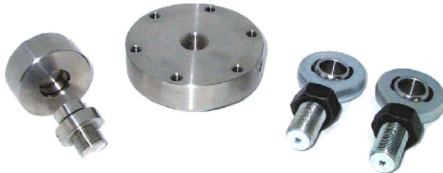
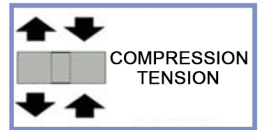


Accessories



LAT N° 093
Calibration Centre
The products are NOT
covered by accreditation

ACCREDIA Calibration Certificate
ON REQUEST

EASY APPLICATION



LOW
PROFILE

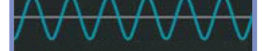


Long term
high stability



Completely LASER
welded

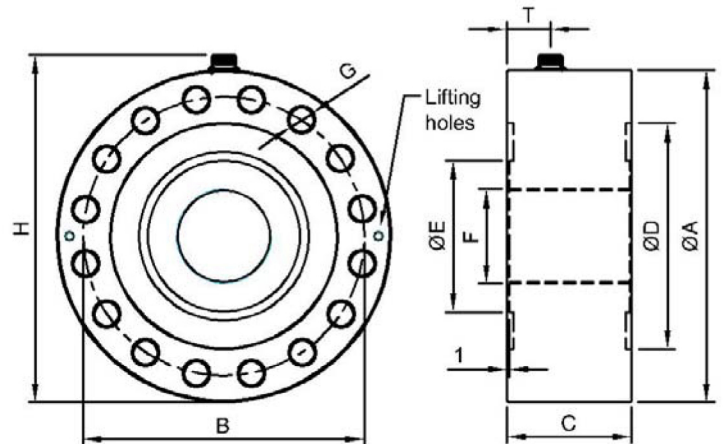
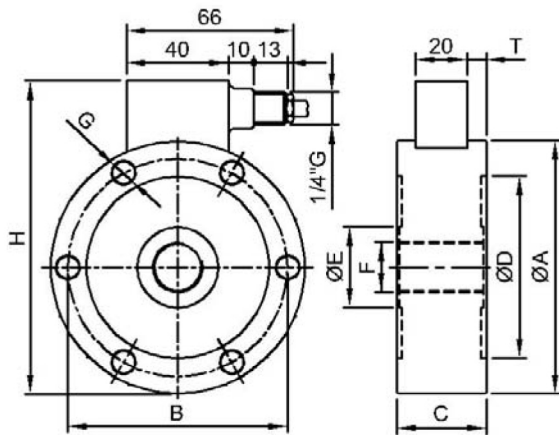
DYNAMIC STRESSES



Dimensions-mm

From 5kN to 2 MN

3 MN and 5 MN



LOAD	LOAD	ØA	B	C	ØD	ØE	F	G	n°G	H	T	KHz ⁽²⁾
0.5 t	5 kN	100	86	35	72	32	M20×1.5	9	6	121	7.5	2.5
1 t	10 kN											2.5
2.5 t	25 kN											4.8
5 t	50 kN	127	110	35	92	47	M30×2	10.5	8	149	7.5	3.8
10 t	100 kN											5.8
20 t	200 kN											5.7
30 t	300 kN	165	138	50	108	62	M42×3	17	12	188	15	7.3
50 t	500 kN			60							20	9.8
75 t	750 kN			80							30	18.2
100 t	1 MN	230	185	80	145	98	M60×3	26	12	254	30	18.2
200 t	2 MN	300	250	100	198	132	M100×3	25	16	323	40	18.0
300 t ⁽¹⁾	3 MN ⁽¹⁾	350	294	120	238	160	M100×3	28	16	367	40	15.7
500 t ⁽¹⁾	5 MN ⁽¹⁾			130							45	

(1) Up to 250t in TENSION .

(2) Natural frequency.

* Specifications are subject to change without notice

Technical Data

Accuracy class: ISO 376	1						
NOMINAL LOAD	5-10 kN 25 kN	50 kN 100 kN	200 kN 300 kN	500 kN	750kN 1 MN	2 MN	3 MN ⁽¹⁾ 5 MN ⁽¹⁾
RELATIVE ERRORS (at reading)							
a) repeatability 0°-120°-240° (b)	$\leq \pm 0.145\%$ ⁽²⁾						
b) interpolation (fc)	$\leq \pm 0.090\%$ ⁽²⁾						
c) reversibility (u)	$\leq \pm 0.240\%$ ⁽²⁾						
d) zero (fo)	$\leq \pm 0.030\%$ F.S.						
LINEARITY	$\leq \pm 0.05\%$ F.S.						
HYSTERESIS	$\leq \pm 0.05\%$ F.S.						
TEMPERATURE EFFECT (10°C)							
a) on zero	$\leq \pm 0.028\%$ F.S.						
b) on sensitivity	$\leq \pm 0.024\%$ F.S.						
EFFECT OF TRANSVERSE LOAD:							
a) at 10% of nominal load	$\leq \pm 0.030\%$ F.S.						
NOMINAL SENSITIVITY	2mV/V ⁽³⁾						
SENSIVITY TOLERANCE	$\leq \pm 0.1\%$ F.S.						
NOMINAL LOAD	5-10-25-50-100-200-300 kN						
INPUT RESISTANCE	800 $\pm$ 20 Ω						
OUTPUT RESISTANCE	705 $\pm$ 2 Ω						
NOMINAL LOAD	500-750-1000-2000-3000-5000 kN						
INPUT RESISTANCE	430 $\pm$ 20 Ω						
OUTPUT RESISTANCE	352 $\pm$ 2 Ω						
INSULATION RESISTANCE	> 5 G Ω						
ZERO BALANCE	$\leq \pm 1\%$ F.S.						
RECOMENDED SUPPLY VOLTAGE	10 V						
NOMINAL SUPPLY VOLTAGE RANGE	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	100%						
e) max permissible dynamic load	75% ⁽⁴⁾						
Displacement at nominal load (mm)	~0.06	~0.09	~0.17	~0.17	~0.23	~0.21	~0.21
REFERENCE TEMPERATURE	+23°C						
TEMPERATURE NOMINAL RANGE	-10 / +40 °C						
SERVICE TEMPERATURE	-10 / +70 °C						
STORAGE TEMPERATURE	-20 / +80 °C						
WEIGHT (kg)	1.60	2.45	5.80	6.80	16.5	35	63
PROTECTION CLASS (EN 60529)	IP67						
EXECUTION MATERIAL	Acciaio Inox / Stainless Steel						
CABLE LENGTH	5 m						
FIXING SCREWS							
a) diameter	M8	M10	M16	M16	M24	M24	M27
b) resistance class	12.9	12.9	12.9	12.9	12.9	12.9	12.9
c) tightening torque	40 Nm	70 Nm	368 Nm	368 Nm	460 Nm	460 Nm	1500 Nm

(1) Up to 2,5 MN in TENSION.

(2) Percentage errors referred to reading, min. 1/10 of nominal load.

(3) Tests and calibrations performed in COMPRESSION with the transducer mounted on a bearing support with correctly tightened clamping screws.

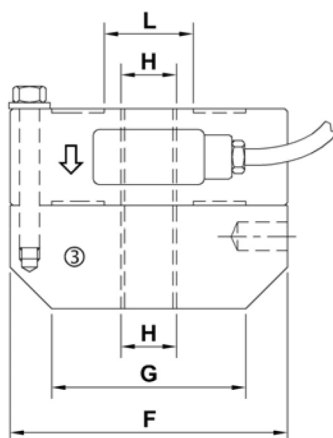
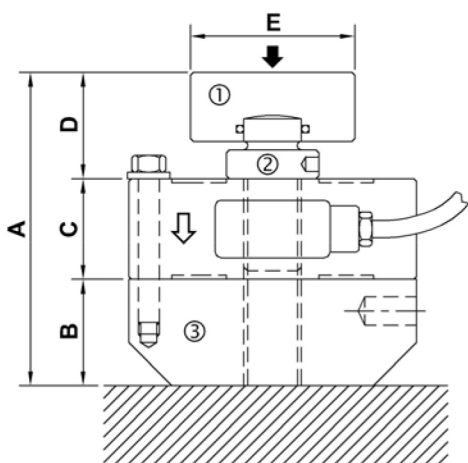
(4) The dynamic load must be applied to the transducer central thread and not to the external fixing rim.

kg calibration on request.

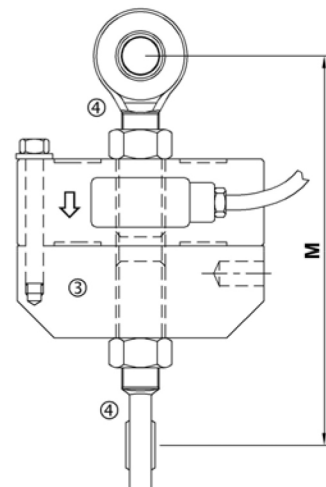
Classifications according ASTM E74 on request.

Applications

COMPRESSION



TENSION



WARNING:

Check that the fixing screws and the accessories are correctly tightened.

Accessories execution material:
from 5 to 200 kN
from 300 kN to 5 MN

Stainless Steel
Rm $\geq 90 \text{ kg/mm}^2$
Rm $\geq 130 \text{ kg/mm}^2$

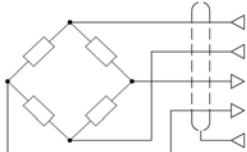
Dimensions-mm

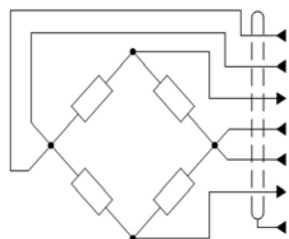
TDFFT:	A	B	C	D	E	F	G	H	L	M
5, 10, 25 kN	109	37	35	37	Ø 57	Ø 100	Ø 70	M 20 × 1.5	Ø 32	~ 170
50, 100 kN	110	37	35	38	Ø 76	Ø 127	Ø 100	M 30 × 2	Ø 47	~ 200
200, 300 kN	159	60	50	59	Ø 76	Ø 165	Ø 100	M 42 × 3	Ø 62	~ 224
500 kN	169	60	60	59	Ø 76	Ø 165	Ø 100	M 42 × 3	Ø 62	/
750 kN, 1 MN	253	85	80	88	Ø 126	Ø 230	Ø 180	M 60 × 3	Ø 98	/
2 MN	309	85	100	124	Ø 129	Ø 300	Ø 250	M100 × 3	Ø132	/
3 MN	384	120	120	144	Ø 168	Ø 350	Ø 330	M100 × 3	Ø 160	/
5 MN	394	120	130	144	Ø 168	Ø 350	Ø 330	M100 × 3	Ø 160	/

TDFFT:	CODE	ACCESSORIES (optional):	ACCESSORI (opzionali):
5, 10, 25 kN	CTIC22	① Loading head.	Testa di carico.
	CTDFFT25M20	② Spherical loading head M20×1.5.	Testa di carico sferica M20×1.5
	CPBTDFFTD100	③ Mounting plate Ø 100 mm.	Piastra base Ø 100 mm.
	CACCEM20	④ Knuckle joints.	Teste a snodo sferico.
50, 100 kN	CTIC28	① Loading head.	Testa di carico.
	CTDFFT45M30	② Spherical loading head M30×2.	Testa di carico sferica M30×2.
	CPBTDFFTD127	③ Mounting plate Ø 127 mm.	Piastra base Ø 127 mm.
	CACCEM30	④ Knuckle joints.	Teste a snodo sferico.
200, 300, 500 kN	CTIC35	① Loading head.	Testa di carico.
	CTS62M42	② Spherical loading head M42×3 (200-300kN)	Testa di carico sferica M42×3 (200-300kN)
	CTDFFT50M42	② Spherical loading head M42×3	Testa di carico sferica M42×3 (500kN)
	CPBTDFFTD165	③ Mounting plate Ø 165 mm.	Piastra base Ø 165 mm.
750 kN, 1 MN	CACCEM42	④ Knuckle joints. (max 200kN)	Teste a snodo sferico. (max 200kN)
	CTIC60	① Loading head.	Testa di carico.
	CTS96M60	② Spherical loading head M60×3.	Testa di carico sferica M60×3.
	CPBTDFFTD230	③ Mounting plate Ø 230 mm.	Piastra base Ø 230 mm.
2 MN	CTIC106	① Loading head.	Testa di carico.
	TS160M100	② Spherical loading head M100×3 (2MN)	Testa di carico sferica M100×3 (2MN)
	CPBTDFFTD300	③ Mounting plate Ø 300 mm.	Piastra base Ø 300 mm.
3 MN, 5 MN	CTIC140	① Loading head.	Testa di carico.
	CTS170M100	② Spherical loading head M100×3.	Testa di carico sferica M100×3.
	CPBTDFFTD350	③ Mounting plate Ø 350 mm.	Piastra base Ø 350 mm.

* Specifications are subject to change without notice

Electrical Connections

Transducer from 5 kN to 2 MN	OUTPUT	CABLE	MIL6M (optional)	MIL7M (optional)	DB9M (optional)	M12 (optional)
	EXCITATION +	Red	A	C	3	1
	EXCITATION -	Black	B	B	4	3
	OUTPUT +	White	D	A	1	2
	OUTPUT -	Yellow	C	D	2	4
	-----	Shield	F	E	5	5

Transducer 3 MN and 5 MN	OUTPUT	MIL7M	CABLE
	EXCITATION +	C	Red
	SENSE +	F	Orange
	OUTPUT +	A	White
	EXCITATION -	B	Black
	SENSE -	G	Blue
	OUTPUT -	D	Yellow
	-----	E	Shield

PVC 105°C shielded cable, Ø5.2mm with 4× Ø0.35mm 2 or 6× Ø0.25mm 2 tinned conductors.
Shield connected to the body of the transducer.