

Electrical Contact Pressure Gauge (EP)

General Description

EP model contact pressure gauges with electrical contacts are suitable for controlling and regulating process sequences. The contact opens and closes electrical circuits in relation to the position of the pointer on the pressure gauge.

Contact pressure gauges with bourdon tube system are used at process pressures of approximately 1 kg/sq.cm and upwards. The materials used to make the gauges are suitable for chemically aggressive gases or liquids, although these may not be too viscous or be susceptible to crystallization.

The tried and tested bourdon tube system coupled with modular contacts, provides a very reliable contact pressure gauge.

Electrical alarm contacts are used as magnetic snap-action contacts, especially in harsh industrial conditions, the high contact pressure and the choice of different electrical contact materials enables high currents to be switched reliably. If the electrical switching capacities of the contacts are exceeded or not reached, a relay is to be used to provide appropriated current rating.



Features

- Compliance to latest EN837-1
- Nominal sizes: 100 and 150 MM
- Standard ranges: -1 to 0 kg/cm² and 0 to 1 up to 700 kg/cm²
- Overload capacity 130 % of FSD without contact
- 100% with contact
- Protection to IP65
- Accuracy class $\pm 1\%$ of FS (contact accuracy 2.5%)
- Stainless steel casing
- Dry or liquid filled version
- External zero adjustment
- Socket to case - TIG argon welded

Applications

- Chemical and fertilizer
- Petrochemical
- Thermal, nuclear and hydroelectric power stations
- Pharmaceutical
- Food process
- Water treatment plants
- Iron and steel
- Rubber molding/ processing plants
- Hydraulics and pneumatics
- Refineries
- Hydraulic power packs
- Cryogenics

Specifications

Standards	Description
Reference standard	EN837-1
Mounting	Direct bottom
Connection	½" NPT (M)
Case and bezel	SS304 (Bayonet type bezel)
Bourdon	SS316 L
Socket	SS316 L
Movement	SS304
Dial	Aluminum, white background with black marking
Pointer	Aluminum, black color micrometer with zero adjustable
Accuracy	±1% of FS (standard) (Contact accuracy 2.5%)
	± 0.5% of FS * (Contact accuracy 2.5%)
Dampening liquid	Di electric Silicon Oil up to 100°C *
Over pressure limit	As per EN Standard
	From 0 to 100 Bar, 125% of maximum scale value*
	From 100 bar to 600 Bar, 115% of maximum scale value*
Window	Polycarbonate glass
Protection	IP65 (for all specified sizes)
Blow off disc and filling plug	Neoprene
Gasket	Silicon
Ambient temperature	-25°C to +65°C
Process temperature	Max. 120°C (for dry gauge)
	Max. 100°C (for Di-electric silicon oil filled gauges)

Note : *On customer's specific requirement

Pressure Range Details

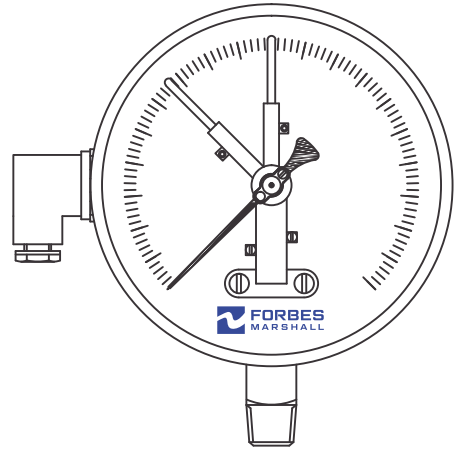
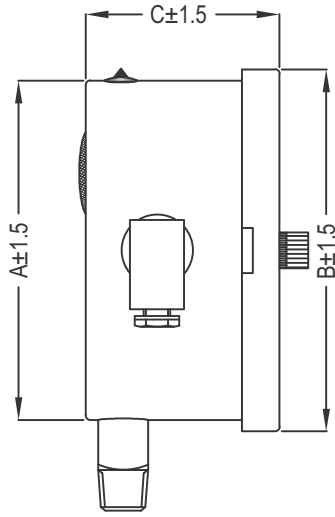
Code	Kg/sq.cm (Code A)	BAR (code B)	Code	KPA (Code C)	Code	Dual scale kg/sq.cm and PSI (Code D)	Dual scale Bar and PSI (Code E)	Code	Dual scale kg/sq.cm and PSI (Code D)	Dual scale Bar and PSI (Code E)
AA	-1 + 0	-1 + 0	AR	-100 + 0	BI	-1 + 0/-15 + 0	-1 + 0/-15 + 0	CI	0 + 210/0 + 3000	0 + 210/0 + 3000
AB	0 + 0.6	0 + 0.6	AL	0 + 60	BK	0 + 1/0 + 15	0 + 1/0 + 15	CJ	0 + 280/0 + 4000	0 + 280/0 + 4000
AC	0 + 1	0 + 1	AM	0 + 100	BL	0 + 1.6/0 + 23	0 + 1.6/0 + 23	CK	0 + 420/0 + 6000	0 + 420/0 + 6000
AD	0 + 1.6	0 + 1.6	AN	0 + 160	BZ	0 + 2.1/0 + 30	0 + 2.1/0 + 30	CL	0 + 700/0 + 10000	0 + 700/0 + 10000
AE	0 + 2.5	0 + 2.5	AO	0 + 250	CA	0 + 4.2/0 + 60	0 + 4.2/0 + 60			
AF	0 + 4	0 + 4	AP	0 + 400	BO	0 + 6.0/0 + 86	0 + 6.0/0 + 86			
AG	0 + 6	0 + 6	AQ	0 + 600	CB	0 + 7.0/0 + 100	0 + 7.0/0 + 100			
AH	0 + 10	0 + 10	AY	0 + 1000	BP	0 + 10/0 + 150	0 + 10/0 + 143			
AI	0 + 16	0 + 16	AZ	0 + 1600	CC	0 + 14.0/0 + 200	0 + 14.0/0 + 200			
AJ	0 + 25	0 + 25	BA	0 + 2500	BQ	0 + 16.0/0 + 230	0 + 16.0/0 + 230			
AK	0 + 40	0 + 40	BB	0 + 4000	CD	0 + 21.0/0 + 300	0 + 21.0/0 + 300			
AL	0 + 60	0 + 60	BC	0 + 6000	CE	0 + 28.0/0 + 400	0 + 28.0/0 + 400			
AM	0 + 100	0 + 100	BD	0 + 10000	CF	0 + 42.0/0 + 600	0 + 42.0/0 + 600			
AN	0 + 160	0 + 160	BE	0 + 16000	CG	0 + 70.0/0 + 1000	0 + 70.0/0 + 1000			
AO	0 + 250	0 + 250	BF	0 + 25000	BU	0 + 100/0 + 1500	0 + 100/0 + 1500			
AP	0 + 400	0 + 400	BG	0 + 40000	CH	0 + 140/0 + 2000	0 + 140/0 + 2000			
AQ	0 + 600	0 + 600	BH	0 + 60000	BV	0 + 160/0 + 2300	0 + 160/0 + 2300			

Compound Pressure Range

Code	mmHg / Kg/sq.cm (Code F)	mmHg/Bar (Code G)	Code	Kg/sq.cm (Code A)	Bar (Code B)	Code	Dual scale in Hg+PSI/mmHg+Kg/Sq.cm (Code H)	Dual Scale in Hg+PSI/mmHg+Bar (Code I)	Code	Dual scale in Hg+PSI/Kg/Sq.cm (Code J)	Dual scale in Hg+PSI/Bar (Code K)
CM	-760 + 1.5	-760 + 1.5	CU	-1 + 1.5	-1 + 1.5	DC	-30 + 20/-760 + 1.5	-30 + 20/-760 + 1.5	FA	-30 + 20/-1 + 1.5	-30 + 20/-1 + 1.5
CN	-760 + 3.0	-760 + 3.0	CV	-1 + 3.0	-1 + 3.0	DD	-30 + 42/-760 + 3.0	-30 + 42/-760 + 3.0	FB	-30 + 42/-1 + 3.0	-30 + 42/-1 + 3.0
CO	-760 + 5.0	-760 + 5.0	CW	-1 + 5.0	-1 + 5.0	DE	-30 + 70/-760 + 5.0	-30 + 70/-760 + 5.0	FC	-30 + 70/-1 + 5.0	-30 + 70/-1 + 5.0
CP	-760 + 6.0	-760 + 6.0	CX	-1 + 6.0	-1 + 6.0	DF	-30 + 85/-760 + 6.0	-30 + 85/-760 + 6.0	FD	-30 + 85/-1 + 6.0	-30 + 85/-1 + 6.0
CQ	-760 + 7.0	-760 + 7.0	CY	-1 + 7.0	-1 + 7.0	DG	-30 + 100/-760 + 7.0	-30 + 100/-760 + 7.0	FE	-30 + 100/-1 + 7.0	-30 + 100/-1 + 7.0
CR	-760 + 9.0	-760 + 9.0	CZ	-1 + 9.0	-1 + 9.0	DH	-30 + 125/-760 + 9.0	-30 + 125/-760 + 9.0	FF	-30 + 125/-1 + 9.0	-30 + 125/-1 + 9.0
CS	-760 + 15.0	-760 + 15.0	DA	-1 + 15.0	-1 + 15.0	DI	-30 + 210/-760 + 15.0	-30 + 210/-760 + 15.0	FG	-30 + 210/-1 + 15.0	-30 + 210/-1 + 15.0
CT	-760 + 24.0	-760 + 24.0	DB	-1 + 24.0	-1 + 24.0	DJ	-30 + 340/-760 + 24.0	-30 + 340/-760 + 24.0	FH	-30 + 340/-1 + 24.0	-30 + 340/-1 + 24.0

Direct Bottom

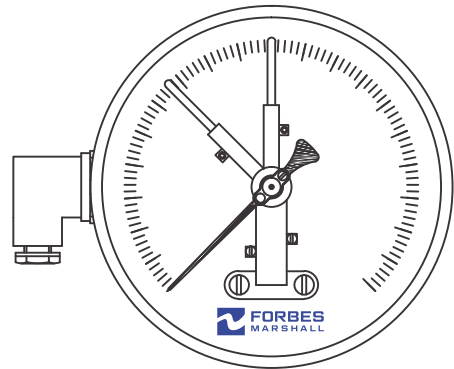
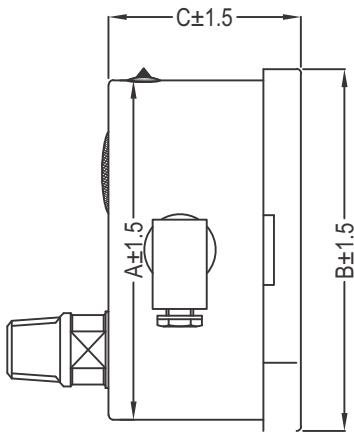
Mounting - 1



Parameters	Dial size	
	100	150
A	Ø100	Ø150
B	Ø110	Ø160
C	70	70

Lower Back

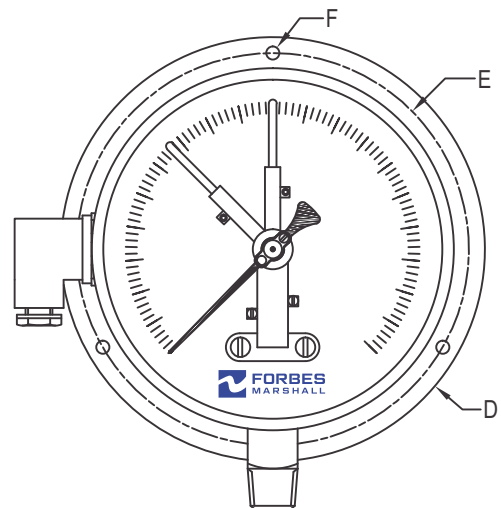
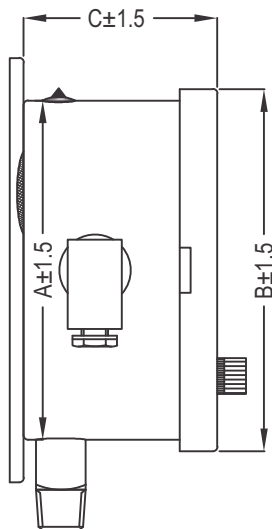
Mounting - 2



Parameters	Dial size	
	100	150
A	Ø100	Ø150
B	Ø110	Ø160
C	70	70

Surface Bottom

Mounting - 4



Parameters	Dial size	
	100	150
A	Ø100	Ø150
B	Ø110	Ø160
C	70	70
D	Ø134	Ø186
E	Ø118	Ø168
F	Ø6	Ø6

Ordering Information

Model		EP	**	*	*	*	*	**	*	*	****
Dial Size											
100 mm (4")	E										
150 mm (6")	F										
Mountings											
Direct bottom	1										
Lower back	2										
Surface bottom	4										
Connection Size											
1/4"	A										
3/8"	B										
1/2"	C										
M20X1.5P	1										
Connection type											
NPT (M)	A										
BSP (M)	B										
BSPT (M)	C										
Metric thread (M)	M										
Range	**										
Engineering Unit**											
Kg/sq.cm	A										
Bar	B										
KPA	C										
Dual scale Kg/sq.cm-Psi	D										
Dual scale Bar-Psi	E										
CONTACT											
1 NO Single contact	A										
1 NC Single contact	B										
1 NO 1 NC Double contact	C										
1 NC 1 NO Double contact	D										
2 NO Double contact	E										
2 NC Double contact	F										
1 SPDT Single pole double throw	G										
Others please specify											
Case and Bezel											
SS304 (standard)											
SS316 *											
Bourdon and Socket											
SS316L (standard)											
SS316											
Monel*											
Movement											
SS304 (standard)											
SS316											
Pointer											
Micrometer pointer (standard)											
Window											
Polycarbonate glass (standard)											
Optional Features											
Accuracy 1 % (contact accuracy 2.5%) (standard)											
Accuracy 0.5% (contact accuracy 2.5%)											
Di-electric silicon oil case filling											
5 Amps. contact rating											
SS tag plate											
Custom designed dial											
Mirror scale dial											
Seamless bourdon											
Tests and Certificates											
3 Point calibration (standard)											
5 point calibration											
Material test certificate											
NACE conformity to wetted parts											
Oxygen service											
EN 10204 3.1 B certification											
Third party inspection											
Customized testing (please specify)											

Ordering example: EPE1CAACAA-0000 (with standard selection)

Important notes

* On customer's specific requirement

** Please refer Pressure Range Table for other pressure ranges and units

Technical specifications, MOC subjected to change without prior notice



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