

IMPORTANT!

Read this instruction carefully before installing the product



TRANBERG

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THE STRONGEST LINK.

TRANBERG® ADAPTORS

TEF 664 Adjustable Angle Adaptor

Zone 1, Zone 2 & Safe Area

USER MANUAL

R. STAHL TRANBERG AS

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General Information

Manufacturer

R. STAHL TRANBERG AS

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About these operating instructions:

- Read these operating instructions, especially the safety notes, carefully before use.
- Observe all other applicable documents (See also further documents section).
- Keep the operating instructions throughout the service life of the device.
- Make the operating instructions accessible to operating and maintenance personnell at all times.
- Pass the operating instructions on to each subsequent owner or user of the device.

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R. Stahl Tranberg Revision: D

Further documents for this product:

- Datasheet TEF 663/664, TPS4440
- ATEX Certificate 13ATEX 1553X
- IECEx Certificate, IECEx NEM 13.0025X
- Declaration of Conformity (DoC), TDC4875

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Technical Data

Ex protection	Ex II 2 G Ex eb IIC
Ingress Protection	IP 66/67
Ambient temperature	-60°C to +135°C
Thread length	15mm
Certificates	IECEX NEM 13.0025X & NEMKO 13ATEX 1553X
Material housing	Brass or stainless steel (AISI 316/ EN 1.14404)
Material sealing	Silicone o-ring

Applications

- Outdoor or indoor use in marine, off-shore and industrial environments.
- Can for example be used in already existing cable glands instead of changing the hole diameter in the enclosure.
- Suitable for use in hazardous areas, zone 1, zone 2 and safe area.

Tools required

- Wrench according to size of cable gland

Content in box

- The product is fully assembled, and ready for installation.

Safety precautions

Note that changes made to the product and / or installation of components which do not conform to the approval, may be a safety violation. The manufacturer will in no circumstance be held responsible for such activity.

For your health and safety, always use safety gear suited for the task. Be certain to follow codes, regulations and/or specific procedures that are related to the installation.

To ensure IP66/67, make sure that the o-ring seal is in good contact with the enclosure wall. There shall be no gap between the adaptor and the enclosure wall.

To ensure this, we recommend a chamfer of the threads in any threaded enclosure of 1-1,5mmx45°.

If the chamfer is too small, the insertion of the gland may be difficult or impossible, and if the chamfer is too large, the o-ring seal may not seal properly with the enclosure wall.

It is the installer's responsibility to verify that the seal after installation is sufficient for both clearance holes and threaded holes.

Special conditions for use

- Only one adaptor is permitted for each cable entry. Blanking elements shall not be used with adaptors.

Maintenance instructions

- The product should be inspected according to company routines and/or relevant to national regulations for your country.

Approvals

Compliance standards:

Directive 2014/34/EU

IEC 60079-0-*

IEC 60079-7-*

IEC 60079-1-*

* Refer to EU Declaration of conformity for more details.

- ATEX Certificate 13ATEX 1553X
- IECEx Certificate, IECEx NEM 13.0025X

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Conditions for holes

		Threaded holes	Clearance holes
1	Tolerance class	Mxx (6H) is required for Ex d and recommended for Ex e. Tolerance class for Ex e is max. 6G/6H. Ref. ISO 965-1 and ISO 965-3	Nominal thread size -0,0mm/ +0,2mm
2	Enclosure material limitations	Brass adaptors should not be installed in zinc or aluminum enclosures outdoor or in humid environments.	Brass adaptors should not be installed in zinc or aluminum enclosures outdoor or in humid environments.
3	Enclosure interface sealing method	o-ring	o-ring
4	Maximum surface roughness of the enclosure face for sealing	Ra 6,4µm, better than 3,2µm is recommended.	Ra 6,4µm, better than 3,2µm is recommended.
5	Thickness range for the enclosure wall	Less than the thread length of the cable gland.	Thread length minus 6mm (Thread L 9mm -6mm = 3mm & Thread L 15mm-6mm= 9mm)
6	Perpendicularity	+/-1° or 0,2mm at the outer edge of the gland, whichever is SMALLER.	+/-1° or 0,2mm at the outer edge of the gland, whichever is SMALLER.
7	Permitted use and location of any earth tags	Earth tags should be installed on the inside of the enclosure. Thickness of tag and lock nut to be included in the thickness consideration in point 5.	Earth tags should be installed on the inside of the enclosure. Thickness of tag and lock nut to be included in the thickness consideration in point 5.
8	For chamfered holes	The outermost edge must not have a greater diameter than the center of the O-ring.	The outermost edge must not have a greater diameter than the center of the O-ring.
9	Lock nuts	Use only TRANBERG® locking nuts, or other types recommended by the manufacturer	Use only TRANBERG® locking nuts, or other types recommended by the manufacturer

Installation Instructions

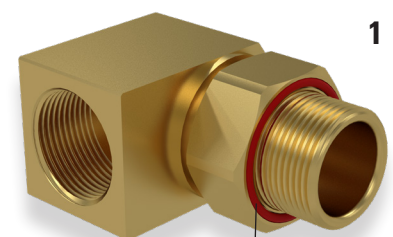
Before installing the component, ensure that:

- The adaptor is installed according to the instructions required by the standard and will not invalidate the specific characteristics of the Ex protection of the electrical equipment on which they are mounted.
- The adaptor is not damaged.
- The o-ring/gasket is not damaged and that the gasket bearing areas are flat.

Installation:

1. For adaptors with o-ring seal, check that the o-ring is fixed into the recessed slot.
2. Normally a fixed angle adaptor will be used in a sheet metal enclosure, but if this model is being used in a sheet metal enclosure, use a lock nut inside the enclosure to fasten the adaptor.
3. Screw the adaptor fully into the threads and tighten it with a wrench.
4. Twist the angle adaptor back into desired position. **NOTE:** Maximum 1 rotation.
5. Tighten the nut against the surface until the adaptor is locked in its position.

6. Install the required gland into the angle adaptor.



O-ring fixed in recessed slot

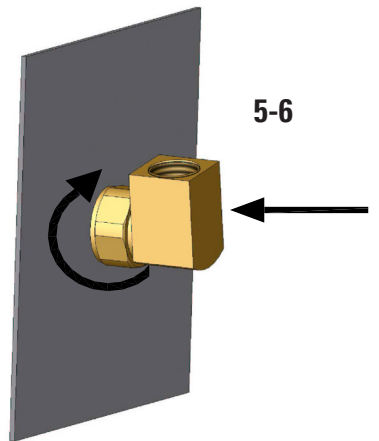
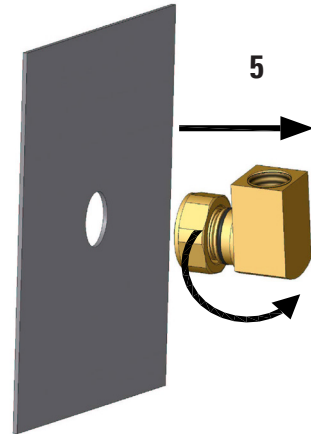
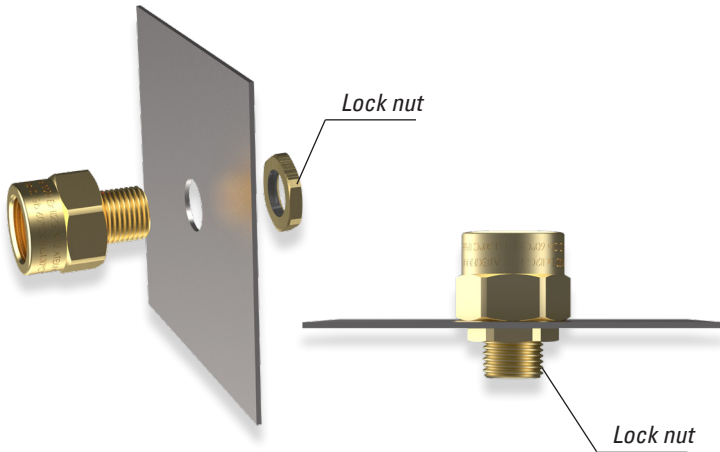
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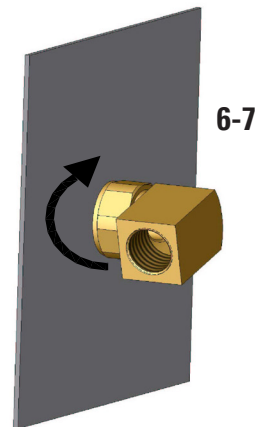
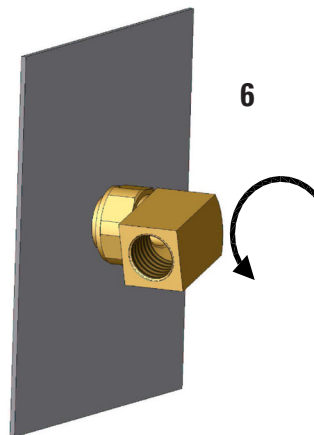
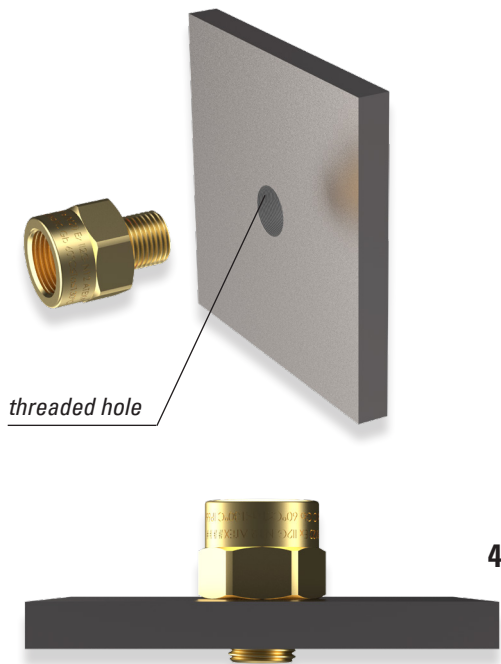
Assembly in hole without threads:

2



Assembly in hole with threads:

3



Tightening Torque Gland Body and Lock Nut (if applicable)

Gland size	Torque (Nm)
M20	20
M25	25
M32	32

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