

pressure gauges with electric contacts DS 4" (100mm)

MCE10



CE Compliance to requirements of
LVD 2006/95/EC - PED 97/23/EC

They are used to control the electrical operation of compressors, pumps, presses, hydraulic and pneumatics equipment. The contacts open or close the circuit depending on the position of the indicating pointer and they are adjustable over the whole range. For application on severe working conditions, such as rapid and frequent pressure change, vibration and pulsation, they are manufactured with the case liquid filled. The filling drastically reduces the effect of such factors as well as those caused by a corrosive atmosphere, giving longer life and better performances of the pressure gauge and their electric contacts. They are also available with inductive contacts intrinsically safe.

1.M1.1 - Standard Model

Ranges: from 0...30 to 0...15000 *psi* (from 0...1 to 0...1000 bar or equivalent units).

Mechanical contact: sliding contact, magnetic snap-action, electronic, inductive.

Accuracy: $\pm 1,0\%$ as per EN 837-1 - DIN 16085 (1).

Ambient temperature: $-13...+149$ °F ($-25...+65$ °C).

Process fluid temperature: *max* $+212$ °F ($+100$ °C).

Working pressure: max 75% of the full scale value.

Over pressure: not suitable.

Protection: IP 55 as per EN 60529/IEC 529.

Socket material: copper alloy .

Elastic element:

copper alloy for pressure ranges ≤ 580 *psi* (40 bar);

AISI 316 L st.st. for pressure ranges ≥ 870 *psi* (60 bar).

Case: stainless steel.

Ring: stainless steel, bayonet lock.

Window: plastic.

Movement: stainless steel.

Dial: aluminium, white with black markings.

Pointer: not adjustable, aluminium, black.

1.M1.3 - Filled Model

Mechanical contact: magnetic snap-action, electronic, inductive.

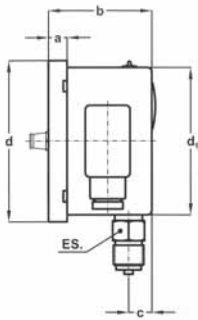
Accuracy: $\pm 1,6\%$ as per EN 837-1 - DIN 16085 (1).

Filling liquid: silicon oil.

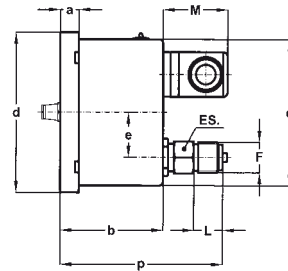
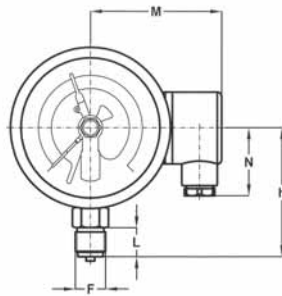
Protection: IP 65 as per EN 60529/IEC 529.

Other features: as Standard Model.

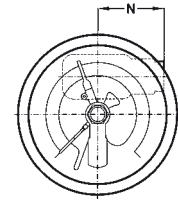
(1) The addition of mechanical electric contacts affects the accuracy of instruments such that 1% becomes 1,5%, 1,6% becomes 2,4% etc. (add the 50% of accuracy; if the contact is of the magnetically assisted type, this value can't be added within the $\pm 5\%$ of setting point).



A - LOWER CONNECTION



D - BACK CONNECTION



Mounting	F	a	b (1)	c	d	d ₁	e	h	p (1)	N	L	ch	Weight (2)
Lower	41M G 1/2 A	0.51" (13)	2.81" - 3.24" (71,5 - 82,5)	0.63" (16.1)	4.35" (110,6)	3.97" (101)		3.48" (88,5)		1.81" (46)	0.78" (20)	0.86" (22)	1.54 lbs (0,7 kg)
Back	43M 1/2-14 NPT						1.22" (31)		4.44" - 4.87" (112,9 - 123,9)				

dimensions : inches (mm)

(1) dimensions for single / double contact;
(2) when filled, add 0.77 lbs (0,35 kg) for single contact and 0.88 lbs (0,4 kg) for double contact

CONTACT TYPE (1)

MODEL	Standard			Filled		
	Sliding contact, electronic					
Contact type	Sliding contact, electronic			Magnetic snap-action contact, electronic		
Contact number	1	2	2 independent	1	2	2 independent
Junction box	3 poles + GND	3 poles + GND	6 poles + GND	6 poles + GND	6 poles + GND	6 poles + GND
ø exit cables: inches (mm)	0,23...0,35 (6...9)	0,23...0,35 (6...9)	0,27...0,51 (7...13)	0,27...0,51 (7...13)	0,27...0,51 (7...13)	0,27...0,51 (7...13)
Minimum range	15 psi (1bar)	23 psi (1,6 bar)	23 psi (1,6 bar)	23 psi (1,6 bar)	36 psi (2,5 bar)	36 psi (2,5 bar)

(1) Functional characteristics, electric diagrams and contact types are available on data-sheets
: "ELECTRIC CONTACTS", "ELECTRONIC CONTACTS"

OPTIONS

C - Back flange, for lower connection pressure gauges
E - Front flange, for back connection pressure gauges
E65 - Protection IP 65, for standard model

"HOW TO ORDER" SEQUENCE

Section / Model / Case / Mounting / Diameter / Range / Process connection / Electric contact / Options
1 **M1** **1** **A** **E** **41M** **01S...M9D** **C, E**
3 **D** **43M** **E65**