

Product Description

Type UB6 is a stainless steel universal load cell which allows for tension and compression loading. Its complete hermetic sealing makes it suitable for use in harsh industrial environments.

Application

- Crane scales and hanging scales, force measurement in material testing machines, cranes, lifts and other general tension applications

Key Features

- Capacities from 1 kN to 5 kN (102 kg to 510 kg)
- Stainless steel construction
- Environmental Protection IP68 with complete hermetic sealing
- High input resistance
- Calibration in mV/V/Ω

Approvals

- OIML approval to C1 (Y = 5 100) and C3 (Y = 10 200)
- ATEX hazardous area approval for Zone 0, 1, 2, 20, 21 and 22
- FM hazardous area approval

Options

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

Packed Weight

■ Capacity (kN)	1	2	5
Weight (kg)	1.0	1.0	1.1

Available Accessories

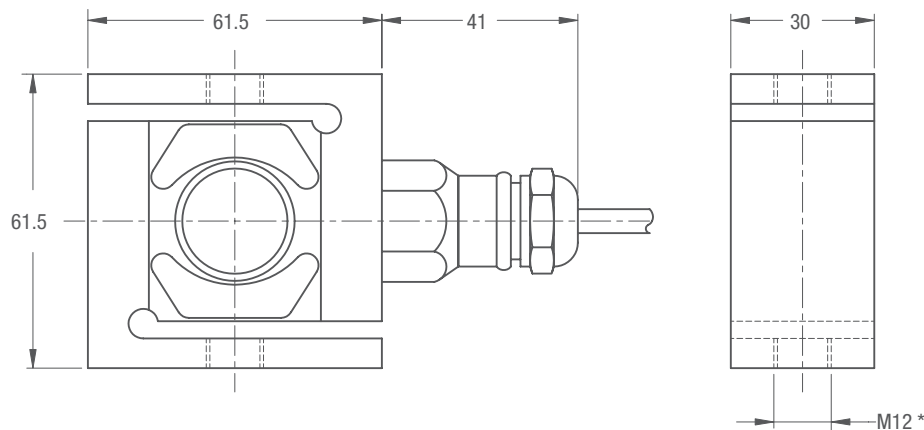
- Compatible range of application hardware
- Compatible range of electronics

UB6 Specifications

Maximum capacity	(E _{max})	kN	1 / 2 / 5	
Metric equivalents (1 N=0.10197 kg)		kg	102 / 204 / 510	
Accuracy class according to OIML R60		(GP)	C1	C3
Maximum number of verification intervals	(n _{max})	n.a.	1000	3000
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	≤ ± 0.0137
Temperature effect on sensitivity	(TC _{RO})	%*RO/10°C	≤ ± 0.0200	≤ ± 0.0100
Combined error		%*RO	≤ ± 0.0500	≤ ± 0.0200
Non-linearity		%*RO	≤ ± 0.0400	≤ ± 0.0166
Hysteresis		%*RO	≤ ± 0.0400	≤ ± 0.0166
Creep error (30 minutes) / DR		%*RO	≤ ± 0.0600	≤ ± 0.0166
Option	Min. load cell verification interval (v _{min opt})	n.a.	n.a.	E _{max} /20 400
	Temp. effect on min. dead load output (TC _{0 opt})	%*RO/10°C	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 DIN 40.050			IP68	

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.

Dimensions (in 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)

