PROCESS AUTOMATION

Instruction manual

Fieldbus Terminators

F*-FT-Ex1.I.IEC

F*-FT-Ex1.D.IEC

ISO9001

PEPPERL+FUCHS

Date of issue 15.04.2015

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1 Symbols used

Warning

This symbol indicates a warning about a possible danger.
In the event the warning is ignored, the consequences may range from personal injury to death or from damage to equipment to destruction.

Attention

This symbol warns of a possible fault.
Failure to observe the instructions given in this warning may result in the device and any facilities or systems connected to it developing a fault or even failing completely.

Note

This symbol brings important information to your attention.

2 Intended use

This instruction manual is intended to aid in installing the following fieldbus terminators and placing them in service.

FP-FT-Ex1.I.IEC	Intrinsically safe with connection threading Pg13.5
FS-FT-Ex1.I.IEC	Intrinsically safe with connection threading M20 x 1.5
FN-FT-Ex1.I.IEC	Intrinsically safe with connection threading ½" NPT
FP-FT-Ex1.D.IEC	Flameproof enclosure with connection threading Pg13.5
FS-FT-Ex1.D.IEC	Flameproof enclosure with connection threading M20 x 1.5
FN-FT-Ex1.D.IEC	Flameproof enclosure with connection threading ½" NPT

The data sheet for fieldbus terminators contains electrical data of the EC type-examination certificate and additional information. It is considered part of this instruction manual.

Note

The data sheet can be downloaded from www.pepperl-fuchs.com.

The fieldbus terminator is used in bus systems (PROFIBUS PA or FOUNDATION fieldbus) based on the Fisco model. It is manufactured in a flameproof and intrinsically safe design and is clearly identified by the labeling on the rating plate.

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Warning

In accordance with this identification, devices that have been operated in general electrical systems must no longer be used in electrical systems that are in contact with hazardous areas

Laws and/or regulations governing the use or intended usage must be observed.

Achtung

Fieldbus terminators are only approved for proper professional usage in accordance with the intended purposes.
Improper handling will void any claim made under the warrantee and any manufacturer's liability.

3 Use of the flameproof version

The flameproof fieldbus terminator can be used in the following manner:

- Installation in the wall of equipment or housing suitable for this purpose of ignition protection class "flameproof enclosure" of Groups IIA, IIB and IIC.
- Installation in the wall of equipment or housing suitable for this purpose of the "increased safety" ignition protection class.

4 Use of the intrinsically safe version

The intrinsically safe fieldbus terminator can be used in the following manner:

- Installation in the housing wall of equipment (device) suitable for this purpose of the "intrinsic safety ia" ignition protection class in Category 1G (Zone0), 2G (Zone1) or 3G (Zone2).
- Installation in the housing wall of equipment (device) suitable for this purpose of the "intrinsic safety ib" ignition protection class in Category 2G (Zone1) or 3G (Zone2).
- In intrinsically safe circuits of Group IIA, IIB or IIC
- Installation in the housing wall of equipment or housing suitable for this purpose of ignition the "flameproof enclosure" protection class, switching in circuits of ignition protection type "intrinsic safety ia or ib" in Category 2G (Zone1) or 3G (Zone2).
- Installation in the housing wall of equipment or housing suitable for this purpose of ignition the "increased safety" protection class, switching in circuits of ignition protection type "intrinsic safety ia or ib" in Category 2G (Zone1) or 3G (Zone2).

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5 Marking

Flameproof version	Intrinsically safe version
Pepperl + Fuchs	Pepperl + Fuchs
D-68307 Mannheim	D-68307 Mannheim
F*-FT-Ex1.D.IEC	F*-FT-Ex1.I.IEC
⟨Ex⟩ II 2 G EEx d IIC T6	⟨Ex⟩ II 1 G EEx ia IIC T6
DMT 01 ATEX E 104 X	DMT 01 ATEX E 104 X
CE 0102	CE 0102

The * is replaced by the letter S or N or P.

6 Ambient temperature range

The fieldbus terminator can be used with the following ambient temperatures:

- In the temperature class T6 up to 60 °C ambient temperature
- In the temperature class T5 up to 75 °C ambient temperature
- In the temperature class T4 up to 85 °C ambient temperature

7 Installation and commissioning

7.1 General information

- Circuits must be installed in accordance with recognised rules of the industry and requirements of the company where the installation is performed

Achtung

Fieldbus terminators are designed in protection class IP67 and must accordingly be protected against adverse ambient conditions.

Warning

The EC type-examination certificate and the manufacturer's declaration of conformity must be observed. It is especially important to observe the "special conditions" in the EC type-examination certificate.

- Potential equalisation must be ensured by the way the device is attached.

Warning

EN 60079-14/IEC 60079-14 must be observed when installing fieldbus terminators. For the Federal Republic of Germany, the " National Foreword" to DIN 60079-14/VDE 0165 Part 1 must be observed in addition.

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7.2 Flameproof version

- The F*-FT-Ex1.D.IEC fieldbus terminator must be installed in accordance with its identification in Zone 1 or 2.

Warning

Opening the encapsulation to the Ex d space is prohibited.
The F-FT-Ex1.D.IEC fieldbus terminator must only be connected when no voltage is present.*

There must be at least 5 thread turns in mechanical connection for installation in a flameproof housing. There must be a suitable mechanism to prevent the device from coming loose in the threading as well as one to ensure the IP protection class. This can be achieved in the following manner:
Use of lock nuts with seals or
Use of Loctite (medium) in the threading bore holes

For installation in a housing with the "increased safety" ignition protection class, there must be suitable mechanisms to ensure IP protection and that the device does not turn out of the threadings. This can be achieved in the following manner:
Use of lock nuts with seals
Use of Loctite (medium) in threading bore holes

A specialist electrician must perform a check after installation!

7.3 Intrinsically safe version

- The F*-FT-Ex1.I.IEC fieldbus terminator must be installed in accordance with its identification in Zone 0, 1 or 2. The circuit to be supplied with power in Zone0 must comply with ignition protection class "ia“.

Warning

When connecting intrinsically safe circuits together, EN 60079-14 / IEC 60079-14 must be observed. For the Federal Republic of Germany, the " National Foreword" to DIN EN 60079-14 / VDE 0165 Part 1 must be observed in addition.

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8 Mounting and dismounting

Warning

Recognised rules of the technology and setup requirements must be maintained during mounting and dismounting. Especially for tasks on electrical systems, special safety requirements must be observed. Following are a few special points to check for commissioning:

- *The fieldbus terminator has been installed according to requirements*
- *The fieldbus terminator is not damaged*
- *The connection area is clean*
- *IP protection is ensured*
- *The fieldbus terminator is installed so that it cannot turn loose from the threading*
- *The fieldbus terminator and lock nut are securely tightened*
- *No parts of the flameproof enclosure are damaged*
- *In the case of the flameproof version of fieldbus terminators, the surfaces bordering on the threading gap must not be further processed or painted after installation.*

9 Repair and maintenance

The transmission behavior of fieldbus terminators is stable even over long periods of time. There is thus no need for regular adjustments or similar tasks. Maintenance is therefore not required.

10 Troubleshooting

Warning

No change must be made to fieldbus terminators that are operating in connection with hazardous areas. In the event of a defect, the fieldbus terminator must always be disposed of and replaced by a new one.

11 Disposal

Note

Packaging and fieldbus distributors must only disposed of in accordance with the requirements of the country in which the fieldbus terminator is installed.

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12 Notes

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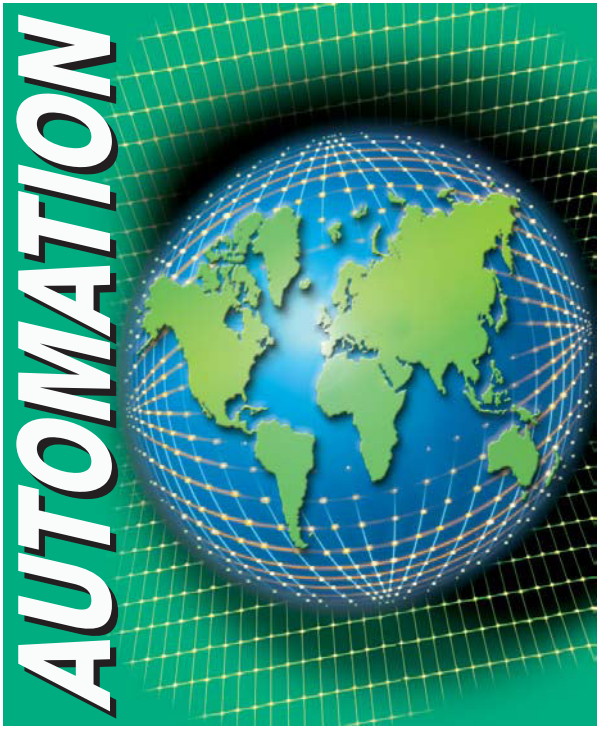

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