

## Compression Force Sensor K-1250 with Nominal Force from 2 ... 100 kN



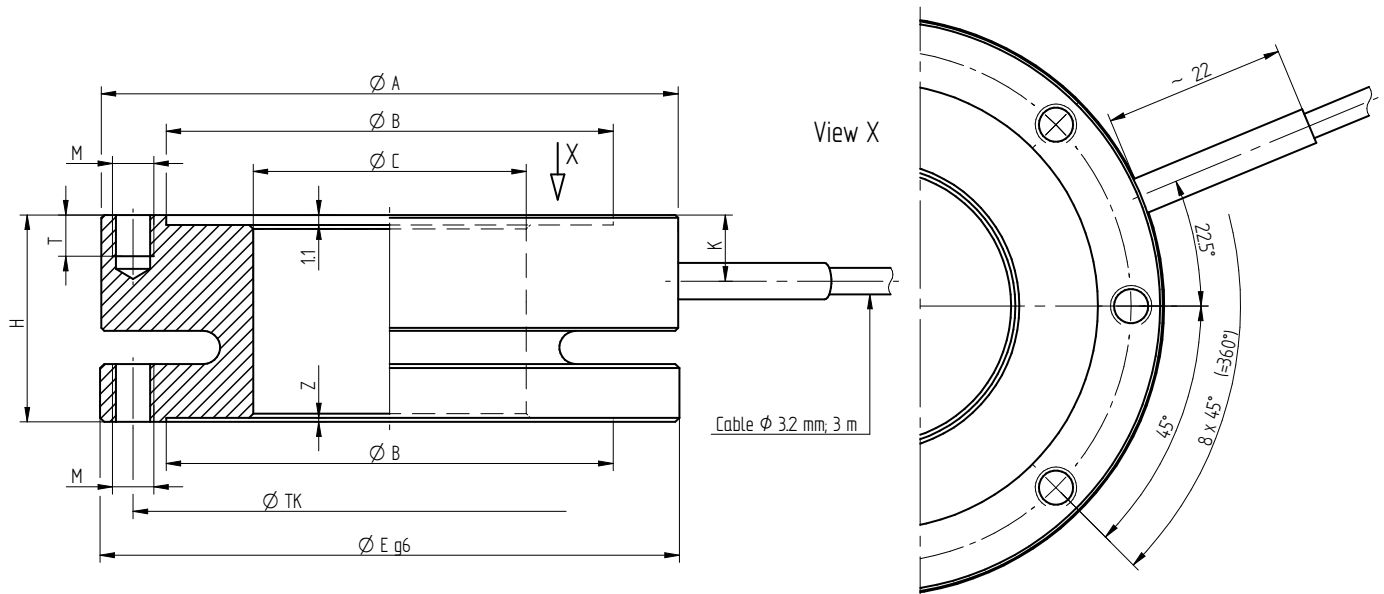
### Performance Features

- Compression force sensor for press-in force survey
- Stainless steel
- Level of protection IP60
- Long-term stability
- Simple handling and assembly
- Special versions on request

### Application

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

## Dimensions of K-1250 in mm



Article-No.	Nominal Force [kN]	Dimensions [mm]										Weight [kg]	
		ØA	ØB	ØC	ØE	H	K	M	ØTK	T	Z		
100485	2	69.7	54	33	70	25	8	M5	62	5	0.5	0.5	
100486	5												
100487	10												
100488	20												
100489	50	111.5	97	70	112	35	13	M6	104	6	1.1		1.1
100490	100												

## Connection Assignment

### Electrical connection

Excitation (-)	green	●
Excitation (+)	brown	●
Signal (+)	yellow	●
Signal (-)	white	○
Control signal (option)	grey	●
Shield	shield	⊕

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

### Compression Force Sensor K-1250 with Through Hole

Nominal force $F_{nom}$	kN	2	5	10	20	50	100
Accuracy class	% $F_{nom}$	0.5					
Rel. repeatability error in unchanged mounting position $b_{rg}$	% $F_{nom}$	0.1					
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		Cable, PURS, 3 m with free strands					
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 $F_G$	% $F_{nom}$	130					
Force limit $F_L$	% $F_{nom}$	150					
Breaking force $F_B$	% $F_{nom}$	>300					
Permissible oscillation stress $F_{rb}$	% $F_{nom}$	70					
Rated displacement $S_{nom}$	mm	<0.15					
Material housing body		Stainless steel					
Material cover plate		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	Calibration in kg or t	
107592	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	

## Accessories

### Electrical Connection

Article-No.	Bezeichnung
10323	Cable connector KS6 (6-pin series 581) incl. sensor mounting
10320	Cable connector KSSH15 (15-pin) incl. sensor mounting
43418	Input connector ZA9612FS (ALMEMO) incl. sensor mounting and connector calibration
49205	Input connector ZKD712FS (ALMEMO 202) incl. sensor mounting and connector calibration

### Amplifiers

Examples of suitable amplifiers for the compression force sensor K-1250:



Further suitable amplifiers you can find on our homepage under <https://www.lorenz-messtechnik.de/english/products/>.