



Procon Engineering

(A Division of National Oilwell Varco UK Limited)



Series LP35 Shear Beam Load Cell

Capacities 300kg to 10000kg

Hermetically sealed to IP68/69K

Certified to OIML R60 3000d²

Stainless steel construction

Available with ATEX certification(see table overleaf)

Optional load feet and mounting accessories up to 5000kg

Parylene coating and high temperature options up to 150°C

Calibrated in mV/V/Ω

High integrity stainless steel cable entry

The LP35 is fully welded and hermetically sealed to IP68 and IP69K as standard. It can therefore be used in the harshest industrial environments and is typically used in weigh platforms, tank and vessel weighing, big bag (FIBC) filling systems, conveyors and machinery using weighing as part of its function.

Fully welded stainless steel construction and a wide range of optional mounting accessories make it an ideal choice in demanding applications. It can be used with patented LeverMount[®] and the LP35 anti-vibration mounting arrangement.

All Procon Engineering load cells come with a 3 year warranty.



ATEX



Series LP35 Shear Beam Load Cell

Technical Specification Sheet

ATEX certification

For applications in hazardous or explosive environments, the LP35 load cell has a number of ATEX certification options. The 'ta' mode of protection allows for use without safety barriers, which results in significant cost savings.



Code	Temperature Class	Parameters	Application
II 1 GD	T4	Pi = 1.3W	Gas Zones 0, 1,2 With safety barriers Dust Zones 20, 21, 22 without safety barriers
Ex ia II CT4.. T6 Ga IP68 T85°C	T5	Pi = 0.8W	
Ex ia IIIC T135°C T85°C Da	T6	Pi = 0.53W	
Ex ta IIIC T85°C Da			

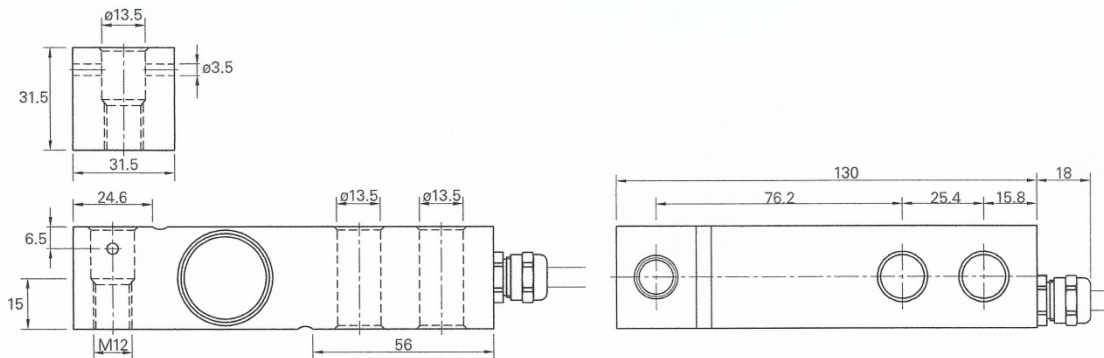
Option: Parylene coating

For applications in aggressive environments where stress corrosion or acid attack could be a problem, the stainless steel LP35 load cell can be supplied with a special option of Parylene coating to provide additional environmental protection.

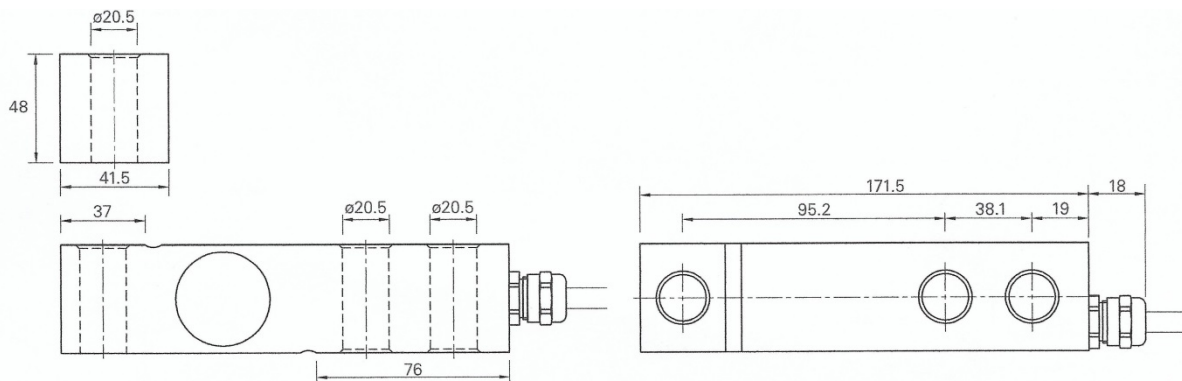
Option: High Temperature Version

For high temperature applications, an optional version of the LP35 is available for operation in environments up to 150°C (continuous temperature). This version uses different internal components and a PTFE cable to provide temperature resistance.

LP35 capacity range 300 to 2500kg



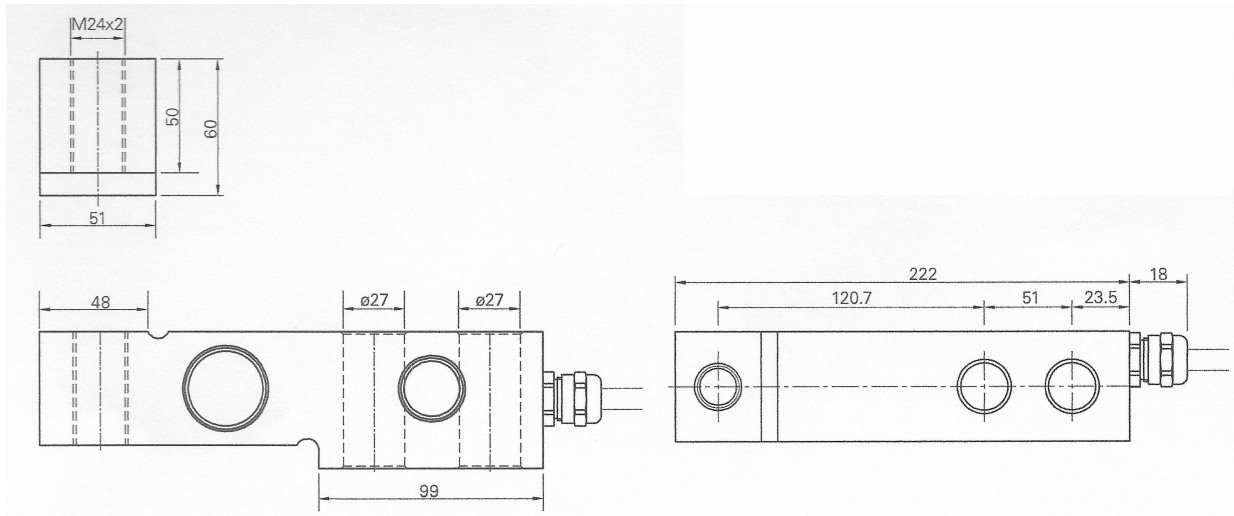
LP35 capacity range 3000 to 5000kg



Series LP35 Shear Beam Load Cell

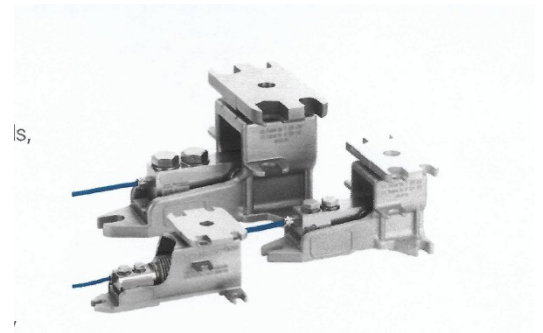
Technical Specification Sheet

LP35 capacity range 7500 to 10000kg



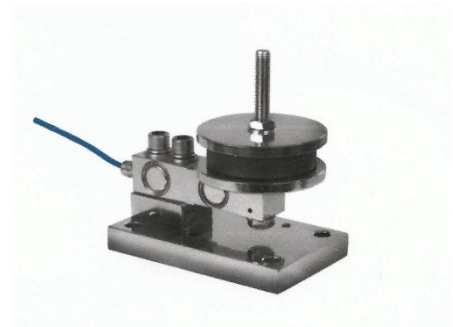
LP35 MOUNTING ACCESSORIES

- Unique, patented LeverMount® accessory
- Stainless steel grade 316 accessory
- Fast load cell installation/removal without jacking or dummy/false cells, even while vessel is full
- Production does not need to stop in event of changing a load cell
- Stable 3-point base mounting with no need for shims
- Substantial anti-lift protection
- Available up to 5 tonnes, in 3 sizes, according to the load cell capacity



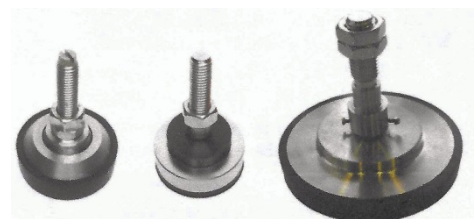
LP35 anti-vibration accessory

- For applications with mixing and/or vibration
- Stainless steel and rubber construction
- Separately available baseplate/spacer kit and anti-vibration kit
- Available in 3 sizes according to the load cell capacity
300kg to 2500kg / 3000kg to 5000kg / 7500kg to 10000kg
- Anti-lift protection is provided by anti-vibration kit



Stainless Steel load feet

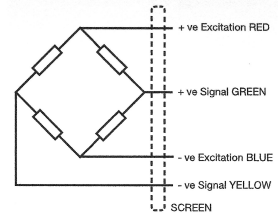
- 2 models for 300kg to 2500kg capacity
 - LP35 LOADFOOT-FT12
 - LP35 LOADFOOT – 35901 with dust cover
- 1 model for 3000kg to 5000kg capacity
 - LP35 LOADFOOT – 35917
- Height of load cell can be adjusted
- Spherical joint on all models



Series LP35 Shear Beam Load Cell

Technical Specification Sheet

	Load cell specification	Units
Load Cell Capacity (E_{max})	300,500, 750, 1000, 1500, 2000, 3000, 5000, 7500, 10000	kg
Rated Output (S_n)	2	mV/V*
Accuracy Class according to OMIL R60: number of verification intervals (n)	3000	n.OIML
Combined Error	$< \pm 0.017$	% S_n
Non-repeatability	$< \pm 0.0154$	% S_n
Minimum load cell verification interval ($V_{min} = E_{max} / Y$)	$E_{max} / 10000$	kg
Creep (30 minutes)	$< \pm 0.016$	% S_n
Temperature Effect on Zero Balance	$< \pm 0.002$	% $S_n / ^\circ C$
Temperature Effect on Span	$< \pm 0.0012$	% $S_n / ^\circ C$
Compensated Temperature Range	-10 to +40	$^\circ C$
Operating Temperature Range	-30 to +70	$^\circ C$
Safe Load Limit (E_{max})	200	% E_{max}
Zero Balance	$< \pm 2$	% S_n
Input Resistance	400	$\Omega \pm 20$
Output Resistance	350	$\Omega \pm 3$
Insulation Resistance	< 5000	M Ω @ 100V
Recommended Supply Voltage	5-15	V
Maximum Supply Voltage	15	V
Environmental protection according to EN 60529	IP68, IP69K	-
Cable length	5	m
Cable material	Polyurethane	-
Maximum deflection at E_{max}	0.2 – 0.4	mm
Construction	Stainless Steel	-
Nominal Shipping Weight	300 to 2500kg	0.9
	3000 to 5000kg	2.2
	7500 to 10000kg	4.3



Electrical Connections

Via 4 core, 5.7mm diameter, screened polyurethane cable

Screen not connected electrically to load cell

* Pre-corner adjustment optimised at $\pm 0.05\%$ by output current calibration

Also available:

- Stainless steel, T-end, OIML C3 approved, IP68 / IP69 shear beam load cell with blind loading hole (model LP35-T)
- Nickel plated alloy steel, OIML C3 approved, IP66 shear beam load cell (model LP35-N)

Procon Engineering's policy is one of continuous product enhancement.

We therefore reserve the right to incorporate technical modifications without prior notification. E&OE.

Issue No: 2018-01

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