

PR 6246

Tension S-Type Load Cell

100 kg...3 t Type D1 Industrial
 200 kg...3 t Type C3 High Precision
 200 kg...3 t Type C6 Ultra Precision

global weighing technologies



PR 6246

- Easy to install
- Full stainless steel construction
- Hermetically sealed, to IP68 (can be submerged in water to a depth of 1.5 m for 10,000 hrs.)
- Wide temperature range
- Resistant against vibration
- Weights and Measures approval (acc. to OIML R60, NTEP)
- Easy corner adjustment by matched load cell outputs
- CENELEC Ex-version available

Technical Data

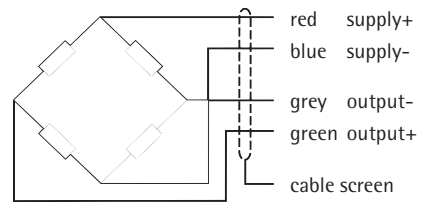
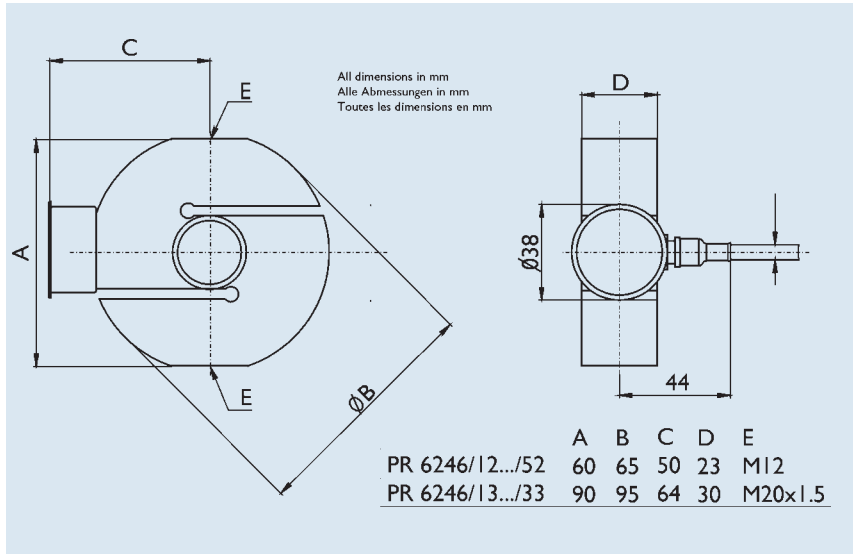
| | | D1 | C3 | C6 | |
|---------------------------------|---|---------------------------|-------------------------|--------------------------|-------------|
| Accuracy class | | 0.04 | 0.015 | 0.008 | % E_{max} |
| Minimum dead load | lowest limit of specified measuring range | | 0 | | % E_{max} |
| Maximum capacity | highest limit of specified measuring range | | s.table next page | | |
| Max. usable load | upper limit for measurements | | 150 | | % E_{max} |
| Destructive load | danger of mechanical destruction | | >300 | | % E_{max} |
| Min. LC verification interval | minimum load cell verification interval, ($v_{min} = E_{max}/Y$) | 5000 | 14000 | 20000 | |
| Rated output | relative output at nominal load | | 2 | | mV/V |
| Tolerance on rated output | permissible deviation from rated output | <0.25 | <0.07 | <0.07 | % C_n |
| Zero output signal | load cell output signal under unloaded condition | <1.0 | <1.0 | <1.0 | % C_n |
| Repeatability error | max. change in load cell output for repeated loading | <0.01 | <0.005 | <0.005 | % C_n |
| Creep, during 30 min | max. change in load cell output under nominal load | <0.03 | <0.015 | <0.008 | % C_n |
| Non - Linearity | max. deviation from best straight line through zero | <0.03 | <0.01 | <0.01 | % C_n |
| Hysteresis | max. difference in load cell output when loading from zero to nominal load and unloading back to zero | <0.04 | <0.015 | <0.008 | % C_n |
| Temperature effect on S_{min} | max. change of $S_{min}/10K \Delta T$ over B_T referred to C_n | TK _{Smin} <0.028 | <0.01 | <0.007 | % $C_n/10K$ |
| Temperature effect on C | max. change of $C/10K \Delta T$ over B_T referred to C_n | TK _c <0.03 | <0.01 | <0.005 | % $C_n/10K$ |
| Input impedance | between supply terminals | | 650±6 | | Ω |
| Output impedance | between measuring terminals | | | | Ω |
| Insulation impedance | between measuring circuit and housing 100VDC | 610±1 | 610±0.5 | | Ω |
| Recommended supply voltage | to hold the specified performance | | >5000 x 10 ⁶ | | Ω |
| Max. supply voltage | permissible for continuous operation without damage | | 4...24 | | V |
| Nominal ambient temp. range | to hold the specified performance | | 28 | | V |
| Usable ambient temp. range | permissible for continuous operation without damage | -10...+55 | -10...+55 | | °C |
| Storage temperature range | Transportation and storage | | -30...+95 | | °C |
| Vibration resistance | resistance against oscillation (IEC 68-2-6 Fc) | | -40...+95 | | °C |
| Air pressure effects | influence of ambient air pressure on S_{min} | | | 20 g, 100 h, 10...150 Hz | |
| Nominal deflection | max. elastic deformation under nominal load | PK _{Smin} 0.005 | 0.0025 | | % C_n/kPa |
| | | S_{nom} | <0.3 | | mm |

Definitions acc. to VDI / VDE 2637

The technical data given here serve only as a product description and must not be interpreted as guaranteed characteristics in the legal sense.



| Nominal Load E _{max} | Order Codes Type | Versions | Ex-Versions | Packing Size mm | Weight | |
|----------------------------------|---------------------|-------------------|--------------------|--------------------|--------|----------|
| | | | | | net | shipping |
| 100 kg | PR 6246/12.. | /..D1 | /..D1E | 220 x 215 x 135 | 0.8 kg | 1.2 kg |
| 200 kg | PR 6246/22.. | /..D1 /..C3 /..C6 | /..D1E /..C3E /C6E | 220 x 215 x 135 | 0.8 kg | 1.2 kg |
| 300 kg | PR 6246/32.. | /..D1 /..C3 /..C6 | /..D1E /..C3E /C6E | 220 x 215 x 135 | 0.8 kg | 1.2 kg |
| 500 kg | PR 6246/52.. | /..D1 /..C3 /..C6 | /..D1E /..C3E /C6E | 220 x 215 x 135 | 0.8 kg | 1.2 kg |
| 1 t | PR 6246/13.. | /..D1 /..C3 /..C6 | /..D1E /..C3E /C6E | 220 x 215 x 135 | 1.6 kg | 1.8 kg |
| 2 t | PR 6246/23.. | /..D1 /..C3 /..C6 | /..D1E /..C3E /C6E | 220 x 215 x 135 | 1.7 kg | 2.1 kg |
| 3 t | PR 6246/33.. | /..D1 /..C3 /..C6 | /..D1E /..C3E /C6E | 220 x 215 x 135 | 1.7 kg | 2.1 kg |



Load cell construction

S-shape design with integrated load return. Full stainless steel construction, hermetically sealed, welded, filled with inert gas. Material load cell: 1.4542 (DIN 17 440) similar to S604, S622 (B.S.), 17-4 PH

Protection

IP68, IEC 529 (equivalent to NEMA 6). The load cell can be submerged in water to a depth of 1.5 m for 10,000 hours.

Cable

robust, flexible, screened, TPE Thermopl. Elastomer, grey, (Ex: blue), 4 x 0.35 mm², diameter: 5 mm, length: 5 m
bending radius: fixed installation: ≥ 50 mm
with repeated bending: ≥ 150 mm

Certificate of conformity

EEx ib IIC T6 (PTB Nr. Ex-92.C.2137)
II 1G EEx ia IIC T6 (PTB 02 ATEX 2059)

Further options

| Further options | | Dimensions WxHxD | Type | Ordernumber |
|--------------------------------|---|---------------------|-------------|-----------------|
| Plastic cable junction box | material plastic, for all industrial applications, max. 8 load cells | 200x120x75 mm | PR 6130/08 | 9405 361 30081 |
| Cable junction box | material aluminum, for all industrial, intrinsic safe, W&M applications | 200x160x100 mm | PR 6130/60N | 9405 361 30604 |
| S.S. cable junction box | material 1.4404, for all industrial, intrinsic safe, W&M applications | 228x196x74 mm | PR 6130/60S | 9405 361 30602 |
| Extension cable | for all applications | D=11 mm | PR 6135 | 9405 361 35 ..2 |
| Extension cable (Ex) | for all Ex applications | D=11 mm | PR 6136 | 9405 361 36 ..1 |
| Pivoting rod | up to 2 kN horizontal force, mild steel, zinc plated | | PR 6143/80N | 9405 361 43801 |
| Pivoting rod | up to 20 kN horizontal force, mild steel, zinc plated | | PR 6143/83N | 9405 361 43831 |
| Swivel bearing | material mild steel, zinc plated, tension mounting kit for load cells up to 500 kg nominal load | | PR 6046/00N | 9405 360 46001 |
| Stainless steel swivel bearing | material 1.4301, tension mounting kit for load cells up to 500 kg nominal load | | PR 6046/00S | 9405 360 46002 |
| Swivel bearing | material mild steel, zinc plated, tension mounting kit for load cells 1 t-3 t nominal load | | PR 6046/11N | 9405 360 46111 |
| Stainless steel swivel bearing | material 1.4548, tension mounting kit for load cells 1 t-3 t nominal load | | PR 6046/11S | 9405 360 46112 |

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