



Translation

(1) **Type Examination Certificate**

(2) **- Directive 94/9/EC -**
Equipment and protective systems intended for use
in potentially explosive atmospheres

(3) **BVS 09 ATEX E 154 X**

(4) **Equipment:** Field device coupler type 9411/34-3**-*0

(5) **Manufacturer:** R. STAHL Schaltgeräte GmbH

(6) **Address:** 74638 Waldenburg, Germany

(7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this type examination certificate.

(8) The certification body of DEKRA EXAM GmbH certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design of Category 3 equipment intended for use in potentially explosive atmospheres, given in Annex II to the Directive.
The examination and test results are recorded in confidential test and assessment report BVS PP 09.2185 EG.

(9) The Essential Health and Safety Requirements are assured by compliance with:

EN 60079-0:2009 General requirements
EN 60079-15:2005 Type of protection 'n'
EN 60079-27:2006 Fieldbussystems FNICO

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the appendix to this certificate.

(11) This Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC.
Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

II 3G Ex nAc [nLc] IIC T4 FNICO Power Supply

DEKRA EXAM GmbH
Bochum, dated 20th November 2009

Signed: Dr. Franz Eickhoff

Signed: Dr. Michael Wittler

Certification body

Special services unit

(13) Appendix to

(14) **Type Examination Certificate**

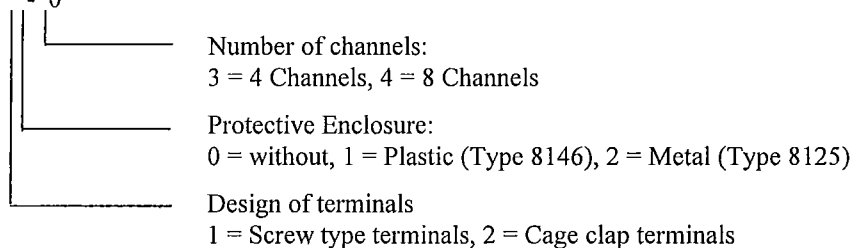
BVS 09 ATEX E 154 X

(15) 15.1 Subject and type

Field Device Coupler type 9411/34-3**-*0

Instead of the ** numerals will be inserted in the complete designation to characterize modifications:

Type 9411/34-3**-*0



15.2 Description

The Field Device Coupler serves for coupling between a fieldbus trunk line (TRUNK) and 4 resp. 8 spur lines (SPUR).

The coupler type 9411/34-3*1-*0 consists of the enclosure type 8146/5... (PTB 01 ATEX 1024 for Category II 2G and II 2D) and the module fixed inside. The coupler type 9411/34-3*2-*0 consists of the enclosure type 8125/5... (PTB 01 ATEX 1001 for Category II 2G and II 2D) and the module fixed inside. Cable glands type 8161/5 or 8161/6 (PTB 00 ATEX 3119 X for Category II 2G and II 2D) are used. Furthermore a breathing gland type 8162/1.. (PTB 01 ATEX 1018 for Category II 2G and II 2D) is mounted in one wall. The couplers type 9411/34-3*1-*0 and type 9411/34-3*2-*0, can be installed in areas where 3G devices are required without any additional measure.

For installation of the field device coupler type 9411/34-3*0-*0 in areas, where category 3 equipment is required, the module has to be mounted inside an enclosure which is in accordance with EN 60079-15.

15.3 Parameters

15.3.1 Use in accordance with type of protection Ex nA

15.3.1.1 Input (terminals TRUNK IN and TRUNK OUT, +, -)

Nominal voltage	U _{in}	DC	24	V
Range of nominal voltage		DC	9-32	V
Nominal current			2	A

15.3.1.2 Output circuits (terminals SPUR 1 up to 4 or 1 up to 8: +, -, S)

Nominal voltage	U _{out} = U _{in}	DC	9-32	V
Nominal current	I _n		41	mA

15.3.2 Use in accordance with type of protection Ex nA [nL]

Supply from a circuit with voltage limitation in accordance with type of protection Ex nL

15.3.2.1 Input terminals TRUNK IN and TRUNK OUT, +, -)

Input voltage	U _i	DC	≤ 31	V
Nominal current			2	A

15.3.2.2 Output circuits type of protection Ex nL (terminals SPUR 1 up to 4 or 1 up to 8: +, -, S)

Voltage	$U_o = U_i$	DC	≤ 31	V
Current	I_o		54	mA
Power	P_o		1.68	W

Rectangular output characteristic

For maximum values of external inductance and capacitance see the following table:

	IIC
Lo [μ H]	270
Co [nF]	80

15.3.3 Use in accordance with type of protection Ex nA [nL] and FNICO

15.3.3.1 Input (terminals TRUNK IN and TRUNK OUT, +, -)

Input voltage	U_i	DC	17.5	V
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15.3.3.2 Output circuits in acc. with EN 60079-27 FNICO (terminals SPUR 1 up to 4 or 1 up to 8: +, -, S)

Voltage	$U_o = U_i$	DC	17.5	V
Current	I_o		54	mA

Rectangular output characteristic

These output circuits constitute a FNICO Power Supply for connection to field bus systems as per IEC 60079-27. The external cable used for this application have to be in accordance with the specification of EN 60079-27 in respect to its design (cable parameter).

15.3.4 Ambient temperature range T_a

for type 9411/34-3*0-*0	-40 °C up to +75 °C
for type 9411/34-3*1-*0 and 9411/34-3*2-*0	-20 °C up to +70 °C

(16) Test report
BVS PP 09.2185 EG, dated 20.11.2009

(17) Special conditions for safe use
For installation of the field device coupler type 9411/34-3*0-*0 in areas, where category 3 equipment is required, the module has to be mounted inside an enclosure which is in accordance with EN 60079-15.


We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

44809 Bochum, 20.11.2009
BVS-Schu/Ar A 20090538

DEKRA EXAM GmbH



Certification body



Special services unit

