

# PR6241 Series Compression Type Ultra-High Accuracy 1/12500 Stainless Steel Load Cell

2023/03/22

Minebea Intec

## Features



- Compact, high-performance load cell. Individual accuracy: Achieves 1/12500! Ideal for production of high-accuracy tank scales and platform scales
- Stainless steel housing: SUS630 equivalent
- Completely waterproof IP68
- Ultra-high accuracy, C6: 1/12500

## Specification

Specification name	Specification contents	Specification contents2	Specification contents3
OIML Accuracy class	D1	D1E	C3
Accuracy class	0.008E <sub>max</sub> ~0.04E <sub>max</sub>	0.008E <sub>max</sub> ~0.04E <sub>max</sub>	0.008E <sub>max</sub> ~0.04E <sub>max</sub>
Safe load limit	150%E <sub>max</sub>	150%E <sub>max</sub>	150%E <sub>max</sub>
Destructive load	300%E <sub>max</sub>	300%E <sub>max</sub>	300%E <sub>max</sub>
Rated output	2.0mV/V	2.0mV/V	2.0mV/V
Rated output tolerance	<0.25%C <sub>n</sub>	<0.25%C <sub>n</sub>	<0.07%C <sub>n</sub>
Zero balance	<1.0%C <sub>n</sub>	<1.0%C <sub>n</sub>	<1.0%C <sub>n</sub>

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Reproducibility	<0.01%Cn	<0.01%Cn	<0.005%Cn
Creep	<0.03%Cn	<0.03%Cn	<0.015%Cn
Non-linearity	<0.03%Cn	<0.03%Cn	<0.01%Cn
Hysteresis	<0.04%Cn	<0.04%Cn	<0.015%Cn
Temperature effect on Zero	<0.028%Cn/10K	<0.028%Cn/10K	<0.01%Cn/10K
Temperature effect on Span	<0.03%Cn/10K	<0.03%Cn/10K	<0.01%Cn/10K
Input resistance	644Ω~656Ω	644Ω~656Ω	644Ω~656Ω
Rated output	609Ω~611Ω	609Ω~611Ω	609.5Ω~610.5Ω
Insulation resistance	>5000×10 <sup>6</sup> Ω	>5000×10 <sup>6</sup> Ω	>5000×10 <sup>6</sup> Ω
Nominal supply voltage	4~24V	4~24V	4~24V
Maximum supply voltage	28V	25V	28V
Nominal ambient temperature range	-10℃~+55℃	-10℃~+55℃	-10℃~+55℃
Usable ambient temperature range	-40℃~+95℃	-40℃~+95℃	-40℃~+95℃
Storage ambient temperature range	-40℃~+95℃	-40℃~+95℃	-40℃~+95℃
Explosion-proof certification in Japan	【JPEX】 Ex ia IIC T6 Ga(DEK19.0066/DEKRA)	【JPEX】 Ex ia IIC T6 Ga(DEK19.0066/DEKRA)	【JPEX】 Ex ia IIC T6 Ga(DEK19.0066/DEKRA)
Conforms to overseas explosion protection standards	【IECEX】 Ex ia IIC T6 Ga/ 【ATEX】 II 1G Ex ia IIC T6 Ga	【IECEX】 Ex ia IIC T6 Ga/ 【ATEX】 II 1G Ex ia IIC T6 Ga	【IECEX】 Ex ia IIC T6 Ga/ 【ATEX】 II 1G Ex ia IIC T6 Ga
Class of protection	IP68 / IEC 529 (completely waterproof · water depth 1.5m 10000h)	IP68 / IEC 529 (completely waterproof · water depth 1.5m 10000h)	IP68 / IEC 529 (completely waterproof · water depth 1.5m 10000h)
Material of element	Body: Stainless steel 1.4542 (DIN 17440) S 604, S 622 (B.S), 17-4 PH equivalent	Body: Stainless steel 1.4542 (DIN 17440) S 604, S 622 (B.S), 17-4 PH equivalent	Body: Stainless steel 1.4542 (DIN 17440) S 604, S 622 (B.S), 17-4 PH equivalent
Cable specification	Polyethylene, 4-core shield cable Length 5m/Diameter 5mm/cable 4×0.35mm <sup>2</sup>	Polyethylene, 4-core shield cable Length 5m/Diameter 5mm/cable 4×0.35mm <sup>2</sup>	Polyethylene, 4-core shield cable Length 5m/Diameter 5mm/cable 4×0.35mm <sup>2</sup>
Wiring specification	Applied voltage +red/-blue Output signal +green/-ash	Applied voltage +red/-blue Output signal +green/-ash	Applied voltage +red/-blue Output signal +green/-ash
Accessories	Earth wire 1pc	Earth wire 1pc	Earth wire 1pc

Specification contents4	Specification contents5	Specification contents6
C3E	C6	C6E
0.008E <sub>max</sub> ~0.04E <sub>max</sub>	0.008E <sub>max</sub> ~0.04E <sub>max</sub>	0.008E <sub>max</sub> ~0.04E <sub>max</sub>
150%E <sub>max</sub>	150%E <sub>max</sub>	150%E <sub>max</sub>
300%E <sub>max</sub>	300%E <sub>max</sub>	300%E <sub>max</sub>

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2.0mV/V	2.0mV/V	2.0mV/V
<0.07%Cn	<0.07%Cn	<0.07%Cn
<1.0%Cn	<1.0%Cn	<1.0%Cn
<0.005%Cn	<0.005%Cn	<0.005%Cn
<0.015%Cn	<0.008%Cn	<0.008%Cn
<0.01%Cn	<0.01%Cn	<0.01%Cn
<0.015%Cn	<0.008%Cn	<0.008%Cn
<0.01%Cn/10K	<0.007%Cn/10K	<0.007%Cn/10K
<0.01%Cn/10K	<0.005%Cn/10K	<0.005%Cn/10K
644Ω~656Ω	644Ω~656Ω	644Ω~656Ω
609.5Ω~610.5Ω	609.5Ω~610.5Ω	609.5Ω~610.5Ω
>5000×10 <sup>6</sup> Ω	>5000×10 <sup>6</sup> Ω	>5000×10 <sup>6</sup> Ω
4~24V	4~24V	4~24V
25V	28V	25V
-10℃~+55℃	-10℃~+55℃	-10℃~+55℃
-40℃~+95℃	-40℃~+95℃	-40℃~+95℃
-40℃~+95℃	-40℃~+95℃	-40℃~+95℃
【JPEX】 Ex ia II C T6 Ga(DEK19.0066/DEKRA)	【JPEX】 Ex ia II C T6 Ga(DEK19.0066/DEKRA)	【JPEX】 Ex ia II C T6 Ga(DEK19.0066/DEKRA)
【IECEX】 Ex ia II C T6 Ga/ 【ATEX】 II 1G Ex ia II C T6 Ga	【IECEX】 Ex ia II C T6 Ga/ 【ATEX】 II 1G Ex ia II C T6 Ga	【IECEX】 Ex ia II C T6 Ga/ 【ATEX】 II 1G Ex ia II C T6 Ga
IP68 / IEC 529 (completely waterproof · water depth 1.5m 10000h)	IP68 / IEC 529 (completely waterproof · water depth 1.5m 10000h)	IP68 / IEC 529 (completely waterproof · water depth 1.5m 10000h)
Body: Stainless steel 1.4542 (DIN 17 440) S 604, S 622 (B.S), 17-4 PH equivalent	Body: Stainless steel 1.4542 (DIN 17 440) S 604, S 622 (B.S), 17-4 PH equivalent	Body: Stainless steel 1.4542 (DIN 17 440) S 604, S 622 (B.S), 17-4 PH equivalent
Polyethylene, 4-core shield cable Length 5m/Diameter 5mm/cable 4×0.35mm	Polyethylene, 4-core shield cable Length 5m/Diameter 5mm/cable 4×0.35mm	Polyethylene, 4-core shield cable Length 5m/Diameter 5mm/cable 4×0.35mm
Applied voltage +red/-blue Output signal +green/-ash	Applied voltage +red/-blue Output signal +green/-ash	Applied voltage +red/-blue Output signal +green/-ash
Earth wire 1pc	Earth wire 1pc	Earth wire 1pc

## Table of P/N

Parts No.	Rated Capacity [tf]	Weight [kg]	Gross Weight [kg]	Packaged Size(W) [cm]	Packaged Size(L) [cm]	Packaged Size(H) [cm]
PR6241/12 D1	0.1	0.7	1.1	22	22	14

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PR6241/12 D1 (E)	0.1	0.7	1.1	22	22	14
PR6241/22 D1	0.2	0.7	1.1	22	22	14
PR6241/22 D1 (E)	0.2	0.7	1.1	22	22	14
PR6241/22 C3	0.2	0.7	1.1	22	22	14
PR6241/22 C3 (E)	0.2	0.7	1.1	22	22	14
PR6241/22 C6	0.2	0.7	1.1	22	22	14
PR6241/22 C6 (E)	0.2	0.7	1.1	22	22	14
PR6241/32 D1	0.3	0.7	1.1	22	22	14
PR6241/32 D1 (E)	0.3	0.7	1.1	22	22	14
PR6241/32 C3	0.3	0.7	1.1	22	22	14
PR6241/32 C3 (E)	0.3	0.7	1.1	22	22	14
PR6241/32 C6	0.3	0.7	1.1	22	22	14
PR6241/32 C6 (E)	0.3	0.7	1.1	22	22	14
PR6241/52 D1	0.5	0.7	1.1	22	22	14
PR6241/52 D1 (E)	0.5	0.7	1.1	22	22	14
PR6241/52 C3	0.5	0.7	1.1	22	22	14
PR6241/52 C3 (E)	0.5	0.7	1.1	22	22	14
PR6241/52 C6	0.5	0.7	1.1	22	22	14
PR6241/52 C6 (E)	0.5	0.7	1.1	22	22	14
PR6241/13 D1	1.0	0.8	1.2	22	22	14
PR6241/13 D1 (E)	1.0	0.8	1.2	22	22	14
PR6241/13 C3	1.0	0.8	1.2	22	22	14
PR6241/13 C3 (E)	1.0	0.8	1.2	22	22	14
PR6241/13 C6	1.0	0.8	1.2	22	22	14
PR6241/13 C6 (E)	1.0	0.8	1.2	22	22	14
PR6241/23 D1	2.0	0.8	1.2	22	22	14
PR6241/23 D1 (E)	2.0	0.8	1.2	22	22	14
PR6241/23 C3	2.0	0.8	1.2	22	22	14
PR6241/23 C3 (E)	2.0	0.8	1.2	22	22	14
PR6241/23 C6	2.0	0.8	1.2	22	22	14
PR6241/23 C6 (E)	2.0	0.8	1.2	22	22	14

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PR6241/23 C3	2.0	0.8	1.2	22	22	14
PR6241/23 C3 (E)	2.0	0.8	1.2	22	22	14
PR6241/23 C6	2.0	0.8	1.2	22	22	14
PR6241/23 C6 (E)	2.0	0.8	1.2	22	22	14
PR6241/33 D1	3.0	1.6	2.0	22	22	14
PR6241/33 D1 (E)	3.0	1.6	2.0	22	22	14
PR6241/33 C3	3.0	1.6	2.0	22	22	14
PR6241/33 C3 (E)	3.0	1.6	2.0	22	22	14
PR6241/33 C6	3.0	1.6	2.0	22	22	14
PR6241/33 C6 (E)	3.0	1.6	2.0	22	22	14
PR6241/53 D1	5.0	1.8	2.2	22	22	14
PR6241/53 D1 (E)	5.0	1.8	2.2	22	22	14
PR6241/53 C3	5.0	1.8	2.2	22	22	14
PR6241/53 C3 (E)	5.0	1.8	2.2	22	22	14

Parts No.	PDF data (outline drawing)	Specification sheet	Instruction Manual
PR6241/12 D1	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/12 D1 (E)	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/22 D1	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/22 D1 (E)	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/22 C3	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/22 C3 (E)	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/22 C6	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/22 C6 (E)	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/32 D1	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/32 D1 (E)	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/32 C3	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/32 C3 (E)	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/32 C6	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/32 C6 (E)	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/52 D1	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/52 D1 (E)	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/52 C3	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/52 C3 (E)	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>

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PR6241/52 C6	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/52 C6 (E)	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/13 D1	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/13 D1 (E)	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/13 C3	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/13 C3 (E)	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/13 C6	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/13 C6 (E)	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/23 D1	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/23 D1 (E)	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/23 C3	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/23 C3 (E)	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/23 C6	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/23 C6 (E)	<a href="#">KT54543-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/33 D1	<a href="#">KT54525-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/33 D1 (E)	<a href="#">KT54525-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/33 C3	<a href="#">KT54525-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/33 C3 (E)	<a href="#">KT54525-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/33 C6	<a href="#">KT54525-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/33 C6 (E)	<a href="#">KT54525-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/53 D1	<a href="#">KT54525-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/53 D1 (E)	<a href="#">KT54525-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/53 C3	<a href="#">KT54525-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>
PR6241/53 C3 (E)	<a href="#">KT54525-2.pdf</a>	<a href="#">213PR6241.pdf</a>	<a href="#">KT60857-1.pdf</a>

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