Lorenz® messtechnik gmbh

Force Sensor K-2565 with Rated Force 1500 N

Data sheet

Performance Features

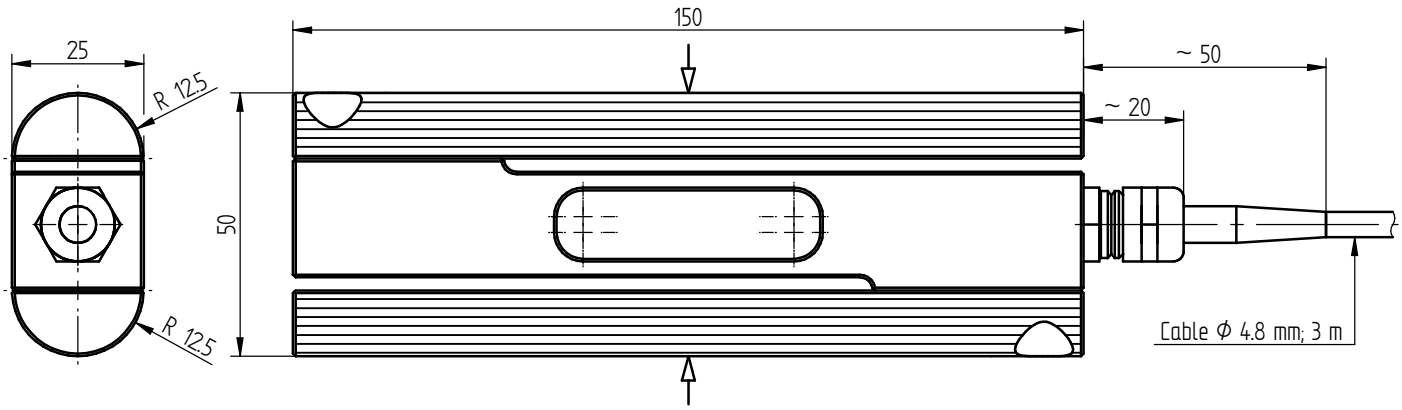
- Force sensor for hand force measurement
- Very compact design
- Reliable and durable
- Long-term stability
- Level of protection IP67
- Special versions on request

Application

- Medical Diagnostics
- Rehabilitation centers
- Sports Medicine
- Dynamometry
- Biomechanics

Lorenz Messtechnik GmbH Obere Schlossstrasse 127/129/131
73553 Alfdorf Phone +49 7172 93730-0, Fax +49 7172 93730-22
info@lorenz-messtechnik.de, www.lorenz-messtechnik.de

Dimensions in mm



Article-No.	Rated Force [N]	Weight [kg]
46077	1500	1.2

Connection Assignment

Electrical connection		
Excitation (-)	Green	
Excitation (+)	Brown	
Signal (+)	Yellow	
Signal (-)	White	
Control signal (option)	Gray	
Shielding	Shield	

Technical Data acc. to VDI/VDE/DKD 2638

Force Sensor K-2565		
Rated force $\mathbf{F_{nom}}$	N	1500
Accuracy class	% F_{nom}	0.1
Rel. repeatability error in unchanged mounting position $\mathbf{b_{rg}}$	% F_{nom}	0.1
Relative creep	% F_{nom}/30 min	< ±0.1
Rated characteristic value $\mathbf{C_{nom}}$	mV/V	1.00 ±20 %
Input / output resistance $\mathbf{R_e/R_a}$	Ω	350
Insulation resistance $\mathbf{R_{is}}$	Ω	> $2*10^9$
Rated range of excitation voltage $\mathbf{B_{U, nom}}$	V	2 ... 12
Electrical connection		Cable, PUR, 3 m, with free strands
Reference temperature $\mathbf{T_{ref}}$	°C	23
Rated temperature range $\mathbf{B_{T, nom}}$	°C	-10 ... 70
Operating temperature range $\mathbf{B_{T, G}}$	°C	-30 ... 80
Storage temperature range $\mathbf{B_{T, S}}$	°C	-50 ... 95
Temperature effect on zero signal $\mathbf{TK_0}$	% F_{nom}/10 K	±0.1
Temperature effect on characteristic value $\mathbf{TK_C}$	% F_{nom}/10 K	±0.1
Maximum operating force $\mathbf{F_G}$	% F_{nom}	130
Force limit $\mathbf{F_L}$	% F_{nom}	150
Breaking force $\mathbf{F_B}$	% F_{nom}	> 300
Material		Stainless steel
Level of protection		IP67

Options

Article-No.	Description	
100218	Control signal	100 % F_{nom}
100896	Nominal 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	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

Cable and input connector

Article-No.	Description
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 force sensor K-2565:

LCV	SI-USB	GM 40	GM 80	GM 80-PA
				

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