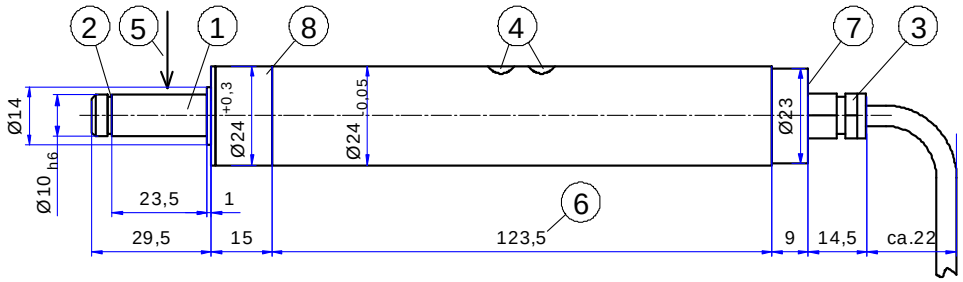
Technical data *Radial Force Sensor M 1391*

Dimensions Radial Force Sensor Series M 1391:



1 = Shaft (Journal-bearing)
2 = Seegerring A 10
3 = Cable
4 = Red mark s
5 = Load in measuring direction
6 = Mounting range
7 = Potentiometer to adjust zero and gain (calibration)
8 = Sealing

Type M 1391 is with built-in amplifier.
It supplies an output signal of 0 to +10V, corresponding to 0-100% the nominal load.
To adjust the electrical zero and the gain (calibration), the corresponding potentiometer (7) are accessible from outside.

By ordering this type - the desired service-voltage must be indicated.
Service-voltage and output-signal are galvanic separate. (not with ± 15 V !!)
Connection-cable is fixed, 3 m long. Shield of the connection cable is connected to the housing.

Application:	Tensile force measurement on material which is flexible
Nominal loads:	**20 N, 30 N, 40 N, 50 N, 60 N, 100 N, 200 N, or 300 N** others upon request
Overload-protection:	**> 10 times the nominal load**
Protection:	**IP 61 at the shaft-side / IP 50 at the cableside (Option IP 64 upon request)** Independent of the nominal load of the sensor, sealing for IP 61 and IP 64 can cause an additional error of 0,2 N. To obtain the highest possible accuracy, customer can remove sealing IP 61 by themselves, without problem. In this manner protection reduces to IP 50.
Journal- bearing (shaft):	standard ∅ 10 mm, fixing the measuring roller by means of a Seegerring other shafts or roller-fixing upon request
Material:	(tube) housing and shaft: stainless steel Sealing material: Silicon, SL 601
Electrical connection:	shielded, fixed cable - standard length 3 m, upon request: 5 m. Shield is connected to the housing.
Mounting:	Mounting into a hole ∅ 24 mm, locking by means of screw-pressure on the tube Mounting by using Tensometric clamping device Z1391

Measuring principle:	strain-gage, full-bridge	*Service voltage:*	5 V ± 10%	< 90 mA
Measuring range:	1 % up to min. 120 %		12 V ± 10%	< 70 mA
Charact. range of temp.:	+5℃ ...+60°C		24 V ± 10%	< 25 mA
Coef. of temperature		*Option:*	± 15 V ± 10%	+20/ -5 mA
- of the zero:	< 0,025% / ℃	*Adjusting range zero:*	± 20% of the nom. load	
- of the measuring range:	< 0,02 % / ℃	*Adjusting range gain:*	± 20% of the nom. load	
Error in measurement:	< ± 0,3 %	*Output signal:*	0 ... ± 10 V	
max. error in line. :	< ± 0,2 %	*Output current max.:*	2 mA	

Volume of delivery:	Sensor without measuring roller, fixed connection cable Instruction manual with calculation tabular
Accessories available:	Connection cable, amplifier with or without display measuring roller, clamping device Z 1391

Tensometric-Messtechnik GmbH
Derken 7
D - 42327 Wuppertal

Tel.: ++49 (0) 202 – 7052149-00
Fax.: ++49 (0) 202 – 7052149-90
Email: Info@tensometric.com
Web: http://www.tensometric.com