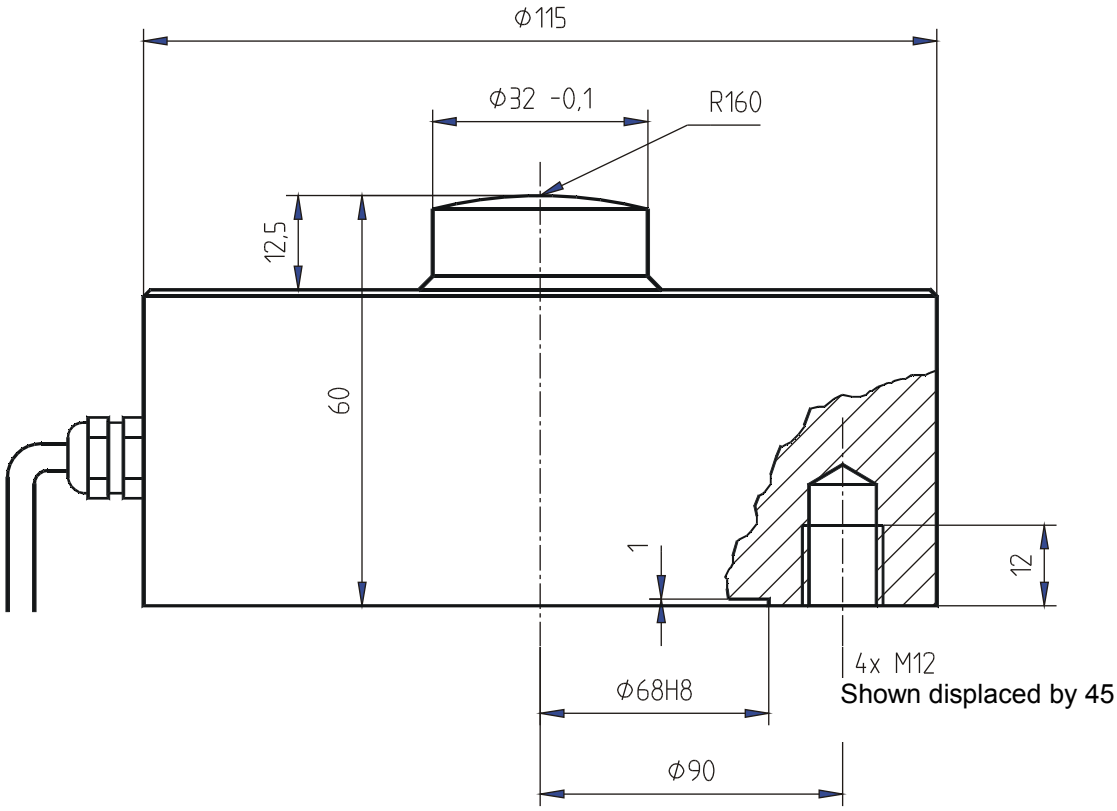
Force Sensor KM115

Nominal force range 100 kN

The force sensor KM 115 is a membrane force sensor for measuring compressive forces. It is fastened to an even surface with four screws M12. A spherical cap with a radius of 160 mm is provided for the force transmission.
The method of protection is IP 67.

Dimensions



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Technical Data

Force sensor	Compression	
Construction	Membrane	
Diameter × Height	115 × 60	mm × mm
Force transmission	Spherical cap ∅32, radius 160	mm
Fastening	4 x M12	mm
Material	Special steel	
Accuracy classes	0.5 / 0.2 / 0.1	
Nominal force F_N	100	kN
Operating force	150	$\%F_N$
Breaking force	300	$\%F_N$
Limiting lateral force	20	$\%F_N$
Nominal temperature range	-20…+60	°C
Operating temperature range	-20…+70	°C
Storage temperature range	-20…+70	°C
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
Connection, 4 conductor open	1.5	m
Linearity error	<< 0.2	% S_N
Backlash width	<< 0.2	% S_N
Temperature coeff. of the zero signal	$<< \pm 0.02$	$\%F_N$/K
Temperature coeff. of the nominal output	$<< \pm 0.02$	% S_N /K
Creep error (30 min)	<< 0.2	% S_N

Pin configuration

$+U_S$	positive bridge supply	brown		
$-U_S$	negative bridge supply	yellow		shield: black
$+U_D$	positive bridge output	green		
$-U_D$	negative bridge output	white		