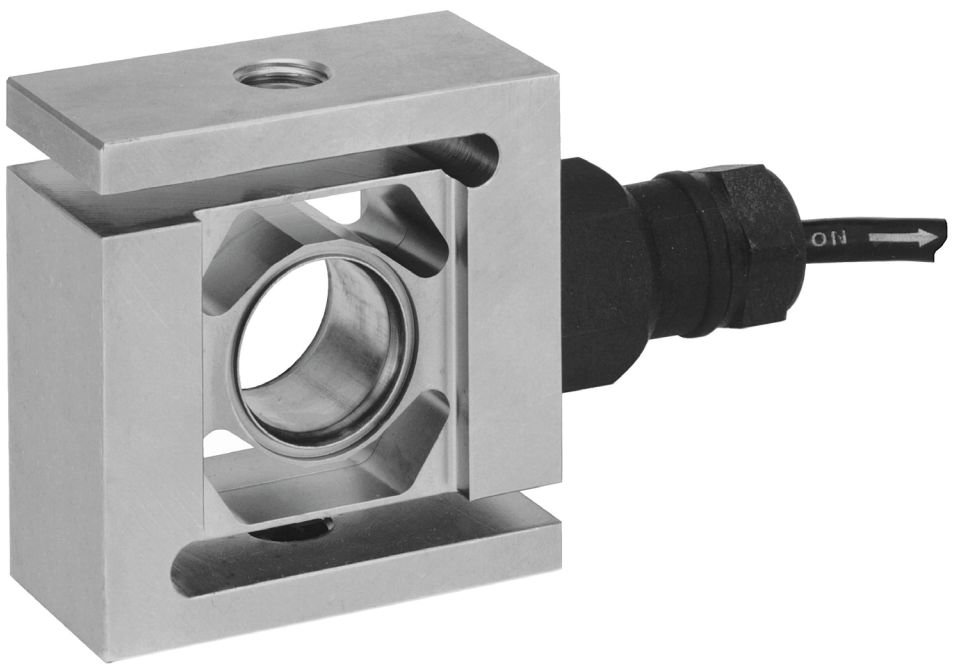
UB6 tension load cell



product description

A low capacity, fully welded, stainless steel tension and compression load cell. The UB6 is designed for space constrained applications where robustness is still an important consideration. Available in a range of capacities from 100kg thru to 500kg it is particularly suited for high accuracy Process Weighing applications. Certified by both OIML and NTEP for trade approved weighing.

applications

Suspended tanks and hoppers, crane scales.

key features

- Stainless steel construction
- Hermetically sealed to IP68
- Capacity range from 1kN to 5kN (102kg to510 kg)
- Tension and compression loading
- High accuracy
- High input resistance
- Calibration in mV/V/Ω

approvals

- OIML approval to C3 (Y = 10,200)
- NTEP approval to 5,000 intervals, Class III and 10,000 intervals, Class III L
- ATEX hazardous area approval for zones 0, 1, 2, 20, 21 and 22
- FM hazardous area approval

accessories

- Compatible range of hardware
- Compatible range of electronics

options

- Y = 20,400 for C3
- Stainless steel cable gland

RoHS compliant

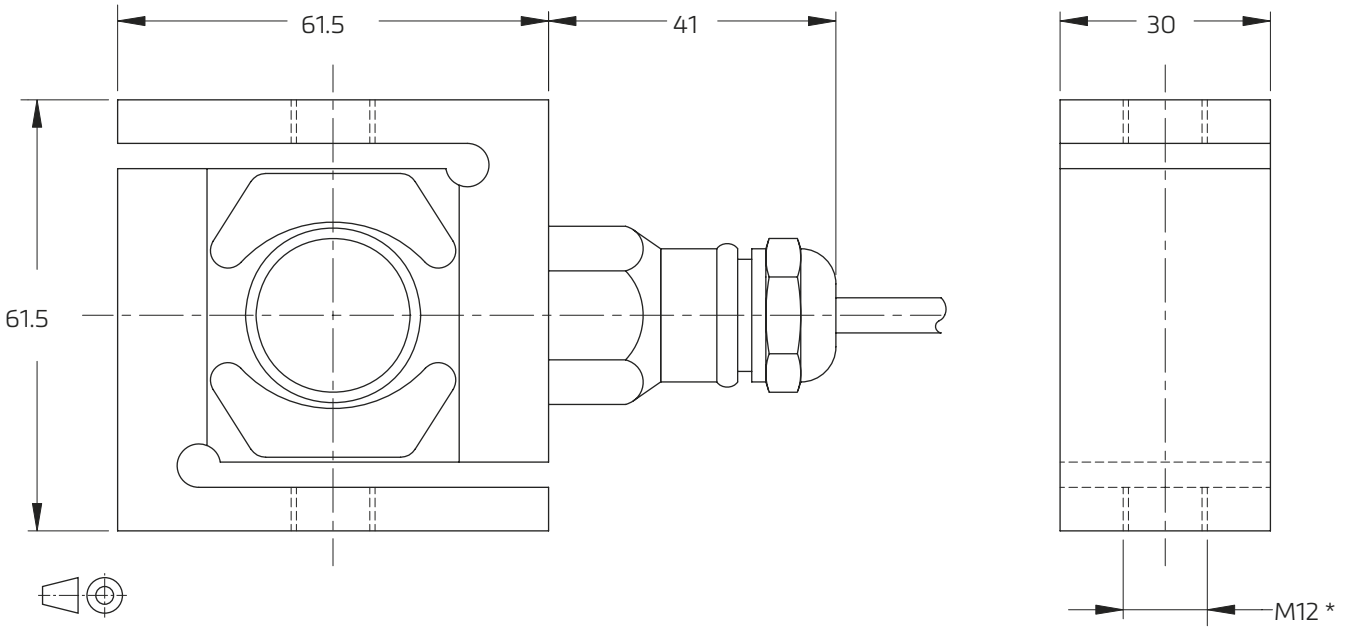
flintec quality + precision

specifications

Maximum capacity (E_{max})	kN	1 / 2 / 5		
Metric equivalents (1 N=0.10197 kg)	kg	102 / 204 / 510		
Minimum capacity (E_{min})	%*E_{max}	0		
Accuracy class according to OIML R60		(GP)	C1	C3
Maximum number of verification intervals (n_{max})		n.a.	1,000	3,000
Minimum load cell verification interval (v_{min})		n.a.	E_{max}/5,100	E_{max} /10,200
Temperature effect on minimum dead load output (TC_0)	%*RO/10°C	± 0.0400	± 0.0275	± 0.0137
Temperature effect on sensitivity (TC_{RO})	%*RO/10°C	± 0.0200	± 0.0160	± 0.0100
Combined error	%*RO	± 0.0500	± 0.0300	± 0.0200
Non-linearity	%*RO	± 0.0400	± 0.0300	± 0.0166
Hysteresis	%*RO	± 0.0400	± 0.0300	± 0.0166
Creep error (30 minutes) / DR	%*RO	± 0.0600	± 0.0490	± 0.0166
Option: Min. load cell verification interval (v_{min} opt)		n.a.	n.a.	E_{max} /20,400
Option: Temp. effect on min. dead load output (TC_0 opt)	%*RO/10°C	n.a.	n.a.	± 0.0069
Rated Output (RO)	mV/V	2 ± 0.1%		
Calibration in mV/V/Ω (A...I classified)	%	± 0.05 (± 0.005)		
Zero balance	%*RO	± 5		
Excitation voltage	V	5...15		
Input resistance (R_{LC})	Ω	1,100 ± 50		
Output resistance (R_{out})	Ω	1,000 ± 2		
Insulation resistance (100 V DC)	MΩ	≥ 5,000		
Safe load limit (E_{lim})	%*E_{max}	200		
Ultimate load	%*E_{max}	300		
Compensated temperature range	°C	–10...+40		
Operating temperature range	°C	–40...+80 (ATEX –40...+60)		
Load cell material		stainless steel 17-4 PH (1.4548)		
Sealing		complete hermetic sealing; cable entry sealed by glass to metal header		
Protection according EN 60 529		IP68 (up to 2 m water depth) / IP69K		
Packet weight	kg	1.0 (1kN, 2 kN), 1.1 (5kN)		

The limits for Non-Linearity, Hysteresis, and TC_{RO} are typical values.
The sum of Non-linearity, Hysteresis and TC_{RO} meets the requirements according to OIML R60 with p_{LC}=0.7.

product dimensions (mm)



*Unified thread 1/2-20 UNF is available

wiring

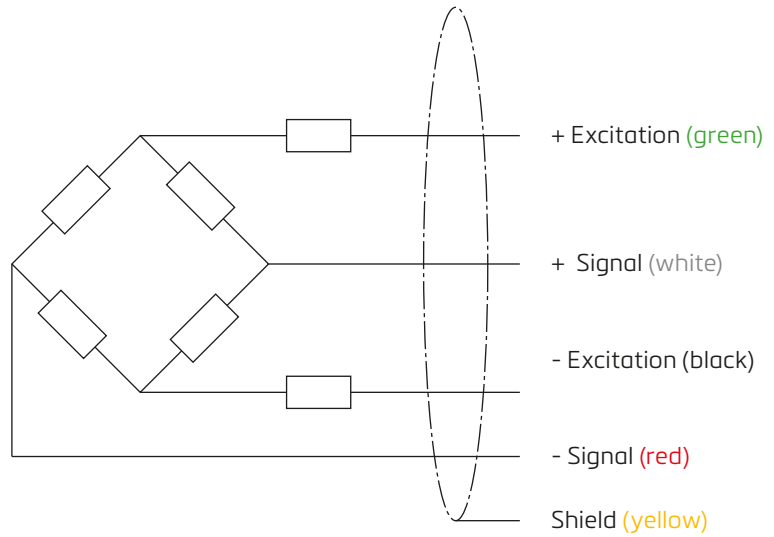
The load cell is provided with a shielded, 4 conductor cable (AWG 24).

Cable jacket: polyurethane

Cable length: 6 m

Cable diameter: 5 mm

The shield is floating
(On request the shield can be connected to the load cell body)



Specifications and dimensions are subject to change without notice.