

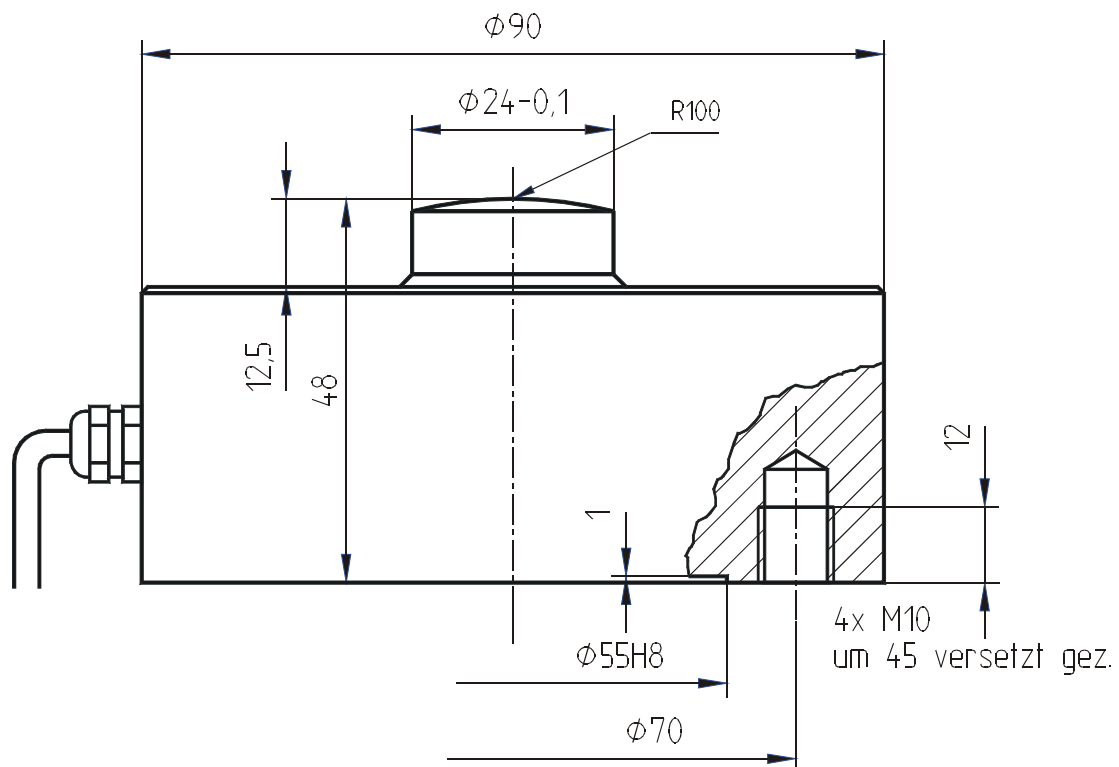
Force sensor KM90

Nominal force ranges 20 kN, 50 kN

The force sensor KM 90 is a membrane-type force sensor for measurement of pressure forces. The force sensor is fastened to an even surface with four screws M12. For force introduction there is a spherical cup with radius 100mm. Environmental protection is IP 67.



Dimensions





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Technical Data

Force sensor	Pressure	
Construction	Membrane-type	
Diameter × Height	90 × 48	mm × mm
Force introduction	Spherical cup Ø24, radius 100	mm
Fastening	4 x M12	mm
Material	Stainless steel	
Accuracy classes	0.5 / 0.2	
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Nominal force F_N	20; 50	kN
Operating force	150	% F_N
Breaking force	500	% F_N
Limiting torque	20	% F_N
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Nominal temperature range	-20...+60	°C
Operating temperature range	-20...+70	°C
Storage temperature range	-20...+70	°C
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Nominal output (S_N)	1.0 ± 0.005	mV/V
Zero signal tolerance	± 5	% F_N
Max. supply voltage	10	V
Input resistance	380 ± 30	Ohm
Output resistance	350 ± 2.5	Ohm
Insulation resistance	$> 5 \cdot 10^9$	Ohm
Cable, 4 wire	1.5	m
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Linearity error	$< 0.5 / < 0.2$	% S_N
Reversal error	$<< 0.5 / << 0.2$	% S_N
Temperature coefficient of the zero signal	$<< \pm 0.05 / << \pm 0.02$	% F_N /K
Temperature coefficient of the rated output	$<< \pm 0.05 / << \pm 0.02$	% S_N /K
Creep error (30 min)	$<< 0.5 / << \pm 0.2$	% S_N

Pin configuration

+Us	positive bridge supply	brown		
-Us	negative bridge supply	yellow		Shield: black
+U _D	positive bridge output	green		
-U _D	negative bridge output	white		