



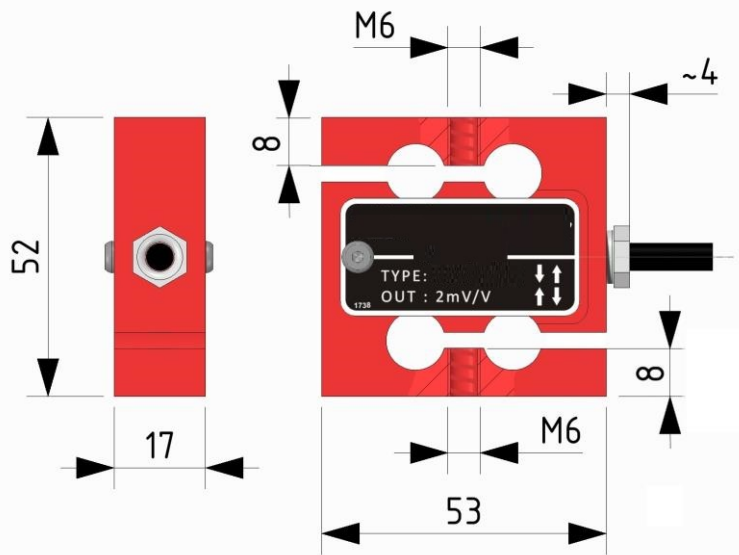
$\leq \pm 0.03\%$   
Linearity - Hysteresis



ALUMINUM strain gauges Load cell for the measurement of static and dynamic loads in COMPRESSION and TENSION

## Dimensions

[mm]



CODE	Nominal load	Natural frequency
CTCA1K5	1 kg	~ 0.22 kHz
CTCA2K5	2 kg	~ 0.50 kHz
CTCA5K5	5 kg	~ 0.75 kHz
CTCA10K5	10 kg	~ 1.00 kHz
CTCA25K5	25 kg	~ 1.50 kHz
CTCA50K5	50 kg	~ 2.00 kHz

**Technical Data**



NOMINAL LOAD	<b>1<sup>(1)</sup> - 2<sup>(1)</sup> - 5<sup>(1)</sup> kg<sup>(2)</sup></b> <b>10 - 25 - 50 kg<sup>(2)</sup></b>
NOMINAL SENSITIVITY	<b>2 mV/V</b>
SENSITIVITY TOLERANCE	$\leq \pm 0.1\%$
TEMPERATURE EFFECT (10 °C)	
a) on zero	$\leq \pm 0.025\%$
b) on sensitivity	$\leq \pm 0.021\%$
LINEARITY	$\leq \pm 0.03\%$
HYSTERESIS	$\leq \pm 0.03\%$
REPEATABILITY	$\leq \pm 0.01\%$
INPUT RESISTANCE	440 ± 20 Ω
OUTPUT RESISTANCE	350 ± 2 Ω
INSULATION RESISTANCE	>5 GΩ
ZERO BALANCE	$\leq \pm 1\%$
RECOMMENDED SUPPLY VOLTAGE	10 V
NOMINAL SUPPLY VOLTAGE	1-15 V
MAXIMUM SUPPLY VOLTAGE	18 V
MECHANICAL LIMIT VALUES REFERRED TO NOMINAL LOAD:	
a) service load	120 %
b) max permissible load	150 %
c) breaking load	>300 %
d) max transverse load	50 %
e) max permissible dynamic load	50 %
DISPLACEMENT AT NOMINAL LOAD	~ 0.3 mm
REFERENCE TEMPERATURE	+23 °C
TEMPERATURE NOMINAL RANGE	-10 / +40 °C
SERVICE TEMPERATURE	-20 / +70 °C
STORAGE TEMPERATURE	-20 / +80 °C
WEIGHT	~ 0.3 kg
PROTECTION CLASS (EN 60529)	IP20
EXECUTION MATERIAL	Aluminum
CABLE LENGTH	3 m

Supplied with overload protection TENSION and COMPRESSION (Max. 500% F.S.).

(2) N calibrations on request

**Electrical Connections**

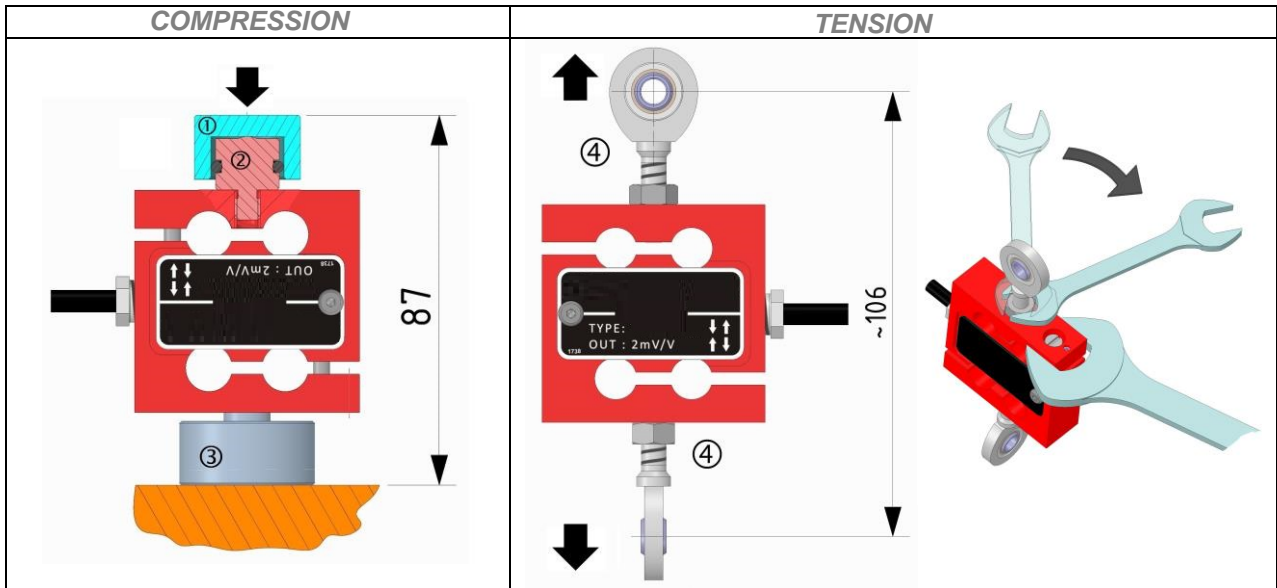


Load Cell	OUTPUT	CABLE
	EXCITATION+	Red
	EXCITATION -	Black
	OUTPUT+	White
	OUTPUT-	Yellow
	-----	Shield <sup>(3)</sup>

(3) Connected to the body of the load cell.

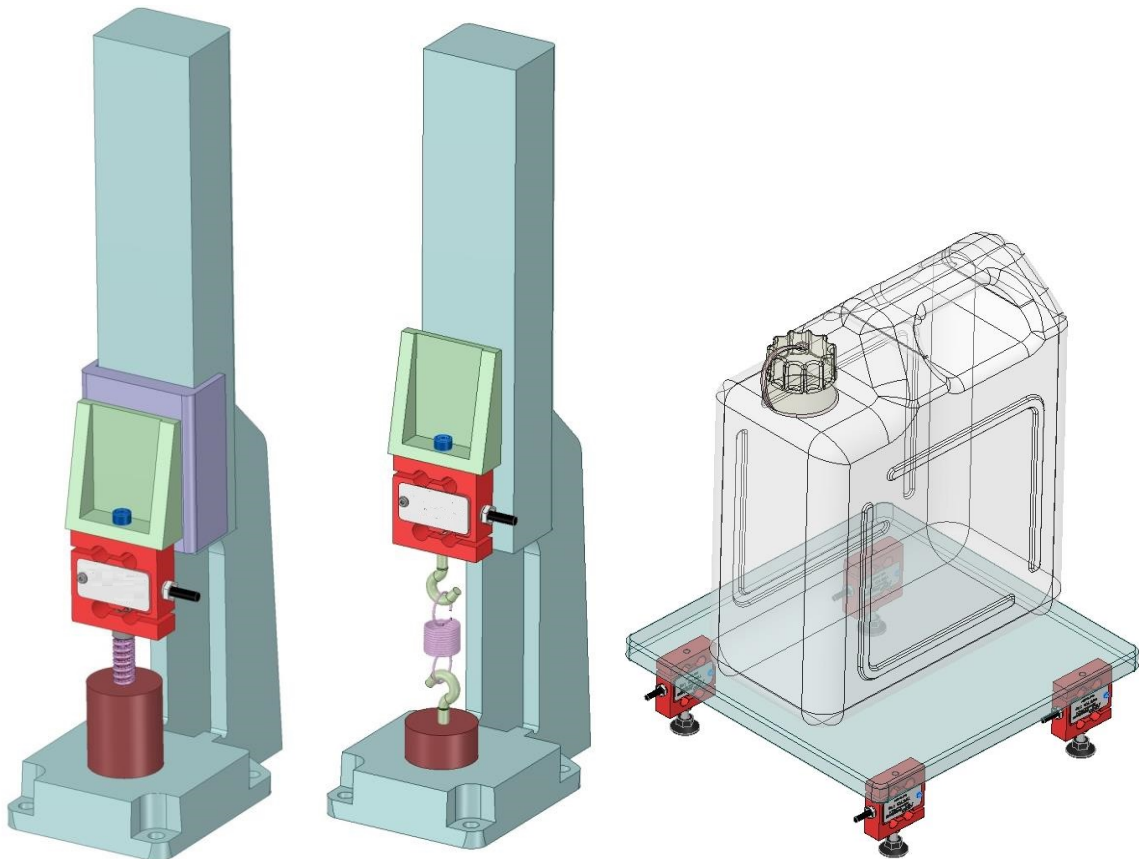
PVC 70°C shielded cable, Ø 4.2mm with 4 tinned conductors.

**Applications**



**! WARNING !**

*Be sure that the force exerted when assembling accessories does not exceed nominal load.  
 Cable weight can influence measurement, it is therefore recommended to place it at the opposite site of the load.*



Accessories



CODE:		ACCESSORIES (optional)
CTIC13	①	Loading head.
CTS18M6	②	Spherical loading head.
CBC32M6	③	Mounting plate.
CACCEM6	④	Knuckle joints.
KITCT	⑤	<b>Accessory KIT for TENSION and COMPRESSION test of materials.</b> (A) Hook for tension test. (B) Short extension threaded. (C) Long extension threaded. (D) Conical tip for compression test. (E) Notched tip for compression test. (F) Chisel tip for compression test. (G) Flat Tip for compression test. (H) threaded sleeve.



④      ④      ③      ①      ②



(A)    (B)    (C)    (D)    (E)    (F)    (G)    (H)