



(1) **EC-TYPE-EXAMINATION CERTIFICATE**  
(Translation)

(2) Equipment and Protective Systems Intended for Use in  
Potentially Explosive Atmospheres - **Directive 94/9/EC**



(3) EC-type-examination Certificate Number:

**PTB 00 ATEX 2059 X**

(4) Equipment: Analog input module, type AIH40Ex, type AIH41Ex and AI42Ex

(5) Manufacturer: Hans TURCK GmbH & CO KG

(6) Address: D-45472 Mülheim, Witzlebenstraße 7

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report PTB Ex 00-20081 .

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 50014:1997 + A1 + A2**

**EN 50020:1994**

(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 schedule to this certificate.

(11) This EC-type-examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the 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 2 (1) G EEx [ia] ib IIC T4**

Zertifizierungsstelle Explosionsschutz

Braunschweig, January 3, 2001

By order:

(signed)

Dr.-Ing. U. Johannsmeyer  
Regierungsdirektor

**5 pages, correct and complete as regards content.**

By order:

Dr.-Ing. Johannsmeyer Braunschweig  
Direktor und Professor



sheet 1/5

EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.

(13)

## SCHEDULE

(14)

### EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 2059 X

(15) Description of equipment

The 4-channel analog input modules according to PTB 00 ATEX 2059 X form part of the fieldbus system excom for the subrack unit, type MT... in accordance with PTB 00 ATEX 2194 U.

The analog input modules of type AIH40Ex are manufactured as HART-version. They are used for the supply of *passive* 2-wire measuring transducers (sensors) and for the data logging of analog measuring signals.

The analog input modules of type AIH41Ex are used for the connection of *active* intrinsically safe sensors with HART-communication.

The analog input modules of type AI42Ex are used for the supply of *passive* 2-wire measuring transducers (sensors) without HART-communication and for the data logging of analog measuring signals.

All modules are intended for the safe electrical isolation of intrinsically safe measuring circuits of category ia from intrinsically circuits of category ib.

Each analog input module provides either only passive measuring transducer supply circuits (modules, type AIH40Ex and type AI42Ex) or only active input circuits (module, type AIH41Ex).

The ambient temperature range is -20 °C up to +70 °C.

#### Electrical data

- |  |   |
|--|---|
| I) Supply circuit<br>plug connector X101,<br>terminal posts 15, 16 | type of protection Intrinsic Safety EEx ib IIC<br>only for connection to the certified intrinsically safe circuit<br>according to PTB 00 ATEX 2194 U<br>with the following maximum values:<br>$U_i = 20$ V AC (amplitude)<br>$f = 307$ kHz $\pm 5$ kHz<br>$P_i \approx 3,0$ W (power consumption)<br>$P_i \approx 1,5$ W (internal power consumption) |
|--|---|

The intrinsically safe AC-supply circuit is electrically isolated from the intrinsically safe input circuits, the measuring transducer supply circuits and from the CAN-signal circuits of the module in accordance with EN 50020, table 4.

- |                              |  |
|------------------------------|--|
| II) Signal circuit (CAN-Bus) | (exclusively system-internal circuit; no external connection facilities) |
|------------------------------|--|

- III) Adress encoding circuit (exclusively system-internal circuit; no external connection facilities)
- IV) Measuring transducer supply circuit for modules, types AI42Ex and AIH40Ex for passive sensors
- plug connector X102  
 channel 1: terminal posts +1, -3  
 channel 2: terminal posts +7, -9  
 channel 3: terminal posts +13, -15  
 channel 4: terminal posts +19, -21
- type of protection Intrinsic Safety  
 EEx ia IIC/IIB or EEx ib IIC/IIB  
 Maximum values per channel:  
 $U_o = 22.1 \text{ V}$   
 $I_o = 93 \text{ mA}$   
 $P_o = 403 \text{ mW}$   
 trapezoidal output characteristic with  
 $U_Q = 27.54 \text{ V}$   
 $R = 298 \ \Omega$   
 effective internal capacitance:  $C_i \leq 1.1 \text{ nF}$   
 effective internal inductance:  $L_i \leq 0.22 \text{ mH}$

The following maximum values of the external capacitance  $C_o$  and the external inductance  $L_o$  apply with the effective internal values being already considered.

type of protection	EEx ia and EEx ib	
group	IIC	IIB
$L_o$	1.78 mH	1.78 mH
$C_o$	100 nF	500 nF

All channels of the measuring transducer supply circuits are interconnected via ground. The individual channels of the four measuring transducer supply circuits are safely isolated from each other up to a voltage of 30 V according to table 4 of EN 50020. Therefore the values tabulated above apply to each channel.

- V) Input circuit for module, type AIH41Ex for active intrinsically safe sensors
- plug connector X102  
 channel 1: terminal posts +4, -2  
 channel 2: terminal posts +10, -8  
 channel 3: terminal posts +16, -14  
 channel 4: terminal posts +22, -20
- type of protection Intrinsic Safety  
 EEx ia IIC/IIB or EEx ib IIC/IIB  
 Maximum values per channel:  
 $U_o = 7.2 \text{ V}$   
 $I_o = 16 \text{ mA}$   
 $P_o = 29 \text{ mW}$   
 linear output characteristic  
 effective internal capacitance:  $C_i \leq 1.1 \text{ nF}$   
 effective internal inductance:  $L_i \leq 0.11 \text{ mH}$

All channels of the input circuits are interconnected via ground. The individual channels of the four input circuits are safely isolated from each other up to a voltage of 30 V according to table 4 of EN 50020. Therefore the values tabulated above apply to each channel.

Va) The following maximum values of the external capacitance  $C_o$  and the external inductance  $L_o$  apply for connection to **active** intrinsically safe sensors with **linear output characteristic** in which the effective internal values have already been considered:

maximum values for active sensors (linear output characteristic)		EEx ia IIC and EEx ib IIC		EEx ia IIB and EEx ib IIB	
$U_i$	$I_i$	$L_o$	$C_o$	$L_o$	$C_o$
2 V	100 mA	2.4 mH	4.2 $\mu$ F	9.8 mH	33 $\mu$ F
5 V	100 mA	2.4 mH	1.3 $\mu$ F	9.8 mH	8.3 $\mu$ F
10 V	100 mA	2.4 mH	358 nF	9.8 mH	2.1 $\mu$ F
15 V	100 mA	2.4 mH	158 nF	9.8 mH	1.1 $\mu$ F
16.5	100 mA	2.4 mH	126 nF	9.8 mH	950 nF
20 V	100 mA	2.4 mH	87 nF	9.8 mH	688 nF
22 V	100 mA	2.4 mH	71 nF	9.8 mH	594 nF
25 V	100 mA	2.0 mH	54 nF	9.0 mH	465 nF
30 V	100 mA	2.0 mH	37 nF	9.0 mH	345 nF

Vb) The following maximum values of the external capacitance  $C_o$  and the external inductance  $L_o$  apply for connection to **active** intrinsically safe sensors with **trapezoidal output characteristic** in which the effective internal values have already been considered:

maximum values for active sensors (trapezoidal output characteristic)		EEx ia IIC and EEx ib IIC		EEx ia IIB and EEx ib IIB	
$U_i$	$I_i$	$L_o$	$C_o$	$L_o$	$C_o$
22.1 V	93 mA	0.5 mH	60 nF	2 mH	250 nF

Vc) The following maximum values of the external capacitance  $C_o$  and the external inductance  $L_o$  apply for connection to **active** intrinsically safe sensors with **rectangular or trapezoidal output characteristic** in which the effective internal values have already been considered:

maximum values for active sensors (rectangular & trapezoidal output characteristic)		EEx ia IIC and EEx ib IIC		EEx ia IIB and EEx ib IIB	
$U_i$	$I_i$	$L_o$	$C_o$	$L_o$	$C_o$
2 V	100 mA	1.99 mH	500 nF	4.89 mH	3 $\mu$ F
5 V	100 mA	1.99 mH	300 nF	4.89 mH	1.5 $\mu$ F
10 V	90 mA	1.99 mH	200 nF	4.89 mH	1 $\mu$ F
15 V	56 mA	0.99 mH	100 nF	4.89 mH	500 nF
16.5 V	49 mA	0.99 mH	100 nF	4.89 mH	500 nF
20 V	35 mA	0.99 mH	70 nF	4.89 mH	300 nF
16.5 V	97 mA	-	-	1.99 mH	400 nF
20 V	80 mA	-	-	0.99 mH	300 nF
22 V	65 mA	-	-	0.99 mH	300 nF
25 V	50 mA	-	-	0.99 mH	250 nF

(16) Test report PTB Ex 00-20081

(17) Special conditions for safe use

In the fieldbus system excom the 4-channel analog input modules, type AIH40Ex, type AIH41Ex and AI42Ex shall only be operated in combination with the subrack unit, type MT... according to PTB 00 ATEX 2194 U.

(18) Essential health and safety requirements

met by compliance with the standards mentioned above

Zertifizierungsstelle Explosionsschutz  
By order:

Braunschweig, January 3, 2001

(signed)

Dr.-Ing. U. Johannsmeyer  
Regierungsdirektor


## 1st SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 2059 X

(Translation)

Equipment: Analog input, types AIH40Ex , AIH41Ex and AI42Ex

Marking:  II 2 (1) G EEx [ia]ib IIC T4

Manufacturer: TURCK, Hans, GmbH &Co KG

Address: Witzlebenstraße 7, 45472 Mülheim, Germany

### Description of supplements and modifications

The 4-channel analog input modules, types AIH40Ex , AIH41Ex and AI42Ex, of the excom system may in future be manufactured in compliance with the test documents listed in the test report.

The modifications concern the revised documentation as well as the output power of the measuring transducer supply circuits.

All other details as well as the "Special Conditions" remain unaffected by the modifications.

### Electrical data

#### IV) Measuring transducer supply circuit for types AI42 Ex and AI40 Ex for passive transducers

Plug connector X102

Channel 1: terminal pins +1, -3

Channel 2: terminal pins +7, -9

Channel 3: terminal pins +13, -15

Channel 4: terminal pins +19, -21

type of protection Intrinsic Safety

EEx ia IIC / IIB or EEx ib IIC / IIB

Maximum values per channel:

$$U_o = 22.1 \text{ V}$$

$$I_o = 93 \text{ mA}$$

$$P_o = 640 \text{ mW}$$

Output characteristic: trapezoidal, with

$$U_Q = 27.54 \text{ V}$$

$$R = 298 \text{ } \Omega$$

Effective internal capacitance:  $C_i \leq 1.1 \text{ nF}$

Effective internal inductance:  $L_i \leq 0.22 \text{ mH}$


The maximum values of the external capacitance  $C_o$  and the external inductance  $L_o$  are shown in the table below. They already consider the effective internal values.

Type of protection	EEx ia and EEx ib	
Group	IIC	IIB
$L_o$	1.78 mH	1.78 mH
$C_o$	100 nF	500 nF

All the channels of the transducer supply circuits are electrically interconnected via ground. The channels of the four intrinsically safe transducer supply circuits are safely electrically isolated from each other up to a voltage of 30 V as shown in EN 50020, table 4. The values specified in the table above thus apply to each channel.

Test report: PTB Ex 03-23309

Zertifizierungsstelle Explosionsschutz  
By order:

  
Dr.-Ing. U. Johannsmeyer  
Regierungsdirektor



Braunschweig, November 12, 2003


## 2nd SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 2059 X

(Translation)

Equipment: Analog input modules, types AIH40Ex , AIH41Ex and AI42Ex

Marking:  II 2 (1) G EEx [ia]ib IIC T4

Manufacturer: Hans TURCK GmbH & Co KG

Address: Witzlebenstr. 7, 45472 Mülheim, Germany

### Description of supplements and modifications

Subject-matter of this 2<sup>nd</sup> supplement is the revision and completion of the test documents for organisational reasons.

All other specifications and the "Special condition" apply also for this 2<sup>nd</sup> supplement.

Test report: PTB Ex 04-23440

Zertifizierungsstelle Explosionsschutz

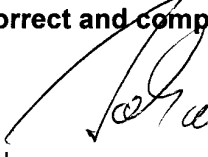
By order:

(signature)

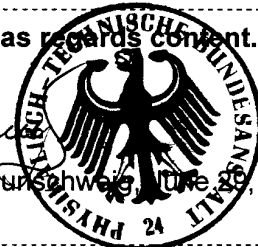
Dr.-Ing. U. Johannsmeyer  
Regierungsdirektor

Braunschweig, July 5, 2004

**1 page, correct and complete as records content.**  
By order:

  
Dr.-Ing. Johannsmeyer  
Direktor und Professor

Braunschweig, July 28, 2005






## 3rd SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 2059 X

(Translation)

Equipment: Analog input modules, types AIH40Ex , AIH41Ex and AI42Ex

Marking:  II 2 (1) G EEx [ia]ib IIC T4

Manufacturer: Hans TURCK GmbH & Co KG

Address: Witzlebenstr. 7, 45472 Mülheim, Germany

### Description of supplements and modifications

In the future the analog input modules, types AIH40Ex , AIH41Ex and AI42Ex may also be manufactured according to the test documents listed in the test report.

The modifications concern the internal and external construction and the alteration of the type designation and the marking for organisational reasons.

In the future the equipment will be labelled corresponding to the model type with the following type designation:

**8/AIH40Ex , 8/AIH41Ex and 8/AI42Ex**

In the future the equipment will be labelled with the following marking:

 II 2 (1 G/D) G EEx [ia] ib IIC T4

All other specifications as well as the "Special condition" apply also for this 3rd supplement.

Test report: PTB 04-23391

Zertifizierungsstelle Explosionsschutz

Braunschweig, July 5, 2004

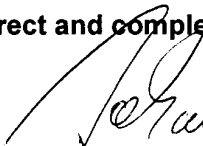
By order:

(signature)

Dr.-Ing. U. Johannsmeyer  
Regierungsdirektor

**1 page, correct and complete as regards content.**

By order:

  
Dr.-Ing. Johannsmeyer  
Direktor und Professor

Braunschweig, July 29, 2005



Sheet 1/1

EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.

## 4. SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 2059 X

(Translation)

Equipment: Analog input modul, type AIH40Ex, AIH41Ex and AI42Ex

Marking:  II 2 (1 G/D) G EEx [ia] ib IIC T4

Manufacturer: Hans Turck GmbH & CO KG

Address: Witzlebenstrasse 7, 45472 Mülheim, Germany

### Description of supplements and modifications

Safety-relevant components have been modified in the analog input modules, type AIH40Ex and AI42Ex respectively variant 8/AIH40Ex and 8/AI42Ex.

All other specifications and the "Special conditions" apply without changes also for this 4<sup>th</sup> supplement.

Test report: PTB Ex 07-27096

Zertifizierungsstelle Explosionsschutz

By order:


Dr.-Ing. U. Johannsmeyer  
Direktor und Professor

Braunschweig, April 19, 2007

## 5. SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 2059 X

(Translation)

Equipment: Analog input module, type AIH40Ex, AIH41Ex and AI42Ex

Marking:  II 2 (1 G/D) G EEx [ia] ib IIC T4

Manufacturer: Hans Turck GmbH &amp; Co.KG

Address: Witzlebenstraße 7  
45472 Mülheim an der Ruhr, GermanyDescription of supplements and modifications

In the future the analog input modules of types AIH40Ex, AIH41Ex and AI42Ex may also be manufactured according to the test documents listed in the test report.

The modifications concern the internal and external construction.

The electrical data, the notes for manufacture and operation and all further specifications of the EC-type examination certificate apply without changes.

Applied standards

EN 50014:1997 + A1 + A2

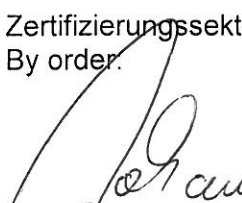
EN 50020:2002

Assessment and test report:

PTB Ex 09-29203

Zertifizierungssektor Explosionsschutz  
By order:

Braunschweig, October 12, 2009

  
Dr.-Ing. U. Johannsmeyer  
Direktor und Professor


## 6. SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 2059 X

(Translation)

Equipment: Analog input module, types AIH40Ex, AIH41Ex and AI42Ex

Marking:  **II 2 (1) G Ex ib [ia Ga] IIC T4 Gb and II (1) D [Ex ia IIIC Da] or  
II 2 (1) G Ex ib [ia] IIC T4 and II (1) D [Ex ia IIIC]**

Manufacturer: Hans Turck GmbH & Co.KG

Address: Witzlebenstraße 7, 45472 Mülheim an der Ruhr, Germany

### Description of supplements and modifications

In the future the analog input modules of types AIH40Ex, AIH41Ex and AI42Ex may also be manufactured according to the test documents listed in the assessment and test report.

The modifications concern the internal and external design.

The special condition and all other specifications of the EC-type examination certificate apply without changes.

The permissible range of the ambient temperature is -20 °C up to +60 °C.

### Electrical data

l) AC-supply circuit terminals 15, 16, type of protection Intrinsic Safety Ex ib IIC only for connection to the certified intrinsically safe circuit according to PTB 00 ATEX 2194 U

Maximum values:

$U_i = 20$  V AC (amplitude)

$f = 307$  kHz  $\pm 5$  kHz

$P_v \approx 1.5$  W (internal power consumption)

The AC-supply circuit is electrically isolated from the intrinsically safe field circuits and the CAN-signal circuits of the module in accordance with EN 60079-11, table 5, up to a voltage of 60 V.

Normal.dotm

## 6. SUPPLEMENT TO EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 2059 X

- II) Signal circuit (CAN-Bus) ..... system-internal circuit designed to type of protection (terminals CAN-Bus 1: 9/10 ..... Intrinsic Safety Ex ib IIC terminals CAN-Bus 2: 11/12) ..... without external connection facilities

The signal circuit (CAN-supply) is safely electrically isolated from all other intrinsically safe circuits up to a voltage of 30 V (EN 60079-11, table 5).

The signal circuit (bus-line 1) and the signal circuit (bus-line 2) are safely electrically isolated from each other in accordance with EN 60079-11, table 5, up to a voltage of 30 V. They are, however, interconnected (only) inside the module.

- III) Adress encoding circuit ..... system-internal circuit designed to type of protection Intrinsic Safety Ex ib IIC without external connection facilities

### IV) Types AIH40Ex and AI42Ex

Measuring transducer circuits ..... type of protection Intrinsic Safety Ex ia IIC for passive sensors or Ex ia IIIC

terminal posts

channel 1: +1/-3

channel 2: +7/-9

channel 3: +13/-15

channel 4: +19/-21)

Maximum values per channel:

$$U_o = 22.1 \text{ V}$$

$$I_o = 93 \text{ mA}$$

$$P_o = 640 \text{ mW}$$

trapezoidal output characteristic

$$U_Q = 27.54 \text{ V}$$

$$R = 298 \text{ } \Omega$$

$$C_i = 1.1 \text{ nF}$$

$$L_i = 220 \text{ } \mu\text{H}$$

For relationship between type of protection, explosion group and permissible external reactances, reference is made to the table:

	Ex ia	bzw.	Ex ib
	IIC/IIIC		IIB/IIIC
$L_o$	0.5 mH		2 mH
$C_o$	65 nF		270 nF

## 6. SUPPLEMENT TO EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 2059 X

### V) Type AIH41Ex

Measuring transducer circuits ..... type of protection Intrinsic Safety Ex ia IIC  
 for active sensors or Ex ia IIIC

terminal posts

channel 1: +4/-2

channel 2: +10/-8

channel 3: +16/-14

channel 4: +22/-20

Maximum values per channel:

$$U_o = 7.2 \text{ V}$$

$$I_o = 16 \text{ mA}$$

$$P_o = 29 \text{ mW}$$

linear output characteristic

$$C_i = 1.1 \text{ nF}$$

$$L_i = 110 \text{ } \mu\text{H}$$

The four channels of the measuring transducer circuits are electrically interconnected via ground. They are safely electrically isolated from each other up to a peak value of the voltage of 30 V. Therefore the values specified in the following tables apply to each channel.

### Va) Active intrinsically safe sensors with linear output characteristic

For relationship between the electrical maximum values for active sensors and the permissible maximum values for the external reactances referred to the type of protection, reference is made to the table:

Active sensors (linear characteristic)		Ex ia / ib IIC Ex ia IIIC		Ex ia / ib IIB Ex ia IIIC	
$U_i$	$I_i$	$L_o$	$C_o$	$L_o$	$C_o$
2 V	100 mA	1.89 mH	958 nF	9.8 mH	3.79 $\mu$ F
5 V	100 mA	1.89 mH	548 nF	9.8 mH	2.09 $\mu$ F
10 V	100 mA	1.89 mH	288 nF	9.8 mH	1.09 $\mu$ F
15 V	100 mA	0.89 mH	108 nF	9.8 mH	630 nF
16.5 V	100 mA	0.89 mH	87.9 nF	9.8 mH	508 nF
20 V	100 mA	0.89 mH	61.9 nF	9.8 mH	318 nF
22 V	100 mA	0.89 mH	52.9 nF	9.8 mH	248 nF
25 V	100 mA	0.89 mH	43.9 nF	9 mH	178 nF
28 V	100 mA	0.44 mH	42.9 nF		
30 V	100 mA			4.89 mH	138 nF

## 6. SUPPLEMENT TO EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 2059 X

### Vb) Active intrinsically safe sensors with trapezoidal output characteristic

For relationship between the electrical maximum values for active sensors and the permissible maximum values for the external reactances referred to the type of protection, reference is made to the table:

Active sensors (trapezoidal characteristic)		Ex ia / ib IIC Ex ia IIIC		Ex ia / ib IIB Ex ia IIIC	
$U_i$	$I_i$	$L_o$	$C_o$	$L_o$	$C_o$
22 V	93 mA	0.39 mH	63.9 nF	1.89 mH	268 nF

### Vc) Active intrinsically safe sensors with rectangular or trapezoidal output characteristic

For relationship between the electrical maximum values for active sensors and the permissible maximum values for the external reactances referred to the type of protection, reference is made to the table:

Active sensors (rectangular or trapezoidal characteristic)		Ex ia / ib IIC Ex ia IIIC		Ex ia / ib IIB Ex ia IIIC	
$U_i$	$I_i$	$L_o$	$C_o$	$L_o$	$C_o$
2 V	100 mA	1.89 mH	958 nF	4.89 mH	4.3 $\mu$ F
5 V	100 mA	1.89 mH	518 nF	4.89 mH	2.4 $\mu$ F
10 V	90 mA	0.89 mH	288 nF	4.89 mH	1.2 $\mu$ F
15 V	56 mA	0.89 mH	86 nF	4.89 mH	608 nF
16.5 V	49 mA	0.89 mH	64 nF	4.89 mH	468 nF
20 V	35 mA	0.89 mH	57 nF	4.89 mH	288 nF
16.5 V	97 mA	-	-	1.89 mH	398 nF
20 V	80 mA	-	-	0.89 mH	318 nF
22 V	65 mA	-	-	0.89 mH	298 nF
25 V	50 mA	-	-	0.89 mH	278 nF

#### Applied standards

EN 60079-0:2009

EN 60079-11:2007

EN 61241-11:2006

#### Assessment and test report:

PTB Ex 11-20295

Zertifizierungssektor Explosionschutz  
On behalf of PTB:

Braunschweig, August 26, 2011

Dr.-Ing. U. Johannsmeyer  
Direktor und Professor



Wir/ We **HANS TURCK GMBH & CO KG**  
**WITZLEBENSTR. 7, D – 45472 MÜLHEIM A.D. RUHR**

erklären in alleiniger Verantwortung, dass die Produkte  
declare under our sole responsibility that the products

**Remote – I/O – System excom® Module / modules**  
**Type: AIH40EX und / and AIH41EX**

auf die sich die Erklärung bezieht, den Anforderungen der folgenden EU-Richtlinien durch Einhaltung der  
folgenden harmonisierten Normen genügen:  
to which this declaration relates are in conformity with the requirements of the following EU-directives by compliance with the following  
harmonised standards:

EMV – Richtlinie / EMC Directive EN 61326-1:2013	2014 / 30 / EU	26. Feb. 2014
Richtlinie / Directive ATEX EN 60079-0:2012      EN 60079-11:2012	2014 / 34 / EU	26. Feb. 2014

Weitere Normen, Bemerkungen  
additional standards, remarks

Das Produkt stimmt mit den Anforderungen der Richtlinie 2014/34/EU überein. Eine oder mehrere in  
der zugehörigen EG-Baumusterprüfbescheinigung genannten Normen wurden bereits durch neue  
Ausgaben ersetzt. Der Hersteller erklärt für das Produkt auch die Übereinstimmung mit den neuen  
Normenausgaben, da die veränderten Anforderungen der neuen Normenausgaben für dieses Produkt  
nicht relevant sind.

The product complies with the directive 2014/34/EU. One or more standards mentioned in the respective EC type examination  
certificate were already replaced by new ones. The manufacturer declares that the product complies with the new standards, as  
the changed requirements mentioned there are not relevant for the product.

Zusätzliche Informationen:  
Supplementary information:

Angewandtes ATEX-Konformitätsbewertungsverfahren / ATEX - conformity assessment procedure applied:  
Modul B + Modul E (enthalten in Modul D) / module B + module E (part of module D)

EU-Baumusterprüfbescheinigung (Modul B) PTB 00 ATEX 2059 X / EC-type examination certificate (module B):  
ausgestellt von / issued by: Physikalisch Technische Bundesanstalt, Kenn-Nr. / number 0102,  
Bundesallee 100, D-38116 Braunschweig

Zertifizierung des QS-Systems gemäß Modul D durch:  
certification of the QS-system in accordance with module D by :  
Physikalisch Technische Bundesanstalt, Kenn-Nr. / number 0102,  
Bundesallee 100, D-38116 Braunschweig

Mülheim, den 20.04.2016

i.V. U. Vix, CE-Koordinatorin / CE Coordinator

Ort und Datum der Ausstellung /  
Place and date of issue

Name, Funktion und Unterschrift des Befugten /  
Name, function and signature of authorized person