Load pin
Measuring range up to 10,000 kN
Model F5802

CE

Applications

- Crane systems and hoists
- Industrial weighing technology
- Machine building and plant construction,
- Manufacturing automation
- Theatre and stage construction

Load pin, model F5802

Special features

- Measuring ranges 0 ... 5 kN up to 0 ... 10,000 kN
- Corrosion-resistant stainless steel design
- Existing non-measuring bolts are simply replaced by the measuring axes
- For overload protection in cranes and hoists
- Good reproducibility, simple installation

Description

Load pins are designed for static and dynamic measurement tasks. They directly replace non-measuring bolts and determine the tension and compression forces in a wide range of applications.

Load pins of this series are mainly used in hoists and crane systems. They also serve as reliable sensors in industrial weighing technology as well as in the field of Special mechanical engineering, where they are used in particular in pulleys, cable winches, fork or roller bearings. Other areas of application include mechanical and plant engineering as well as theater and stage construction, where they reliably prevent overloads.

These load pins are made of high-strength, corrosion resistant stainless steel, which is particularly suitable for their application areas.

Data sheets showing similar products of load pin models:

"Load pin with thin film technology, standard and Atex version", data sheet; FO 51.18 model F5301, F53C1
"Heavy duty load pin with thin film technology, standard, Atex and safety version", data sheet: FO 51.43 model F5308, F53C8, F53S8
"Load pin, standard and Atex version", data sheet: FO 51.53 model F52C8, F5280

Technical data in accordance with VDI/VDE/DKD 2638

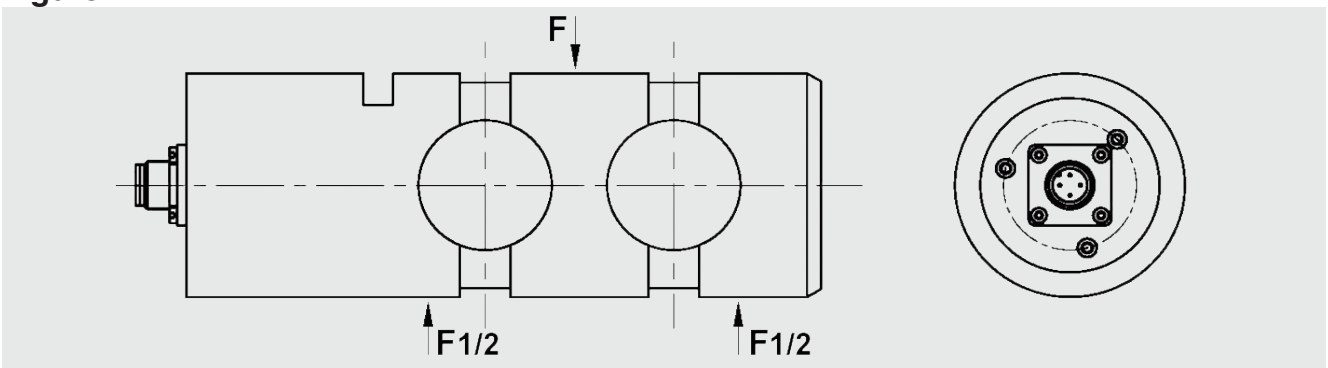
Model	F5802
Rated force F_{nom} kN	20 ... 10,000
Relative linearity error d_{lin} d_{lin} [1)]	0.5 % ... 1 % F_{nom}
Relative Umkehrspanne v	0.5 % ... 1 % F_{nom}
Relative repeatability error in unchanged mounting position b_{rg}	0.5 % ... 1 % F_{nom}
Temperature effect on	
characteristic value TK_C	0.2 % Fnom /10 K
zero signal TK_0	0.2 % Fnom /10 K
Force limit F_L	150 % F_{nom}
Breaking force F_B	300 % F_{nom}
Material of measuring device	Stainless steel corrosion-resistant
Rated temperature $B_{T, nom}$	-10 … +40 °C
Operating temperature $B_{T, G}$	-20 … +80 °C
Electrical connection	M12 x 1, 4-pin
Output signal (rated output) C_{nom}	1 ... 2 mV/V ±10 % F_{nom}
Input resistance R_e	750 ± 30 Ω
Output resistance R_a	700 ± 5 Ω
Isulation resistance R_{iS}	≥ 5,000 MΩ
Excitation voltage	DC 5 ... 10 V (max 15 V)
Protection (acc. to IEC/EN 60529)	IP67

[1)] Relative linearity error acc. to VDI/VDE/DKD 2638 chap. 3.2.6

Approval

Logo	Description	Region
CE	**EU declaration of conformity** ■ EMC directive ■ RoHS directive	European Union

Figure



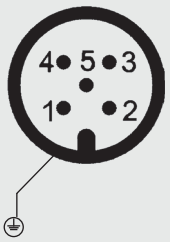
Other geometries available on request

Dimensions: the customer-specific load pin drawing for the specific article number applies above all.

Pin assignment analog output

Circular connector M12 x 1, 4-pin

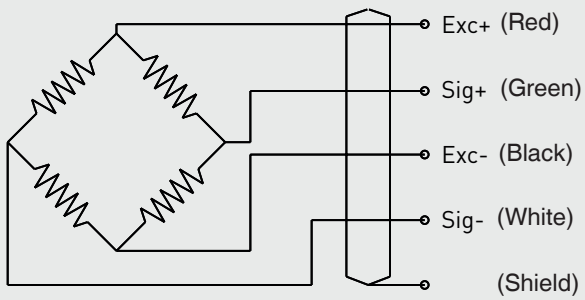
Circular connector M12 x 1, 5-pin



Connect the cable shield to the force transducer housing. In the case of accessory cables, the cable shield must be connected with the knurled nut and thus connected to the housing of the force transducer. When extending, only shielded and low capacitance cables should be used. The permitted maximum and minimum lengths of the cable are specified in ISO 11898-2. A high-quality connection of the shielding must also be ensured.

Pin assignment

Electrical connection	
Excitation voltage (+)	Red
Excitation voltage (-)	Black
Signal (+)	Green
Signal (-)	White
Screen ⏚	Shield



WIKA Alexander Wiegand SE & Co. KG
Alexander-Wiegand-Straße 30
63911 Klingenberg/Germany
Tel. +49 9372 132-0
Fax +49 9372 132-406
info@wika.de
www.wika.de