



### Application

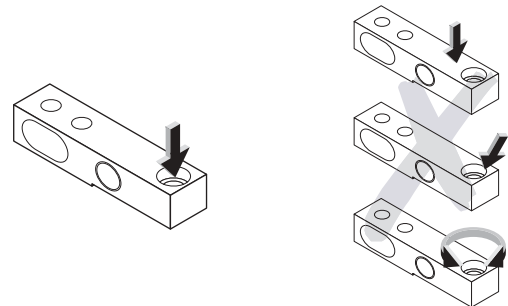
#### Remarks

A mechanical stop must protect the load cell against "static" overloads. The adjustment of this stop must leave a gap at least equal to the load cell's deflection under full load. The load cell must also be protected by shock absorbers against shocks, dynamic overloads or vibrations.

#### Mechanical installation

##### On metal foot

The force to be measured must be applied on the axis of the load point, without gap, inclination or torsion.

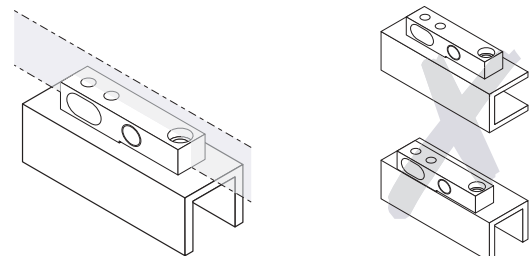


Right mouting

Right mouting

##### On a metal supporting structure

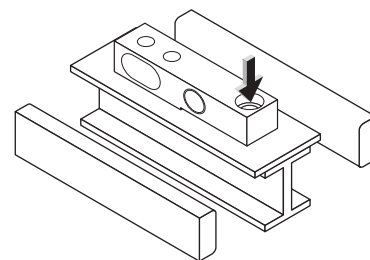
The load cell must be fitted on the axis of the structure.



Right mouting

Right mouting

The supporting structure must be so stiff that it does not bend under the weight of the load. Reinforcement of the structure may in some cases be necessary.



### Application

- Scales.
- Tankscales, hopperscales.

### Presentation

#### General information

The CMA load cell has been designed for used in industrial environments without any particular restrictions. CMI load cells have been test certificate for 3 000d. Its strain member is made of aluminium. CMA load cells meet the IP 65 standard for industrial protection, are compact and available in three capacities: 300, 500 and 1 000 kg. Special mounting parts to adapt the load cell to its mechanical environment are available as an option.

#### Description

The working principle of the CMA load cell is to measure the deformation of a beam subjected to shear stress. The strain gauges are arranged to form a Wheatstone bridge, converting the mechanical force exerted on the load cell into an electrical signal.

#### Conformity

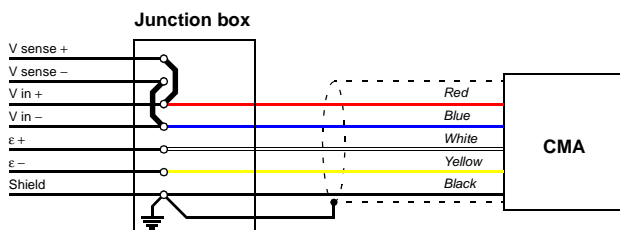
- Test certificate Nr. SDM 00.06 according to R60 of the OIML.

### Option

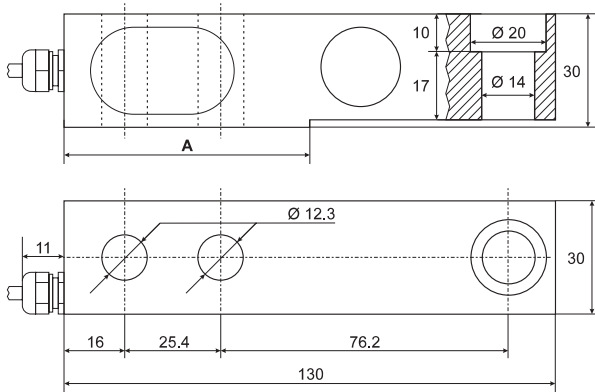
Ex version for use in explosive and according to new directive 94/09/CE. EEx ia IIC T6.

CE type certificate Nr : LCIE 02 ATEX 6083 X

### Wiring



Dimensions



CMA	300	500	1 000
A	mm 67	67	65

Mechanical data

CMA	300	500	1 000	
Maximum load	450	750	1 500	kg
Breaking load	600	1 000	2 000	kg
Deflexion under nominal load	0.35	0.35	0.35	mm
Fixation screws (not supplied)	M12x45*	M12x45*	M12x45*	
Tightening torque (min - max)	3.5 - 4	3.5 - 4	3.5 - 4	daN.m

\* Minimum length = 45 mm

Electrical characteristics

- Maximum excitation voltage ac or dc ..... 12 V
- Input impedance ..... 390 Ω ± 10%
- Output impedance ..... 351 Ω ± 2 Ω
- Insulation resistance ..... > 5 000 MΩ
- Sensitivity ..... 2 mV/V ± 0.1%
- Non-repeatability ..... < 0.005%
- Temperature effect on sensitivity ..... < 0.0009 % / °C
- Temperature effect on zero balance ..... < 0.0014 % / °C
- Shielded cable, in black PVC jacket
  - O.D ..... 4.8 mm
  - Length ..... 3 m / 6 m
  - Max. bending radius ..... 20 mm

Metrological data

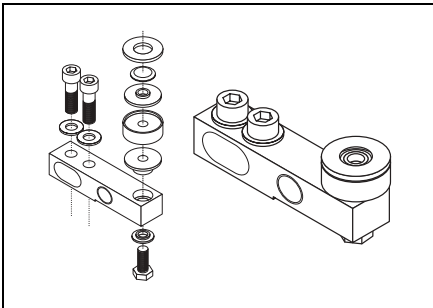
CMA		300	500	1 000	
Nominal load	E <sub>max</sub>	300	500	1 000	kg
Minimal load	E <sub>min</sub>	5	5	5	kg
Minimum division	v min	30	50	100	g
Max. number of divisions	n max	3 000	3 000	3 000	

Environment

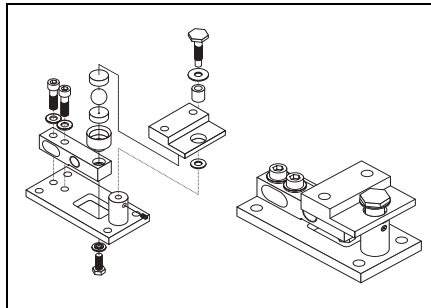
- Temperature range
  - Recommended ..... - 10 °C / + 40 °C
  - Without alteration ..... - 20 °C / + 60 °C
  - Storage ..... - 25 °C / + 80 °C
  - Tightness according to EN 60-529 ..... IP 65

Options\*

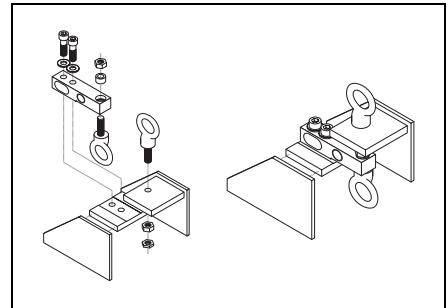
■ Hopper mounting - Shock absorber



■ Hopper mounting - Ball bearing and stop



■ Traction mounting with rings



Standard marking

**PRECIA MOLEN** CMA  
(modèle)  
SDM N°00.06 N°XXXXXX  
IP65  
Fabriqué en 200X

Ex Version making

CE 0081 II 1 G/D  
EEx ia IIC T6  
LCIE 02 ATEX 6083 X T80°C  
T°amb:+60°C  
PRECIA MOLEN  
BP106 07000 PRIVAS FRANCE

\* Arrangement may vary with each model.

Your weighing specialist

Illustrations are not contractual. Precia-Molen reserves the right to modify at any time, without prior notice, the information contained in this leaflet.

Offices and Factory  
P.O. Box 106 - F 07000 Privas - France  
Tel. 33 (0) 475 664 600  
Fax 33 (0) 475 658 330  
E-MAIL webmaster@preciamolen.com

RCS : 386 620 165 RCS Aubenas

