»ENCODER ABSOLUTO HASTA 60RPM PARA OPERADOR MARCA FEIG MOD. TST PE-B.

FEIG ELECTRONIC

1 Scope of delivery

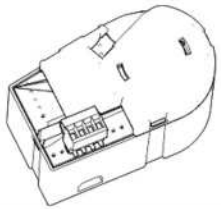
A	1x	

Fig. 1: Position encoder TST PE-B with terminal

2 Assembly

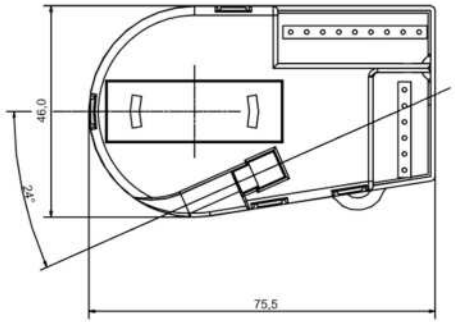


Fig. 2: Top view

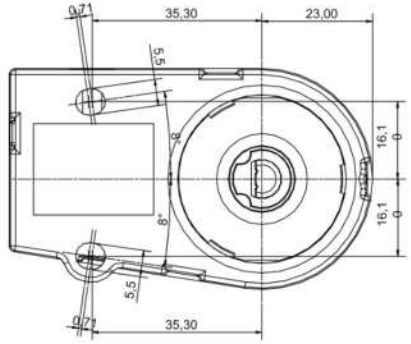


Fig. 3: Bottom view

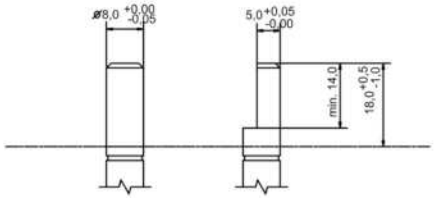


Fig. 4: Side view, encoder shaft

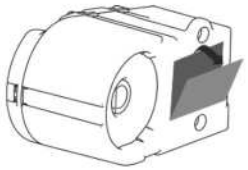
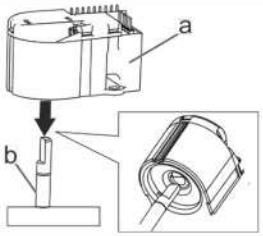
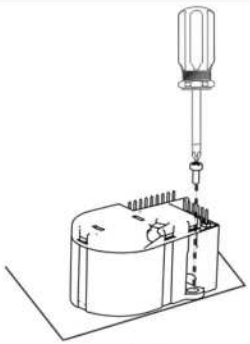
1	2
	
3	
	
a Position encoder	b Shaft on the motor

Fig. 5: Mounting the position encoder on the motor

3 Connections

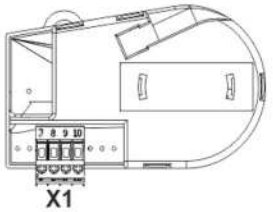


Fig. 6: Connection description

X1	
7	+ 12 VDC
8	RS 485-A
9	RS 485-B
10	GND

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4 Installation instructions

4.1 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 PE-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!

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

4.2 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.

4.3 Product specification

The position encoder is a singleturn encoder. The TST PE-B singleturn encoder is used on shafts that perform a maximum of one rotation per doorway.

4.3.1 Intended use

This system can be used for motor-driven industrial or commercial doors *in accordance with EN 13241.*.

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

4.4 Technical data for Europe

Dimensions (LxWxH)		43 x 76 x 46 mm (without terminal block)
Temperature	**Operation**	12 V Supply: -20 °C to +70 °C 24 V supply: -20 °C to +60 °C
	Storage	-20 °C to +70 °C (+20°C recommended)
Weight		85 g
Equipment type		Single turn position encoder
Protection type		IP 20
Protection class		III
Supply voltage		+12 ... +24 VDC +/-10%
Power consumption		max. 2.65 W
Current carrying capacity		--
Connection/interface		Serial bi-directional interface RS 485/19.2k Baud for communication with the control
Battery		--
Other		--
Max. permissible speed		max. 60 U/min
Disbandment		12 Bit (4096 Increments)
Rotation counter		--
Permissible connection cable (supplied by customer)		4 x 0.25 mm², max. 50 m
Position detection		360 °, via magnetic sensors, without mechanical stop

Connection	Cable size		Tightening torque
	rigid	flexible with wire end ferrule	
X1 (7-10)	0.2 - 1.5 mm²	0.25 - 0.75 mm²	0.22 - 0.25 Nm²

Approvals	
CE	Machinery Directive: 2006/42/EG EMC Directive: 2004/108/EG Low Voltage Directive: 2006/95/EG Applied harmonized standards: EN ISO 13849-1:2008 EN 62061:2005 DIN EN 60335-1:2007 EN 60335-2-103:2003 EN 61000-6-1:2007 EN 61000-6-2:2006 EN 61000-6-3:2007 EN 61000-6-4:2007 EN 12453:2001

Note

Standard conformity with EN 12978

In order to comply with EN 12978, the device must be installed in a housing with a minimum degree of protection IP 54!

4.5 UL-Ratings

Supply	X1/7, 10: Supply input 12..24 VDC / max. 100 mA / Class 2
Maximum surrounding temperature	+70 °C
Connection description	X1: Supply input, 12 ... 24 VDC / max. 100 mA / Class 2 RS-485 Interface, 5 V / max. 50 mA
c UL us LISTED	E-File No. E218753

Connection	Cable size	Tightening torque	NEC wiring
X1 (7-10)	24 - 16 AWG (0.2 - 1.3 mm²)	2.2 Lb-in (0.25 Nm)	Class 2

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.

4.6 Assembly and connection

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

ATTENTION

Damage to the device!

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

ATTENTION

Connect connection terminals before connecting to the plug connectors! Only thus is it possible to ensure a safe contact of the connection terminals to the plug connectors.

Important notes:

- When the installation was completed, check that the system was configured correctly and that the safety system works properly.
- Before turning on the controller for the first time and after completion of the wiring, check whether all connections are tight on the controller. Only then may the plugs be plugged on.

For mounting, observe the dimensional drawings of the position encoder and the shaft.

See "Montage/Assembly/Montage", figure on page 1.

1. Remove the adhesive foil from the position encoder.
2. Plug the position encoder (a) with the mounting onto the shaft of the motor (b).
3. Tighten the position encoder.
4. Connect the position encoder.