



- (1) **EC-Type Examination**
- (2) **- Directive 94/9/EC -**
Equipment or Protective Systems intended for use in
potentially explosive atmospheres
- (3) **BVS 05 ATEX E 004 X**
- (4) **Equipment:** Transponder-Reader Type TPF-35Ex included Antenna Type TPA-***
- (5) **Manufacturer:** TECTUS Transponder Technology GmbH
- (6) **Address:** 47445 Moers
- (7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) Certificate authority of EXAM BBG Prüf- und Zertifizier GmbH, notified body no. 0158, in accordance with article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment or protective systems intended for use in potentially explosive atmosphere given in Annex II to the Directive.
- (9) Compliance with the Essential health and safety requirements has been assured by compliance with
- EN 50014:1997 + AI - A2 General requirements
EN 50018:2000+A1 Pressure-resistant casing
EN 50019:2000 Increased safety
EN 50028:1987 Grouting casing
- (10) If the sign X is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.
- (11) This EC-TYPE Examination Certificate relates only to the design and construction of the specified equipment or protective system compliance with the directive 94/9/EC. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.

The marking of the equipment or protective system shall include the following:

Transponder-Reader Type TPF-35Ex
II 2G EEx de IIA T4 /1 M2 EEx de I

Antenna Type TPA-***
II 2G EEx m II T4 /1 M2 EEx m I

EXAM BBG Prüf- und Zertifizier GmbH

Bochum, 11. Juli 2005



Certificate authority



faculty

(13)

Annex

EC- Type Examination Certificate

BVS 05 ATEX E 004X

(15) 15.1 Equipment and Type

Transponder - Reader Type TPF-35Ex included Antenna Type TPA-***

Type-key for Antenna Type TPA-***

The sign “*” will be placed by parameters for the antenna dimensions. The antenna size is limited by following measurements:

maximum length	2000 mm.
maximum width	640 mm.
maximum antenna inside measurement	530 mm.

The flexible antenna type TPA-FLE may used in other dimensions and will be constructed local by terminal boxes that are admitted for this purpose in compliance with construction requirements .

15.2 Description

The Transponder-Reader Type TPF-35Ex used for remotely storing and analysing of transponder data.

The Transponder-Reader Type TPF-35Ex manufactured in different types. The control logic is located in the main box, (ignition safety: pressure-resistant casing “d”. The Connection is implemented by a junction box (ignition safety: increased safety „e” . The separate located antenna Type TPA-*** is conducted by ignition safety: grouting casing „m” .

The ambient air temperature for transponder and antenna is -20°C to + 60°C.

15.3 Parameters

15.3.1 Power supply circuit transponder-reader (terminal strip XI, terminal 1-4)

supply voltage	up to AC	230	V
	line frequency	50 to 60	Hz
power consumption	up to	15	W

15.3.2 Data communication (terminal strip X2, terminal 1-12)

voltage	up to DC	15	V
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15.3.3 Antenna output (terminal strip X3, terminal 1-3)

voltage	up to AC (120 to 140 kHz)	110	V
transmitting power	up to	4	W

15.3.4 Optocoupler contacts (terminal strip X4, terminal 1-5)

voltage	up to DC	30	V
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15.3.5 Relay contacts (terminal strip X5, terminal 1-11)

voltage	up to DC	60	V
current	up to	2	A

- (16) test report
BVS PP 05.2070 EG, as at 1.07.2005
- (17) special requirements for safety use
- 17.1 A separator to disconnect all supply lines to zero potential has to be located close to the Transponder-Reader.
- 17.2 Use the Antenna Type TPA-*** only with the Transponder-Reader Type TPF-35Ex .