

Puertas & Portones Automáticos, S.A. de C.V.
¡Nuestra pasión es la Solución!....

1 Scope of delivery

A	1x		
B	1x		C 1x
A	TST PD-ME-B		
B	Magnet holder		
C	Allen key		

Fig. 1: Scope of delivery

2 Connections

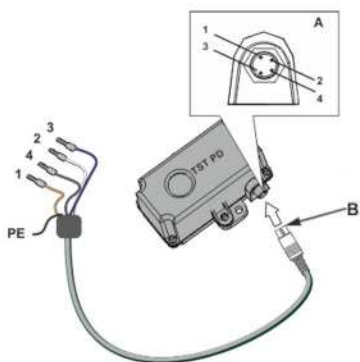


Fig. 2: Connections

PE	Schirm/Shield/Protéger		
Pin 1	VCC (BN)	Pin 3	GND (BU)
Pin 2	RS 485 B (WH)	Pin 4	RS 485 A (BK)

Tab. 1: A/B: Anschlussstecker/Connecting plug/Fiche de connexion

NOTE

The connection cable B is not included in the scope of delivery.

3 Assembly

3.1 Absolute encoder

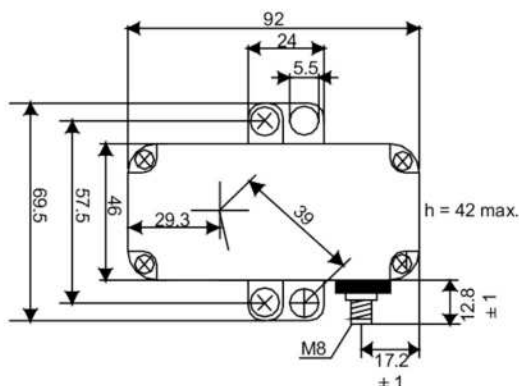
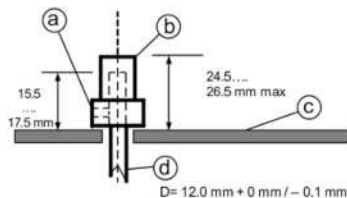


Abb./Fig. 3: Abmessungen/Dimensions/Dimensions

3.2 Magnet holder



a	Screw M3 for magnet holder fixing	c	Mounting plate
b	M magnet holder/support magnétique	d	Motorwelle, Getriebewelle/engine shaft, gear box shaft/Arbre moteur, arbre d'engrenage

Abb./Fig. 4: Abmessungen, Seitenansicht / Dimensions, side view / Dimensions, vue latérale

4 Batterie wechseln/Changing the battery/Changement de la pile

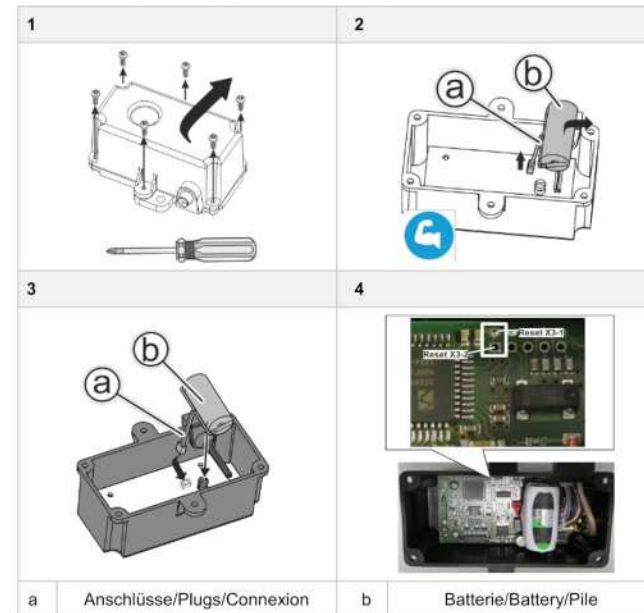


Abb./Fig. 5: Batterie wechseln/Changing the battery/Remplacement de la pile



5 - Installation instructions

5.1 Safety instructions

⚠ WARNING

Important instructions for commissioning!

Observe all instructions; incorrect installation can result in serious injuries.

NOTE

Original language and translations

The original language of this document is German. All other languages are translations.

- Use the position encoder TST PD-ME-B only with controllers from FEIG ELECTRONIC GmbH!
- Read the installation manual of the used controller and be sure to observe the safety instructions for the controller.
- These installation instructions must be available to the service personnel at all times.
- The installation and replacement of accessories may only be carried out by qualified personnel.
- The manufacturer has carefully checked the device hardware and software as well as the product documentation. Mistakes cannot be avoided completely and we will always gratefully accept any information in this respect.
- Before connecting, all supply circuits of the associated controller must be switched off!
- Installation or replacement of the battery is restricted to trained specialists only!
- Do Not Recharge, Crush, Disassemble or Short-circuit the battery.
- Fire, Explosion and Severe Burn Hazard! Do Not Burn or Heat the Battery Above 85°C/185°F.



Dispose of the product at the end of its service life in accordance with the valid legal specifications.



Only dispose of batteries in an environmentally friendly manner and observe regional differences! Hand over empty batteries to a qualified specialist workshop or a collection point for old batteries.

5.2 Abbreviations and definitions

Abb./Fig.	Figure
Tab.	Table
Controller (TST)	Gate and barrier controller with integrated frequency converter or reversing contactor for triggering a motor.

Qualified specialists	The qualified specialist have been informed concerning possible dangers in case of improper behaviour by working with electrical equipment. The qualified specialist is familiar with the necessary protective measures and devices. Furthermore, through the specialists professional training and experience as well as its contemporary professional activity, the specialist has the necessary knowledge for testing work equipment.
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5.3 Product specification

The multiturn encoder is an accessory of the company FEIG ELECTRONIC GmbH. Due to a selectable transmission ratio, this encoder can be used for both very fast (e.g. motor shaft) as well as very slow shafts (e.g. door shaft). The driving shaft may execute more than a single revolution.

5.3.1 Intended use

Operation is only permitted with the following controllers:

CE	UL
TST FUF2-A, -C, -F Series TST FU3F-A, -C, -F Series TST FUZ2-A, -B, -C Series TST FUZ2-CX, -L, -P, -S Series	TST FU3F-AU, -CU, -FU, -RU Series TST FU3H-FU Series TST FU3R Series

5.4 Technical data for Europe

Dimensions (LxWxH)	92 x 70.6 x 24 mm	
Temperature	Operation	-40 °C to +70 °C
	Storage	-40 °C to +70 °C (+20°C recommended)
Weight	approx. 125 g (with magnetic holder)	
Equipment type	Multi turn position encoder	
Protection type	IP 67	
Protection class	III	
Supply voltage	+12 ... +24 VDC ±10%	
Power consumption	max. 1 W	
Current carrying capacity	--	
Connection/interface	Serial bi-directional interface RS 485/19.2k Baud	
Battery	--	
Other	Possible battery voltage: 3.6 V lithium thionyl (recommended), 1.5 V alkaline battery	
Max. permissible speed	6000 U/min	



Disbandment	13 Bit/revolution (8192 increments/revolution)
Rotation counter	15 bit (32768 revolutions)
Permissible connection cable (supplied by customer)	Bushing M8, 4 x 0.25 mm ² , shielded, max. 100 m
Position detection	360 °, via magnetic sensors, without mechanical stop
Approvals	
CE	Machinery Directive: 2006/42/EG Low Voltage Directive: 2014/35/EU ROHS2: 2011/65/EG EMC Directive: 2014/30/EU Applied harmonized standards: EN ISO 13849-1: 2015 EN 12978:2003 + A1:2009 EN 60335-1:2012 + A11:2014 + AC:2014 EN 62061:2005 + A2:2015 + AC:2010 EN 61000-6-2:2005 / AC:2005 EN 61000-6-4:2007 / A1:2011 EN 61326-3-1:2008

5.5 UL-Ratings

Supply	Pin 1, 3: Supply input 24 VDC / typically 30 mA / class 2
Maximum surrounding temperature	+70 °C
Connection description	Pin 2, 4: RS-485 Interface 5 V / max. 50 mA

In the field-wiring area, provisions for wiring for Class 2 and Class 3 circuits must meet the requirements for separation from Class 1 circuits in accordance with Section 725 of the National Electrical Code, ANSI/NFPA 70 and Section 16 of the Canadian Electrical Code. Separation from power and lighting circuits is required for Class 2 by one of the following means:

- a) A permanent barrier shall be provided to separate the field installed Class 2 conductors of secondary circuits from all other circuits or;
- b) Provisions need to be made to route the Class 1 or power circuit conductors in order to maintain a minimum 1/4-in (6.35 mm) separation from the conductors of the Class 2 circuits.

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5.6 Assembly and connection

See chapter 3 Montage/Assembly/Montage on page 1.

Required tools: Phillips screwdriver PZ 1

ATTENTION

Damage to the device!

Before connecting the accessories, switch off the supply voltage of the device!



The description of the connection to the controller can be found in the assembly instructions of the respective controller.

Important notes

- The assembling tolerance from shaft centre to sensor centre is maximum +/- 0.039 inch (+/- 1 mm).
- Torque for M3 screw / magnet holder fixing : maximum 0.4 Nm
- The shield of the sensor cable has to connect to earth ground PE on the controller side.
- The union nut of the M8 socket of the sensor cable must not come into contact with conductive surfaces connected to PE.
- Keep the antenna cable as short as possible.
- Do not loop the antenna cable.
- Note the transmitting direction of the mobile unit being used.

5.7 Changing the battery

ATTENTION

Disconnecting the battery effects clearing of position values from the encoder. After reconnecting the battery a RESET must be done.

1. Loosen all screws on the cover and remove the cover.
2. Disconnect the battery plug (a) and remove the old battery (b).
3. Place the new battery (b) on the holder and connect the battery plug (a).
4. **Execute a reset:** To do this, briefly connect pins X3-2 and X3-1 to each other on the circuit board.
5. Screw on the cover.
6. Re-teach the controller after changing the battery!

