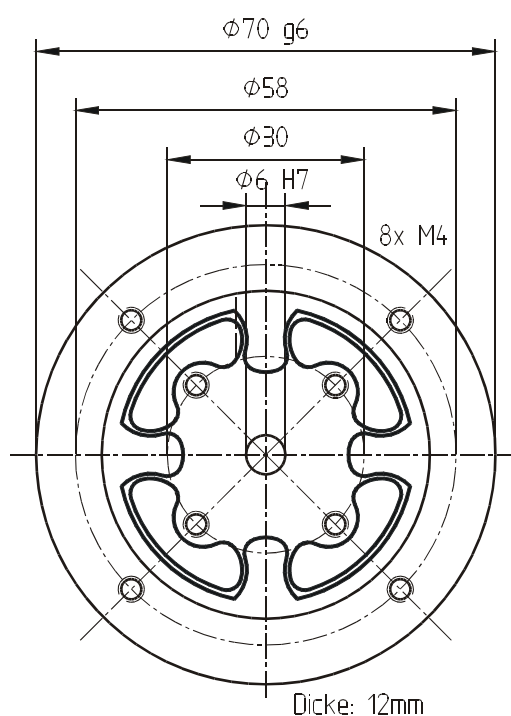


Torque sensor TS70

The torque sensor consists of an outer flange and an inner flange which are connected by 4 shear beams. Outer and inner flange have 4 threads M4 each for torque introduction. The sensor is suitable for measurement of reaction moment in drives and teststands.



Dimensions



Pin configuration

PIN	Description	GSV-2	GSV-1L	GSV-1T	GSV-3AS
red	+U _S positive bridge supply	2	3	6	4
green	+U _D positive bridge output	4	2	8	5
white	-U _D negative bridge output	5	1	15	6
black	-U _S negative bridge supply	7	4	5	3

Technical Data

Torque sensor		
Construction	4 x s-shaped shearing beam	
Diameter × height	70 × 12.5	mm × mm
Partial circle - inner flange	∅ 30	mm
Partial circle - outer flange	∅ 58	mm
Material	Aluminum alloy	
Accuracy classes	0,1	%
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Nominal torque M _N	2, 5, 10	Nm
Operating torque	200	%M _N
Fracture torque	300	%M _N
Marginal axial force	20	N
Angel of twist at nominal torque	approx. 0.1	°/M _N
<hr/>		
Nominal temperature range	-20...+60	°C
Operating temperature range	-20...+70	°C
Storage temperature range	-20...+70	°C
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Rated Output (S _N)	0.4±0.1 ¹⁾	mV/V
Zero balance	±10	%M _N
Max. supply voltage	10	V
Input resistance	700 ± 30	Ohm
Output resistance	700 ± 2.5	Ohm
Insulation resistance	> 5 · 10 ⁹	Ohm
Connection 4 conductor	2	m
<hr/>		
Linearity error	≤ 0.1	% S _N
Reversal error	≤ 0.1	% S _N
Temperature coeff. of the zero signal	≤ ± 0.05	%M _N /K
Temperature coeff. of the nominal output	≤ ± 0.05	% S _N /K
Creep error (30 min)	≤ 0.1	% S _N

1) The exact nominal output will be given for each sensor individually.