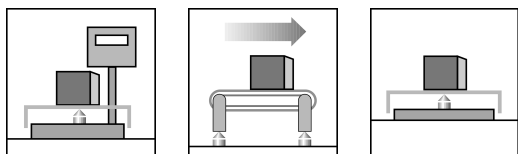


Special features

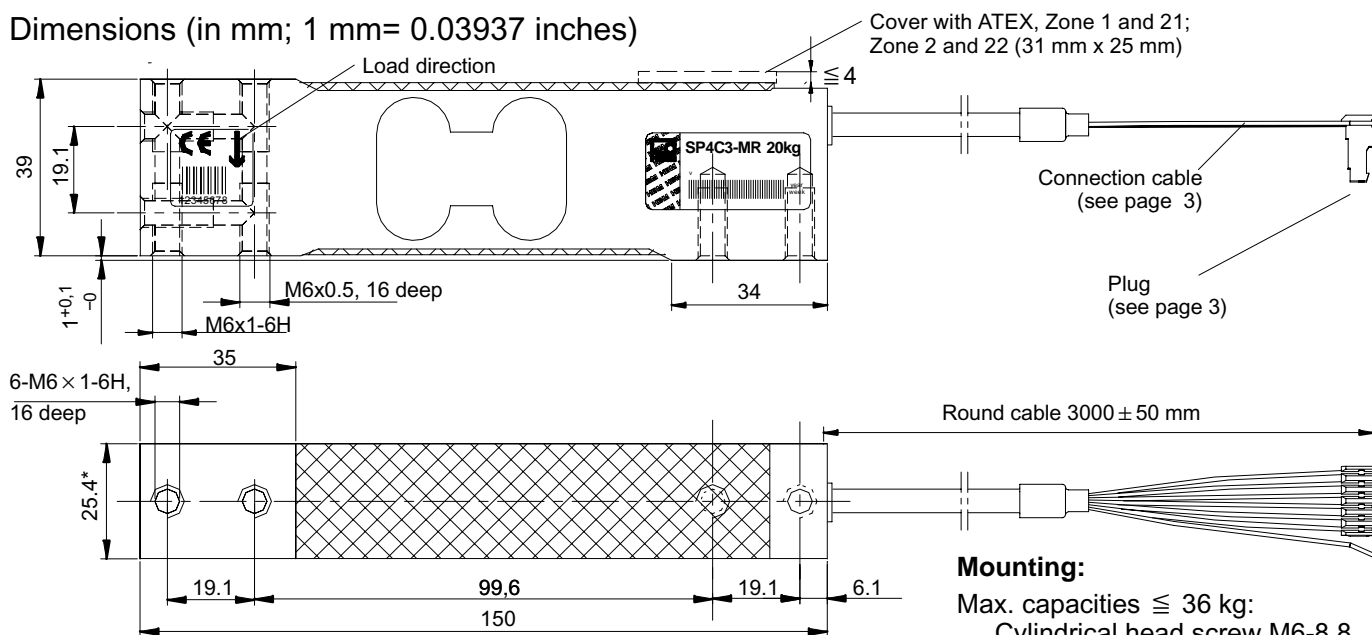
- Accuracy class C3MR and C6MR with OIML-R60 test report
- Off center load compensated (OIML R 76)
- Degree of protection IP67 (according to EN 60 529)
- Shielded connection cable
- Suitable for multi range applications

Optional:

- Explosion proof versions
- Different cable lengths
- Aligned output, suitable for connection in parallel



Dimensions (in mm; 1 mm= 0.03937 inches)



* SP 4/1 kg: 18 mm

Specifications

Type	SP4M...														
Accuracy class ¹⁾	C3MR														
Max. number of load cell intervals (n _{LC})	3000														
Maximum capacity (E _{max}) ²⁾	kg	1	3	5	7	10	15	20	30	50	75	100	150	200	
Minimum LC verification interval (v _{min})	g	0.1	0.2	0.5	0.5	1	1	2	2	5	5	10	10	20	
Temperature effect on zero balance (TK ₀)	% v. C _n /10 K	± 0.0140	± 0.0093	± 0.0140	± 0.0100	± 0.0140	± 0.0093	± 0.0140	± 0.0093	± 0.0140	± 0.0093	± 0.0140	± 0.0093	± 0.0140	
Maximum platform size	mm	300 × 300					450 × 450			600 × 600					
Sensitivity (C _n) Maximum capacity 1 kg Maximum capacities 3 kg ...200 kg	mV/V	1.8 +15 %; -10 % (Option 6: A1 = 1.8 mV/V ± 0.1 %) 2.0 ± 10 % (Option 6: A = 2mV/V ± 0.1 %)													
Zero balance		0 ± 0.1													
Temperature effect on sensitivity (TK _C) ³⁾ Temperature, range +20...+40 °C [+68...+104 °F] -10...+20 °C [+14...+68 °F]	% of C _n /10 K	± 0.0175 ± 0.0117													
Non-linearity (d _{lin}) ³⁾ Hysteresis error (d _{hy}) ³⁾ Minimum dead load output return (MDLOR) Off center load error ⁴⁾	% of C _n	± 0.0166 ± 0.0166 ± 0.0166 ± 0.0233													
Input resistance (R _{LC}) Output resistance (R ₀)	Ω	300...500 300...500 (Option 6: A = 410 Ω ± 0.2 Ω)													
Reference excitation voltage (U _{ref})	V	5													
Nom. range of excitation voltage (B _U) Max. excitation voltage		1 ... 12 15													
Isolation resistance (R _{is}) at 100 V _{DC}		>2													
Nom. (rated) range of ambient temperature (B _T) Operating temperature range (B _{tu}) Storage temperature range (B _{tl})	°C [°F]	-10 ... +40 [+14...+104] -10 ... +50 [+14...+122] -25 ... +70 [-13...+158]													
Limit load (E _L) Lateral load limit (E _{ld}), static Breaking load (E _d)	% of E _{max}	150 300 300													
Nominal (rated) displacement at E _{max} (s _{nom}), approx.	mm	< 0.5	< 0.3				< 0.25								
Weight (G), approx.	kg	0.45													
Degree of protection acc. to EN 60 529 (IEC 529)		IP67													
Material: Measuring body Application protection Cable sheath		Aluminum Silicone rubber PVC													

1) According to OIMLR60 with P_{LC} = 0.7.

2) Max. eccentric loading according to OIML R76.

3) The values for linearity deviation (d_{lin}), relative reversibility error (d_{hy}) and temperature effect on sensitivity (TK_C) are recommended values. The sum of these values remain within the cumulated error limit acc. to OIML R60.

4) According to OIML R76.

Specifications (continuation)

Type		SP4MC6MR				
Accuracy class ¹⁾		C6MR				
Maximum number of load cell intervals (n_{LC})		6000				
Maximum capacity (E_{max}) ²⁾	kg	7	10	15	18	36
Minimum LC verification interval (v_{min})	g	0.5	0.5	1	1	2
Temperature effect on zero balance (TK_0)	% of C_n / 10 K	± 0.0100	± 0.0070	± 0.0093	± 0.0070	± 0.0070
Max. platform size	mm	300 x 300		450 x 450		
Sensitivity (C_n)	mV/V	2.0 \pm 10 %			1.8 \pm 10 %	2.4 \pm 10 %
Zero signal		0 \pm 0.10				
Temperat. effect on sensitivity (TK_C) in the temperature range ³⁾ +20...+40 °C [+68...+104 °F] -10...+20 °C [+14 ... +68 °F]	% of C_n / 10 K					± 0.0087 ± 0.0058
Relative reversibility error (d_{hy}) ³⁾	% of C_n					± 0.0083
Non-linearity (d_{lin}) ³⁾						± 0.0166
Minimum dead load output return (MDLOR)						± 0.0083
Off-center load error ⁴⁾						± 0.0116

1) According to OIMLR60 with $P_{LC} = 0.7$

2) Max. eccentric loading according to OIML R76.

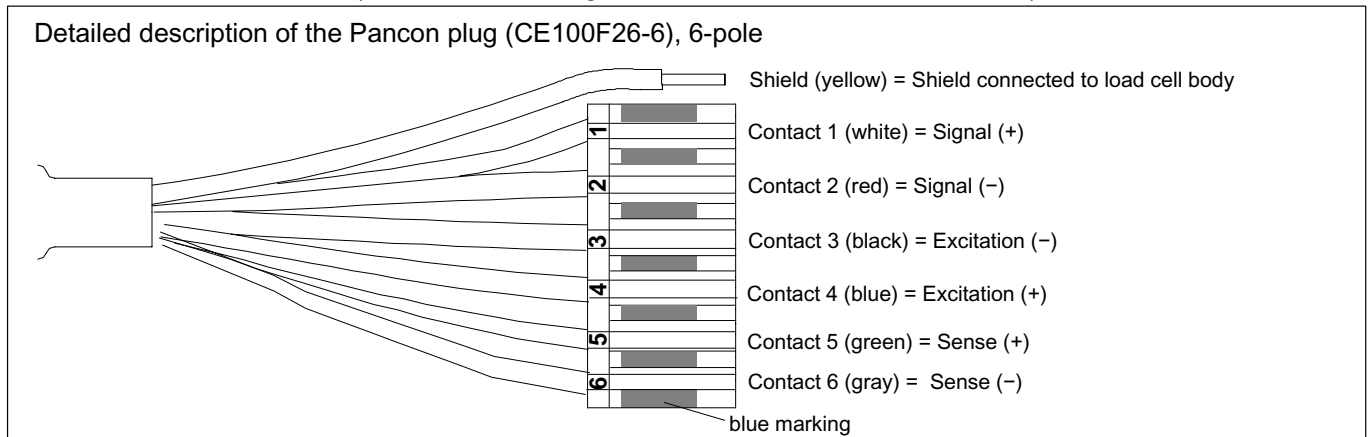
3) The values for linearity deviation (d_{lin}), relative reversibility error (d_{hy}) and temperature effect on sensitivity (TK_C) are recommended values. The sum of these values remain within the cumulated error limit acc. to OIML R60.

4) According to OIML R76.

For more specifications, see table SP4M..., accuracy class C3MR (page 2)

Wiring code

Connection with 6 wire cable (24 AWG, cable length, selectable: 1.5 m; 3 m; 6 m; 12 m)





Ordering codes:

SP4M... (Aluminum)

Type	SP4M			
Accuracy	C3-MR (OIML)		C6-MR (OIML)	
Note	Cable length 3m (6 wire)			
Capacity	Order no.		Order no.	
1kg	1-SP4MC3MR/1KG-1		-	
3kg	1-SP4MC3MR/3KG-1		-	
5kg	1-SP4MC3MR/5KG-1		-	
7kg	1-SP4MC3MR/7KG-1		1-SP4MC6MR/7KG-1	
10kg	1-SP4MC3MR/10KG-1		1-SP4MC6MR/10KG-1	
15kg	1-SP4MC3MR/15KG-1		1-SP4MC6MR/15KG-1	
18kg	-		1-SP4MC6MR/18KG-1	
20kg	1-SP4MC3MR/20KG-1		-	
30kg	1-SP4MC3MR/30KG-1		-	
36kg	-		1-SP4MC6MR/36KG-1	
50kg	1-SP4MC3MR/50KG-1		-	
75kg	1-SP4MC3MR/75KG-1		-	
100kg	1-SP4MC3MR/100KG-1		-	
150kg	1-SP4MC3MR/150KG-1		-	
200kg	1-SP4MC3MR/200KG-1		-	

SP4M... (Aluminum), optional versions

Order no.				
K-SP4M				
Code	Option 1: Mechanical version			
N	-			
Code	Option 2: Accuracy			
C3MR	C3-MR (OIML)	[not with Option 3 = 18 / 36]		
C6MR	C6-MR (OIML)	[only with Option 3 = 20 / 30]		
Code	Option 3: Capacity		Code	Option 3: Capacity
1	1kg		30	30kg
3	3kg		50	50kg
5	5kg		75	75kg
7	7kg		100	100kg
10	10kg		150	150kg
15	15kg		200	200kg
20	20kg			
Code	Option 4: Ex protection			
N	-			
1+21	ATEX Zone 1 + 21 and FM 	[only with Option 2 = C3MR]		
2+22	ATEX Zone 2 + 22 (non-conductive dust)	[only with Option 2 = C3MR]		
Code	Option 5: Cable length			
1.5	1.5m	[only with Option 2 = C3MR]		
3	3m			
6	6m	[only with Option 2 = C3MR]		
12	12m	[only with Option 2 = C3MR]		
Code	Option 6: Miscellaneous			
N	without			
A1	1.8mV/V ±0.1% / 410 Ohms ±0.2 Ohms (aligned output, suitable for connection in parallel)	[only with Option 2 = C3MR + Option 3 = 1]		
A	2mV/V ±0.1% / 410 Ohms ±0.2 Ohms (aligned output, suitable for connection in parallel)	[only with Option 2 = C3MR / not with Option 3 = 1]		
K-SP4M	-	N	-	-

Not all codes can be combined with each other. Please take heed of the terms in the square brackets!

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