



[1] **EU-TYPE EXAMINATION CERTIFICATE - Translation**

[2] Equipment or protective systems  
intended for use in potentially explosive atmospheres, Directive 2014/34/EU

[3] EU-type examination certificate number **IBExU20ATEX1157** | Issue 1

[4] Product: **Overspeed Protection System**  
Type: SpeedSys 200 and SpeedSys300

[5] Manufacturer: Istec International BV

[6] Address: Meer en Duin 8  
2163 HA Lisse  
NETHERLANDS

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] IBExU Institut für Sicherheitstechnik GmbH, Notified Body number 0637 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the essential health and safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential test report IB-21-3-0209.

[9] Compliance with the essential health and safety requirements has been assured by compliance with:  
EN IEC 60079-0:2018 and EN 60079-11:2012

Except in respect of those requirements listed at item [18] of the schedule.

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the specific conditions of use specified in the schedule to this certificate.

[11] This EU-type examination certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the product shall include the following:

II (1)G [Ex ia Ga] IIC

II (1)D [Ex ia Da] IIIC

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By order

Dipl.-Ing. Willamowski

Certificates without signature and seal  
are not valid. Certificates may only be  
duplicated completely and unchanged.  
In case of dispute, the German text  
shall prevail.

Freiberg, 2021-11-08



[13]

### Schedule

[14]

**Certificate number IBExU20ATEX1157 | Issue 1**

[15]

#### Description of product

The Overspeed Protection System type SpeedSys 200 and SpeedSys300 serves as associated equipment for the galvanically isolated supply of a speed sensor and for recording its pulses. The device also offers a large number of digital and analogue inputs and outputs for connection to other devices. With regard to the intrinsically safe circuit section, both types are of identical design. The interface unit is installed in the safe area.

#### Technical data

Ambient temperature range: -20 °C to +60 °C

#### Electrical data

##### Supply input (A17-A18, A21-A22)

Voltage	$U_N$	18...36 V DC
max. Voltage	$U_m$	250 V
Nominal current	$I$	<315 mA

##### Current-loop output (A13-A14)

Voltage	$U_N$	20 V DC
max. Voltage	$U_m$	125 V
Nominal current	$I$	<63 mA

##### Relay output (B13-B14, B15-B16, B17-B18, B19-B20, B21-B22, B23-B24)

Switching voltage	$U_N$	30 V DV
Switching current	$I$	2 A
Switching power	$P$	60 W
max. Voltage (DC)	$U_m$	220 V

##### USB + RS485 interface (USB, C17-C18-C19)

Voltage	$U_N$	5 V or 6 V DC
max. Voltage	$U_m$	125 V
Nominal current	$I$	<63 mA
interface (C17-C18-C19)		

##### Digital input or output (A15-A16, C13-C14, C15-C16)

Voltage	$U_N$	24 V DC
max. Voltage	$U_m$	125 V
Nominal current	$I$	<100 mA

#### Output circuits (only one used):

##### 2-wire voltage Sensorstromkreis (B01-B02)

in type of protection Intrinsic Safety Ex ia IIC

$U_o$	22.69 V
$I_o$	0.7 mA
$P_o$	3 mW
$L_o$	100 mH
$C_o$	110 nF

##### 3-wire voltage Sensorstromkreis (B05-B06-B07)

in type of protection Intrinsic Safety Ex ia IIC

$U_o$	22.69 V
$I_o$	66 mA
$P_o$	374 mW
$L_o$	0.5 mH
$C_o$	110 nF

Current-loop Sensorstromkreis (B09-B10)	in type of protection	Intrinsic Safety Ex ia IIC
	U <sub>o</sub>	22.69 V
	I <sub>o</sub>	57.9 mA
	P <sub>o</sub>	689 mW
	L <sub>o</sub>	0.23 mH
	C <sub>o</sub>	47 nF
Characteristic trapezoidal	R <sub>i</sub>	832 $\Omega$

*Variation compared to issue 0 of this certificate:*

The assembly of the primary circuit was modified.

### [16] Test report

The test results are recorded in the confidential test report IB-21-3-0209 of 2021-11-08.

The test documents are part of the test report and they are listed there.

#### *Summary of the test results*

The Overspeed Protection System type SpeedSys 200 and SpeedSys300 fulfills the requirements of type of protection intrinsic safety 'ia' to associated apparatus of equipment group II, category 1G and 1D, explosion group IIC and IIIC.

### [17] Specific conditions of use

none

### [18] Essential health and safety requirements

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item [9], the following are considered relevant to this product, and conformity is demonstrated in the test report:

none

### [19] Drawings and Documents

The documents are listed in the test report.

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