

Set of Preloading Elements

Type 9465...

M14 x 1,5 – for Force Sensors

The standardized preloading elements are used for mounting the force sensors Types 9047B, 9048B with internal diameter of 14,1 mm.

A set of preloading elements consists of a preloading bolt, a screw nut, a centering sleeve and a sliding washer.

The preloading set Type 9465 allows for a very compact mounting of dynamometers. A minimum overall height is obtained by recessed mounting of the ring nut.

Mounting with 3-component force sensor
Types 9047B, 9048B

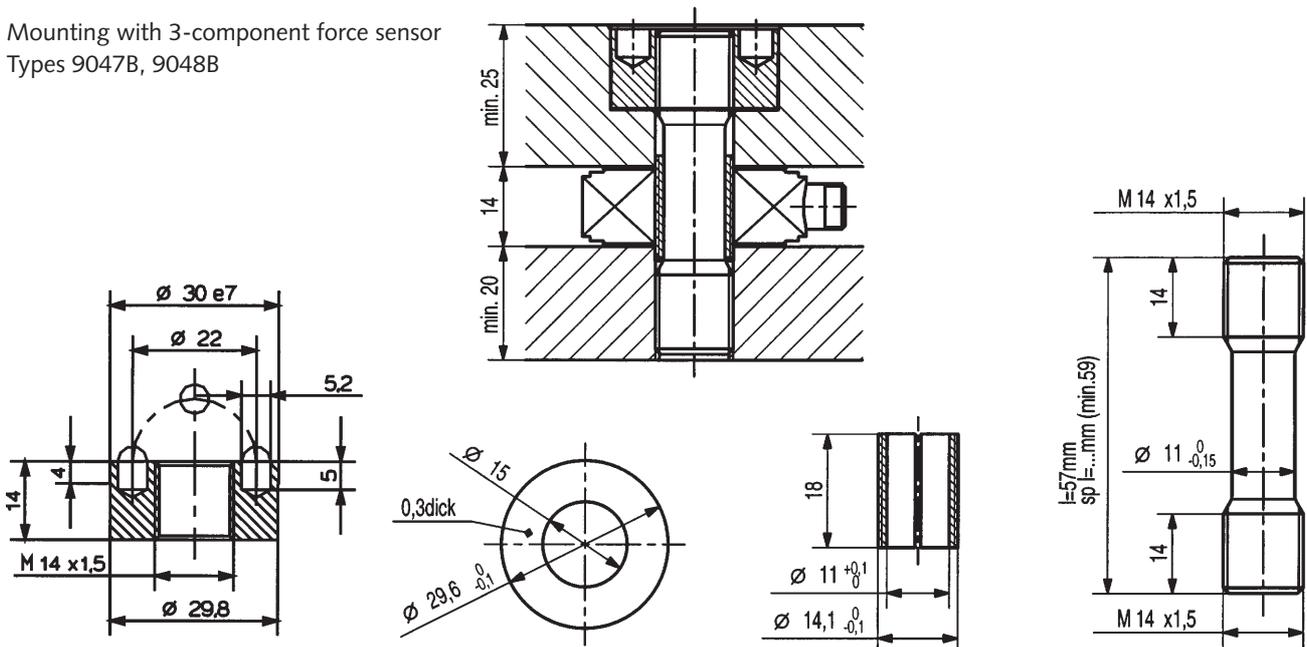


Fig. a
Ring nut
3.322.404

Fig. b
Sliding washer
3.322.405

Fig. c
Centering sleeve
3.221.317

Fig. d
Preloading bolt
3.322.403
3.322.403sp

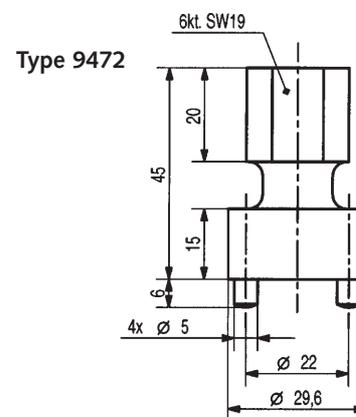
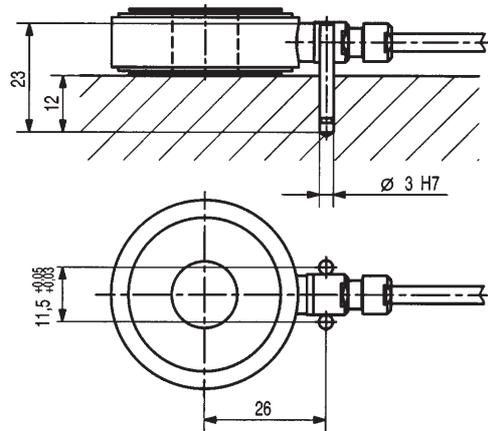
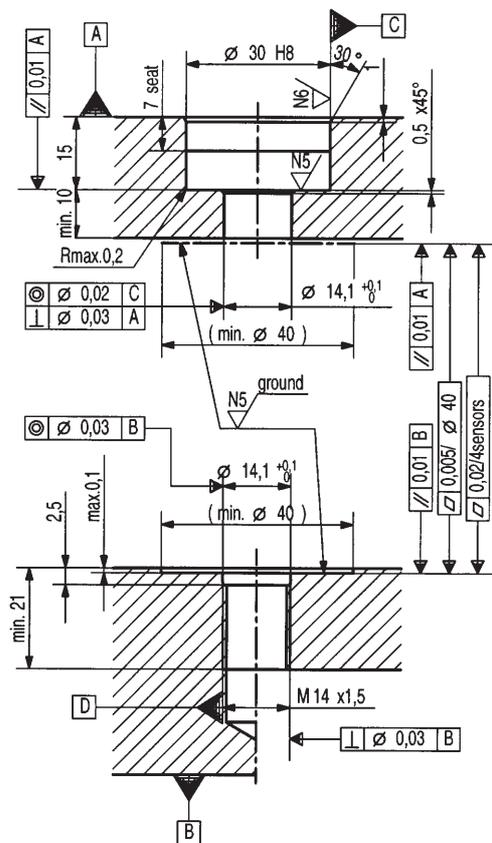
Technical Data

Mounting possibilities for force sensor		Types 9047B/9048B	
Preloading force (nom.)	Fv	kN	60
Preloading bolt			
Limit of elasticity	R _{p0,2}	N/mm ²	1250
Tension with Fv = 60 kN	σ _v	N/mm ²	631

Proposed materials for the cover and the base plate

Quenched and drawn			
W.-Nr.	1.4045*	1.4021*	1.1191
DIN	x22CrNi17	x20Cr13	Ck45
AFNOR	Z15CN16-02	Z20C13	xC45
B.S.	431S29	420S37	M46
JIS	SUS431	SUS420J1	S45C
AISI/SAE	431	420	1045

* stainless



Mounting

The force sensors must be mounted under preload because the shear forces F_x and F_y must be transmitted through static friction from the base and cover plate to the surfaces of the force sensor. The necessary preload depends on the shear forces to be transmitted. The measuring ranges specified in the technical data are valid for a standard preload of 60 kN.

The preloading bolt is screwed into the base plate and the thread is secured with Loctite Type 221. The centering of the sensor is done with the centering sleeve. The connector allows to adjust the sensor.

Prior to mounting the bearing surfaces of the base and cover plates must be cleaned with fat solvent.

The sliding washer is mounted between the cover plate and the ring nut. It reduces the friction and consequently the tightening torque. Moreover, it protects the cover plate surface and the ring nut from corrosion. Before mounting the sliding surface should slightly be greased with special grease Type 1063.

Before screwing-in the preloading nut, its outer diameter and the thread of the preloading bolt should be greased.

The tightening of the nut is done with the key Type 9472. If the Z-component of the transducer is connected to the charge amplifier, then the preload can directly be measured.

The key Type 9472 is not included in the delivery; it must be ordered separately.

Optional Accessories

Wrench adapter Type 9472

Ordering Key

Set of Preloading Elements

9465

Length L = 57 mm

Length L = please specify in mm

sp

