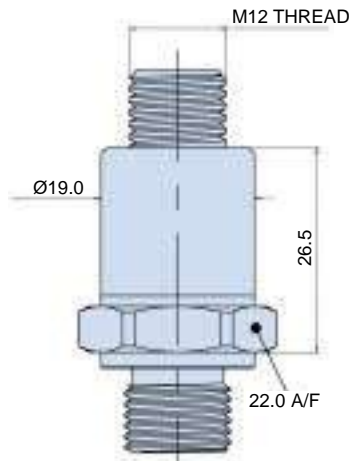
M12 Option		
Pin Number	Transmitter	Transducer
1	Supply +ve	Supply +ve
2	Return	Supply Ref (0v)
3	N/A	Signal Output
4	N/A	Not Used

INSTALLATION DETAILS

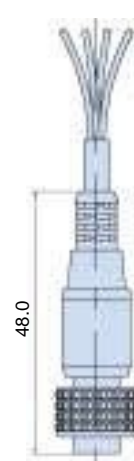
Micro DIN option



M12 option



Flying lead option



ASIC 'Performer'

Pressure Transducers and Transmitters

PREFERRED PRODUCTS TABLE

Pressure Transducers	
Part Number	Description
PTD.SB0201A1C1	0-20 bar transducer. (G $\frac{1}{4}$ " BSP) 1-6Vdc output. Micro DIN option.
PTD.SB0601A1C1	0-60 bar transducer. (G $\frac{1}{4}$ " BSP) 1-6Vdc output. Micro DIN option.
PTD.SB1001A1C1	0-100 bar transducer. (G $\frac{1}{4}$ " BSP) 1-6Vdc output. Micro DIN option.
PTD.SB2501A1C1	0-250 bar transducer. (G $\frac{1}{4}$ " BSP) 1-6Vdc output. Micro DIN option.
PTD.SB4001A1C1	0-400 bar transducer. (G $\frac{1}{4}$ " BSP) 1-6Vdc output. Micro DIN option.
PTD.SB7001A1C1	0-700 bar transducer. (G $\frac{1}{4}$ " BSP) 1-6Vdc output. Micro DIN option.
PTD.SB0201A1C2	0-20 bar transducer. (G $\frac{1}{4}$ " BSP) 1-6Vdc output. M12 Option.
PTD.SB0601A1C2	0-60 bar transducer. (G $\frac{1}{4}$ " BSP) 1-6Vdc output. M12 Option.
PTD.SB1001A1C2	0-100 bar transducer. (G $\frac{1}{4}$ " BSP) 1-6Vdc output. M12 Option.
PTD.SB2501A1C2	0-250 bar transducer. (G $\frac{1}{4}$ " BSP) 1-6Vdc output. M12 Option.
PTD.SB4001A1C2	0-400 bar transducer. (G $\frac{1}{4}$ " BSP) 1-6Vdc output. M12 Option.
PTD.SB7001A1C2	0-700 bar transducer. (G $\frac{1}{4}$ " BSP) 1-6Vdc output. M12 Option.

Pressure Transmitters	
Part Number	Description
PTX.B0201A1C1	0-20 bar transmitter. (G $\frac{1}{4}$ " BSP) 4-20mA. Micro DIN option.
PTX.B0601A1C1	0-60 bar transmitter. (G $\frac{1}{4}$ " BSP) 4-20mA. Micro DIN option.
PTX.B1001A1C1	0-100 bar transmitter. (G $\frac{1}{4}$ " BSP) 4-20mA. Micro DIN option.
PTX.B2501A1C1	0-250 bar transmitter. (G $\frac{1}{4}$ " BSP) 4-20mA. Micro DIN option.
PTX.B4001A1C1	0-400 bar transmitter. (G $\frac{1}{4}$ " BSP) 4-20mA. Micro DIN option.
PTX.B7001A1C1	0-700 bar transmitter. (G $\frac{1}{4}$ " BSP) 4-20mA. Micro DIN option.
PTX.B0201A1C2	0-20 bar transmitter. (G $\frac{1}{4}$ " BSP) 4-20mA. M12 option.
PTX.B0601A1C2	0-60 bar transmitter. (G $\frac{1}{4}$ " BSP) 4-20mA. M12 option.
PTX.B1001A1C2	0-100 bar transmitter. (G $\frac{1}{4}$ " BSP) 4-20mA. M12 option.
PTX.B2501A1C2	0-250 bar transmitter. (G $\frac{1}{4}$ " BSP) 4-20mA. M12 option.
PTX.B4001A1C2	0-400 bar transmitter. (G $\frac{1}{4}$ " BSP) 4-20mA. M12 option.
PTX.B7001A1C2	0-700 bar transmitter. (G $\frac{1}{4}$ " BSP) 4-20mA. M12 option.

Note 1: For a flying lead assembly, select the appropriate M12 option above and add a suitable cable from the "Associated Products" options below.

Example: PTX.B2505A1C2 + P.833PVC-2M = A 250 bar 4-20mA Transmitter, G1/4 for bonded seal, M12 connector with 2m PVC flying lead.

Note 2: Integral Thread options are also available in the above ranges.

