CTL

TENSION (COMPRESSION) LOAD CELLS

LAUMAS®

Capacity from 100 kg to 12500 kg



- 17-4 PH STAINLESS STEEL
- COMBINED ERROR ≤ ±0.02%
- IP68 PROTECTION RATING

CAPACITY	kg	ACCURACY CLASS C3		NET WEIGHT (kg)
100		–	–	0.7
200		–	–	0.7
300		–	–	0.7
500		•	•	1.4
1000		•	•	1.4
2500		•	•	1.4
5000		•	•	2.6
7500		•	•	2.7
10000		•	•	3.7
12500		•	•	4.8

⌊⌋ ON REQUEST

CERTIFICATIONS

OIML R60 C3

Complies with the Eurasian Customs Union regulations

Equivalent of the CE marking for the United Kingdom

CERTIFICATIONS ON REQUEST

IP69K — Declaration of conformity + IP69K marking protection rating
Water protection in case of high-pressure or steam jet cleaning (test: pressurized water is sprayed from a distance of max 150 mm)
Water pressure: 100 bar; temperature: 80 °C; test duration: 250 seconds (reference standard: DIN 40050-9)

Calibration report

LAT Accredia calibration certificate ISO 376 or ASTM E74 for capacities from 1000 kg to 10000 kg

ATEX *(zone 2-22)*

ATEX/IECEx *(zone 1-21)*

Complies with the Eurasian Customs Union regulations for use in potentially explosive atmospheres

Complies with Chinese market regulations for use in potentially explosive atmospheres

Complies with the regulations of the Russian Federation for legal for trade use

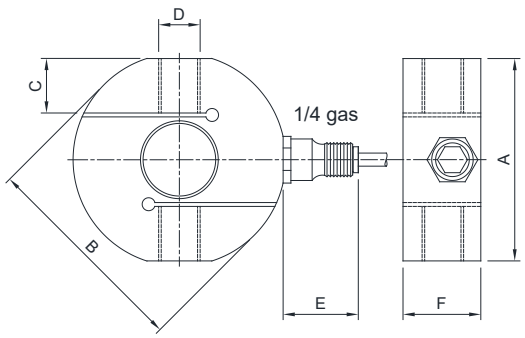
Complies with Chinese market regulations for legal for trade use

CTL

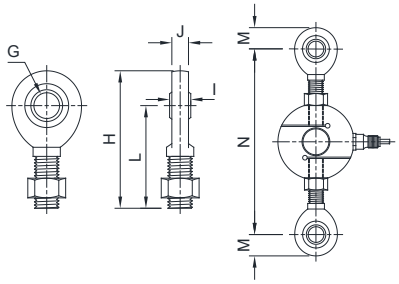
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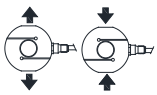
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DIMENSIONS (mm)



Overall dimensions with ball-and-socket joints





	100 kg 200 kg 300 kg	500 kg 1000 kg	2500 kg	5000 kg 7500 kg	10000 kg	12500 kg
A	60	78	78	90	103	120
B	63	82	82	102	114	129
C	14.5	21	21	24	30.5	37
D	M12x1.75	M16x2	M20x1.5	M24x2	M30x2	M36x3
E	29	29	29	29	29	29
F	22	30	30	45	50	55
G	Ø12	Ø17	Ø20	Ø25	Ø30	Ø35
H	71	92	104.5	126	146.5	181
I	10	14	16	20	22	25
J	8.5	11.5	13.5	17.5	19.5	21.5
L	54.5	69.5	77.5	94.5	110	140
M	16.5	22.5	27	31.5	36.5	41
N (≈)	143	175	190	235	260	324

OPTIONS ON REQUEST

	DESCRIPTION
	Two redundant strain gauges Wheatstone bridges (350 Ω) with two output cables; for dual safety systems.

COMPLEMENTARY ACCESSORIES



DESCRIPTION	DIMENSIONS	LOAD CELL CAPACITY	CODE
Ball-and-socket joint with nut:			
stainless steel	M12x1.75 M16x2 M20x1.5 M24x2	100-300 kg 500-1000 kg 2500 kg 5000-7500 kg	EM-INOX
galvanized C40 steel	M12x1.75 M16x2 M20x1.5 M24x2 M30x2 M36x3	100-300 kg 500-1000 kg 2500 kg 5000-7500 kg 10000 kg 12500 kg	EM

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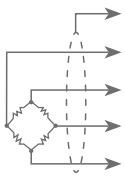
TECHNICAL FEATURES

Material	17-4 PH stainless steel	
OIML R60 Accuracy class • Verification intervals	-	C3 • 3000
Nominal load (E max)	100 - 200 - 300 kg	500 - 1000 - 2500 - 5000 kg 7500 - 10000 - 12500 kg
Minimum verification interval (V min)	E max / 10000	
Combined error	≤ ±0.02%	
Protection rating	IP68	

Rated output	2 mV/V ±0.1%	Input resistance	350 Ω ±5
Temperature effect on zero	0.005% °C	Output resistance	350 Ω ±2
Temperature effect on span	0.003% °C	Zero balance	±1%
Temperature range OIML R60	-10 °C / +40 °C	Insulation resistance	≥5000 MΩ
Compensated temperature range	-20 °C / +70 °C	Safe overload (% of full scale)	150%
Operating temperature range	-30 °C / +90 °C	Ultimate overload (% of full scale)	300%
Creep at nominal load in 30 minutes	0.05%	Deflection at nominal load	0.3 mm
Max supply voltage without damage	15 V		

ELECTRICAL CONNECTIONS

Cable length	10 m
Cable diameter	5 mm
Cores	6 x 0.14 mm²



SHIELD	
+ SIGNAL	GREEN
+ EXCITATION + REF./SENSE	RED BLUE
- SIGNAL	WHITE
- EXCITATION - REF./SENSE	BLACK YELLOW

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