

FTCSM series

S-Beam load cell - Small measuring range

Ref : 2840

Rev : A



DESCRIPTION

This type of ALUMINUM strain gauge sensor allows the measurement of static and dynamic loads in TENSION or COMPRESSION with very good precision. It is especially suitable for small measuring ranges.

MESUREX is a sensor manufacturer. We can adapt most sensors to your needs. Please [contact us](#).

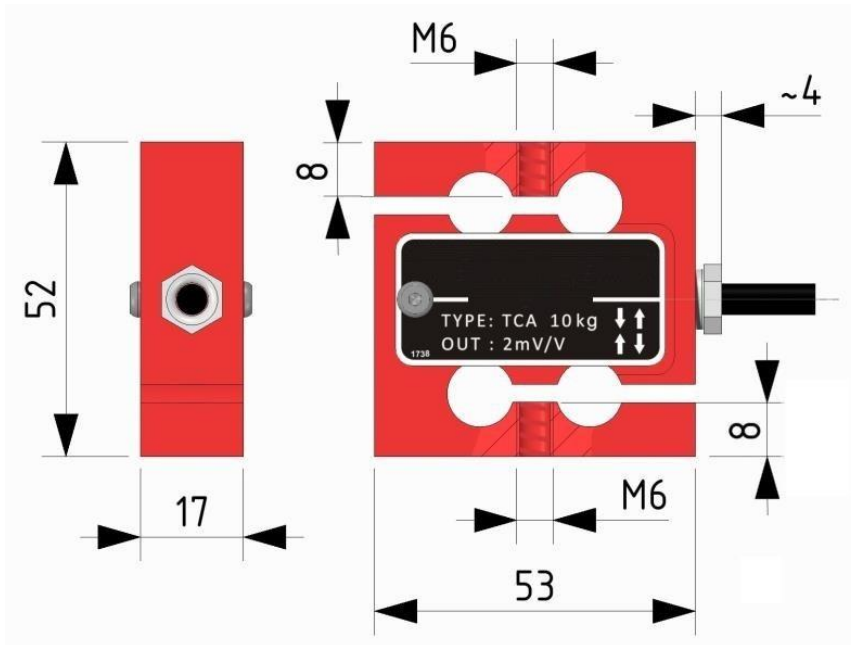
TECHNICAL DATA

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

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

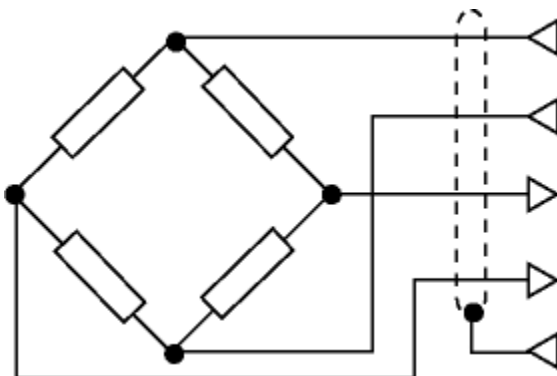
(2) N calibrations on request

DIMENSIONS



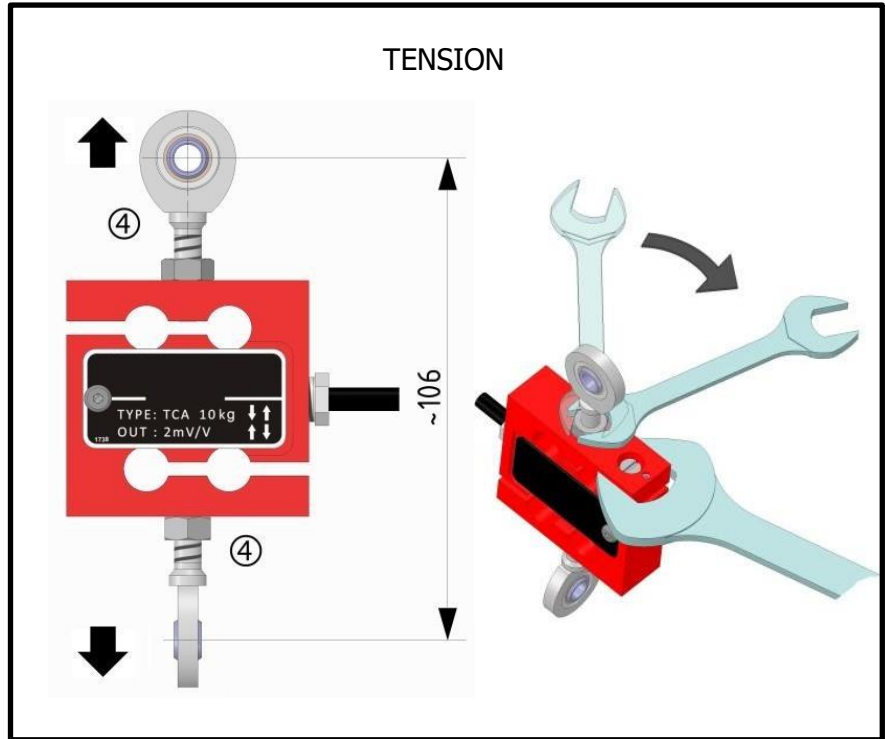
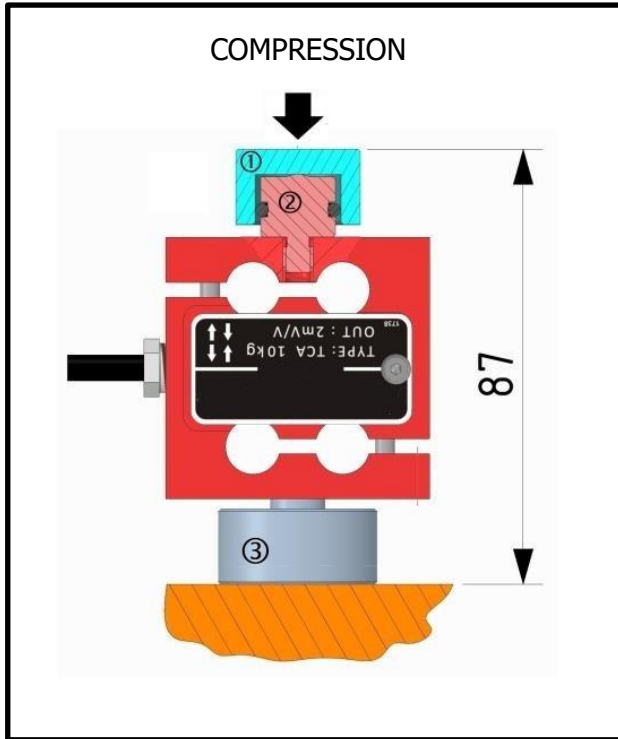
Rated load	Natural frequency
1 kg	~ 0.22 kHz
2 kg	~ 0.50 kHz
5 kg	~ 0.75 kHz
10 kg	~ 1.00 kHz
25 kg	~ 1.50 kHz
50 kg	~ 2.00 kHz

WIRING PLAN

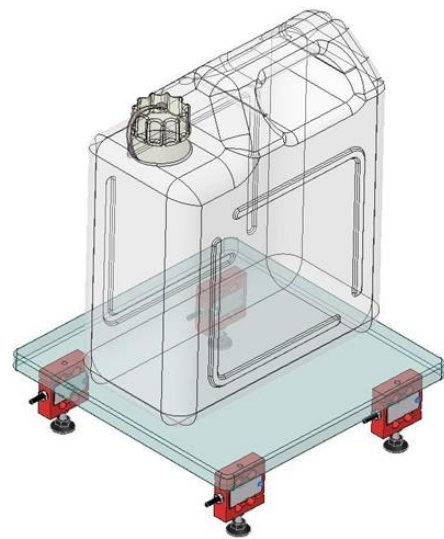
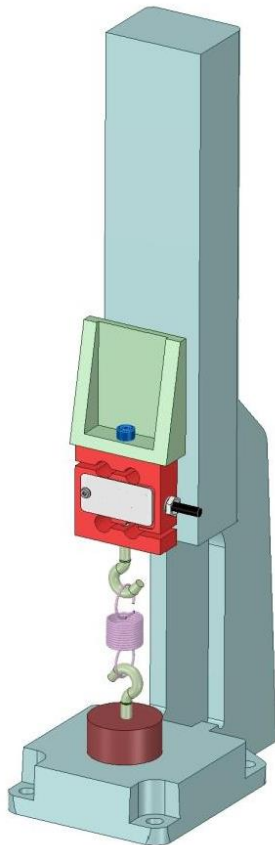
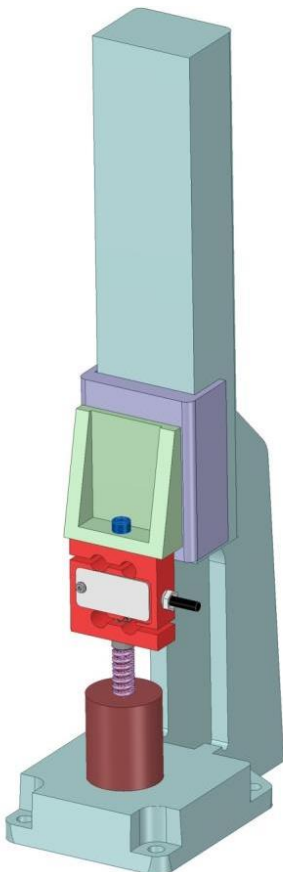


EXCITATION + Red
EXCITATION - Black
OUTPUT + White
OUTPUT - Yellow

APPLICATIONS

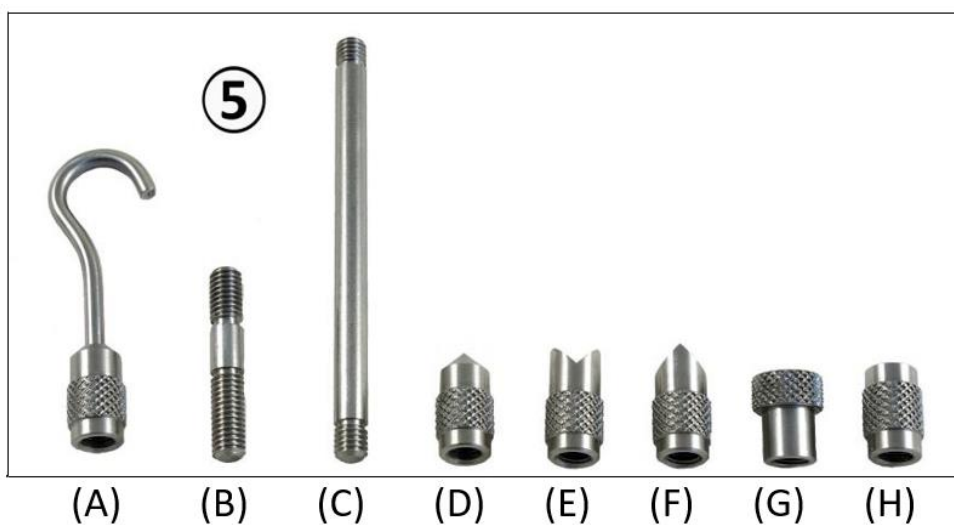


When assembling the accessories, make sure that the force exerted does not exceed the nominal load. The weight of the cable can influence the measurement; therefore, it is recommended to place at the opposite side of the load.



ACCESSORIES

	ACCESSORIES (optional)
①	<i>Loading head</i>
②	<i>Spherical loading head</i>
③	<i>Mounting plate</i>
④	<i>Knuckle joints</i>
⑤	Accessory KIT for testing TENSION and COMPRESSION of materials: (A) Hook for tension test (B) Short threaded extension (C) Long threaded extension (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



CONTACT

MESUREX
 13 Rue des Corroyés
 78730 Saint Arnoult en Yvelines (France)

Tel : +33 (0) 1 30 41 23 62
 Mail : mesurex@mesurex.fr
 Web : www.mesurex.fr