

Compression force transducer Standard, to 30 t Model F1201

WIKA data sheet FO 51.71

Applications

- Vessels with low installation height
- Silo scales with low installation height
- Lifting platforms
- Stage construction

Special features

- Measuring ranges 0 ... 5 t to 0 ... 30 t
- Measuring element from stainless steel
- Hermetically sealed and welded, ingress protection IP68



Compression force transducer, model F1201

Description

Compression force transducers are used for the determination of compression forces in a wide variety of applications and are suitable for static and dynamic measuring requirements.

Force transducers of the F1201 series, due to their compactness, are very frequently used in industrial applications and in the lifting platforms. The spherical cap (load introduction button) allows for a very simple force introduction. The standard mounting position of the force transducer is horizontal or vertical.

The force transducer is hermetically sealed and welded, correspondingly splash-proof and, thanks to an ingress protection of IP68, works reliably, even under difficult operating conditions.

Notes

To avoid overloading, the force transducer should be electrically connected and the measured value monitored during assembly.

The measuring force must be introduced through the centre and free of transverse force. When assembling the force transducer, care should be taken that the support surface is flat.

Compatible force introduction pieces are available as an option.

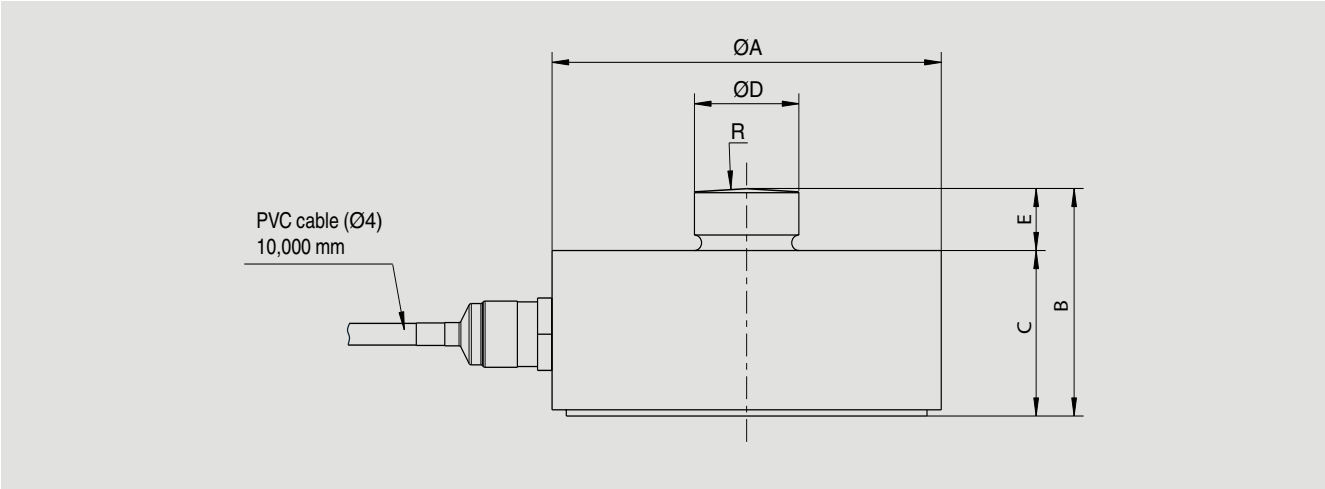
Specifications per VDI/VDE/DKD 2638

Model F1201	
Rated load F_{nom} t	5, 10, 30
Combined error (Non-linearity and hysteresis)	$< \pm 0.025 \% F_{nom}$
Relative creep, 30 min.	$< \pm 0.024 \% F_{nom}$
Limit force F_L	$150 \% F_{nom}$
Breaking force F_B	$200 \% F_{nom}$
Material of the measuring body	Stainless steel
Temperature error	
Zero point	$< \pm 0.02 \% F_{nom}/10 \text{ K}$
Characteristic value	$< \pm 0.018 \% F_{nom}/10 \text{ K}$
Rated temperature range $B_{T, nom}$	$-10 \dots +40 \text{ }^\circ\text{C}$
Operating temperature range $B_{T, G}$	$-50 \dots +70 \text{ }^\circ\text{C}$
Input resistance R_e	$800 \pm 30 \text{ } \Omega$
Output resistance R_a	$700 \pm 5 \text{ } \Omega$
Insulation resistance R_{is}	$> 5,000 \text{ M}\Omega$
Rated displacement (at F_{nom})	$< 0.6 \text{ mm}$
Output signal (rated characteristic value) C_{nom}	$2.0 \pm 0.1 \% \text{ mV/V}$
Electrical connection	Cable $\varnothing 4 \times 10 \text{ m}$
Material of the electrical connection	PVC
Supply voltage U_B	DC $10 \text{ V} \dots 15 \text{ V}$
Ingress protection (per IEC/EN 60529)	IP68 and IP69K
Weight	
5 t, 10 t	1.1 kg
30 t	2.8 kg

Approvals

Logo	Description	Country
	EU declaration of conformity	European Union
	RoHS-directive	

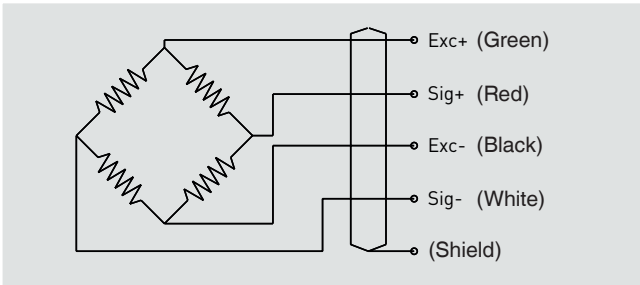
Dimensions in mm



Rated load in t	Dimensions in mm					
	ØA	B	C	ØD	E	R
5, 10	82	44	32	22	12	130
30	126	54	40	35	14	200

Pin assignment

Electrical connection	
Excitation voltage (Exc+)	Green
Excitation voltage (Exc-)	Black
Signal (Sig+)	Red
Signal (Sig-)	White
Shield	Shield



Ordering information

Model / Rated load / Approvals, certificates / Relative linearity error / Temperature range / Output signal / Electrical connection / Options

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