



### Applications

- % Weighscales, scales.
- % Special machines, conveyors.

### Presentation

#### General

The CPA 3000 load cell is designed for routine use in an industrial environment. It has 3000d test certificates. The CPA3000 load cell is leaktight (IP 65), compact and its test body is made of aluminum. It is available in 7 capacities: 6, 10, 18, 40, 80, 200 and 500 kg.

The measurement principle used in the CPA3000 load cell is based on the deformation of a beam to which a compression and tension force is applied. It uses strain gauges arranged to form a Wheatstone bridge for conversion of the force into an electrical signal.

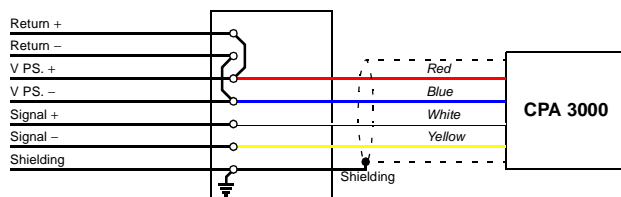
### Conformity

- % Test certificate No. SDM 00.02 according to OIML R60.

### Option

Ex version for use in a gas or dusty explosive zone according to the new directive 94/09/CE. EEx ia II C T6 II 1 G/D.  
CE type certificate No. LCIE 02 ATEX 6083 X

### Wiring



### Applications

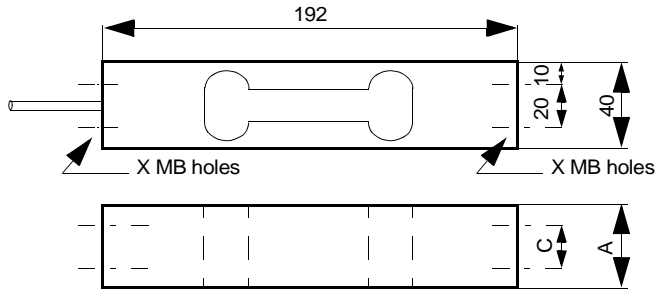
#### Notes

It is recommended that a mechanical stop should be provided to protect the load cell against "static" overloads. This stop will be adjusted to leave a clearance in the load cell equal to not more than its deflection under nominal load. It must also be protected from shocks, dynamic overloads or vibrations by using shock absorbers.

It is strongly recommended that PRECIA-MOLEN shock absorbers should be used to guarantee optimum metrological performances.



Dimensions



CPA3000		6/10/18	40/80	200/500
A	mm	28	46	58
MB	mm	M6	M10	M10
X		2	4	4
C	mm	0	30	40

The 200 kg and 500 kg models are delivered with two adapter parts installed before their calibration. In case of disassembly the metrological characteristics are no longer guaranteed.

Metrological characteristics (Trade use)

CPA 3000	Nominal load	Minimum increment	Minimum load	Maximum no. of increments
6	6 kg	1 g	0	3000
10	10 kg	1.5 g	0	3000
18	18 kg	3.5 g	0	3000
40	40 kg	7 g	0	3000
80	80 kg	14 g	0	3000
200	200 kg	28 g	0	3000
500	500 kg	70 g	0	3000

Environment

- % Usage range ..... - 10 °C / + 40 °C (OIML recommendations)
- % Operating range ..... - 20 °C / + 40 °C without distortion
- % Sealing and protection according to EN60-529 IP65

Mechanical characteristics

CPA 3000	6	10	18	40	80	200	500	
Load limit	9	15	27	60	120	300	750	kg
Breaking load	12	20	36	80	160	400	1 000	kg
Deflection under nominal load	0,75	0,8	1,05	1,3	1,65	1,4	1,5	mm
Tightening torque (min/max)	1.8/2.2			3,5/4				daN.m

CPA 3000 Loading plate dimensions (mm)

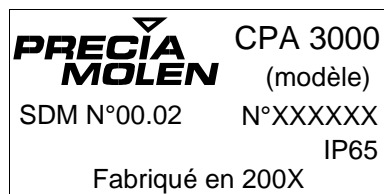
6	325 x 225
10	325 x 225
18	400 x 400
40	600 x 600
80	600 x 600
200	800 x 800
500	800 x 800

Electrical characteristics

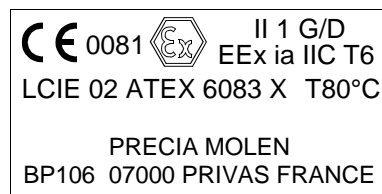
- % Max AC or DC power supply voltage ..... 12V
- % Input impedance ..... 420 Ω ± 10%
- % Output impedance ..... 350 Ω ± 5 Ω
- % Insulation ..... ≥ 5 000 MΩ
- % Sensitivity ..... 2 mV / V ± 10%
- % Total error ..... ≤ 0.02% E.M.\* (non linearity = hysteresis)
- % Sensitivity error for off-center load (load equal to one third of the capacity of the weigh scales) ..... ≤ 0.02% E.M.
- % Repeatability error (non-linearity = hysteresis) ..... ≤ 0.007% E.M.
- % Temperature effect on zero balance ..... ≤ 0.004% E.M. / °C
- % Temperature effect on sensitivity ..... ≤ 0.0012% E.M. / °C
- % Shielded cable, black PVC jacket.
- % Outside Ø ..... 4.5 mm
- % Length
  - 6 - 18 kg ..... 1.2 m
  - 40 - 500 kg ..... 1.8 m
- % Number of conductors ..... 4
- % Conductor cross-section ..... 0.24 mm<sup>2</sup>

Options

Standard marking



Ex option marking



\* M.R. : measurement range.

Your weighing specialist

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