

Type UB1 Load Cell



Flintec load cells are designed to meet the most stringent accuracy requirements. Certifications have been obtained from Weights & Measures Authorities, worldwide.

UB1 universal load cells are available in the capacities 10 kN to 50 kN (1020 kg to 5099 kg) and include Accuracy Classifications GP, C1 and C3 according to OIML R 60.

They offer total stainless steel construction and complete hermetic sealing, making them suitable for use in the toughest industrial environments.

The Flintec calibration technique (in mV/V/Ω) eliminates time consuming corner calibration in multiple load cell systems.

The UB1 is available for use in hazardous areas zone 1, 2 (gas) and 21, 22 (dust) according to EEx ia IIC T6...T4 T130°C ATEX.

Important Features

- Capacities: 10 kN to 50 kN.
- High accuracy.
- Total stainless steel construction.
- Complete hermetic sealing.
- Protection IP 68.
- High input resistance: 1100 Ω.
- W&M certified for 3000 intervals.
- Calibration in mV/V/Ω.
- Easy cable replacement.
- Complete range of loading hardware available.
- Factory mutual approved.

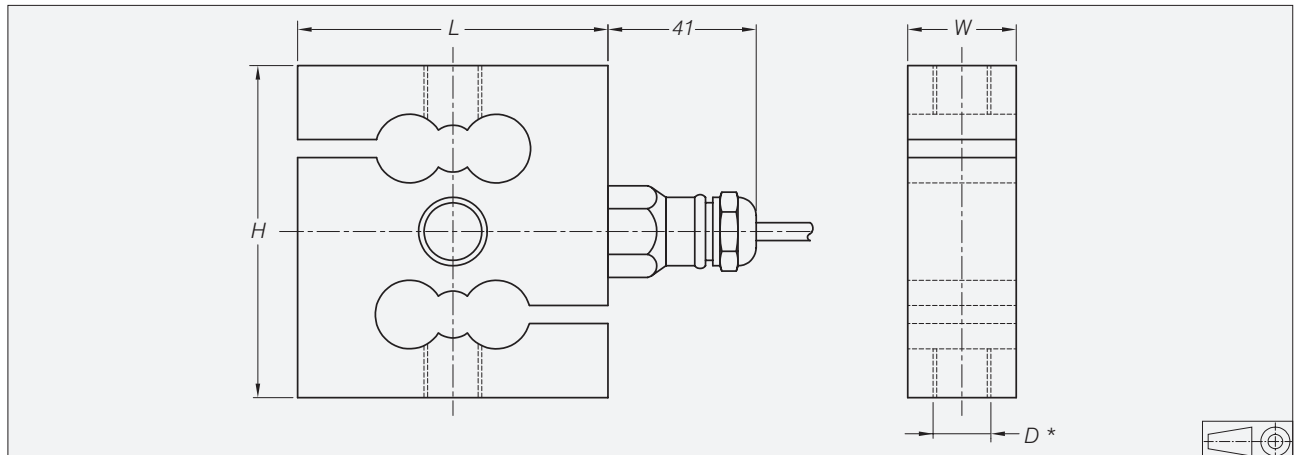
Option

- Explosion protection zone 1, 2, 21 and 22 ATEX.

UB1 Specifications

Maximum capacity (=E _{max})	kN	10 / 20 / 50		
Metric equivalents (1 N=0.10197 kg)	kg	1020 / 2039 / 5099		
Rated Output (=RO)	mV/V	2 ± 0.1%		
Calibration in mV/V/Ω (A...I classified)	%RO	≤ ± 0.05 (≤ ± 0.005)		
Accuracy class according to OIML R 60		(GP)	C1	C3
Maximum number of verification intervals (n)		n.a.	1000	3000
Minimum load cell verification interval (v _{min})		n.a.	E _{max} / 5000	E _{max} / 5700
Combined error	%RO	≤ ± 0.040	≤ ± 0.030	≤ ± 0.020
Creep error (30 minutes) / DR	%RO	≤ ± 0.060	≤ ± 0.049	≤ ± 0.016
Temperature effect on minimum dead load output	%RO/°C	≤ ± 0.0040	≤ ± 0.0028	≤ ± 0.0024
Temperature effect on sensitivity	%/°C	≤ ± 0.0020	≤ ± 0.0016	≤ ± 0.0011
Excitation voltage	V	5...15		
Zero balance	%RO	≤ ± 1.0		
Input resistance	Ω	1106 ± 5		
Output resistance	Ω	1000 ± 1		
Insulation resistance (100 V DC)	MΩ	≥ 5000		
Compensated temperature range	°C	-10... +40		
Operating temperature range	°C	-40... +80		
Safe load limit	%E _{max}	200		
Ultimate load	%E _{max}	300		
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		IP 68		

Dimensions



Type	L	H	W	Thread D
UB1-10k N/20 kN	86	92	30	M16
UB1-50 kN	143	136	43	M24x2

All dimensions in mm. Dimensions and specifications are subject to change without notice.

* Unified thread 5/8-18 UNF (10...20 kN) and 1-12 UNF (50 kN) is available.

Wiring

- The load cell is provided with a shielded, 4 conductor cable (AWG 24).
- Cable length: 6 m.
- Cable diameter: 5 mm.
- The shield is floating.

