

Compression Force Sensor K-2618 with Rated Force from 30 ... 300 kN



Data sheet



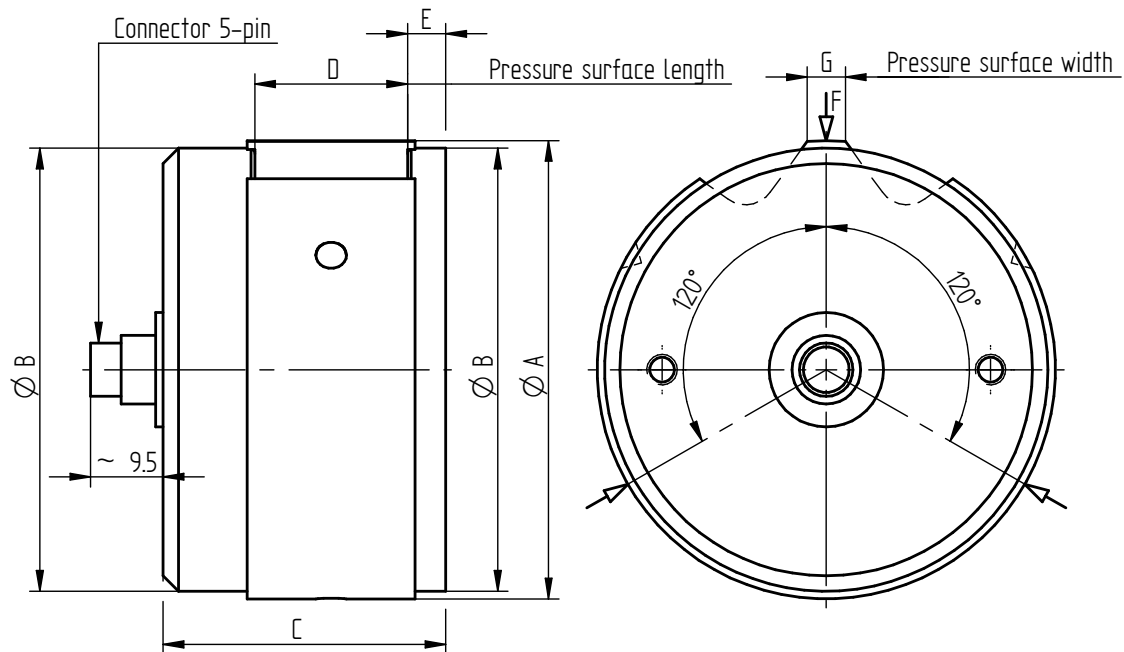
Performance Features

- Compression force sensor for measurement of tension forces in lathe chucks
- TEDS (Transducer Electronic Data Sheet) Standard IEEE 1451.4 (optional)
- Simple handling and assembly
- Reliable and durable
- Long-term stability
- Level of protection IP60
- Special versions on request

Application

- Equipment engineering
- Fully automated machining centres
- Measuring and control devices
- Tool engineering
- Special mechanical engineering

Dimensions in mm



Article-No.	Rated Force [kN]	Dimensions [mm]						Weight [kg]
		$\varnothing A$	$\varnothing B$	C	D	E	G	
111688	30	40	38	27	16	3	4	0.2
110265	100	60	58	37	20	5	5	0.6
111689	300	90	88	58	40	6	12	1.9

Connection Assignment

5-pin	K-2618	Series 712
Pin 1	Excitation (-)	
Pin 2	Excitation (+)	
Pin 3	Control signal or TEDS (option)	
Pin 4	Signal (+)	
Pin 5	Signal (-)	

Technical Data acc. to VDI/VDE/DKD 2638

Compression Force Sensor K-2618

Rated force F_{nom}	kN	30	100	300
Accuracy class	% F _{nom}	1.0		
Rel. repeatability error in unchanged mounting position b_{rg}	% F _{nom}	0.3		
Relative creep	% F _{nom} /30 min	<±0.1		
Rated characteristic value C_{nom}	mV/V	1.00 ±20 %		
Input/output resistance R_e/R_a	Ω	700		
Insulation resistance R_{is}	Ω	>2*10 ⁹		
Rated range of excitation voltage B_{U, nom}	V	2 ... 12		
Electrical connection		5-pin Series 712 ¹		
Reference temperature T_{ref}	°C	23		
Rated temperature range B_{T, nom}	°C	-10 ... 70		
Operating temperature range B_{T, G}	°C	-30 ... 80		
Storage temperature range B_{T, S}	°C	-50 ... 95		
Temperature effect on zero signal TK₀	% F _{nom} /10 K	±0.2		
Temperature effect on characteristic value TK_C	% F _{nom} /10 K	±0.2		
Maximum operating force F_G	kN	130		
Force limit F_L	kN	150		
Breaking force F_B	kN	>300		
Permissible oscillation stress F_{rb}	% F _{nom}	70		
Rated displacement S_{nom}	mm	<0.15		
Material measuring body		Stainless steel		
Material housing		Aluminum		
Level of protection		IP60		

Options

Article-No.	Description	
100218	Control signal	100 % F _{nom}
100739	Control signal	80 % M _{nom}
106154	Control signal	50 % M _{nom}
113134	TEDS-standard IEEE 1451.4	
100896	Rated sensitivity adjustment	
42828	Extended temperature range	-30 °C ... 100 °C
42829	Extended temperature range	-30 °C ... 120 °C
42830	Extended temperature range	-40 °C ... 150 °C
103954	6-wire connection	

Calibrations

Article-No.	Description	
400628	Linearity diagram in accordance to factory standard	25 % steps
400170	Linearity diagram in accordance to factory standard	10 % steps
400960	Proprietary calibration acc. to DIN EN ISO 376 and DAkKS-DKD-R 3-3	3 steps
400652	Proprietary calibration acc. to DIN EN ISO 376 and DAkKS-DKD-R 3-3	5 steps
400640	Proprietary calibration acc. to DIN EN ISO 376 and DAkKS-DKD-R 3-3	8 steps
	DAkKS-Calibration/Standard on request	

¹ Female cable connector in scope of delivery at first delivery

Accessories

Cable and input connector

Article-No.	Description
10304	Female cable connector 5-pin series 712
10284	Connection cable, 3 m, 5-pin series 712, with free strands

Amplifiers

Examples of suitable amplifiers for the compression force sensor K-2618:

LCV	GM 78	GM 40	GM 80	SI
				

Further suitable amplifiers you can find on our homepage under www.lorenz-messtechnik.de