



# CHEMICAL SEAL SYSTEMS

## 2W WELDED SERIES

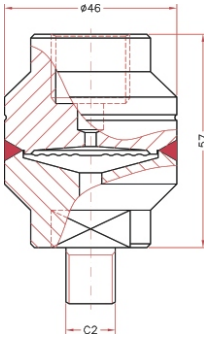
PCi's range of compact, 2W fully-welded chemical seals offer protection against aggressive or corrosive media in non-hygienic situations over a wide range of pressures. Designed to combine with bourdon tube pressure gauges up to 160 mm diameter, 2W seals are available for operating conditions up to 400 bar and 400°C.

Fitted with AISI 316L diaphragm and filled with TO - 05 transmission fluid as standard, for specialist environments the 2W range can be fitted with a selection of exotic diaphragm materials and alternate fills.

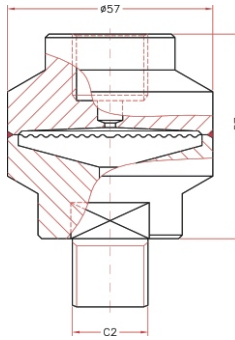


### Instrument Connection

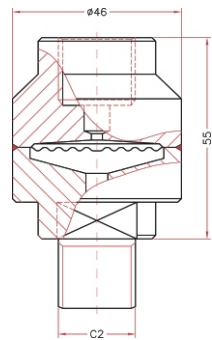
Model	Standard	Options
2WA	1/4" BSP female	1/4" NPT female; 1/2" NPT or BSP female
2WM	1/2" BSP female	1/4" NPT or BSP male or female; 1/2" NPT female
2WB	1/2" BSP female	1/4" NPT or BSP male or female; 1/2" NPT female



2WA



2WB



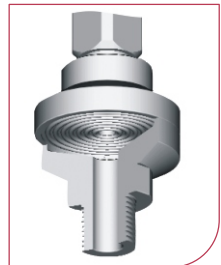
2WM

### Process Connection (C2)

Model 2WB	1/4"; 3/8"; 1/2"; 3/4"; 1" NPT or BSP male or female
Model 2WM	1/4"; 3/8"; 1/2" NPT or BSP male or female
Model 2WA	1/4"; 1/2" NPT or BSP male or female

#### OPTIONS

<b>Transmission Fill</b>	TO - 01, TO - 02, TO - 03, TO - 05, TO - 11, TO - 17, TO - 23, TO - 31, TO - 41, TO - 47
<b>Capillary</b>	Seamless AISI-316 L,
<b>Armour</b>	Flexible stainless steel
<b>Diaphragm Materials</b>	Tantalum, Rhodium, Nickel, MONEL, Hastelloy, Gold-plated, PTFE, PDFA-coated
<b>Certificates</b>	calibration test certificate, conformity certificate on pressurized parts (2.2), EN 10204 3.1.B material certificate, MR 01.75 NACE certificate



For more specialist situations, seal unit lower housings can be constructed of exotic materials, such as Hastelloy or Monel, or coated with, for example, Rhodium, PTFE or PDFA. Please contact our sales team for more details.

## Instrument Limitations

Process Connection BSP/NPT	1/4"	1/4 ... 1/2"	1/4 ... 1/2"
	2WA	2WM	2WB
Max. Process Pressure at 20 °C (bar)	400	60	60
Min. Pressure Range for PI (bar)	100	6	1
Max. Capillary Length (metre)	4	6	15

### Effects of temperature on pressure readings per $\pm 10$ °C ( in mbar) ~ measured from 20°C

Process Connection			Minimum Range (bar)			Temperature Effects					
Model	Thread Size (C2)	Diaphragm Diameter (mm)	Gauge Diameter			Pressure (bar)	Gauge Diameter			Seal	Capillary per metre
			$\phi$ 63	$\phi$ 100	$\phi$ 160		$\phi$ 63	$\phi$ 100	$\phi$ 160		
2WB	1/2"	51	1	1	2	< 60	9	38	25	5.3	10
2WM	1/2"	35	6	6	10	< 60	63	256	400	17	70
2WA	1/4"	29	100	100	-	> 100	150	600		25	160

As with other seals, the wider the diaphragm, the less temperature affects the accuracy of the PI. However, the smaller the diaphragm, the greater the pressure range available. It is simply therefore, a matter of selecting the optimum values for your process conditions.



## ORDERING MATRIX

Locate the order code for your specification and enter it into the appropriate box. See the Diaphragm Seals introduction and the tables on the previous page for more information about each component.

<b>SIZE</b> <b>A:</b> 1/4" <b>B:</b> 3/8" <b>C:</b> 1/2" <b>D:</b> 3/4" <b>E:</b> 1"	<b>PROCESS CONNECTION</b>  <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: center;">CONNECTION</th> <th style="text-align: center;">TYPE</th> </tr> <tr> <td style="text-align: center;">1: NPT</td> <td style="text-align: center;">M: Male</td> </tr> <tr> <td style="text-align: center;">2: BSP</td> <td style="text-align: center;">F: Female</td> </tr> </table>	CONNECTION	TYPE	1: NPT	M: Male	2: BSP	F: Female	<b>TRANSMISSION FILL</b> <b>1:</b> TO - 02 <b>2:</b> TO - 03 <b>3:</b> TO - 11 <b>4:</b> TO - 17 <b>5:</b> TO - 23 <b>6:</b> TO - 31 <b>7:</b> TO - 41 <b>8:</b> TO - 47	<b>CAPILLARY TYPE</b> <b>O:</b> None <b>A:</b> Seamless <b>B:</b> Armoured	<b>CERTIFICATES</b> <b>1:</b> calibration test certificate <b>2:</b> conformity certificate <b>3:</b> material certificate <b>4:</b> NACE certificate
CONNECTION	TYPE									
1: NPT	M: Male									
2: BSP	F: Female									
<b>QUANTITY</b>	<b>MODEL</b> <b>2WA</b> <b>2WB</b> <b>2WM</b>	<b>DIAPHRAGM MATERIAL</b> <b>S:</b> 316L St. Steel <b>D:</b> MONEL® 400 <b>A:</b> Tantalum <b>E:</b> Hastelloy C276 <b>B:</b> Rhodium <b>G:</b> PTFE <b>C:</b> Nickel <b>H:</b> PDFA-coated			<b>CAPILLARY LENGTH</b> <b>O:</b> None <b>A:</b> 1m <b>B:</b> 1.5m <b>C:</b> 2m <b>D:</b> 3m <b>E:</b> 4m <b>F:</b> 6m	<b>INSTRUMENT CONNECTION</b> <b>A:</b> Standard <b>B:</b> 1/4" NPT female <b>C:</b> 1/4" NPT male <b>D:</b> 1/2" NPT female <b>E:</b> 1/4" BSP female <b>F:</b> 1/4" BSP male <b>G:</b> 1/2" BSP female				

Can be fitted to PG

Select the instrument you want to have connected to this seal and write in the complete order number in the empty matrix above. Together with the seal order number this completes the specifications for your instrument.