

# PR 6241

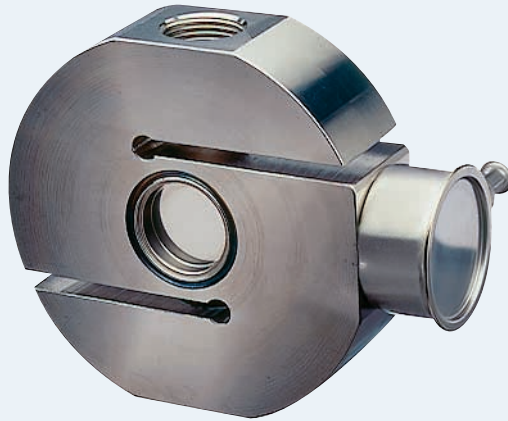
## Compression S-Type Load Cell

100 kg...5 t Type D1 Industrial

200 kg...5 t Type C3 High Precision

200 kg...3 t Type C6 Ultra Precision

global weighing technologies



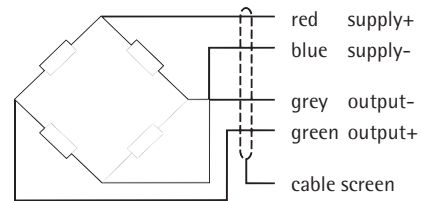
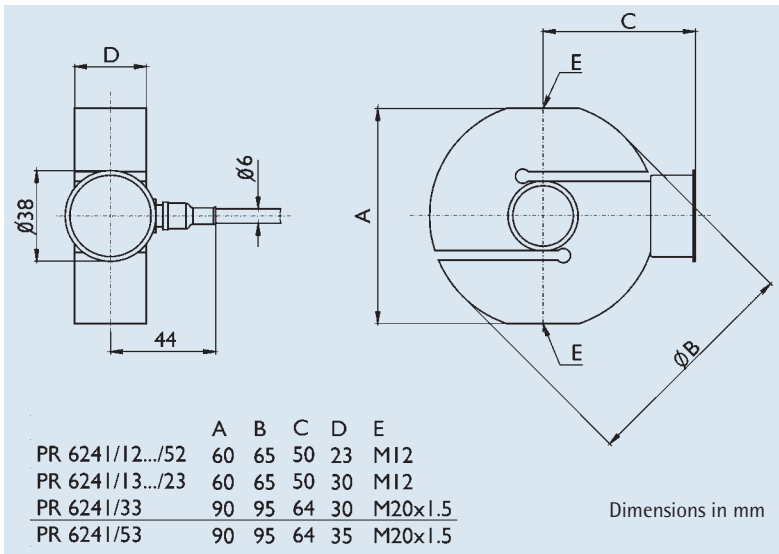
### PR 6241

- 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	$E_{min}$	0		% $E_{max}$
Maximum capacity	highest limit of specified measuring range	$E_{max}$	s.table next page		
Max. usable load	upper limit for measurements	$E_u$	150		% $E_{max}$
Destructive load	danger of mechanical destruction	$E_d$	>300		% $E_{max}$
Min. LC verification interval	minimum load cell verification interval, ( $v_{min} = E_{max}/Y$ )	Y	14000	20000	
Rated output	relative output at nominal load	$C_n$	2		mV/V
Tolerance on rated output	permissible deviation from rated output	$d_c$	< 0.07	< 0.07	% $C_n$
Zero output signal	load cell output signal under unloaded condition	$S_{min}$	< 1.0	< 1.0	% $C_n$
Repeatability error	max. change in load cell output for repeated loading	$\epsilon_R$	< 0.005	< 0.005	% $C_n$
Creep, during 30 min	max. change in load cell output under nominal load	$d_{cr}$	< 0.015	< 0.008	% $C_n$
Non - Linearity	max. deviation from best straight line through zero	$d_{lin}$	< 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	$d_{hy}$	< 0.015	< 0.008	% $C_n$
Temperature effect on $S_{min}$	max. change of $S_{min}/10K \Delta_T$ over $B_T$ referred to $C_n$	$TK_{S_{min}}$	< 0.01	< 0.007	%
$C_n/10K$					
Temperature effect on C	max. change of $C/10K \Delta_T$ over $B_T$ referred to $C_n$	$TK_c$	< 0.01	< 0.005	%
$C_n/10K$					
Input impedance	between supply terminals	$R_{LC}$	650 ± 6		$\Omega$
Output impedance	between measuring terminals	$R_O$	610 ± 1	610 ± 0.5	$\Omega$
Insulation impedance	between measuring circuit and housing 100VDC	$R_{IS}$		>5000 x 10 <sup>6</sup>	$\Omega$
Recommended supply voltage	to hold the specified performance	$B_u$		4...24	V
Max. supply voltage	permissible for continuous operation without damage	$U_{max}$		28	V
Nominal ambient temp. range	to hold the specified performance	$B_T$	-10...+55	-10...+55	°C
Usable ambient temp. range	permissible for continuous operation without damage	$B_{Tu}$		-30...+95	°C
Storage temperature range	Transportation and storage	$B_{Tl}$		-40...+95	°C
Vibration resistance	resistance against oscillation (IEC 68-2-6 Fc)	-		20 g, 100 h, 10...150 Hz	
Air pressure effects	influence of ambient air pressure on $S_{min}$	$PK_{S_{min}}$	0.005	0.0025	%
$C_n/kPa$					
Nominal deflection	max. elastic deformation under nominal load	$S_{nom}$	< 0.5	< 0.3	mm

Nominal Load $E_{max}$	Order Codes		Packing Size		Weight	
	Type	Versions	mm	net	shipping	
100 kg	PR 6241/12..	/..D1		220 x 215 x 135	0.8 kg	1.2 kg
200 kg	PR 6241/22..	/..D1 /..C3 /..C6		220 x 215 x 135	0.8 kg	1.2 kg
300 kg	PR 6241/32..	/..D1 /..C3 /..C6		220 x 215 x 135	0.8 kg	1.2 kg
500 kg	PR 6241/52..	/..D1 /..C3 /..C6		220 x 215 x 135	0.8 kg	1.2 kg
1 t	PR 6241/13..	/..D1 /..C3 /..C6		220 x 215 x 135	0.9 kg	1.2 kg
2 t	PR 6241/23..	/..D1 /..C3 /..C6		220 x 215 x 135	0.9 kg	1.2 kg
3 t	PR 6241/33..	/..D1 /..C3 /..C6		220 x 215 x 135	1.7 kg	2.0 kg
5 t	PR 6241/53..	/..D1 /..C3		220 x 215 x 135	1.9 kg	2.4 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 - 4PH

### Cable

robust, flexible, screened, TPE Thermopl. Elastomer, grey, (Ex: blue), 4x0.35 mm<sup>2</sup>, diameter: 5 mm, length: 5 m  
bending radius:

fixed installation:  $\geq 50$  mm  
with repeated bending:  $\geq 150$  mm

### 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.

### 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

		Dimensions WxHxD	Type	Order Number
Plastic cable junction box	for all industrial applications, max. 8 load cells	200x120x75 mm	PR 6130/08	9405 361 30081
Cable junction box	for all industrial, intrinsic safe, WetM applications	200x160x100 mm	PR 6130/60N	9405 361 30604
Stainless steel cable junction box	material 1.4404, for all industrial, intrinsic safe, WetM 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
Stainless steel platform foot	material 1.4542, special mounting solution for platforms	(100 kg... 2 t load cells)	PR 6041/51S	9405 360 41512
Plate mounting kit	mild steel, zinc plated, without constraining	(100 kg... 2 t load cells)	PR 6041/30N	9405 360 41301
Stainless steel plate mounting kit	material 1.4301, stainless steel, without constraining	(100 kg... 2 t load cells)	PR 6041/30S	9405 360 41302
Plate mounting kit	mild steel, zinc plated, without constraining	(3 t, 5 t load cells)	PR 6041/40N	9405 360 41401
Stainless steel plate mounting kit	material 1.4301, without constraining	(3 t, 5 t load cells)	PR 6041/40S	9405 360 41402
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
MiniFLEXLOCK	mounting kit, incl. constrainer up to 6kN horiz. force	(100 kg... 2 t load cells)	PR 6043/30N	9405 360 43301
Stainless steel MiniFLEXLOCK	material 1.4301, mounting kit, incl. constrainer up to 6 kN horiz. force	(100 kg... 2 t load cells)	PR 6043/30S	9405 360 43302
Stainless steel loadbutton set	material 1.4542, special load button set	(100 kg... 2 t load cells)	PR 6043/31S	9405 360 43312
MiniFLEXLOCK	mounting kit, incl. constrainer up to 18 kN horiz. force	(3 t, 5 t load cells)	PR 6043/40N	9405 360 43401
Stainless steel MiniFLEXLOCK	material 1.4301, mounting kit, incl. constrainer up to 13 kN horiz. force	(3 t, 5 t load cells)	PR 6043/40S	9405 360 43402

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