

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



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



They are used to control the electrical operation of compressors, pumps, presses, hydraulic and pneumatics equipment, chemical and petrochemical plant. 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 UNI 8293 - DIN 16085 (1).

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

Process fluid temperature: *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.

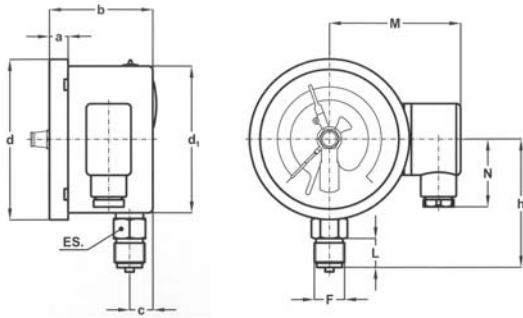
Accuracy: $\pm 1,6\%$ as per UNI 8293 - DIN 16085 (1).

Filling liquid: silicon oil.

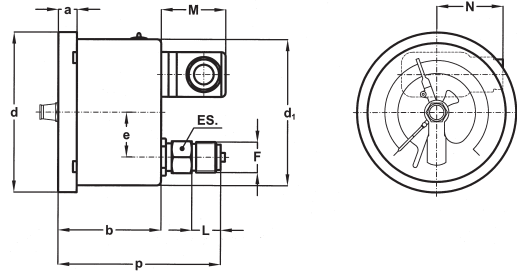
Protection: IP 65 as per IEC 529.

Other features: as Standard Model.

(1) The 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"	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		
	Sliding contact, electronic			Magnetic snap-action contact, electronic		
Contact type						
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 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

Copyright © Nuova Fima srl. All rights reserved. Any part of this publication should not be reproduced without a written Nuova Fima's srl approval