

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



Compliance with requirements of
LVD 2014/35/EU - PED 2014/68/EU



They are designed to perform electrical switching operations on compressors, pumps, presses, hydraulic and pneumatic equipment, as well as in chemical and petrochemical plants. The contacts, which are adjustable throughout the entire measurement range, open or close the electrical circuit depending on the position of the pointer. For applications in particularly severe operating conditions — such as rapid and frequent pressure variations, vibrations, or pulsations — the instruments can be filled with a damping liquid. The liquid filling significantly reduces the effects of these factors, as well as those caused by aggressive or corrosive environments, improving the performance and extending the service life of both the pressure gauge and the electrical contacts. Versions with intrinsically safe inductive contacts are also available upon request.

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 UNI 8293 - DIN 16085 (1).

Ambient temperature: $-13...+149\text{ }^{\circ}\text{F}$ ($-25...+65\text{ }^{\circ}\text{C}$).

Process fluid temperature: $\text{max } +212\text{ }^{\circ}\text{F}$ ($+100\text{ }^{\circ}\text{C}$).

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

Over pressure: not suitable.

Protection: IP 55 as per IEC 529.

Socket material: copper alloy .

Elastic element:

copper alloy for pressure ranges $\leq 580\text{ psi}$ (40 bar);

AISI 316 L st.st. for pressure ranges $\geq 870\text{ psi}$ (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.

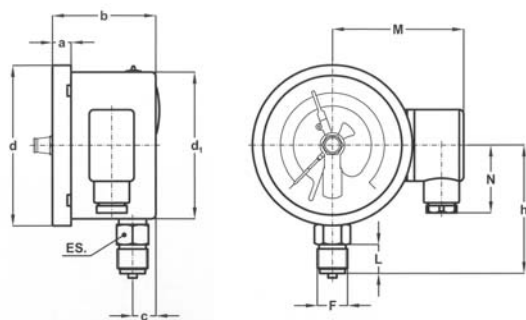
Accuracy: $\pm 1,6\%$ as per UNI 8293 - DIN 16085 (1).

Filling liquid: silicon oil.

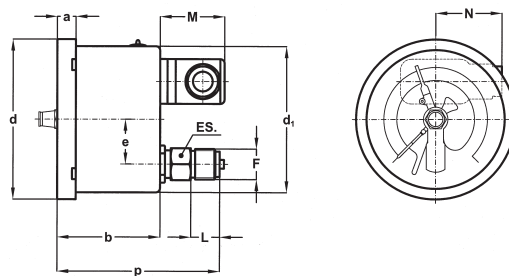
Protection: IP 65 as per IEC 529.

Other features: as Standard Model.

(1)The interference of the contacts affects the accuracy: when the instrument's pointer is influenced by the action of the contact arm, add 50% of the instrument's accuracy (excluding the intervention zone between $\pm 5\%$ if the electrical contact is of the magnetic snap type).



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"	2.81"- 3.24"	0.63" (16.1)	4.35"	3.97"		3.48" (88,5)		1.81" (46)	0.78"	0.86"	1.54 lbs
Back	43M 1/2-14 NPT	(13)	(71,5 - 82,5)		(110,6)	(101)	1.22" (31)		4.44" - 4.87" (112,9 - 123,9)		(20)	(22)	(0,7 kg)

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		
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: <i>inches</i> (mm)	<i>0,23...0,35</i> (6...9)	<i>0,23...0,35</i> (6...9)	<i>0,27...0,51</i> (7...13)	<i>0,27...0,51</i> (7...13)	<i>0,27...0,51</i> (7...13)	<i>0,27...0,51</i> (7...13)
Minimum range	<i>15 psi</i> (1bar)	<i>23 psi</i> (1,6 bar)	<i>23 psi</i> (1,6 bar)	<i>23 psi</i> (1,6 bar)	<i>36 psi</i> (2,5 bar)	<i>36 psi</i> (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 as per IEC 529, 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