

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



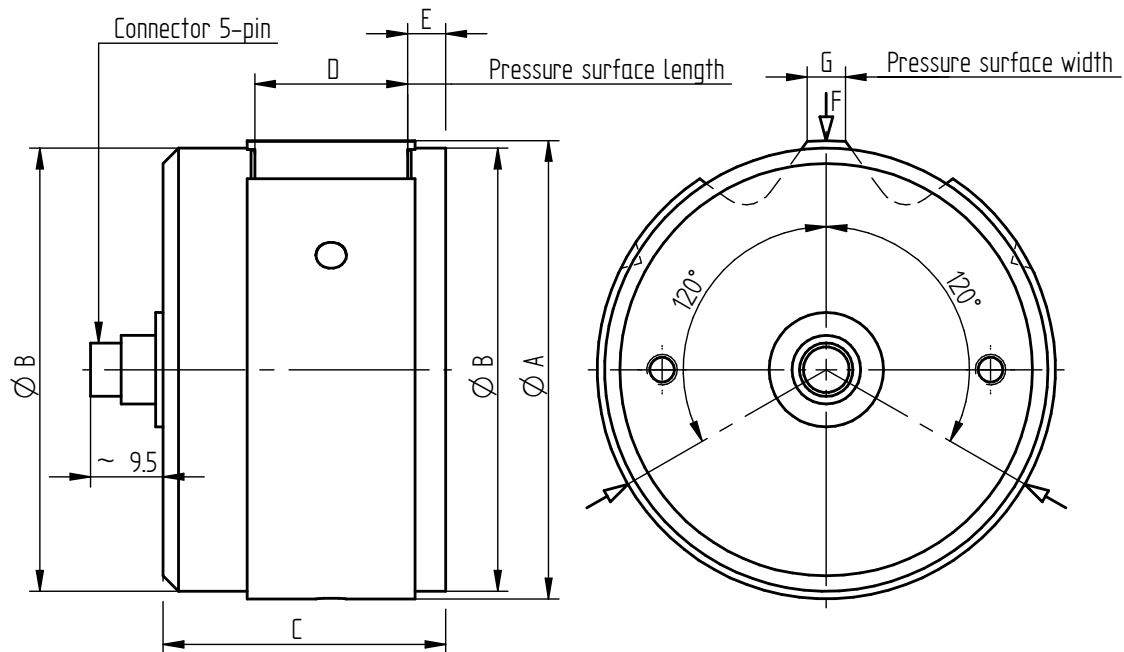
### Performance Features

- Compression force sensor for measurement of tension forces in lathe chucks
- 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 of K-2618 in mm



Article-No.	Nominal 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

## Pin Connection

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

## Technical Data acc. to VDI/VDE/DKD 2638

### Compression Force Sensor K-2618

Nominal 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	% $F_{nom}/30 \text{ min}$	< $\pm$ 0.1		
Rated characteristic value $C_{nom}$	mV/V	1.00 $\pm$ 20%		
Input/output resistance $R_e/R_a$	$\Omega$	700		
Insulation resistance $R_{is}$	$\Omega$	> $2 \cdot 10^9$		
Rated range of excitation voltage $B_{U, nom}$	V	2 ... 12		
Electrical connection		5-pin Series 712 <sup>1</sup>		
Reference temperature $T_{ref}$	$^{\circ}\text{C}$	23		
Rated temperature range $B_{T, nom}$	$^{\circ}\text{C}$	-10 ... 70		
Operating temperature range $B_{T, G}$	$^{\circ}\text{C}$	-30 ... 80		
Storage temperature range $B_{T, S}$	$^{\circ}\text{C}$	-50 ... 95		
Temperature effect on zero signal $TK_0$	% $F_{nom}/10 \text{ K}$	$\pm$ 0.2		
Temperature effect on characteristic value $TK_C$	% $F_{nom}/10 \text{ K}$	$\pm$ 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 % $F_{nom}$
100896	Nominal sensitivity adjustment	
42828	Extended temperature range	-30 $^{\circ}\text{C}$ ... 100 $^{\circ}\text{C}$
42829	Extended temperature range	-30 $^{\circ}\text{C}$ ... 120 $^{\circ}\text{C}$
42830	Extended temperature range	-40 $^{\circ}\text{C}$ ... 150 $^{\circ}\text{C}$
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	

<sup>1</sup> 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	SI-USB	GM 40	GM 80	GM 80-PA
				

Further suitable amplifiers you can find on our homepage under [www.lorenz-messtechnik.de](http://www.lorenz-messtechnik.de).