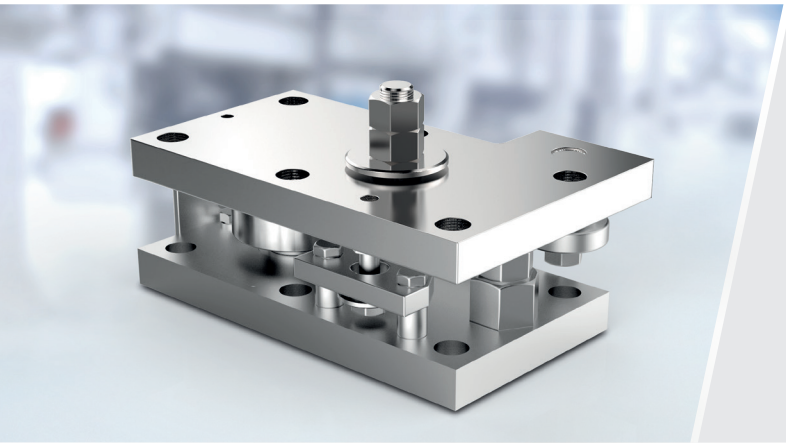
Load cell PR 6212

for maximum corrosion resistance





Load cell PR 6212 benefits

- Maximum corrosion resistance
- High-temperature version available for up to 180 °C
- Easy and failure-free installation using the mounting kit PR 6012

Mounting kit PR 6012 benefits

- Integrated jack-up and dummy function
- Low installation height

The load cell PR 6212 is a state-of-the-art product. This corrosion-resistant load cell has a compact design and also features high heat resistance. Its long product lifetime minimises downtime and ensures safer and more reliable processes in the chemical and steel industry.

Corrosion resistance and precision for demanding applications

Stainless steel 1.4418, unique in weighing technology, ensures **maximum corrosion resistance**. The PR 6212 is **also available with protective coating** for use in extremely aggressive environments.

The compact design **ensures a low system height** and allows for easy retrofitting of weighing technology.

The perfectly coordinated combination of the load cell PR 6212 and mounting kit PR 6012 meets all precision and handling requirements. The **inverted installation** provides additional corrosion protection for the load cell and **is simple and failure-free**.

Less corrosion, more cost-efficiency

The combination of the load cell PR 6212 and mounting kit PR 6012 makes quick and easy installation possible and facilitates consistently reliable and precise measurement results in the chemical and steel industry.

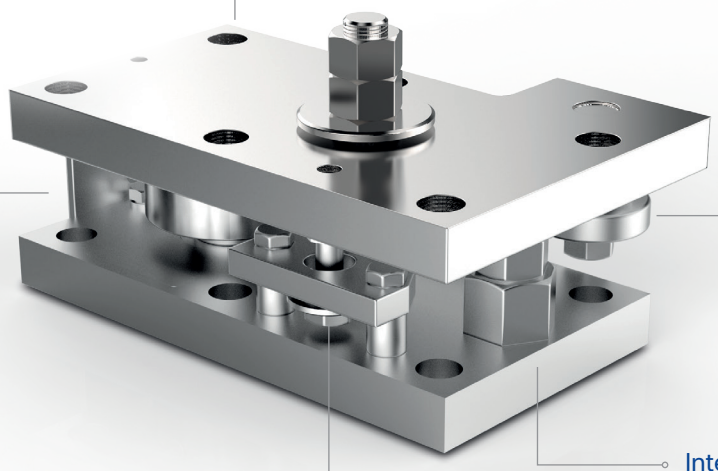
Scan the QR code and watch our video showing the load cell PR 6212 in endurance test.



- Highest corrosion resistance stainless steel 1.4418 – unique in weighing technology
- Additional corrosion protection thanks to smooth finish and lack of horizontal surfaces
- Laser labelling for long-lasting product identification
- Compact design for easy installation
- Compatible with PR 6211 and PR 6011
- Optional: protective coating for extremely aggressive environments
- Optional: high-temperature version for up to 180 °C

Combined for reliable installation: PR 6212 and PR 6012 as a complete solution

The load cell PR 6212 is not only fully compatible with all mounting kits from the PR 6012 range but also with the previous PR 6011 range. The innovative complete solution ensures failure-free and efficient installation. Thanks to the integrated jack-up function there is no need for external lifting devices and even a load cell dummy is no longer required.



- Large mounting holes for flexible installation
- Optional: reinforced lift-off protection for lift-off forces up to 45 kN
- Inverted installation of the load cell provides additional corrosion protection
- Integrated constrainer to protect against horizontal forces
- Integrated jack-up and dummy function for easy installation of the load cell
- Integrated lift-off protection with extended horizontal tolerances absorbs temperature fluctuations

Load cell technical specifications

Optionally available with protective coating for especially aggressive environments and as a high-temperature version

PR 6212 technical data

Parameter	Description	Abbr.	PR 6212/.. LT [4] (high-temperature load cell)	PR 6212/.. C1[1] PR 6212/.. C1E[2] PR 6212/.. C1-L[3] (load cell with protective coating)	Unit
Accuracy class			0,25	0,04	% E_{max}
Minimum dead load	lowest limit of specified measuring range	E_{min}	0	0	% E_{max}
Maximum capacity	highest limit of specified measuring range	E_{max}	0,5; 1; 2; 3; 5	0,5; 1; 2; 3; 5; 10	t
Safe load limit	upper limit of measurements	E_{lim}	150	150	% E_{max}
Destructive load	danger of mechanical destruction	E_d	>300	>300	% E_{max}
Minimum LC verification	minimum load cell scale interval, $v_{min} = E_{max}/Y$	Y	-	5000	
Rated output	relative output at maximum capacity	C_n	2	2	mV/V
Tolerance on rated output	permissible deviation from rated output C_n	d_c	<1,5	<0,25	% C_n
Zero output signal	load cell output signal under unloaded condition	S_{min}	0...2	0...2	% C_n
Reproducibility	max. change in load cell output for repeated loading	ε_R	<0,1	<0,01	% C_n
Creep	max. change of output signal at E_{max} during 30 minutes	d_{cr}	<0,1	<0,035	% C_n
Linearity deviation	deviation from best straight line through zero	d_{Lin}	<0,25	<0,03	% C_n
Hysteresis	max. difference in LC output between loading and unloading	d_{hy}	<0,25	<0,035	% C_n
Temperature effect on S_{min}	max. change of S_{min} per 10 K over BT referred to C_n	TK_{Smin}	<0,1	<0,028	% C_n/10 K
Temperature effect on C	max. change of C per 10 K over B_T referred to C_n	TK_C	<0,07	<0,02	% C_n/10 K
Input impedance	between supply terminals	R_{LC}	1200 ±200	650 ±6	Ω
Output impedance	between measuring terminals	R_o	1200 ±6	610 ±1	Ω
Insulation impedance	between measuring circuit and housing at 100 V_{DC}	R_{IS}	>5000	>5000	M Ω
Insulation voltage	between circuit and housing (PR 6212/..E only)		-	500	V
Recommended supply voltage	to hold the specified performance	B_u	4...24	4...24	V
Max. supply voltage	permissible for continuous operation without damage	U_{max}	32	32	V
	PR 6212/..E	U_{max}	-	25	V
Nominal ambient temp. range	to hold the specified performance	B_T	-10...+155	-10...+40	°C
Service temperature range	permissible for continuous operation without damage	B_{Tu}	-30...+180	-30...+95	°C
Storage temperature range	without electrical and mechanical stress	B_{Ti}	-40...+180	-40...+95	°C
Permissible inclination	permissible inclination whilst maintaining the specified measurement accuracy		1	1	angle in °
Vibration resistance	resistance against oscillations (IEC 60068-2-6-Fc)		20 g, 100 h, 10...150 Hz	20 g, 100 h, 10...150 Hz	
Ambient pressure impact	influence of ambient air pressure on S_{min}	PK_{Smin}	≤70	≤60	g/kPa
Nominal deflection	elastic deformation under maximum capacity	s_{nom}	<0,2	<0,2	mm
Material (sensor)			1.4542 (DIN EN 10088-3)	1.4418 (DIN EN 10088-3)	
Protection class			IP68 + IP69		
Cables			robust, flexible, shielded, length: 5 m		
			PR 6212/.. LT PFA, colour: red, Ø 6 mm, 4 x 0,382 mm²	PR 6212/.. C1 TPE, colour: grey, Ø 5 mm, 4 x 0,355 mm² PR 6212/C1E TPE, colour: blue, Ø 5 mm, 4 x 0,382 mm	
Bending radius			fixed installation ≥50 mm, flexible installation ≥150 mm		

[1] C1 = load cell with C1 measurement accuracy | [2] C1-L = load cell with C1 measurement accuracy and special protective coating
[3] C1E = load cell with C1 accuracy for Ex applications | [4] LT = high-temperature version

Mounting kit technical specifications

PR 6012 technical data

Maximum capacity of load cell PR 6212	Mounting kit/ accessories	Material	Description/comments	Mounting screws	Installation height	Max. permissible horizontal force (kN)	Max. permissible lift-off force (kN)	Maximum permissible eccentricity	Max. permissible vertical load without load cell
500kg - 10t	PR 6012/01 N, S	Steel S235, stainless steel 1.4301 (AISI 304)	Mini FLEX	M8	80 mm	/	/	+/- 4 mm	/
	PR 6012/31 N, S		Mini FLEXLOCK	M8	80 mm	5	/	+/- 4 mm	/
	PR 6012/41 N, S		Mini FLEXLOCK; reinforced constrainer	M12	80 mm	20	/	+/- 4 mm	/
500kg - 10t	PR 6012/02 N, S	Steel S235, stainless steel 1.4301 (AISI 304)	Maxi FLEX	M8	80 mm	/	10	+/- 4 mm	5 t
	PR 6012/32 N, S		Maxi FLEXLOCK	M8	80 mm	5	10	+/- 4 mm	5 t
	PR 6012/42 N, S		Maxi FLEXLOCK; reinforced constrainer	M12	80 mm	20	10	+/- 4 mm	5 t
	PR 6012/53 S	Stainless steel A2-70	Optional extension of lift-off protection (M12) for PR 6012/31 and PR 6012/32	/	/	/	25	-	/
	PR 6012/54 S		Optional extension of lift-off protection (M16) for PR 6012/41 and PR 6012/42	/	/	/	45	-	/
	PR 6012/63 S	Stainless steel 1.4301 (AISI 304)	Pivot for PR 6212/ 500 kg - 10 t	M8	80 mm	12	/	/	/

Ordering information

Load cell PR 6212

Type	Order number	Type	Order number	Type	Order number
PR 6212/500 kg C1	940521201150	PR 6212/2 t C1	940521201220	PR 6212/5 t C1	940521201250
PR 6212/500 kg C1E	940561201150	PR 6212/2 t C1E	940561201220	PR 6212/5 t C1E	940561201250
PR 6212/500 kg C1-L	940581201150	PR 6212/2 t C1-L	940581201220	PR 6212/5 t C1-L	940581201250
PR 6212/500 kg LT	940541201150	PR 6212/2 t LT	940541201220	PR 6212/5 t LT	940541201250
PR 6212/1 t C1	940521201210	PR 6212/3 t C1	940521201230	PR 6212/10 t C1	940521201310
PR 6212/1 t C1E	940561201210	PR 6212/3 t C1E	940561201230	PR 6212/10 t C1E	940561201310
PR 6212/1 t C1-L	940581201210	PR 6212/3 t C1-L	940581201230	PR 6212/10 t C1-L	940581201310
PR 6212/1 t LT	940541201210	PR 6212/3 t LT	940541201230		

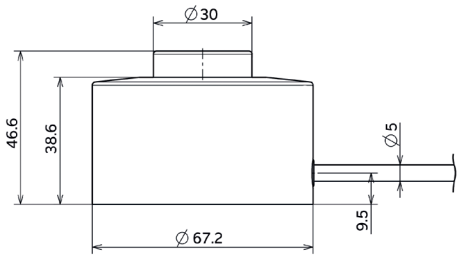
Mounting kit PR 6012

Mounting kits without integrated constrainer		
Type	Description	Order number
PR 6012/01 N	Mounting kit Mini FLEX for PR 6212/500 kg – 10 t	940536012011
PR 6012/01 S	Mounting kit Mini FLEX for PR 6212/500 kg – 10 t, stainless steel	940536012012
Mounting kits with integrated constrainer		
Type	Description	Order number
PR 6012/31 N	Mounting kit Mini FLEXLOCK for PR 6212/500 kg – 10 t	940536012311
PR 6012/31 S	Mounting kit Mini FLEXLOCK for PR 6212/500 kg – 10 t, stainless steel	940536012312
PR 6012/41 N	Mounting kit Mini FLEXLOCK for PR 6212/500 kg – 10 t	940536012411
PR 6012/41 S	Mounting kit Mini FLEXLOCK for PR 6212/500 kg – 10 t, stainless steel	940536012412
Mounting kit with additional functions and without integrated constrainer		
Type	Description	Order number
PR 6012/02 N	Mounting kit Maxi FLEX for PR 6212/500 kg – 10 t	940536012021
PR 6012/02 S	Mounting kit Maxi FLEX for PR 6212/500 kg – 10 t, stainless steel	940536012022
Mounting kit with additional functions and integrated constrainer		
Type	Description	Order number
PR 6012/32 N	Mounting kit Maxi FLEXLOCK for PR 6212/500 kg – 10 t	940536012321
PR 6012/32 S	Mounting kit Maxi FLEXLOCK for PR 6212/500 kg – 10 t, stainless steel	940536012322
PR 6012/42 N	Mounting kit Maxi FLEXLOCK for PR 6212/500 kg – 10 t	940536012421
PR 6012/42 S	Mounting kit Maxi FLEXLOCK for PR 6212/500 kg – 10 t, stainless steel	940536012422
PR 6012/53 S	Optional extension of lift-off protection (M12) for PR 6012/31 and PR 6012/32	940536012532
PR 6012/54 S	Optional extension of lift-off protection (M16) for PR 6012/41 and PR 6012/42	940536012542
PR 6012/63 S	Pivot for PR 6212/500 kg – 10 t	940536012632

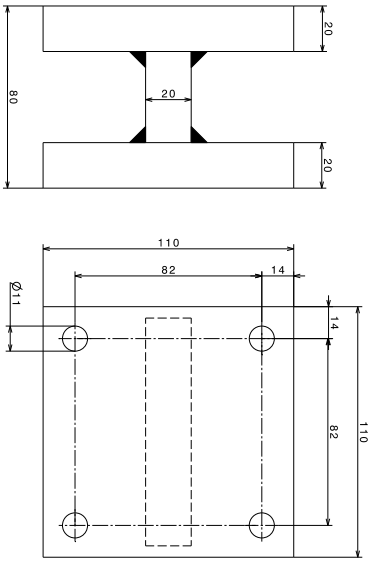
Mounting kit PR 6012/X1 dimensional drawings

The mounting kit PR 6012/X1 was developed for use in the toughest conditions. The inverted installation of the load cell combined with the special high-quality material of the mounting kit make a complete solution capable of withstanding chemically aggressive, corrosive environments. The measurement results are also not affected by temperature fluctuations thanks to large lateral tolerances and the integrated horizontal constrainer. What's more, the mounting kit was designed to be especially easy and reliable to install.

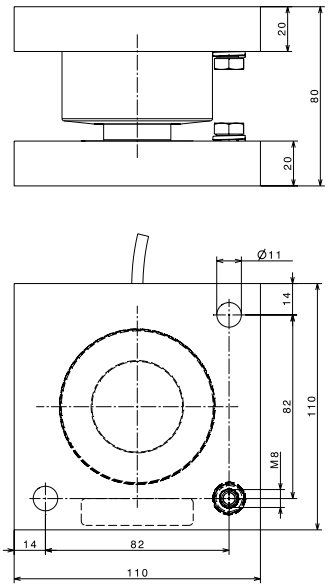
PR 6212



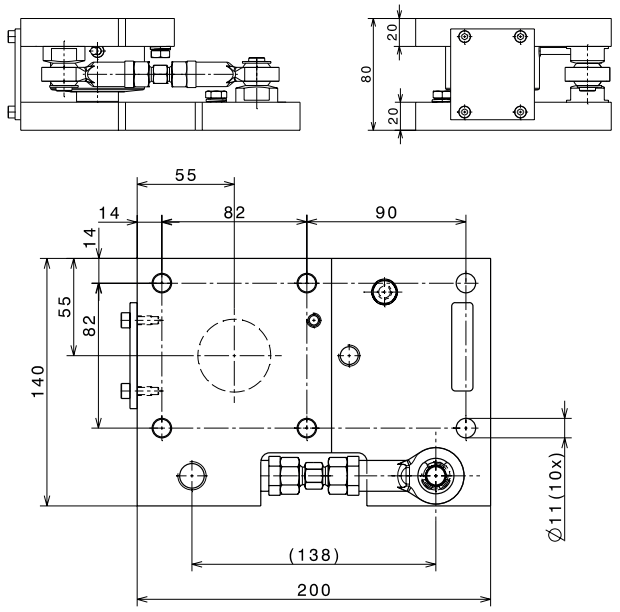
PR 6012/63 S



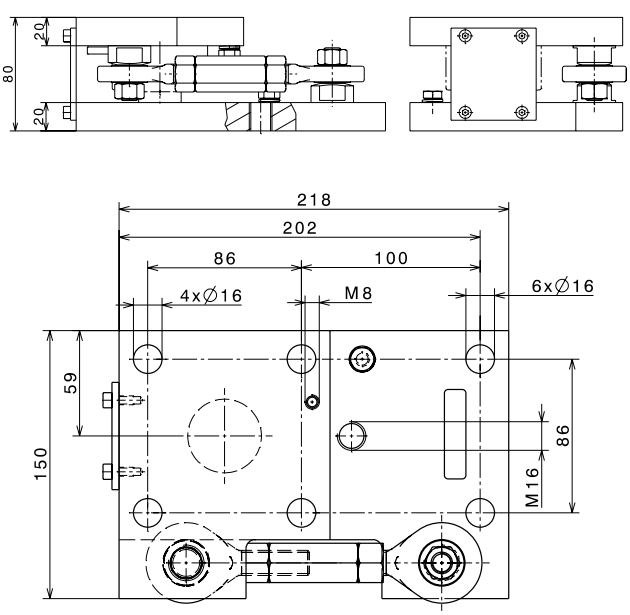
PR 6012/01 N, S



PR 6012/31 N, S



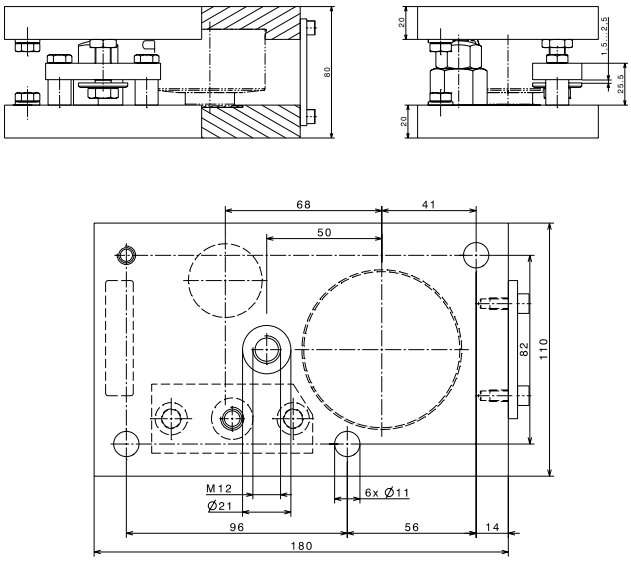
PR 6012/41 N, S



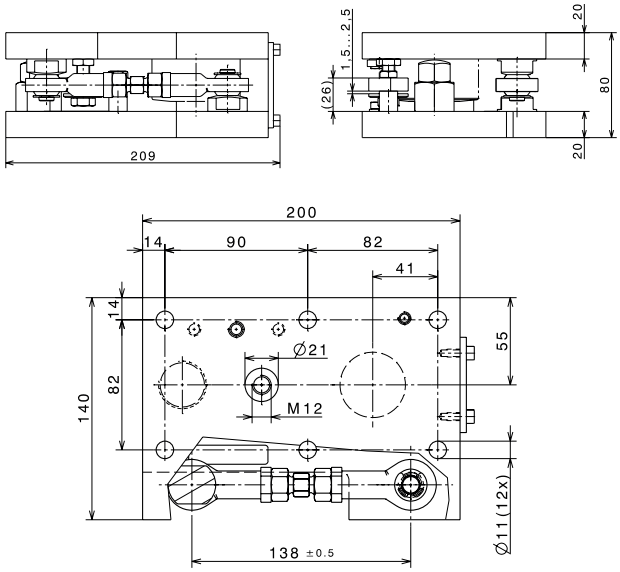
Mounting kit PR 6012/X2 dimensional drawings

In addition to the features of the PR 6012/X1 the mounting kit PR 6012/X2 range also has extensive additional functions that make installation and operation of the weighing technology easier. The integrated jack-up function eliminates the need for external lifting devices, while the integrated dummy function makes easy installation possible – without damaging the sensitive load cell. Lift-off protection up to 45 kN effectively prevents the vessel from tipping.

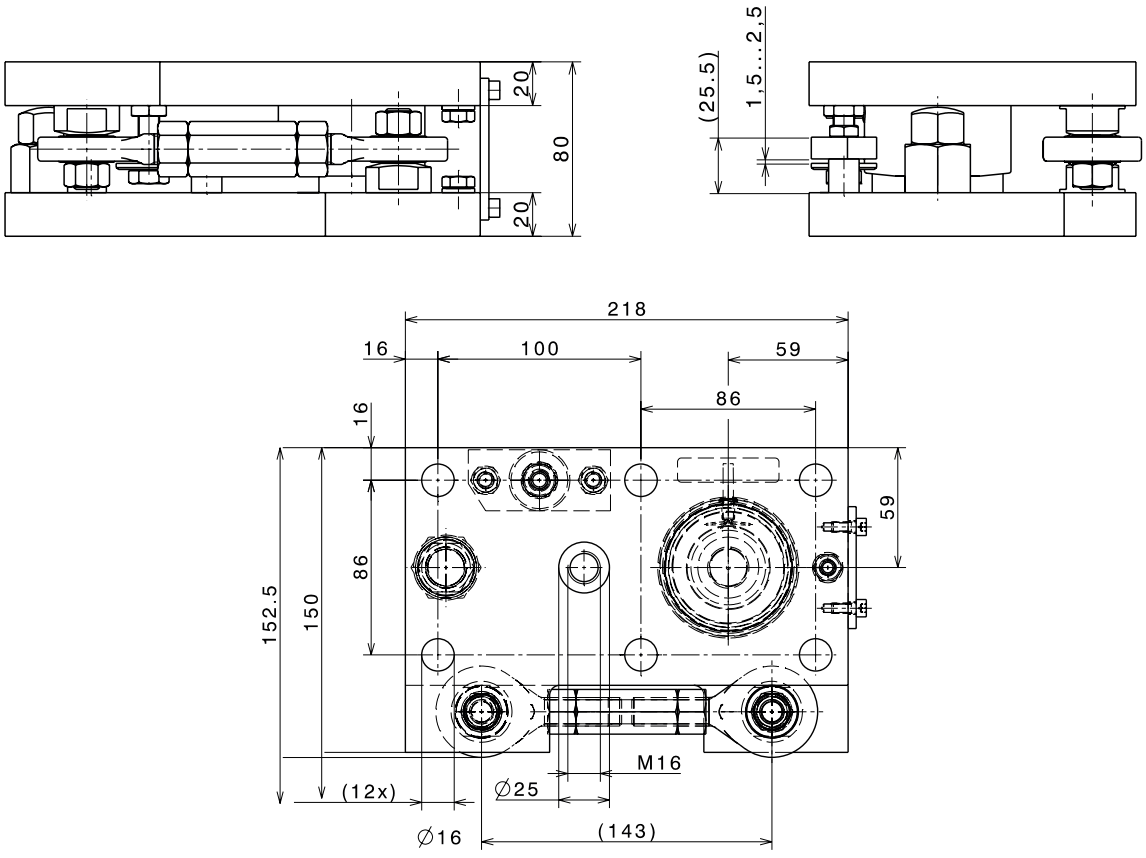
PR 6012/02 N, S



PR 6012/32 N, S



PR 6012/42 N, S



Approvals

Scope of validity:
PR 6212/... C1E (500 kg ... 10 t)

Certificates for the load cell

Zone	Labeling	Certificate number	for
0 and 1	II 1G Ex ia IIC T6 Ga Ex ia IIC T6 Ga OEx ia IIC T6 (")	BVS 16 ATEX E 005 IECEx BVS 16.0005	PR 6212/..E only
20 and 21	II 1D Ex ta IIIC T160°C Da Ex ta IIIC T160°C Da Ex ta IIIC T160°C X (")	TÜV 03 ATEX 2301 X IECEx TUN 17.0025X	PR 6212/..E only
2	II 3G Ex nA IIC T6 Gc 2 Ex nA IIC T6 X (")	Certificate manufacturer	all PR 6212 except LT version
22	II 3D Ex tc IIIC T85 °C Dc Ex tc IIIC T6 X (")	Certificate manufacturer	all PR 6212 except LT version
	IS / I,II,III / 1 / ABCDEFG / T4A Ta= -30 °C to 70 °C; T5 Ta= -30 °C to 55 °C - 4012 101 5688; Entity NI / I,II,III / 2 / ABCDEFG / T4A Ta= -30 °C to 70 °C; T5 Ta= -30 °C to 55 °C - 4012 101 5688; NIFW	FM - Original project ID: 3001200	all PR 6212 except LT version
	IS / I,II,III / 1 / ABCDEFG / T4A Ta= -30 °C to 70 °C; T5 Ta= -30 °C to 55 °C - 4012 101 5688; Entity NI / I / 2 / ABCD / T4A Ta= -30 °C to 70°C; T5 Ta= -30 °C to 55 °C - 4012 101 5688; NIFW DIP / II,III / 2 / EFG / T4A Ta= -30 °C to 70 °C; T5 Ta= -30 °C to 55 °C - 4012 101 5688; NIFW	FM - Canada project ID: 3053046	all PR 6212 except LT version
	Ambient temperature in Ex-Area -30... +55 °C		
	(") only with approval TP TC 012 (TRCU 012) -52...+55 °C		

The technical data given are intended solely as a product description and should not be conceived as guaranteed properties in the legal sense.

Specifications subject to change without notice.

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