

## Type ULB Load Cell



Tension Load Cells

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

ULB universal load cells are available in the capacities 50 kg to 5000 kg and include Accuracy Classifications GP, C1 and C3 according to OIML R 60.

Approved for tension loading only.

Tension and/or compression loading possible.

They offer stainless steel construction and improved potting, making them suitable for use in tough industrial environments..

The ULB is available for use in hazardous areas zone 0, 1, 2 (gas) and 20, 21, 22 (dust) according to EEx ia IIC T6...T4 T150°C ATEX.

### Important Features

- Capacities: 50 kg to 5000 kg.
- High accuracy.
- Total stainless steel construction.
- Protection IP 67.
- High input resistance: 1100 Ω.
- W&M certified for 3000 intervals (in preparation).
- Complete range of loading hardware available.

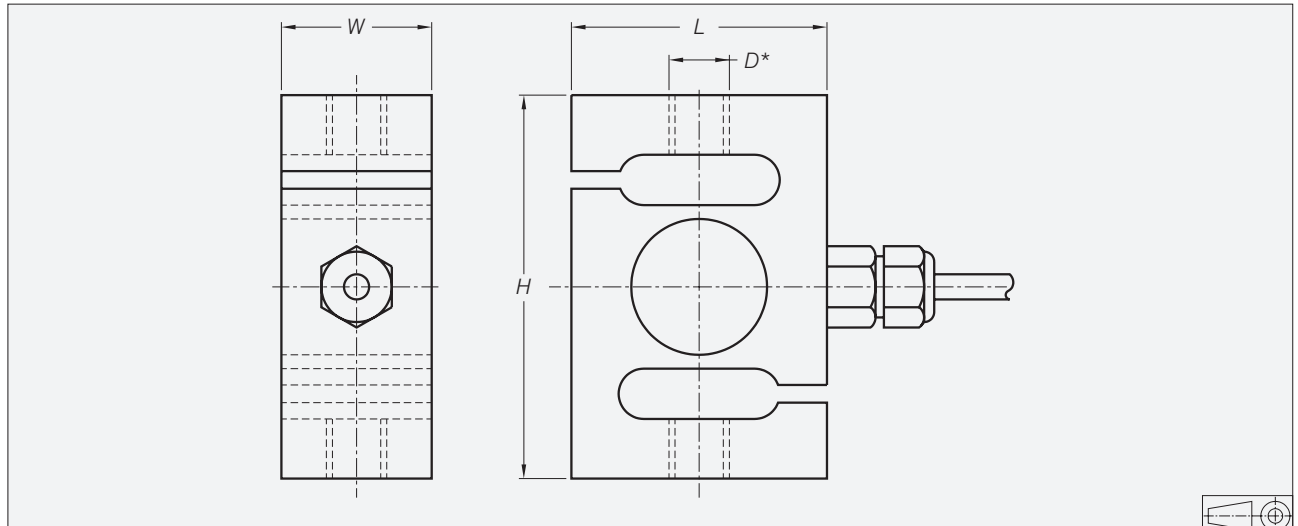
### Option

- Explosion protection zone 0, 1, 2 and 20, 21, 22 ATEX.

## ULB Specifications (Tension or compression loading possible)

Maximum capacity ( $E_{max}$ )	kg	50 / 100 / 200 / 500 / 1000 / 2000 / 3000 / 5000		
Rated Output (Cn)	mV/V	$2 \pm 0.1\%$		
Accuracy class according to OIML R 60		(GP)	C1	C3
Maximum number of verification intervals ( $n_{max}$ )		n.a.	1000	3000
Minimum load cell verification interval ( $V_{min}$ )		n.a.	$E_{max} / 6000$	$E_{max} / 12000$
Combined error	%Cn	$\leq \pm 0.040$	$\leq \pm 0.030$	$\leq \pm 0.020$
Creep error (30 minutes) / DR	%Cn	$\leq \pm 0.060$	$\leq \pm 0.049$	$\leq \pm 0.016$
Temperature effect on minimum dead load output	%Cn/°C	$\leq \pm 0.0040$	$\leq \pm 0.0028$	$\leq \pm 0.0011$
Temperature effect on sensitivity	%/°C	$\leq \pm 0.0020$	$\leq \pm 0.0016$	$\leq \pm 0.0011$
Excitation voltage	V	5...15		
Zero balance	%Cn	$\leq \pm 5$		
Input resistance	$\Omega$	$1100 \pm 50$		
Output resistance	$\Omega$	$1000 \pm 2$		
Insulation resistance (100 V DC)	M $\Omega$	$\geq 5000$		
Compensated temperature range	°C	-10...+40		
Operating temperature range	°C	-20...+65		
Safe load limit ( $E_{lim}$ )	% $E_{max}$	200		
Ultimate load	% $E_{max}$	300		
Load cell material		stainless steel 17-4 PH (1.4548)		
Sealing		potted		
Protection according DIN 40.050		IP 67		

## Dimensions



Type	H	L	W	Metric thread D -M	Unified thread D -U	Unified thread D -H
ULB-50 kg...500 kg	76.2	49	30	M12 x 1.75	1/2-20	
ULB-1000 kg	76.2	49	30	M16 x 2	1/2-20	5/8-18
ULB-2000 kg	86.1	76.2	30	M16 x 2	5/8-18	
ULB-3000 kg	88.7	88.7	40	M20 x 1.5	3/4-16	
ULB-5000 kg	146	91.2	56.4	M24 x 2	1-12	

\* Versions with unified thread available: -U / -H.

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

## 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).

