

# standard pressure gauge

## MS1 - DS 150

1.01



Compliance to requirement of  
PED 97/23/EC

They can be used with gaseous or liquid media which do not corrode copper alloy and which do not have high viscosity or do not cristalize.

### Functional and constructive characteristics.

**Accuracy class:** 1,6 as per EN 837-1.

**Ambient temperature:** -25...+65 °C.

**Process temperature:** -25...+65 °C for pressure ranges ≤ 40 bar;  
-25...+120 °C for pressure ranges ≥ 60 bar.

**Working pressure** (referred to the full scale value): max 65% for fluctuating pressure; 75% for steady pressure.

**Overpressure** (referred to the full scale value) : 25% for pressure ranges ≤ 100 bar; 15% for pressure ranges > 100 bar.

**Protection degree:** IP 44 as per IEC 529.

**Socket material:** brass, with internal restrictor Ø 0,8 mm.

**Elastic element:** phosphor bronze for pressure ranges ≤ 40 bar;  
AISI 316L st.st. for pressure ranges > 40 bar.

**Case:** AISI 304 st.st.

**Ring:** AISI 304 st.st., bayonet lock.

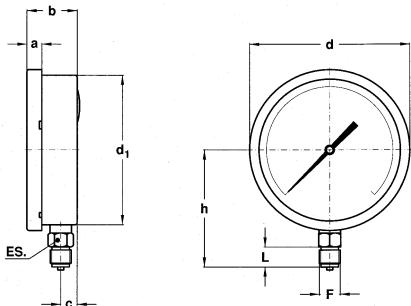
**Window:** tempered glass.

**Movement:** brass.

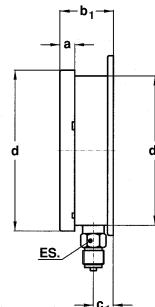
**Dial:** aluminium, white with black markings.

**Pointer:** aluminium, non-adjustable, black painted.

**Window gasket and blow out vent:** EPDM.

**standard pressure gauge****MS1 - DS 150****TYPES, DIMENSIONS AND WEIGHTS****TYPE A**

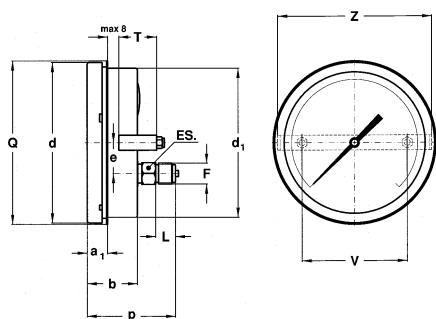
stem mounting;  
lower connection.

**TYPE C**

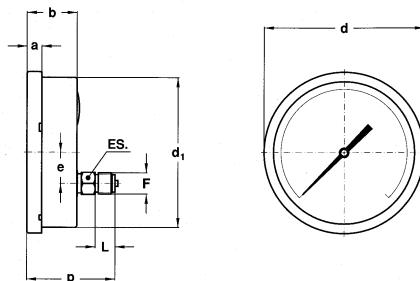
surface mounting, back flange;  
lower connection.

DS	Type	F	a	b	$b_1$	c	$c_1$	d	$d_1$	f	h	$h_1$	D	E	L	ES	Weight
150	A	G 1/2 A, 1/2-14 NPT	15	50,5	54	16,5	20	161	149,6	6	117	85	190	168 ÷ 178	20	22	1,11 kg
	C																0,99 kg

(dimensions : mm.)

**TYPE B**

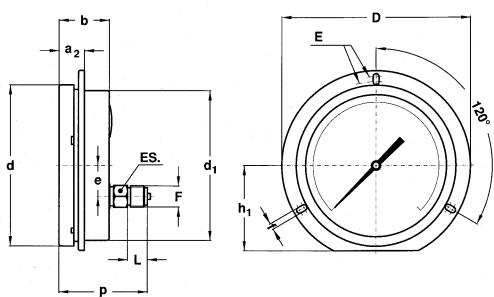
flush mounting, "U" clamp;  
back connection.

**TYPE D**

stem mounting;  
back connection.

DS	Type	F	a	$a_1$	$a_2$	b	d	$d_1$	e	f	$h_1$	p	D	E	Q	T	V	Z	L	ES	Weight
150	B	G 1/2 A 1/2-14 NPT	15	20,5	25,5	50,5	161	149,6	31	6	85	89	190	168 ÷ 178	164	41,5	106	155	20	22	0,96 kg
	D																			0,89 kg	
	E																			1,0 kg	

(dimensions : mm.)

**TYPE E**

flush mounting, front flange;  
back connection.

**standard pressure gauge****MS1 - DS 150****1.01****RANGES****PRESSURE**

TAB. 1

RANGE	bar (1)	kPa	MPa	bar ext.	bar ext. (1)	bar ext.
				psi int.	kPa int.	MPa int.
0...1	◆			◆	◆	
0...1,6	◆			◆	◆	
0...2,5	◆			◆	◆	
0...4	◆			◆	◆	
0...6	◆			◆	◆	
0...10	◆			◆		◆
0...16	◆			◆		◆
0...25	◆			◆		◆
0...40	◆			◆		◆
0...60	◆			◆		◆
0...100	◆			◆		◆
0...160	◆			◆		◆
0...250	◆			◆		◆
0...400	◆			◆		◆
0...600	◆			◆		◆
0...1000	◆			◆		◆
0...1600		◆				
0...2500		◆				

(1) available also kg/cm<sup>2</sup>**VACUUM & COMPOUND**

TAB. 3

RANGE	bar	kPa	bar ext.	bar ext.
			psi int.*	kPa int.
-1...0	◆		◆	◆
-1...0,6	◆		◆	◆
-1...1,5	◆		◆	◆
-1...3	◆		◆	◆
-1...5	◆		◆	◆
-1...9	◆		◆	◆
-1...15	◆		◆	◆
-1...24	◆		◆	◆
-100...0		◆		
-100...150		◆		
-100...300		◆		
-100...500		◆		
-100...900		◆		
-100...1500		◆		

\* vacuum unit of measurement: "inHg"

TAB. 2

RANGE	psi	psi int.	psi ext.	psi ext.
		kPa ext.	bar int.	kg/cm <sup>2</sup> int.
0...15	◆	◆	◆	◆
0...30	◆	◆	◆	◆
0...60	◆	◆	◆	◆
0...100	◆	◆	◆	◆
0...160	◆	◆	◆	◆
0...200	◆	◆	◆	◆
0...300	◆	◆	◆	◆
0...400	◆	◆	◆	◆
0...600	◆	◆	◆	◆
0...800	◆	◆	◆	◆
0...1000	◆	◆	◆	◆
0...1500	◆	◆	◆	◆
0...2000	◆	◆	◆	◆
0...3000	◆	◆	◆	◆
0...4000	◆	◆	◆	◆
0...5000	◆	◆	◆	◆
0...6000	◆	◆	◆	◆
0...10000	◆	◆	◆	◆
0...15000	◆	◆	◆	◆

TAB. 4

RANGE	psi	psi int.*	psi ext.*	psi ext.*
		kPa ext.	bar int.	kg/cm <sup>2</sup> int.
-30...0	◆	◆	◆	◆
-30...15	◆	◆	◆	◆
-30...30	◆	◆	◆	◆
-30...150	◆		◆	

\* vacuum unit of measurement: "inHg"

**standard pressure gauge****MS1 - DS 150****1.01****OPTIONS**

DESCRIPTION	CODE	
Accuracy $\pm 1,0\%$	K10	◆
Adjustable pointer	L02	◆
Maximum pointer IP 44 on plexiglas window (1)	L21	◆
Restrictor $\varnothing 0,4$ mm.	S06	◆
Plexiglass window	T31	◆
Safety glass window	T32	◆

(1) accuracy class is guaranteed when the indicating pointer is not affected by the maximum pointer

**HOW TO ORDER**

During 2004 ordering guide could be modified. We regret for any inconvenience that could arise in ordering this product.

**ACCESSORIES**

**Adjustable over-load protector:** this is useful for installations which may generate high overpressures; the pressure gauges is automatically excluded at the pre-set pressure and cut in again automatically when the operating pressure returns to normal. For further details refer to relevant data sheet.

**Valves:** for construction details and for use limits refer to relevant data sheet.

**Pigtail and siphons:** recommended with temperatures of 65° C (150° F) or over. For further details refer to relevant data sheet.

**Pressure snubbers:** for further details refer to relevant data sheet.

1 01- bourdon tube pressure gauges

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- A - lower connection - stem mounting
- B - back connection, flush mounting; "U" clamp
- C - lower connection - surface mounting, back flange
- D - back connection - stem mounting
- E - back connection, flush mounting; front flange

G G - DS 150

0/10 bar see ranges tables

- 21M - G 1/4 A
- 23M - 1/4-18 NPT
- 41M - G 1/2 A
- 43M - 1/2-14 NPT

K10 see options table