

chemical seal EC internal diaphragm, threaded type

typical “EC” seal applications

- to combine with mechanical pressure gauges.
- to combine with pressure switches.



technical specification model EC

Threaded connection NPT(male or female) BSP(male or female)	ECB	ECM	ECA	ECE	
Process connection	1/4" ... 1/2"	1/4" ... 1/2"	1/4"	1/4" ... 1/2"	NPT / BSP
Diaphragm size in mm	51	35	29	23	
Max. process pressure in bar at 20 °C	60	60	400	400	
Max. capillary length in meter	15	6	4	-	
Min. pressure range for PI in bar	1.0	6.0	100	25	

Process connection	Standard	Options
Model ECB	1/4" / 3/8" / 1/2" / 3/4" / 1" NPT/BSP	female
Model ECM	1/4" / 3/8" / 1/2" NPT/BSP	female
Model ECA	1/4" / 1/2" NPT/BSP	female
Model ECE	1/4" / 1/2" NPT/BSP	female
		Special connection

Wetted parts	Standard	Options
Process connection	AISI316 (L)	Exotic materials
Diaphragm	AISI316L	Hastelloy B2, Monel, Hastelloy-C276,
Upperbody	AISI316 (L)	

Instrument connection	Standard	Options
Threaded ECB & ECM	1/2" BSP female	Special
Threaded ECA & ECE	1/4" BSP female	Special

Features	Standard	Options
Capillary tubing	AISI316	
Armoring	AISI304	PVC sleeve black Polyolefin sleeve black Polyolefin sleeve white
Filling fluid	BSO22 (FDA app.)	Others see page 171
Diaphragm	AISI316L	On request
Temperature reducer		All instruments except DP
Full welded construction		All instruments
Flushing connection		1 or 2 (with 1/4"npt plugs)
Calibration on process conditions		All instruments

Minimum ranges on gauges and transmitters per diaphragm

Diaphragm diameters dD For process connections			Min. span in mbar For transmitters			Min. range in bar For pressure gauges PI		
Diaphragm	Thread		GP	AP	DP	Ø 63	Ø 100	Ø 160
51 mm	1/2" male	ECB	n.a.	n.a.	n.a.	1.0	1.0	2.0
35 mm	1/2" male	ECM	n.a.	n.a.	n.a.	6.0	6.0	10
29 mm	1/4" male	ECA	n.a.	n.a.	n.a.	100	100	
23 mm	1/4" male	ECE	n.a.	n.a.	n.a.	25	n.a.	n.a.

Temperature effect is per +10 °C and measured from 20 °C.

temperature effect on pressure indicator, capillary and seal

Diaphragm diameters dD For process connections			Temp. effect in mbar per 10°C On pressure indicators					
Diaphragm	Thread		Bar	Ø 63	Ø 100	Ø 160	Seal	Cap / mtr
51 mm	1/2" male	ECB	60 bar	9.0	38	14	5.3	10
35 mm	1/2" male	ECM	60 bar	63	256	400	17	70
29 mm	1/4" male	ECA	60 bar	150	600	n.a.	25	160
23 mm	1/4" male	ECE	60 bar	200	n.a.	n.a.	150	n.a.
23 mm	1/4" male	ECE	< 60 bar	350	n.a.	n.a.	150	n.a.

Temperature effect is per +10 °C and measured from 20 °C.

