# M21-M31-M41-M61 Pressure gauges with electrical contacts

M21/M31 - Differential pressure

M41 - Relative pressure with strong overpressure

M61 - Pression Absolue

Gauges with bellows Ø 150 mm

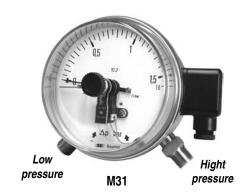
For corrosive fluids and atmospheres

Dry contacts (CES)

Electrical part conforms to Low Voltage Directive DBT 73/23/C€

Based upon the  $\bf MZ$  (M21) -  $\bf MX$  (M31) -  $\bf ME$  (M41) -  $\bf MA$  (M61) gauges of which they share all characteristics, they are fitted with electrical contact blocks allowing the following control functions:

- single : min and max - dual : min-max and max-min





M21

# Specifications (20°C)

Measurement range See table on next page

Accuracy  $\pm 3 \%$  Gauge working  $-20...70^{\circ}$ C

**temperature** The gauge may be used on fl uid temperatures up to

200°C providing that the gauge temperature does not

exceed 70°C

Protection rating IP 65 according NF EN 60529.

Sensing element Two 1.4404 (AISI 316L) stainless steel bellows.

Balance effect by high tensile leaf spring; mechanical start and end-of-travel stops to withstand full static

pressure.

Connections and parts in contact with process fluid

1.4301 (AISI 304) Stainless steel.

Thread: G 1/2 or 1/2 NPT.

Case and bezel ring 1.4301 (AISI 304) Stainless steel.

bayonet lock type.

Window Transparent polycarbonate domed

with watertight index adjustment knob. Restrictor sc

Window gasket Elastomer.

Movement Stainless steel.

Dial Aluminium alloy, rubber zero stop, black graduations

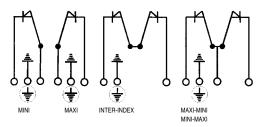
and figures on white background..

Pointer Aluminium alloy, black painted.

Electrical connection Terminal block. M20x1.5 cable gland

Ø 7 a 13 mm cable.

Block diagragm showing the contact block control functions:



Characteristics of electrical contacts and relays AREB: see data sheet A21.33

#### **Options**

Contacts material: palladium silver, gilded contacts

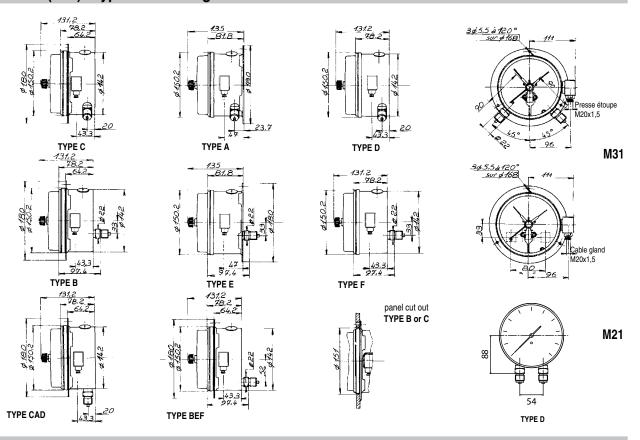
Oxygen application  $\it Code\ 0765$  Special threads  $\le \,$  G 1/2 or 1/2 NPT.

Restrictor screw Code 0771

Index regulation by a protected system Code 0758



## Dimensions (mm) - Type of mounting



## Measurement ranges (bar)

#### M61 (MA/CES)

		Overpressure											
Code	Absolute pressure	0,6	1	1,6	2,5	4	6	10	16	25	40	60	100
10	0 + 0,25	*	*	*	*	$\otimes$	$\otimes$	0	•				
11	0 + 0,4	*	*	*	*	*	$\otimes$	$\otimes$	0	•			
12	0 + 0,6	*	*	*	*	*	*	$\otimes$	$\otimes$	•			
15	0 + 1		*	*	*	*	*	*	$\otimes$	0			
16	0 + 1,6			*	*	*	*	*	*	0	•		
18	0 + 2,5				*	*	*	*	*	*	0		
19	0 + 4					*	*	*	*	$\otimes$	$\otimes$		
20	0 + 6						*	*	*	*	*	•	
22	0 + 10							*	*	*	*	0	•
24	0 + 16								*	*	*	*	
	Code	Α	С	D	Е	F	G	Н	J	Κ	L	М	N

Choose an absolute pressure range, corresponding to the maximum overpressure to which the gauge will be submitted. For an intermediate overpressure, take the value of the overpressure immediately above.

### M21 (MZ/CES) - M31 (MX/CES)

		Static pressure											
Code	Differential pressure	0,6	1	1,6	2,5	4	6	10	16	25	40	60	100
10	0 + 0,25	*	*	*	*	$\otimes$	$\otimes$	0	•				
11	0 + 0,4	*	*	*	*	*	$\otimes$	$\otimes$	0	•			
12	0 + 0,6	*	*	*	*	*	*	$\otimes$	$\otimes$	•			
15	0 + 1		*	*	*	*	*	*	$\otimes$	0			
16	0 + 1,6			*	*	*	*	*	*	0	•		
18	0 + 2,5				*	*	*	*	*	*	0		
19	0 + 4					*	*	*	*	$\otimes$	$\otimes$		
20	0 + 6						*	*	*	*	*	•	
22	0 + 10							*	*	*	*	0	•
24	0 + 16								*	*	*	*	0
26	0 + 25									*	*	*	*
	Code	Α	С	D	Е	F	G	Н	J	K	L	М	N

Choose a differential pressure range  $\Delta P$ , corresponding to the maximum static pressure to which the gauge will be submitted. For an intermediate static pressure, take the value of the static pressure immediately above.

#### M41 (ME/CES)

		Overpressure											
Code	Relative pressure	0,6	1	1,6	2,5	4	6	10	16	25	40	60	100
09	0 + 0,16	*	*	*	*	$\otimes$	$\otimes$	0	•				
10	0 + 0,25	*	*	*	*	*	$\otimes$	$\otimes$	0	0			
11	0 + 0,4	*	*	*	*	*	*	$\otimes$	$\otimes$	•			
12	0 + 0,6		*	*	*	*	*	*	$\otimes$	0			
15	0 + 1			*	*	*	*	*	*	0	•		
16	0 + 1,6				*	*	*	*	*	*	0		
18	0 + 2,5					*	*	*	*	$\otimes$	$\otimes$		
19	0 + 4						*	*	*	*	*	•	
20	0 + 6							*	*	*	*	0	•
22	0 + 10								*	*	*	*	0
	Code	Α	С	D	Ε	F	G	Н	J	K	L	М	N

Choose a relative pressure range, corresponding to the maximum overpressure to which the gauge will be submitted. For an intermediate overpressure, take the value of the overpressure immediately above.

#### Accuracy for all these pressure gauges :

\* Accuracy ± 3 % on 270°

⊗ Accuracy > 3 % on 270°

O Accuracy > 3 % on 170°

Values for readings in

Accuracy > 3 % on 100°

undisturbed areas

# Ordering details - M21/M31/M41/M61

