

INSTALLATION INSTRUCTIONS

for force transducers
especially Strip-/Web tension transducers



Operating, Safety and Warranty Information

Operating, Safety:

The operational safety of the supplied equipment/parts is only guaranteed under normal use as described in this document.

Failure to observe safety instructions may result in equipment damage and/or consequential damage to production machinery.

The installation, commissioning, operation and maintenance of the device may only be carried out by qualified and authorized specialist personnel in compliance with the applicable rules/regulations, safety regulations and accident prevention regulations at the place of use.

Warranty:

The warranty requires the strict observance of the safety instructions given in this document and the operating and maintenance instructions as well as the intended use.

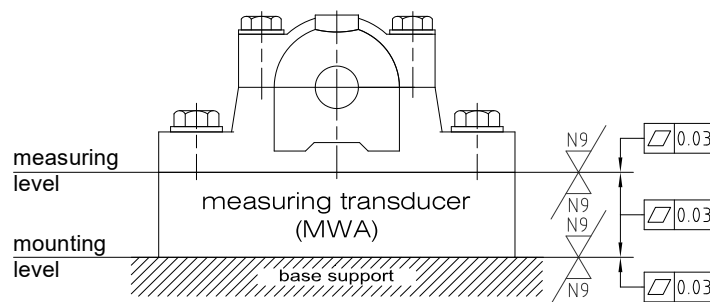
1. The performance and reliable operation of the transducer depends on the **stressfree mounting** of the transducer body on the mounting surface. This is also valid for mounting to load accessories, like connecting rails or bearing housing.

High strength fastening bolts are to be tightened over-cross by using a torque adjustable wrench with equivalent torque setting. The max. torque allowed, referring diameter and strength of screws, is shown in the table below.

Admissable torque settings:

NOMINAL BOLT SIZE	TIGHTENING TORQUE TENSILE STRENGTH 10.9	TIGHTENING TORQUE TENSILE STRENGTH 10.9 - BY TENSILE STRESS-
M 10	30 Nm	15 Nm
M 12	60 Nm	30 Nm
M 14	95 Nm	47 Nm
M 16	140 Nm	70 Nm
M 20	280 Nm	140 Nm
M 24	490 Nm	245 Nm
M 30	950 Nm	475 Nm
M 36	1700 Nm	850 Nm

2. Mounting requirements: (MWA=measuring transducer)



If the mounting surfaces do not fulfill the specification for plane level by machining the transducer must be mounted on a cast epoxid-iron powder 2-component levelling resin (i.e. Birodur or equivalent). Mounting surfaces of the transducer shall be prepared by seperating spray or liquid to allow easy demounting.

Manufacturer's working instructions of levelling resin must be strictly watched.

3. The mounting base structure of the transducer must have a stiffness higher than the transducer itself. Bending and torsion of mounting base causes measuring errors.
4. There are **no** force shunts allowed between the mounting level and the measuring level!
5. Forces have to be introduced via the mounting **surfaces**. No force shall be transmitted via the fastening bolts. The specified overload-factor is only achievable for the correct load introduction.
6. Do not to weld any parts to the transducer. Also no welding must be done close to transducer, due to effecting stress in transducers body.
7. During welding work on carrying structure ensure, that no electric ground connection passes the transducer, otherwise the electronic measuring element of transducer can be destroyed.
8. The installation of protective tubes and bellows, hoods and stiff cable conduits etc. which lead to rigid connections between the mounting base and the measuring level are strictly prohibited.
9. Transport- and Mounting safety devices
For measuring systems which consists of measuring frames with transducers type BME, the transport and mounting safety devices have to be removed after mounting of the measuring frames.

10. Connection to BrandTronik DMM (Installation instructions for the used EMC cable and hose fittings)



Abb. 1
Fig. 1

← Montagerichtung
← Installation direction

U87. UNI HF Dicht Kabelverschraubung, Messing vernickelt
In Abhängigkeit vom Außen-Ø des Kabels und des Außen-Ø des Kabelschirmes kommen zwei Montagevarianten zur Anwendung.
Variante A - Abgesetzter Kabelmantel (s. Abb. unten)
Variante B - Durchgängiger Kabelmantel (s. Abb. unten)

U71. UNI IRIS Dicht cable gland, brass, nickel-plated
Two different installation variants are applied depending on the line's and line screen's external diameter.

Variante A - Stripped outer sheath (see Fig. below)
Variante B - Continuous outer sheath (see Fig. below)

i Die UNI HF Dicht mit den 2 Kone wird auf dem mit Maß S freigelegten Schirm nach Abb. 1 und Tabelle 1 montiert.
The UNI HF equipped with two cones is installed on the uncovered screen as per dimension S (see Fig. 1 and Table 1)

Tabelle 1 – Maß S min.
Table 1 – Dimension S min.

M	12	16	20	20	25	32	40	50	50	63	75	80
Pg	7	9	11	13,5	16	21	29	36	42	48	G2 1/2"	G3
S (mm)	7	8	8	8	9	9	11	14	14	16	18	20

Variante A
Variant A

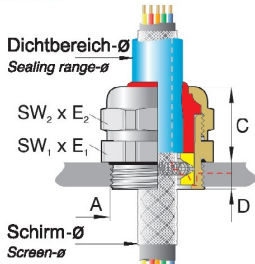


Abb. 2
Fig. 2

Variante B
Variant B

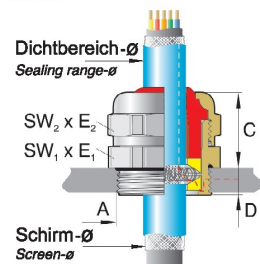


Abb. 3
Fig. 3

Anzugsmomente von Kabelverschraubungen

Tightening Torques of Cable Glands

Herstellerangaben für Anzugsmomente von Kabelverschraubungen nach EN 50 262
Für Wandungen mit Innengewinde und bei Durchgangsbohrungen mit Gegenmutter.

Manufacturer guideline for tightening torques of cable glands as per EN 50 262
Into a housing with female thread or in case of through holes into the lock nut

UNI Dicht Metrisch

UNI Dicht metric

Gewindegrößen Thread size metric	Metall Metal	Kunststoff Plastic
M6	2 Nm	–
M8	4 Nm	–
M10	6 Nm	–
M12	6 Nm	1,5 Nm *
M12	6 Nm	2,0 Nm **
M16	8 Nm	3,0 Nm
M20	10 Nm	4,0 Nm
M25	10 Nm	6,0 Nm
M32	15 Nm	8,0 Nm
M40	20 Nm	10,0 Nm
M50	20 Nm	10,0 Nm
M63	20 Nm	10,0 Nm

* bei PVDF ** bei PA

* PVDF ** PA

i Tabellenwerte sind allgemeine Vorgaben. Das Drehmoment hängt vom verwendeten Kabel und der Einsatzdichtung ab, sollte aber die in der Tabelle angegebenen Werte nicht überschreiten.
Table figures are general terms of reference. The torque depends on the cable used and the insert sealing; it should not, however, exceed the figures stated in the table.

