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1 EU-TYPE EXAMINATION CERTIFICATE

- 2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 3 Certificate Number: Sira 16ATEX2219X
- 4 Equipment: Proline Promass 300/500, Proline Cubemass 300/500 and Proline Promag 300/500
- 5 Applicant: Endress+Hauser Flowtec AG
- 6 Address: Endress+Hauser Flowtec AG Kaegenstrasse 7, CH-4153, Reinach BL, Switzerland Endress+Hauser Flowtec AG, Cernay, France Endress+Hauser Flowtec (India) Pvt. Ltd. Waluj, India Endress+Hauser Flow USA. Inc. 2330 Endress Place, Greenwood, Indiana, 46143, U.S.A. Endress+Hauser Flowtec (China) Co. Ltd. Suzhou, P.R. China Endress + Hauser Flowtec (Brazil) Fluxômetros Ltda., Estrada Muncipal Antônio Sesti, 600 A -Recreio Costa Verde – Itatiba / SP, CEP 13254 – 085 – Brazil Endress+Hauser Flowtec (China) Co. Ltd., Site 1: China- Singapore Suzhou Industrial Park (SIP), Su-Hong-Zhong-Lu No. 465 Site 2: Suzhou Industrial Park (SIP), Jiang-Tian-Li-Lu No. 31, 215021 Suzhou, P.R. China

Issue:

- 7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- 8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the
schedule to this certificate, has been assured by compliance with the following documents:
EN IEC 60079-0:2018EN 60079-1:2014EN 60079-11:2012EN 60079-26:2015EN 60079-31:2014EN 60079-7:2015+A1:2018IEC TS 60079-47:2021

- 10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.
- 11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.
- 12 The marking of the equipment shall be as defined in the Certificate Annexe.



Signed:

AHAD

Title:

....

Project Number 80174205

This certificate and its schedules may only be reproduced in its entirety and without change CSA Group Netherlands B.V. Utrechtseweg 310, Building B42, 6812AR, Netherlands

DQD 544.09 Issue Date: 2022-04-14





EU-TYPE EXAMINATION CERTIFICATE

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13 DESCRIPTION OF EQUIPMENT

The Proline 300 / 500 is a platform used for flowmeters of type Proline Promag 300, Proline Promag 500, Proline Promass 300, Proline Promass 500, Proline Cubemass 300, Proline Cubemass 500, Proline Prosonic Flow G 300, Proline Prosonic Flow G 500, Proline Prosonic Flow P 500, Proline t-mass 300 and Proline t-mass 500.

All flowmeters are available in two versions, a compact version (Proline 300) and a remote version (Proline 500). The remote Proline 500 version is also available as a version with ISEM (Intelligent Sensor Electronics Module) electronics integrated in transmitter (i.e. Proline 500 analog) where the sensor sends analog signals to the transmitter and a version with ISEM integrated in sensor where the sensor is connected by a digital circuit to the transmitter (i.e. Proline 500 digital) with additional electronics located at the sensor for assessment of the sensor signals.

For all versions of the Proline 300, an additional remote Display, e.g. DKX001 or ODKX001, may be connected to the electronics. The remote display is available in two options for the user. Either it is ordered as a separate product or by the product of the flowmeter.

Different electronics are used for the flowmeters where the sensor is installed in a Zone 1 location and where the transmitter can be installed in a safe area or Zone 1 or 2 locations. All versions of electronics are designed either with intrinsically safe IO's (Ex "ia" for Zone 1) or with non-intrinsically safe IO's. A mix of type of protections, Ex "i" in combination with non-Ex "i" IO's is not allowed.

All Proline Promag 300/500, Proline Promass 300/500, Proline Prosonic Flow G 300/500 and Proline t-mass 300/500 flowmeters are available for an ambient temperature of -40°C to +60°C and optional -50°C to +60°C.

In addition, the version of the sensor of Proline Promass F/X/Q 500 with ISEM electronic in transmitter is available also for -60°C to +60°C ambient. Proline Prosonic Flow P 500 sensors are available for an ambient temperature of -20/-40/-50°C to +80°C and Proline Prosonic Flow P 500 transmitters are available for an ambient temperature of -40°C to +60°C and optional -50°C to +60°C.

An antenna bushing at cable entry for transmitter enclosures in type of protection Ex "ia", Ex "eb", and Ex "tb" is available for connection of an external antenna.

The intrinsically safe output circuits for order code MC/RC meet the requirements for 2-WISE according to the used standards EN 60079-11:2011 and IEC TS 60079-47:2021.

Variation 1 - This variation introduced the following changes:

- i. Minor changes to product order codes of Promag W500.
- ii. Minor corrections to product markings.
- iii. Introduction of remote display as part of the flowmeter.
- iv. Minor corrections to the product drawings

Variation 2 - This variation introduced the following changes:

- i. The addition of model code for replacement transmitter OEM version and new assignment table of replacement transmitter to product of flowmeter.
- ii. The addition of a new, certified sensor" Promass A" sensor with changes to model code.





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- iii. Update in the ambient temperature reduced optionally to -60°C for sensors of Promass F/Q/X 500 with code for integrated ISEM electronic k = "B" as described in the technical description document in All the corresponding drawings were updated to receptive minor administrative amondments.
- iv. All the corresponding drawings were updated to recognise minor administrative amendments.
- v. The introduction of the Proline Promass 300/500 and Proline Cubemass 300/500 flowmeters. These devices were previously covered by certificate Sira 16ATEX2177X using EN 60079-26:2015 as an assessment standard; therefore, this document needs to be recognised in the list of supporting documents. (Note: As a result of this change, Sira 16ATEX2177X is no longer required and will therefore be suspended.) Previously, EN 60079-15 was specified as a supporting document, this was an error and therefore this standard was removed.

Variation 3 – This variation introduced the following changes:

- i. The recognition of minor drawings amendments, none of which affect compliance with the applicable standards.
- ii. Minor correction of ATEX marking nameplate to separate the ATEX markings from IECEx.

Variation 4 – This variation introduced the following changes:

- i. Introduction of new model version Proline Prosonic Flow G 300/500
- ii. Introduction of new model version Proline t-mass 300/500
- iii. Introduction of new Antenna bushing model H337 for external antenna connection with the Proline 300/500 transmitter
- iv. Addition of new order codes for IO1 current output (active) with I/O code dd = "CC" and "CD"
- v. Addition of new order codes for IO2, IO3 and IO4 with I/O code "K" for pulse output Ex i (passive) and with I/O code "L" for pulse output non Ex i
- vi. Addition of new product order codes to include for Promag W300 and Promag W500
- vii. Revised standard IEC 60079-0, Edition 6 to IEC60079-0, Edition 7.0
- viii. The recognition of drawings amendments, none of which affect compliance with the applicable standards

Variation 5 – This variation introduced the following changes:

- i. Addition of product order code "ww = A2'' for model Proline Promag 300/500, Proline Prosonic 300/500 and Proline t-mass 300/500. See Certificate Annexe for order code details
- ii. Correction of entity parameter for IO1 order codes: CA, CB (Ci= 0, changed to Ci =6nF) in the applicable drawings
- iii. The recognition of drawings amendments, none of which affect compliance with the applicable standards.

Variation 6 – This variation introduced the following changes:

- i. Changes in nomenclature ("Digital" is now referred as ISEM integrated in sensor, "Analog" is now referred to as ISEM integrated in transmitter)
- ii. Introduction of new flange sizes for Proline Promass 300/500 for High Temperature (HT) flowmeters.
- iii. Update of related product documentation
- iv. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2012/A11:2013 was replaced by EN IEC 60079-0:2018.
- v. The description was amended to reflect the above changes





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vi. Addition of two manufacturing locations in China as shown on TÜV QAN, TÜV 98 ATEX 1348Q

Variation 7 – This variation introduced the following changes:

- i. Introduction of additional sensor sizes DN150/200/250 for Proline Promass Q
- ii. Introduction of additional sensor type CH-050-A, CH-100-A for Proline Prosonic Flow P500 with process temperature up to 435°C
- iii. Introduction of additional IO's with IO-1 order code ff = MB, MC for Modbus and ff = RB, RC for Profinet
- iv. Revision to order codes for Proline Prosonic Flow G300/500 and P500 replacement transmitter
- v. Introduction of new type of liner ETFE for Proline Promag sensors
- vi. Proline Promag P500/W500, when used with sensor enclosure G300, is now available with rating IP68 in addition to IP67
- vii. Update of related product documentation
- viii. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-7:2015 is replaced by EN IEC 60079-7:2015/A1:2018.
- ix. Introduction of new technical specification standard IEC TS 60079-47 for 2-WISE concept, with technical assessment based on the compliance requirements of intrinsic safety standard EN 60079-11:2012

Variation 8 – This variation introduced the following changes:

- i. Correction to product order code and marking of Proline Promag 500 and Proline Prosonic Flow 500
- ii. Update references of component certificates as applicable.
- iii. Introduction of additional combination of existing certified enclosures for Proline Promag 300, Proline Promag 500, Proline Promass 500, Proline Flow G 500 and Proline t-mass 500.
- iv. Introduction of additional temperature table for Proline Promass 300 (Ex d version) for use with Tmed < -50°C and for Proline Promass 300/500 with sensor Promass F DN 25/40 for use with Tmed at +170°C based on previous calculation and tests.
- v. Introduction of additional sensor size DN15 for Promag W.
- vi. Revision of technical documentation for the above changes.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Issue 0: See Cover Sheet of IECEx Test Report CA/CSA/ExTR16.0031/00 for a full list of drawings covered by this issue.

Issue 1: See Cover Sheet of IECEx Test Report CA/CSA/ExTR16.0031/01 for a full list of drawings covered by this issue.

Issue 2: See Cover Sheet of IECEx Test Report CA/CSA/ExTR16.0031/02 for a full list of drawings covered by this issue. These drawings were rationalised and supersede those detailed in Issues 0 and 1 **Issue 3**: See Cover Sheet of IECEx Test Report CA/CSA/ExTR16.0031/03 for a full list of drawings covered by this issue. These drawings were rationalised and supersede those detailed in Issue 2 and earlier.

Issue 4: See Cover Sheet of IECEx Test Report CA/CSA/ExTR16.0031/04 for a full list of drawings covered by this issue. These drawings were rationalised and supersede those detailed in Issue 3 and earlier.





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Issue 5: See Cover Sheet of IECEx Test Report CA/CSA/ExTR16.0031/05 for a full list of drawings covered by this issue. These drawings were rationalised and supersede those detailed in Issue 4 and earlier.

Issue 6: No new drawings were introduced.

Issue 7: See Cover Sheet of IECEx Test Report CA/CSA/ExTR16.0031/06 for a full list of drawings covered by this issue. These drawings were rationalised and supersede those detailed in Issue 5 and earlier.

Issue 8: See Cover Sheet of IECEx Test Report CA/CSA/ExTR16.0031/08 for a full list of drawings covered by this issue. These drawings were rationalised and supersede those detailed in Issue 7 and earlier.

Issue 9: Refer to Certificate Annexe. These drawings are rationalised and supersede those detailed in Issue 8 and earlier.

Issue	Date	Report number	Comment
0	19 July 2016	R70084415A	The release of the prime certificate.
1	23 February 2017	R70110427A	The introduction of Variation 1.
2	26 September 2017	R70140398A	The introduction of Variation 2.
3	12 January 2018	R70162908A	The introduction of Variation 3
4	25 March 2019	R70214610A	The introduction of Variation 4
5	23 August 2019	R80012315A	The introduction of Variation 5
6	15 October 2019	0626	Transfer of certificate Sira 16ATEX2219X from Sira
			Certification Service to CSA Group Netherlands B.V.
7	11 August 2020	R80036352A	The introduction of Variation 6.
8	18 May 2022	R80114022A	The introduction of Variation 7.
9	17 October 2023	R80174205A	The introduction of Variation 8.

14.2 Associated CSA Group Reports and Certificate History

15 **SPECIFIC CONDITIONS OF USE** (denoted by X after the certificate number)

Applicable to Proline Promag 300/500, Proline Promass 300/500 and Proline Cubemass 300/500, Proline Prosonic Flow G 300/500, Proline Prosonic Flow P 500 and Proline t-mass 300/500:

- 15.1 All equipment of the measurement system shall be included in the equipotential bonding. Along the intrinsically safe sensor circuits potential equalization must exist.
- 15.2 The sensors may only be used for those process media, for which the wetted parts are known to be suitable.
- 15.3 For remote versions of Promag flowmeters with a flat gasket within the sensor terminal box, the user shall ensure that flat cover seals are not bent into the seal surface before securing the cover. Seals that are not flat shall be replaced.





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15.4 If the flowmeter system is connected to remote display type DKX001, the approval codes 'dd' for the flowmeter shall be paired to the approval code "bb" of the remote display as follows:

Approval code 'dd' of Proline Promass,	Approval code 'bb' of remote display
Proline Promag 300, Proline Prosonic Flow G	DKX001/ODKX001 as covered by
300 and Proline t-mass 300	IECEx DEK 15.0024
BA, BB, BC, BD, B7 or B8	BE, BF or BG

- 15.5 The equipment has non-conductive surfaces which are a potential electrostatic charging hazard see instructions for guidance.
- 15.6 Only use battery Renata type lithium CR1632, 3V.
- 15.7 The flameproof joints are not intended to be repaired.
- 15.8 For Proline Promass 300_500 with order code 'dd' = BA, BB, BC, BD, BI, BJ, BM & BN: Zone 0 is only applicable to sensor with process medium in the measuring tube.
- 15.9 For Proline t-mass 300_500 with order code 'dd' = BB, BD, BJ & BN: Zone 0 is only applicable to sensor with process medium in the measuring tube.

Applicable to Antenna bushing H337 when used with Proline 300/500 transmitter enclosure:

- 15.10 Antenna supplied by Endress+Hauser shall be used only. As an alternate, any passive omni-directional RF antenna with or without cable is permitted to be connected when meeting the following parameters:
 - a) The antenna shall have an impedance of at least 50Ω
 - b) The rated frequency range of the antenna shall not exceed 1710MHz ... 6000MHz
 - c) The RF antenna or the RF antenna cable shall be fitted with a Type N connector plug (MIL-STD-348)
- 15.11 The antenna bushing type H337 shall be mounted wrench tight to the transmitter enclosure to maintain the ingress protection of the enclosure.
- 15.12 The coupling nut of the Type N plug connector shall be hand tightened only.
- 15.13 The metal enclosure of the Antenna Bushing H337 shall be securely connected to local earth, typically via the enclosure to which it is connected.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF MANUFACTURE

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

Certificate Number:Sira 16ATEX2219XEquipment:Proline Promag 300/500, Proline Promass 300/500,
Proline Cubemass 300/500, Proline Prosonic Flow 300/500,
Proline t-mass 300/500Applicant:Endress+Hauser Flowtec AG

1. Proline Promass 300/500, Proline Cubemass 300/500

1.1. Marking

Proline Pr	omass 300, Pro	oline Cubemass	300	
Order Coo	le:			
8*3*** -	dd*ff******	*****+#**#		
08*3***	<u>– dd*ff*****</u>	********	*#	
dd = approval	ff = I/O	ATEX marking	Information: Marking of protection representative for	
BA	CA, CB, CC, CD, HA, TA, MC, RC BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	© II1/2(1)G © II2(1)G © II2(1)D © II1/2G © II2G © II2D	Ex db eb ia [ia Ga] IIB T6T1 Ga/Gb 1) Ex db eb ia [ia Ga] IIB T6T1 Gb Ex tb [ia Da] IIIC T** °C Db Ex db eb ia IIB T6T1 Ga/Gb ¹⁾ Ex db eb ia IIB T6T1 Gb Ex tb IIIC T** °C Db	db -> electronic compartment eb -> terminal compartment ia -> sensor, display tb -> transmitter enclosure, sensor [ia Ga]-> electronic with input/output Ex ia
BB	CA, CB, CC, CD, HA, TA, MC, RC BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	 II1/2(1)G II2(1)G II2(1)D II2(1)D II1/2G II2G II2D 	Ex db eb ia [ia Ga] IIC T6T1 Ga/Gb 1) Ex db eb ia [ia Ga] IIC T6T1 Gb Ex tb [ia Da] IIIC T** °C Db Ex db eb ia IIC T6T1 Ga/Gb ¹⁾ Ex db eb ia IIC T6T1 Gb ¹⁾ Ex tb IIIC T** °C Db	[ia Da]-> electronic with input/output Ex ia
BC	CA, CB, CC, CD, HA, TA, MC, RC BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	 II1/2(1)G II2(1)G II2(1)D II1/2G II2G II2D 	Ex db ia [ia Ga] IIB T6T1 Ga/Gb ¹⁾ Ex db ia [ia Ga] IIB T6T1 Gb Ex tb [ia Da] IIIC T** °C Db Ex db ia IIB T6T1 Ga/Gb ¹⁾ Ex db ia IIB T6T1 Gb Ex tb IIIC T** °C Db	db -> electronic and terminal compartments ia -> sensor, display tb -> transmitter enclosure, sensor [ia Ga]-> electronic with input/output Ex ia
BD	CA, CB, CC, CD, HA, TA, MC, RC BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	 II1/2(1)G II2(1)G II2(1)D II1/2G II2G II2D 	Ex db ia [ia Ga] IIC T6T1 Ga/Gb ¹⁾ Ex db ia [ia Ga] IIC T6T1 Gb Ex tb [ia Da] IIIC T ^{**} °C Db Ex db ia IIC T6T1 Ga/Gb ¹⁾ Ex db ia IIC T6T1 Gb Ex tb IIIC T ^{**} °C Db	[ia Da]-> electronic with input/output Ex ia

 The following sensors are marked for EPL Gb only, without zone separation: Promass A DN1, Promass H DN8...50, Promass I DN 8...80



Certificate Number:

Sira 16ATEX2219X



Equipment: Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500,

Proline t-mass 300/500

Endress+Hauser Flowtec AG

Applicant:

Proline P Proline C Order Co 8*5*** - 08*5***	romass 500 Ar ubemass 500 / de: - dd*ff****B*/ - dd*ff****B	halog (with ISI Analog (with I	EM integrated SEM integrat +#**# ***+#**#	l in transmitter), ed in transmitter)	
dd =	ff =	Device	ATEX	Marking of Ex protection	Information: Marking of
approval	1/0		marking		protection representative for
BA	CA, CB, CC,	Transmitter	≌II2(1)G	Ex db eb ia [ia Ga] IIB T6T5 Gb	db -> electronic
	CD, HA, TA,		© 112(1)D	Ex tb [ia Da] IIIC 185°C Db	compartment
	BA, BB, GA,	Sensor	©/111/2G	Ex la HB 1611 Ga/Gb 7	eb -> terminal
			© II2G	EX IA IIB 161 GD	compartment, wall
	KD, KC, SA,		₩112D		
BB		Transmitter	©U2(1)G	Ex dh eh ia [ia Ga] IIC TA T5 Gh	th -> transmitter enclosure
	CR, CB, CC, CD HA TA	Transmitter		Ex th [ia Da] IIIC T85°C Dh	sensor terminal box
	BA, BB, GA,	Sensor	© II1/2G	Ex to [td Dd] file for 0 Db Ex to [td Dd] file for 0 Db	sensor
	LA, NA, RA,	0011301	©112G	Ex ja IIC T6T1 Gb	[ia Ga] -> electronic with
	RB, RC, SA,		[€] II2D	Ex ia th IIIC T** °C Db	input/output Ex ia
	MA, MB, MC				and/or output for
					sensor circuit
					[ia Da]-> electronic with
					input/output Ex ia
					and/or output for
					sensor circuit
BC	CA. CB. CC.	Transmitter	©Ⅱ2(1)G	Fx db ia [ia Ga] IIB T6 T5 Gb	db -> electronic and
	CD, HA, TA,		[€] II2(1)D	Ex tb [ia Da] IIIC T85°C Db	terminal
	BA, BB, GA,	Sensor	[©] II1/2G	Ex ia IIB T6T1 Ga/Gb ¹⁾	compartments, wall
	LA, NA, RA,		[©] II2G	Ex ia IIB T6T1 Gb	mounted terminal box
	RB, RC, SA,		ll2D €	Ex ia tb IIIC T** °C Db	ia -> sensor, display
	MA, MB, MC				tb -> transmitter enclosure,
BD	CA, CB, CC,	Transmitter	[©] II2(1)G	Ex db ia [ia Ga] IIC T6 T5 Gb	sensor terminal box,
	CD, HA, TA,		[™] II2(1)D	Ex tb [ia Da] IIIC T85°C Db	sensor
	BA, BB, GA,	Sensor	≌II1/2G	Ex ia IIC T6T1 Ga/Gb ¹⁾	[ia Ga] -> electronic with
	LA, NA, RA,		≌II2G	Ex la IIC T6T1 Gb	
	KB, KC, SA,		™II2D	EX IA TO THE I ** "C DD	and/or output for
	IVIA, IVIB, IVIC				Sensor Critcuit
					input/output Fx is
					and/or output for
					sensor circuit

 The following sensors are marked for EPL Gb only, without zone separation: Promass A DN1, Promass H DN8...50, Promass I DN 8...80

Certificate Number:

Sira 16ATEX2219X



Proline Promag 300/500, Proline Promass 300/500, Equipment: Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endress+Hauser Flowtec AG

Applicant:

Proline Proline Cu	omass 500 Dig Ibemass 500 D	ital (with ISEM igital (with ISE	integrated in se M integrated in	ensor), sensor)	
8*5*** -	dd*ff****A**	********	<u>+</u> **#		
08*5***	- dd*ff****A*	********	*+#**#		
dd =	ff =	Device	ATEX	Marking of Ex protection	Information:Marking of
approval	1/0		marking		protection representative for
BI	CA, CB, CC,	Transmitter	🗟 II(1)G	[Ex ia] IIC	[Ex ia] -> electronic with
	CD, HA, TA,		ll(1)D	[Ex ia] IIIC	input/output Ex ia
	MC, RC	Sensor	[©] Ⅲ1/2G	Ex ia IIB T6T1 Ga/Gb ¹⁾	and output for
			©II2G	Ex ia IIB T6T1 Gb	sensor circuit
			≌H2D	Ex ia the IIIC 1** °C Db	la -> sensor
					to -> sensor, sensor
BI	BA BB GA	Transmitter	©Π(1)C	[Fx ia] IIC	[Ex ia] -> electronic with
	I.A. NA. RA.	Transmitter		[Ex ia] IIIC	output for sensor
	SA, MA, MB,	Sensor		Ex ia IIC T6 T1 Ga/Gh $^{1)}$	circuit
	RB	0011301	©112G	Ex ia IIC T6 T1 Gb	ia -> sensor
			©II2D	Ex ia the IIIC T** °C Db	tb -> sensor, sensor
					terminal box
BM	CA, CB, CC,	Transmitter	[©] Ⅱ(1)G	[Ex ia] IIC	[Ex ia] -> electronic with
	CD, HA, TA,		€ II(1)D	[Ex ia] IIIC	output for sensor
	MC, RC	Sensor	Sell1/2G	Ex ia IIB T6T1 Ga/Gb ¹⁾	circuit
			≌II2G	Ex ia IIB T6T1 Gb	la -> sensor
			© II2D	Ex ia the IIIC T** °C Db	to -> sensor terminal box
	BA, BB, GA,	Transmitter	ll(1)G	[Ex ia] IIC	
	LA, NA, RA,		© II(1)D		
	SA, IVIA, IVIB,	Sensor	≌II1/2G	Ex ia IIB T6T1 Ga/Gb ⁻¹⁾	
	RD		© II2G	Ex ia IIB 1611 Gb	
DN		Troponsittor	© II2D	Ex la to IIIC 1** °C Db	[Evial - alastropia with
BIN		Transmitter	⊠II(1)G	[EX Ia] IIC	[EX Ia] -> electronic with
			© II(I)D		
		Sensor	©III/2G ©uac	Ex la IIC 161 Ga/GD ''	
				Ex la HC TOTT GD	th -> sensor terminal box
	BA BB GA	Transmitter		[Fx ia] IIC	
	LA, NA, RA,	Transmitter	© II(1)0 © II(1)D	[Ex ia] IIIC	
	SA, MA, MB,	Sensor	ll1/2G	Ex ia IIC T6T1 Ga/Gb 1)	
	RB		[©] II2G	Ex ia IIC T6T1 Gb	
			[©] II2D	Ex ia tb IIIC T** °C Db	

1) The following sensors are marked for EPL Gb only, without zone separation: Promass A DN1, Promass H DN8...50, Promass I DN 8...80

Cer	tificate	Annexe						
Certificate Number: Equipment: Applicant:		nber: Sira 16ATEX2219X						
		Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endress+Hauser Flowtec AG						
1.2.	Order Co Extended 8a3bcc 08a3bc 8x3bxx 08x3bx Extended 8a5bcc 08a5bc 8x5bxx 08x5bx	de order code Proline Promass 300 and Cubemass 300: - ddeffghjlpsstttvww + #**# c - ddeffghjlprsstttvwwyy + #**# for OEM-version - ddeffghjlprrssww + #**# for replacement transmitter ex - ddeffghjlprrsswwyy + #**# c - ddeffghijkmnopsstttvww + #**# c - ddeffghijkmnopsstttvwwy + #**# for replacement transmitter ex - ddeffghijkmnopsstttvwwy + #**# for replacement transmitter ex - ddeffghijkmopqqrrssww + #**# for replacement transmitter ex - ddeffghijkmopqqrrsswwy + #**#						
	a = b =	Type of sensor A = Promass A; C = Cubemass C; E = Promass E; F = Promass F; H = Promass H; I = Promass I; O = Promass O; P = Promass P; Q = Promass Q; S = Promass S; X = Promass X Generation B = Promass A (type 8A*B**, O8A*B**); Cubemass C; Promass E; Promass F; Promass H; Promass I; Promass O; Promass P; Promass Q; Promass S; Promass X C = Promass A (type 8A*C** O8A*C**)						
	cc =	double digits with combination of number or letter						

Certificat	e Anne	exe		CSA CSA	CRCSA			
Certificate N	lumber:	Sir	Sira 16ATEX2219X					
Equipment:		Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t mass 200/500						
Applicant:		En	dress+Hauser Flowtec AG					
dd	= Appro Proline BA BB BC	oval <u>e Pro</u> = =	mass 300: Ex db eb [ia] IIB T6T1 Gb Ex tb IIIC T** Db Ex db eb [ia] IIC T6T1 Gb Ex tb IIIC T** Db Ex db [ia] IIB T6T1 Gb					
	BD	=	Ex (b [ia] IIC T6T1 Gb Ex (b IIIC T** Db					
	Proline	e Pro	mass 500 :					
	BA	=	Ex db eb [ia] IIB T6T5 Gb Ex ia IIB T6T1 Gb	(transmitter) (sensor)				
	BB	=	Ex to THC TAA Do Ex db eb [ia] IIC T6T5 Gb Ex ia IIC T6T1 Gb Ex th IIIC T** Db	(transmitter + sensor) (transmitter) (sensor) (transmitter + sensor)				
	BC	=	Ex (b [ia] IIB T6T5 Gb Ex ia IIB T6T1 Gb Ex th IIIC T** Db	(transmitter) (sensor) (transmitter + sensor)				
	BD	=	Ex db [ia] IIC T6T5 Gb Ex ia IIC T6T1 Gb Ex tb IIIC T** Db	(transmitter) (sensor) (transmitter + sensor)				
	BI	=	[Ex ia] IIC Ex ia IIB T6T1 Gb Ex th IIIC T** Db	(transmitter) (sensor) (sensor)				
	BJ	=	[Ex ia] IIC Ex ia IIC T6T1 Gb Ex th IIIC T** Db	(transmitter) (sensor) (sensor)				
	BM	=	[Ex ia] IIC Ex ia IIB T6T1 Gb Ex tb IIIC T** Db	(transmitter) (sensor) (sensor)				
	BN	=	[Ex ia] IIC Ex ia IIC T6T1 Gb Ex tb IIIC T** Db	(transmitter) (sensor) (sensor)				

$$D = 24Vdc$$

Certificate Anne			xe	CRCSA				
Certificate N	Numl	ber:	Sira	a 16ATEX2219X				
Equipment:			Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500					
Applicant:			Enc	Iress+Hauser Flowtec AG				
ff	=	Innut	/ ೧	utput 1				
	-	BA	=	4-20mA HART				
	F	BB	=	4-20mA WHART				
	(CA	=	4-20mA HART Ex i (passive)				
	(СВ	=	4-20mA WHART Ex i (passive)				
	(СС	=	4-20mA HART Ex i (active)				
	(CD	=	4-20mA WHART Ex i (active)				
	(GA	=	Profibus PA				
	ł	HA	=	Profibus PA Ex i				
	l	LA	=	Profibus DP				
	ſ	MA	=	Modbus RS485				
	ſ	MB	=	Modbus TCP				
	ſ	MC	=	Modbus TCP Ex i				
	I	NA	=	EtherNet/IP				
	I	RA	=	Profinet IO				
	I	RB	=	Profinet				
	I	RC	=	Profinet Ex i				
		SA	=	Foundation Fieldbus				
	-	TA	=	Foundation Fieldbus Ex i				
)	XX	=	sensor only				
g	=	Input	/ 0	utput 2				
	1	A	=	without Input/Output 2				
		В	=	4-20mA				
	(С	=	4-20mA Ex i (passive)				
		D	=	Configurable IO				
		E	=	Pulse/Frequency/Switch output				
		F	=	Pulse output phase-shifted				
	(G	=	Pulse/Frequency/Switch output Ex i				
		H	=	Relay				
		l	=	4-20mA input				
		J	=	Status input				
		ĸ	=	Pulse output Ex I				
		L	=	Pulse output				
h)	X 1	=	sensor only				
n	=	Input	/ 0	utput 3				
	1	A D	=					
		с В	=	4-20mA				
			=	4-20mA EXT (passive)				
		U F	=	Connigurable TO				
			=	Pulse output phase chifted				
		i C	=	ruise ouipui pilase-silliteu Dulso/Fraguaneu/Switch autnut Ex i				
		о Ц	=	ruise/riequency/switch output EX I Dolay				
		П 	=	A 20mA input				
		1 1	=	4-2011A IIIpul Status input				
		, ,	=	Status input Dulco output Ex i				
		ι I	=	ruise output Ex I Dulso output				
	1	L V	=	ruise oulpul				
		^	=					

Certificat	Certificate Annexe							
Certificate I	Nun	nber: Sira 16ATEX2219X						
Equipment:		Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500						
Applicant:		Endress+Hauser Flowtec AG						
i	_	Input (Output 4 (Proline 500 only)						
	_	$\Lambda = without Input (Output 4)$						
		P = 4.20mA						
		C = 4.20 mA Ex i (nassivo)						
		D = Configurable IO						
		E – Pulse/Frequency/Switch output						
		E = Pulse output phase-shifted						
		G_{-} Pulse/Frequency/Switch output Ex i						
		H = Relay						
		I = 4-20 mA input						
		J = Status input						
		K = Pulse output Fx i						
		L = Pulse output						
		X = sensor only						
j	=	Display / Operation						
2		with remote Display : O						
		without remote Display : any single number or letter except O						
k	=	Integrated ISEM electronic (Proline 500 only)						
		A = Sensor						
		B = Transmitter						
I	=	Housing (Proline 300 only)						
		any single number or letter						
m	=	Transmitter Housing (Proline 500 only)						
		any single number or letter						
n	=	Sensor Housing (Proline 500 only)						
		any single number or letter						
0	=	Cable Sensor Connection (Proline 500 only)						
		any single number or letter						
р	=	Cable Entry						
		any single number or letter						
qq	=	Upgrade Kid						
	_	any double digits with combination of number of letter						
11	=	Existing Product (refer to assignment of flowmeter to replacement transmitter)						
55	_	Moasuring tube material						
	_	any double digits with combination of number or letter						
+++	_	Process connection						
	_	any triple digits with combination of number or letter						
v	=	Calibration						
-		any single number or letter						
ww	=	Device model (two digit) (refer to assignment of flowmeter to replacement transmitter)						
		A1 = product version 1						
		A2 = product version 2						
vv	=	Customer version (two digits)						
		any double digits with combination of number or letter						
* *	=	Option in two digits (none, two or multiple of two digits)						
		any combination of number and/or letter						
#,+	=	Signs used as indicator for optional abbreviation of extended order code						

Certificate Number:	Sira 16ATEX2219X
Equipment:	Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500,
Applicant	Proline t-mass 300/500 Endross - Hausor Flowtoc AG
Applicant.	

1.3. Assignment of Flowmeter to Replacement Transmitter

The replacement transmitters are assigned to the flowmeter Proline Promass 300/500 as follows:

Product flowmeters			Replacement transmitter type			
Order code	Generation code b =	device model code ww =	Order code	Generation code b =	existing product rr =	device model code ww =
8A*b**ww, 08A*b**ww	В	A1 / A2	8x*bxxrrww, 08x*bxxrrww	В	AA (all sizes)	A1 / A2
8A*b**ww, 08A*b**ww	C	A1 / A2	8x*bxxrrww, 08x*bxxrrww	В	AB (all sizes)	A1 / A2
8C*b**ww, 08C*b**ww	В	A1 / A2	8x*bxxrrww, 08x*bxxrrww	В	CA (all sizes)	A1 / A2
8E*b**ww, 08E*b**ww	В	A1 / A2	8x*bxxrrww, O8x*bxxrrww	В	EA (DN815) EB (DN2550) EC (DN80)	A1 / A2 A1 / A2 A1 / A2
8F*b**ww, 08F*b**ww	В	A1 / A2	8x*bxxrrww, O8x*bxxrrww	В	FA (DN815) FB (DN2550) FC (DN80250)	A1 / A2 A1 / A2 A1 / A2
8H*b**ww, 08H*b**ww	В	A1 / A2	8x*bxxrrww, 08x*bxxrrww	В	HA (DN840) HB (DN50)	A1 / A2 A1 / A2
8l*b**ww, 08l*b**ww	В	A1 / A2	8x*bxxrrww, 08x*bxxrrww	В	IA (DN840) IB (DN40FB80)	A1 / A2 A1 / A2
80*b**ww, 080*b**ww	В	A1 / A2	8x*bxxrrww, 08x*bxxrrww	В	OA (all sizes)	A1 / A2
8P*b**ww, 08P*b**ww	В	A1 / A2	8x*bxxrrww, 08x*bxxrrww	В	PA (DN840) PB (DN50)	A1 / A2 A1 / A2
8Q*b**ww, 08Q*b**ww	В	A1 / A2	8x*bxxrrww, O8x*bxxrrww	В	QA (DN2550) QB (DN80100) QC (DN150250)	A1 / A2 A1 / A2 A1 / A2
8S*b**ww, 08S*b**ww	В	A1 / A2	8x*bxxrrww, 08x*bxxrrww	В	SA (DN840) SB (DN50)	A1 / A2 A1 / A2
8X*b**ww, 08X*b**ww	В	A1 / A2	8x*bxxrrww, 08x*bxxrrww	В	XA (all sizes)	A1 / A2

1.4. Sensor Group

In the following tables, the Promass 300/500 sensors are assigned to different sensor groups from A1 to C2 depending on their sensor size and electronics version.

Assignment of Promass sensors and Cubemass sensors installed in Zone 1:



Certificate Anne	exe		C64
Certificate Number:	Sira 16ATEX2219X	(SP	GROUP
Equipment:	Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 30 Proline t-mass 300/500	00/500,	
Applicant:	Endress+Hauser Flowtec AG		

Sensor Group	Type of sensor	Size of sensor	Group	TMed,min
A1	A (type 8A*B**)	01(dn1), 02, 04	IIC	-50°C
	C	01, 02, 04, 06	IIC	-50°C
	E	25, 40, 50	IIC	-50°C
	F	08, 15, 25, 40, 50	IIC	-50°C / -60°C *)
	F(HT)	15, 25, 50	IIC	-50°C
	H, S, P	08, 15, 25, 40	IIC	-50°C
	1	08, 15, 16, 25, 26, 40	IIC	-50°C
	Q	25, 50	IIC	-50°C / -60°C *)
B1	A (type A*C**)	01(dn1), 02, 04	IIC	-50°C
	E	08, 15, 80	IIC	-50°C
	F	08, 15	IIC	-50°C / -60°C *)
	F, F(HT), O	80, 100, 150, 250	IIC	-50°C / -60°C *)
	1	41, 50, 51, 80	IIC	-50°C
	H, S, P	50	IIC	-50°C
	Q	80, 100, 150, 200, 250	IIC	-50°C / -60°C *)
	Х	350	IIC	-50°C / -60°C *)
C1	F	15, 25, 40, 50	IIC	-200°C
	Н	8, 15, 25, 40, 50	IIC	-200°C
	Q	25, 50	IIC	-200°C
D1	F	08, 15, 80, 100, 150, 250	IIC	-200°C
	Н	50	IIC	-200°C
	Q	80, 100, 150, 200, 250	IIC	-200°C
E1	E	80	IIB	-50°C
	F, F(HT), O	80, 100, 150, 250	IIB	-50°C / -60°C *)
	H, S, P	50	IIB	-50°C
	1	41, 50, 51, 80	IIB	-50°C
	Q	80, 100, 150, 200, 250	IIB	-50°C / -60°C *)
	Х	350	IIB	-50°C / -60°C *)
H1	F, F(HT)	80, 100, 150, 250	IIB	-200°C
	Н	50	IIB	-200°C
	Q	80, 100, 150, 200, 250	IIB	-200°C

*) Tmed,min = -60°C only applicable for sensor of Proline Promass F 500, Proline Promass Q 500 and Proline Promass X 500 version with ISEM integrated in transmitter.

Note: All sensors of Proline Promass 300 and Proline Promass 500 versions are available for EPL Ga/Gb except the versions "A" (size DN1), "H" (all sizes) and "I" (all sizes) which are only available for EPL Gb. For sensors with EPL Ga, Zone 0, the protection is only applicable for the interior of the measuring tube.

1.5. **Parameters**

1.5.1. Electrical Parameters

Power Supply		
Order Code e =	terminal no.	values
D ¹⁾	No. 1(L+/L), 2(L-/N)	$U_N = 19.228.8V_{DC}$
		$U_{M} = 250 V_{AC}$
E ¹⁾	No. 1(L+/L), 2(L-/N)	$U_N = 85264V_{AC}$

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Certificate Number: Sira 16ATEX2219X

Proline Promag 300/500, Proline Promass 300/50 Equipment: Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Applicant: Endress+Hauser Flowtec AG

		$U_{M} = 250 V_{AC}$
2)	No. 1(L+/L), 2(L-/N)	$U_N = 19.228.8V_{DC} / 85264V_{AC}$
		$U_M = 250V_{AC}$
¹⁾ applicable for products with approval code dd = BA, BB, BC, BD		

2) applicable for products with approval code dd = BI, BJ, BM, BN

Input/Output 1		
Order Code ff =	terminal no.	values
BA, BB, MA	No. 26, 27	$U_N = 30V_{DC}$
		$U_{M} = 250V_{AC}$
LA, GA, SA	No. 26, 27	$U_N = 32V_{DC}$
		$U_{M} = 250V_{AC}$
CA, CB	No. 26, 27	$U_i = 30V$
		$I_i = 100 \text{mA}$
		$P_i = 1.25W$
		$L_i = 0$
		$C_i = 6nF$
CC, CD	No. 26, 27	1)
		$U_0 = 21.8V$
		$I_0 = 90 \text{mA}$
		$P_0 = 491 \text{mW}$
		$L_0 = 4.1 \text{mH} (\text{IIC}) /$
		15mH (IIB)
		$C_0 = 160 nF (IIC) /$
		1160nF (IIB)
		III = 30V
		II = 10 m
		Pi = 0.3W
		$C_i = 6nE$
		$I_i = 5 H$
ΗΑ ΤΑ	No 26 27	1)
	1101 207 27	Profibus PA (Fisco Field Device) /
		Foundation Fieldbus
		$U_i = 30V$
		$I_i = 570$ mA
		$P_i = 8.5W$
		$L_i = 10 \mu H$
		$C_i = 5nF$
MB, RB	No. 26, 27	APL port profile SLAX / SPE PoDL classes 10, 11, 12
		$\overline{U_N} = 30V_{DC}$
		$U_{M} = 250V_{AC}$
MC, RC	No. 26, 27	1), 2)
		2-WISE power load
		APL port profile SLAA
		$U_i = 17.5V$
		$I_i = 380 \text{mA}$
		$P_i = 5.32W$
		L _i ≤ 10μΗ
		Ci ≤ 5nF

Certificate Number:	Sira 16ATEX2219X	QF	GROUP
Equipment:	Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 30 Proline t-mass 300/500	00/500,	
Applicant:	Endress+Hauser Flowtec AG		

NA, RA	IO1 / RJ45	$U_N = 30V_{DC}$
		$U_{M} = 250 Vac$

1) applicable for products with approval code dd = BA, BB, BC, BD 2) no additional internal capacitances are effective to the output value (refer to note 1 of drawing "Ethernet-APL Installation Drawing - Device Vendors v1.0, March 8th 2022")

Input/Output 2		
Order Code g =	terminal no.	values
С, G, К	No. 24, 25	$U_i = 30V$
		$I_i = 100 \text{mA}$
		$P_i = 1.25W$
		$L_i = 0$
		$C_i = 0$
B, D, E, F, I, J, L	No. 24, 25	$U_N = 30V_{DC}$
		$U_M = 250V_{AC}$
Н	No. 24, 25	$U_N = 30V_{DC}$
		$I_N = 100 \text{mA}_{\text{DC}} / 500 \text{mA}_{\text{AC}}$
		$U_{M} = 250V_{AC}$

Input/Output 3		
Order Code h =	terminal no.	values
С, G, К	No. 22, 23	$U_i = 30V$
		$I_i = 100 \text{mA}$
		$P_i = 1.25W$
		$L_i = 0$
		$C_i = 0$
B, D, E, F, I, J, L	No. 22, 23	$U_N = 30V_{DC}$
		$U_M = 250V_{AC}$
Н	No. 22, 23	$U_N = 30V_{DC}$
		$I_N = 100 \text{mA}_{DC} / 500 \text{mA}_{AC}$
		$U_M = 250V_{AC}$

Input/Output 4		
Order Code i =	terminal no.	values
С, G, К	No. 20, 21	$U_i = 30V$
		$I_i = 100 \text{mA}$
		$P_i = 1.25W$
		$L_i = 0$
		$C_i = 0$
B, D, E, F, I, J, L	No. 20, 21	$U_N = 30V_{DC}$
		$U_M = 250 Vac$
Н	No. 20, 21	$U_N = 30V_{DC}$
		$I_{N} = 100 \text{mA}_{DC} / 500 \text{mA}_{AC}$
		$U_{M} = 250 V_{AC}$

Service Interface		
Order Code dd =	terminal no.	values
BA, BB	Service Interface	Service Interface shall only be installed

Certificate Anne	exe		CSA
Certificate Number:	Sira 16ATEX2219X	QĒ	GROUP
Equipment:	Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 30 Proline t-mass 300/500	00/500,	
Applicant:	Endress+Hauser Flowtec AG		

		 in areas which are known to be non hazardous with a non-intrinsically safe circuit: U_N = 3.3 V, U_M = 250 V_{AC} or to an intrinsically safe circuit with: U_I = 10V U_I = n a P_I = n a C_I = 200nF U_I = 0
BC, BD	Service Interface	Service Interface shall only be installed • to a non-intrinsically safe circuit with: $U_N = 3.3V$, $U_M = 250V_{AC}$ or • to an intrinsically safe circuit with: Ui = 10V, $Ii = n.a.$, $Pi = n.a.$, $Ci = 200nF$, $Li = 0$
	Service Interface	$U_N = 3.3V$
BI, BJ, BM, BN		

Antenna bushing											
Order Code dd =	terminal no.	values									
BA, BB, BI, BJ, BM, BN	Type N connector	See conditions of safe use									

Remote Display		
Order Code dd =	terminal no.	values
BA, BB, BC, BD	No. 81, 82, 83, 84	Uo = 3.9V
		Io = 1.5A (spark)
		200mA (power)
		Po = 600 mW
		$Ri = 2.6\Omega$
		$Co = 670 \mu F$
		Lo = 0

Notes:

- For Transmitter with approval code dd = BA, BB, BC and BD connected to the Remote Display of Endress+Hauser, Type DKX001 or ODKX001, the cable parameter with ration L/R = \leq 0.024 mH/ Ω applies.
- Remote display type DKX001 or ODKX001 is not intended to be connected to the transmitter electronics with approval code dd = BI, BJ, BM, BN

Proline Promass and Proline Cubemass Remote Transmitter and Remote Sensor:

<u>8*****-...</u> and O8*****-... with order code dd = BA, BB, BC, BD in combination with k = B (ISEM in transmitter): Transmitter terminal board: Terminals 41, 42 -> exciter coil circuit: Uo = 15V, Io = 129mA, Po = 484mW (sensor group A1/C1/E1) or Uo = 15V, Io = 46mA, Po = 173mW (sensor group B1/D1/H1) Terminals 9, 10, 11, 12, X3, X4 -> temperature circuit: Uo = 15V, Io = 18.2mA, Po = 68.3mWTerminals 4, 5, 6, 7 -> sensor coil circuit: Uo = 15V, Io = 15.2mA, Po = 57mW

Only for Promass Q DN \geq 150 (Dual ISEM):

Certificate Number:	Sira 16ATEX221	9X	GROUP							
Equipment: Applicant:	Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endress+Hauser Flowtec AG									
Terminals 41, 42, Terminals 9, 10, 7 Terminals 4, 5, 6,	X1, X2 I1, 12, X3, X4 7, X5, X6, X7, X8	-> ->	exciter coil circuit: Uo = 15V, Io = 129mA, Po = 484mW (sensor group E1) or Uo = 15V, Io = 46mA, Po = 173mW (sensor group B1/D1/H1) temperature circuit: Uo = 15V, Io = 18.2mA, Po = 68.3mW sensor coil circuit:							
<u>Sensor terminal b</u> Terminals 41, 42	oard:	->	Uo = 15V, Io = 15.2mA, Po = 57mW exciter coil circuit: Ui = 15V, Ii = 129mA, Pi = 484mW (sensor group A1/C1/E1) or							
Terminals 9, 10, 7 Terminals 4, 5, 6,	11, 12, X3, X4 7	->	Ui = 15V, Ii = 46mA, Pi = 173mW (sensor group B1/D1/H1) temperature circuit: Ui = 15V, Ii = 18.2mA, Pi = 68.3mW sensor coil circuit: Ui = 15V, Ii = 15.2mA, Pi = 57mW							
Only for Promass Terminals 41, 42,	Q DN ≥150 (Dual I X1, X2	SEM ->): exciter coil circuit: Ui = 15V, Ii = 129mA, Pi = 484mW (sensor group E1) or Ui = 15V, Ii = 46mA, Pi = 173mW (sensor group B1/D1/H1)							
Terminals 9, 10, 7 Terminals 4, 5, 6,	11, 12, X3, X4 7, X5, X6, X7, X8	->	temperature circuit: Ui = 15V, Ii = 18.2mA, Pi = 68.3 mW sensor coil circuit: Ui = 15V, Ii = 15.2mA, Pi = 57mW							

For interconnection using a cable with a maximum length of 120m is allowed when using a cable which has the following parameters:

Cable inductance \leq 0.5 mH/km Cable capacitance \leq 0.5 µF/km

 8^{****} -... and 08^{****} -... with order code dd = BI, BJ, BM, BN in combination with k = A (ISEM in sensor):Transmitter terminal board:
Terminals 61, 62, 63, 64 ->Uo = 13.8V, Io = 1.156A, Po = 3.3WSensor terminal board:
Terminals 61, 62, 63, 64 ->Ui = 14V, Ii = 1.2A, Pi = 3.4W

For interconnection of transmitter to sensor any cable may be used with the following requirements:

- L/R \leq 0.0089 mH/ Ω and C_{cable} \leq 760nF for group IIC, L/R \leq 0.0356 mH/ Ω and C_{cable} \leq 4.2µF for group IIB
- or

AR CSA

Certificate Anne	exe	CISA
Certificate Number:	Sira 16ATEX2219X	GROUP
Equipment:	Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 30 Proline t-mass 300/500	0/500,
Applicant:	Endress+Hauser Flowtec AG	

• $L_{cable} \le 26\mu$ H and $C_{cable} \le 760$ nF for group IIC, $L_{cable} \le 104\mu$ H and $C_{cable} \le 4.2\mu$ F for group IIB

Certificate Number: Sira 16ATEX2219X



Equipment:Proline Promag 300/500, Proline Promass 300/500,
Proline Cubemass 300/500, Proline Prosonic Flow 300/500,
Proline t-mass 300/500Applicant:Endress+Hauser Flowtec AG

1.5.2. Thermal Parameters (Zone 1)

Proline Promass A/E/F/H/I/O/P/Q/S/X 300 Proline Cubemass C 300																							
Notes: Pag	es 1 and 2	apply t	o versio	ons with	extende	d order c	ode cove	ering:	8*3B** - with appr	dd oval option	IECEX / ATE	O8*3B** - d A: dd = C0 K: dd = BA	id C, CD, C , BB, B	CE, C1, C, BD	C2, C3,	8x3B) C4	ox – dd			O8x3B	or – dd		
Tempera	ture table	e for v	ersion	s with	sensor	not ins	ulated																
Rensor	Rine / DM	T	-	T				(202)			Contor	Rine / Dhi							(10)				
Sensor	Size / Div	min	may	a,max	TE	T5	T.4	T3	T2	T1	Sensor	SIZE / DIN	min	max	*a,max	TR	T5	TA	T3	T2	T1		
		(°C)	(°C)	(°C)	(85°C)	(100°C)	(135°C)	(200°C)	(300°C)	(450°C)			(°C)	(°C)	(°C)	(85°C)	(100°C)	(135°C)	(200°C)	(300°C)	(450°C)		
Promass	0104	-50	205	50	50	95	130	150	205	205	Promass	8, 15	-50	150	50	50	95	130	150	150	150		
A				60		95	130	150	205	205		15FB, 25			60		95	120	(150)	(150)	(150)		
Cubemass	0106	-50	205	50	50	95	130	150	205	205		25FB, 40	-50	150	50	50	85	120	150	150	150		
C	09 50	-50	205	60	50	95	130	150	205	205		40FB, 50	-60	150	60		85	120	(150)	(150)	(150)		
Fromass	0850	-50	205	50	50	80	100	130	205	205		SUPB, OU	-50	150	60	50	85	120	(150)	(150)	(150)		
-				60		(80)	(100)	(130)	(205)	(205)	Promass	80250	-50	205	50	50	75	110	170	205	205		
	80	-50	205	50	50	75	110	170	205	205	0				55		75	110	170	205	205		
				55		75	110	170	205	205					60		75	110	170	(205)	(205)		
				60		(75)	(110)	(170)	(205)	(205)	Promass	350	-50	205	50	50	90	120	170	205	205		
Promass	0815	-50	150	50	50	95	130	150	150	150	×				55		90	120	170	205	205		
·		-50	240	50	50	95	130	160	240	240	Bromaco	25 250	-60 /	240	60		(90)	(120)	(170)	(205)	240		
		~~	240	60		95	130	160	(240)	(240)	Q	25250	-200	240	60		75	110	160	240	240		
		-200	240	50	50	95	100	160	240	240	Notes:	(1) Ta,min =	-40°C	50°C res	spectively	(see name	eplate)						
				60		95	100	160	(240)	(240)		(2) values in	brackets	s are app	plicable f	or installation	on where t	he transn	nitter is not	t installed al	bove		
	1525	-50 /	350	50	45	95	130	175	275	350	(2) for sensor												
	25 10	-200	450	60		95	130	175	275	350	(3) for applicable version with maximum medium temperatue and minimum medium temperature see nameplate												
	2540	-50	150	50	50	95	130	150	150	150													
		-50	240	50	50	95	130	170	240	240													
				60		95	130	170	(240)	(240)	Bestrie	tion of To a	min for		lane (P	Inomaco		E H C	hund	at Tread	min	EOSC	
		-200	240	50	50	95	100	170	240	240	Restric	tion of Ta,	nin to	versi	ions (P	romass	sensor	r, n, u	a) used	at imed,	, min < -	-50 C	
				60		95	100	170	(240)	(240)	Tmed,min		-50°C	-	75°C	-100°C	-12	5°C	-150°C	-175°C	-20	0°C	
	50	-50	150	50	50	95	130	150	150	150	Ta,min		-50°C	-	47°C	-45°C	-43	°C	-41°C	-39°C	-37	°C	
		-50	240	60	50	95	130	150	150	240	Notes:	(1) This table	e is applic	cable on	ly for the	Proline Pro	omass 300	with Ex	db or XP n	ated enclos	ures and	for a	
		-30	240	60		95	130	160	(240)	(240)		period wh	hen the fl	owmete	r is in no	n-operating	condition,	until the	transmitte	r is heated i	up		
		-200	240	50	50	95	100	160	240	240													
				60		95	100	160	(240)	(240)													
	80250	-50	150	50	50	75	110	150	150	150													
				60		75	110	150	150	150													
		-50	240	<u>50</u>	50	75	110	170	(240)	(240)	Aenderungen:	A 10.05.2016	/Bn F	F 09.06	3.2021 / Br	Alle ges	etrlichen Urhe	berrechte, vo	rbehalten.	Ersetzt durc	h:		
		-200	240	50	50	75	110	170	240	240		B 24.10.2016	/Bn (3 15.07	7.2023 / DO	DMI Clesso Zi	aunnung darf	unsere unsere	and an anoth				
				60		75	110	170	(240)	(240)		C 03.05.2017	/Bn H	н		Generation	igung weber v	vervierangt v	verden noch	Ersatz für:			
	50250	-50 /	350	50	45	85	120	175	275	350		D 04.07.2018	/Bn .	J		ontion P	ersonen und P	Consumer 21	men	Ersteller: FE	S/Bn		
		-200		60		85	120	175	275	350		E 22.10.2019	/Bn P	к		sugang	g gemacht we	iroan.		PILE: MCCORN	ing/ Escales	OPES0263G.	aoc
Promass	8	-50 /	205	50	50	65	100	160	205	205	Control Dra	awing IEC	Ex, AT	EX, C	CSA, c	CSAus				Gezeichnet	10.0	6.2016	Bn
	15 50	-200	205	60	50	76	115	180	205	205						~					_		
	10	-200	200	60		75	115	180	205	205	Zone 1, Zo	ne 21, CI.I	Div. 1	1, CI.II	, CI.III	, CI.I Zo	ne 1			Geprüft			
Promass	8	-50	150	45	45	65	100	150	150	150	Thomas D										_		
S, P				60		65	100	150	150	150	i nermal Pa	arameter								Ex-geprüft	15.0	7.2023	DOM
		-50	205	45	45	65	100	160	205	205	Proline Pro	mace 300	/500	Proline	o Cub	mass 3	00/500						
	45 50	-50	150	60		65	100	160	205	205	Frome Pro	11233 300	1300, 1	ronne	e Cube	cinass a	00/000	·		Gesehen			
	1550	-50	150	50	50	75	115	150	150	150													
		-50	205	50	50	75	115	180	205	205												~~	4.10
19 A.				60		75	115	180	205	205										FES	5026	3G	1/6
												Flowte	CAG, K	Kägenst	trasse 7	CH-4153	Reinact	BL1, P	ostfach				

Certificate Number: Sira 16ATEX2219X



Proline Promag 300/500, Proline Promass 300/500, Equipment: Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500

Endress+Hauser Flowtec AG Applicant:

									C	ontinue	ed of previous page	
Tempera	ature table	for v	ersion	s with :	sensor i	nsulate	d (for in	sulation	refer to	manual	al of Endress+Hauser Flowtec)	
Sensor	Size / DN	min (°C)	max (°C)	(°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	Sensor Size / DN Tmet Tames Tmet/mex Tmet/mex T 0 min max T6 T5 T4 T3 T2 T1 (°C) (°C) (°C) (°C) (°C) (°S*C) (100°C) (135°C) (200°C) (130°C) (450°C)	
Promass	01 04	-50	205	50 55	50	95 (95)	130 (130)	150 (150)	205	205 (205)	Promass 80 250 -50 205 50 50 75 110 170 205 205 O 55 (75) (110) (170) (205) (205)	
Cubemass	01 06	-50	205	50 55		95 (95)	130 (130)	(150)	205 (205)	205 (205)	Promass 350 -50 205 50 50 90 120 170 205 205 X 55 (90) (120) (170) (205) (205)	
Promass	08 50	-50	205	50 55	50	100	130 (130)	130	205	205	Promass 25250 -50 / 240 50 50 75 110 160 240 240 Q -200 55 (75) (110) (160) (240) (240)	
	80	-50	205	45 50	50	75 75	110 110	170 170	205 205	205 205	Notes: (1) Ta,min = -40°C, -50°C respectively (see nameplate) (2) values in brackets are applicable for installation where the transmitter is not installed above the	
Promass	08 15	-50	150	55 50 60	50	(75) 95 95	(110) 130 110	(170) 150 (150)	(205) 150 (150)	(205) 150 (150)	(3) for applicable version with maximum medium temperatue and minimum medium temperature see nameplate	
		-50 / -200	240	50 55	50	95 95	130 (130)	160 (160)	240 (240)	240 (240)	Temperature table for versions with sensor insulated	
	15 25	-50 /	350	50	45	95	130	175	275	350	Sensor Size / DN Tmax to be measured at reference point at	
	25 40	-50	150	50 60	50	95 95	130 110	150 (150)	150 (150)	150 (150)	T6 T5 T4 T3 T2 T1 (10010) (10010) (10010) (10010) (10010)	
		-50 /	240	50 55 60	50	95 95	130 (130)	(170) (170)	(240)	240 (240)	all all 59 72 75 76 77 77 Notes: (1) for safe use temperatures shall not exceed all of the following: (1)	
	50	-50	150	50 60	50	95 95	130	150 (150)	150 (150)	150 (150)	temperature table for versions with sensor not insulated (refer to table above) temperature at reference point as listed in this table	
		-50 / -200	240	50 55 60	50	95 95 95	130 (130) 110	160 (160) 110	240 (240) 110	240 (240) 110	 - Ta main = 40 C, 30 C respectively (see nameplate) - for maximum medium temperatue and minimum medium temperature see nameplate (2) location of reference point 	
	80 250	-50	150	50 60	50	75 75	110	150 (150)	150 (150)	150 (150)	reference point	
		-50 /	240	50 55 60	50	75 75 75	110 110 110	(170) (170)	240 (240) 110	240 (240) 110		
	50 250	-50 / -200	350	50 60	45	85 85	120 120	175 175	275 275	350 350	Restriction of Ta,min for versions (Promass sensor F, H, Q) used at Tmed,min < -50°C	
Promass H	8	-50 /	205	50 55 60	50 	65 65	100 100 100	160 (160) 100	205 (205) 100	205 (205) 100	Tmed.min -50°C -75°C -100°C -125°C -150°C -175°C -200°C Ta.min -50°C -47°C -45°C -43°C -41°C -39°C -37°C Notes: (1) This table is applicable only for the Proline Promass 300 with Ex db or XP rated enclosures and for a - - -	
	15 50	-50 / -200	205	50 55	50	75 75 75	115 115	180 (180)	205 (205)	205 (205)	Aenderungen: A 10.05.2016 / Bn F 09.06.2021 / Bn Alls gesetsichen Untebenechte, varbehalten. Ersetzt durch:	
Promass S, P	8	-50	150	45	45	65 65	100	150 150	150 150	150	B 24.10.2016 / Bn G 15.07.2023 / DOMI Lesse Zerning auf one unvestigate worken noch Ersatz für: C 03.05.2017 / Bn H Genehmig auf one unvestigate worken noch Ersatz für: D D.0.07.2018 / Bn J ditten Persone und Koshurren/fman Ersatz für:	
		-50	205	60 45 50	45	65 65	100	125 160	(150) 205	(150) 205	E 22.10.2019 / Bn K zugängig gemacht werden. FLE: M:Zaichng/FES0263/J/FES0263/J.doc	
	1550	-50	150	60 50		65 75	100	115	(205)	(205)	- Control Drawing IECEX, ATEX, CSA, cCSAUs Gezeichnet 10.05.2016 Bn	
		-50	205	60 50		75 75	115 115	125 180	(150) 205	(150) 205	Thermal Parameter	
Promass	8, 15 1650 26	-50	150	60 50	50	75 95	115 130	(150)	(150)	(150)	Proline Promass 300/500, Proline Cubemass 300/500	IMI
	25FB, 40 40FB, 50	-50	150	50	50	95 85 85	120	(150) (150)	(150)	(150)	Gesehen Gesehen	
	50FB, 80	-50	150	50 60	50	85 85	120 120	150 (150)	150 (150)	150 (150)	FES0263G	2/6

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Certificate Number: Sira 16ATEX2219X



Equipment: Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500

Endress+Hauser Flowtec AG

Applicant:

Proline Promass A/E/F/H/I/O/P/Q/S/X 500 Proline Cubemass C 500 Notes: Pages 3 and 4 apply to versions with extended order code covering: 8*5*** - dd*****B... O8*5*** - dd*****B. 8x5Bxx - dd******B... O8x5Bxx - dd******B... with approval option cCSAus / CSA: dd = CC, CD, CE, C1, C2, C3, C4 IECEx / ATEX: dd = BA, BB, BC, BD Temperature table for versions with sensor not insulated T T3 ze / D Senso Size / DN max (°C) T3 **T6** T4 Τ2 Τ6 Τ5 T4 Τ2 Τ1 max (°C) 205 T1 max min (300°C) (450°C) (°C) (200°C) (°C) -50 (85°C) (100°C) (135°C) (200°C) (°C) -50 (°C) 150 (°C) 60 (85°C) (100°C) (135°C) (300°C) (450°C) Promass 01 ... 04 Promass 8, 15 15FB, 25 (type 8A5B) 25FB 40 01...04 -50 40FB, 50, -50 Promass 50FB 80 (type 8A5C Promass 80 ... 250 -50 Cubemass ... 06 -50 Promass -50 / 08 50 -50 205 205 -60 Promass Promass 25 ... 250 -50 / -60 / -50 / 150 Q -200 Notes Ta,min = -40°C, -50°C / -60°C respectively (see nar (1) Promass 150 150 (2) for applicable version with maximum medium temperatue and minimum medium temperature -60 -50 / -60 160 240 240 see nameplate 95 -200 15 25 -50 / 25 40 -50 / -60 95 130 150 50 / -60 95 240 240 -200 -50 / Transmitter for all versions: -60 95 -200 Terrer (°C) -50 / 80 ... 250 150 150 75 T6 (85°C) T5 (100°C) 240 -60 -50 / -60 / Notes: (1) Ta.min = -50°C (for limitation see name plate) 50 250 -50 -200 205 Promass -200 15 ... 50 -50 / F 09.06.2021 / Bn setzt durc 10.05.2016 / Bn -200 iese Zeichnung darf ohne unsers B 24.10.2016 / Bn G 15.07.2023 / DOMI Promase S, P -50 shmigung weder vervielfältigt werden noo C 03.05.2017 / Bn н Ernatz für: -50 D 04.07.2018 / Bn dritten Personen und Konkurrenzfirmen Ensteller: FES / Bo E 22.10.2019/Bn K zugängig gemacht werder FILE: MVZeichnol/FES0263/G/FES0263G.doc 15...40 -50 Control Drawing IECEx, ATEX, CSA, cCSAus 10.05.2016 Be 75 150 150 150 -50 Zone 1, Zone 21, Cl.I Div. 1, Cl.II, Cl.III, Cl.I Zone 1 Secoliff -50 Thermal Parameter 15.07.2023 DOMI Ex-georüft Proline Promass 300/500, Proline Cubemass 300/500 eschen FES0263G 3/6 Kägenstrasse 7, CH-4153 Reinach BL1, Postfach

Certificate Number: Sira 16ATEX2219X



Equipment: Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500

Applicant: Endress+Hauser Flowtec AG

Continued of previous page Temperature table for versions with sensor insulated (for insulation refer to manual of Endress+Hauser Flowtec) Tama Senso Size / DN Tread min max Τ6 **T5 T4** Т3 T2 T6 T5 T4 T3 T2 T1 min max (100°C) (135°C) (200°C) (300°C) (450°C) 95 130 150 (180) (180) (°C) (°C) (°C) (85°C) (°C) (°C) (°C) (85°C) (100°C (135°C) (200°C) (300°C) 450°C Promass 01 ... 04 -50 50 Promass 205 60 350 -50 / 205 60 70 90 120 170 205 205 95 130 150 150 150 -60 60 60 (type 8A5B) 240 110 240 Promass 25...250 -50 / -60 / 60 55 75 240 01 ... 04 -50 205 50 60 95 130 150 (180) (180) omass Q Notes: (1) -200 55 55 95 150 Ta,min = -40°C, -50°C / -60°C respectively (see name 130 150 150 (type 8A5C) 60 95 130 150 150 150 (2) values in brackets are applicable for installation where the ser nsor enclosure is not installed above 01 ... 06 -50 205 the sensor Cubemass 50 60 95 130 150 (180) (180) 95 150 (3) for applicable version with max. medium temperatue and min. medium temperature see 60 130 150 150 08 50 -50 205 130 nameolate Promass 50 50 100 130 205 205 60 100 130 130 205 205 -50 205 60 110 170 205 60 205 Temperature table for versions with sensor insulated 08 ... 15 -50 / 150 Promass 150 55 50 95 130 150 150 (for insulation not in compliance to manual of Endress+Hauser Flowtec) -60 60 95 130 150 150 150 -50 /-60 240 55 50 95 130 160 240 160 240 240 I max to be measured at reference point at Senso Size / DN 60 95 95 130 -200 240 sensor neck (°C) T4 T3 15 ... 25 -50 / 350 70 130 175 265 350 60 T2 (85°C) (100°C) (135°C) (200°C) (300°C) (450°C) 25 ... 40 -50 / 55 95 150 55 130 150 150 150 63 72 84 91 91 all 91 150 170 150 240 -60 60 95 130 150 Notes: (1) for safe use temperatures shall not exceed all of the following 50 / -60 240 55 55 95 130 240 temperature table for versions with sensor not insulated (refer to table ab 95 130 - temperature at reference point as listed in this table -200 60 170 240 240 -50 55 130 150 - Ta,min = -40°C, -50°C respectively (see nameplate) 150 -60 60 95 130 150 150 - for maximum medium temperatue and minimum medium temperature see -50 / -60 nameplate 240 60 60 95 130 170 240 240 (2) location of reference point -200 75 75 110 80 ... 250 -50 / 150 55 60 55 150 150 150 150 -60 ference point 50 / -60 240 60 60 75 110 170 240 240 -200 85 50 ... 250 -50 / 350 60 70 120 175 265 350 -200 Promass -50 / 205 50 50 65 100 160 205 205 -200 60 65 100 160 205 205 Transmitter for all versions 15 ... 50 205 60 60 75 115 180 205 -50 / 205 -200 Promass -50 150 45 45 65 100 150 150 150 T6 (85°C) T5 (100°C) S, P 65 150 60 100 150 150 55 60 205 205 205 205 -50 205 45 45 65 100 160 Notes: (1) Ta,min = -50°C (for limitation see name plate) 60 65 100 160 15 ... 40 -50 50 150 50 75 115 150 150 150 A 10.05.2016 / Bn F 09.06.2021 / Bn setzt durch 60 75 115 150 150 150 G 15.07.2023 / DOMI less Zeichoung darf ohne unsern B 24.10.2016 / Bn -50 205 50 50 75 115 180 205 205 network policies working working working and Ersatz für: C 03.05.2017 / Bn D 04.07.2018 / Bn 60 75 115 180 205 205 ten Personen und Konkur Ersteller: FES / Bn 60 150 -50 60 FILE: M'Zeichno/F E 22.10.2019 / Bn к zugängig gemacht w -50 115 180 205 60 60 75 205 205 150 Control Drawing IECEx, ATEX, CSA, cCSAus 8 15 -50 150 60 60 95 130 150 150 Promass 10.05.2016 Bn ezeichne 15FB, 25 25FB, 40 -50 150 60 70 85 120 150 150 150 Zone 1, Zone 21, Cl.I Div. 1, Cl.II, Cl.III, Cl.I Zone 1 eprüft 80 80 250 205 6(Promase Thermal Parameter Ex-geprüft 15.07.2023 DOM Proline Promass 300/500, Proline Cubemass 300/500 wher FES0263G 4/6 sse 7, CH-4153 Reinach BL1, Postfact

Project Number 80174205

Certificate Number: Sira 16ATEX2219X



Proline Promag 300/500, Proline Promass 300/500, Equipment: Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endress+Hauser Flowtec AG

Applicant:

Proline P	omass /	VE/F/	H/I/O/	P/Q/S/)	K 500		Pro	oline C	ubema	iss C 5	00	0.000				0.50				00.55		
Notes: Page	s 5 and 6 a	ppiy to	version	s with ex	tended o	raer coa	e covern	g: 8'	5 00	A	with approval	option –	CCSA	A US/CS	A: K:	dd = dd =	CM, CN, C BI, BJ, BN	C5, C6 1, BN		O8x5Bxx	- ddA.	-
Temperatu	re table fo	r versi	ons wit	h senso	r not ins	ulated																
Sensor	Size / DN	Tr	hed	Талах			Tmed.me	∝ (°C)			Sensor	Size / DN	Τ,	ned	Tamax			Tm	d.max (°C)		1
		min (°C)	(°C)	(°C)	(85°C)	(100°C)	(135°C)	T3 (200°C)	(300°C)	(450°C)			min (°C)	max (°C)	(***)	(85°C)	T5 (100°C)	(135°C)	T3 (200°C	T2 (300°C)	(450°C)	1
Promass	0104	-50	205	35	60	95	130	150	205	205	Promass	1550	-50	205	35	45	65	110	180	205	205	1
A				50		95	130	150	205	205	S, P				50		65	110	180	205	205	1
(type 8A5B) Promass	01 04	-50	205	35	55	95	130	150	205	205	Bromass		-60 /	205	60	40		110	180	205	205	-
A	0104	-50	200	50		95	130	150	205	205	H	°	-200	205	50	40	65	100	160	205	205	1
(type 8A5C)				55			130	150	205	205					60			100	160	205	205	1
Cubamass	01 06	-50	205	60	40	75	130	150	190	205		1550	-50 /	205	35	40	65	115	180	205	205	4
C	0100	~~~	200	50	40	75	130	150	205	205			-200		60		65	115	180	205	205	-
				55			130	150	205	205	Promass	8,80	-50	150	35	45	70	115	140	140	150	1
Desmand	09 50	60	205	60			130	150	160	160	1				50		70	115	140	140	150	-
E	0650	-30	205	50	40	60	130	130	205	205					60			115	140	140	150	-
				60			130	130	205	205	Promass	80 250	-50	205	35	45	65	110	170	205	205	1
	80	-50	205	35	40	60	110	170	205	205	0				50		65	110	170	205	205	-
				60			110	170	205	205	Promass	350	-50	205	35	45	65	110	170	205	205	-
Promass	0840	-50	150	35	40	65	130	150	150	150	x	000		200	50		65	110	170	205	205	1
F				50		65	130	150	150	150				0.10	60			110	170	205	205	-
		-50 /	240	35	40	65	130	170	240	240	Promass	25 250	-50 /	240	35	45	65	100	160	240	240	-
		-200		50		65	130	170	240	240	-				60			100	160	240	240	1
	-		150	60			130	170	240	240	Notes: (1)	Ta,min = -40	°C, -50°C	respec	tively (see	nameplat	e)					1
	50	-50	150	50	40	65	130	150	150	150	(2)	for applicabl	e version	with ma	ximum me	dium temp	peratue and	minimum m	edium te	ed above the se	nameplate	1
				60			130	130	130	130	Transmitte	er for all v	rsions									i i
		-50 /	240	35	40	65	130	160	240	240	Type of encle	osure	1010110.				T	(20)				1
		-200		60		C0	130	160	240	240	.,,		Ordinar	v locatio		TE (8	14,754	T5 (1)	00000	TA	135°C)	-
	1525	-50 /	350	35	40	80	130	175	275	350	aluminium		ordinar	eo.		10 (0	, 0,	15(1	e (10	141	135 (0)	-
		-200		50		80	130	175	275	350	aluminium			00					5		60	-
				60			130	1/5	(275)	(350)	plastic Notes: (1)	aluminium e	nclosure	Ta min	= -50°C (for limitation		- (atalo	-			4
	80250	-50	150	35	40	65	110	150	150	150	1000. (1)	plastic enclo	sure: Ta,	min = -4	0°C			e parey				
				50		65	110	150	150	150	Aenderungen:	A 10.05.20)16 / Bn	F 09	06 2021 / B	Allege	setzlichen Urhe	berrechte, vorbei	haiten.	Ersetzt durch:		
		-50 /	240	35	40	65	110	170	240	240		B 24.10.20	016 / Bn	G 15	07.2023 / D	OMI Dese	Zeichnung darf e	ohne unsere				
		-200		50		65	110	170	240	240		C 03.05.20	17/Bn	н		Genet	migung weder v	ervielfältigt werd	en noch	Ersatz für:		
	50 250	-50 /	350	60	40	80	110	170	240	240		D 04.07.20	18 / Bn	J		driben	Personen und P	Conkurrenzfirmen		Ersteller: FES /	Bn	
	30230	-200	550	50		80	120	175	275	350	-	E 22.10.20	19/Bn	ĸ		zugar	igig gemacht we	nten.		FILE: Mt/Zeichng/FE	50263/G/FES02630	s.doc
				60			120	175	240	240	Control Dra	awing IE	CEX, A	TEX,	CSA, c	CSAus				Gezeichnet	10.05.2016	Bn
Promass	8	-50	150	35	45	65	100	150	(275)	(350)	Zone 1 Zo	ne 21 C		1 CI		CUZ	one 1					
S, P	-	50		50		65	100	150	150	150	2010 1, 20	10 21, 0	DIV.	., 01	, 01.11	, 01.12			1	Geprüft		
		50	205	60			100	150	150	150	Thermal P	arameter								Ex-geprüft	15.07.2023	DOMI
		-50	205	50	45	65	100	160	205	205	Proline Pro	mass 30	0/500	Proli	ne Cub	emass	300/500		ŀ			
	45 50	50	150	60			100	160	205	205										Sesenen		
	1550	-30	130	50	40	65	110	150	150	150		_							I			
				60			110	150	150	150										FES0	263G	5/6
												Flov	tec AG.	Kägen	strasse 7	CH-415	3 Reinach	BL1, Pos	tfach	00		0/0

Project Number 80174205

Certificate Number: Sira 16ATEX2219X



Proline Promag 300/500, Proline Promass 300/500, Equipment: Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endress+Hauser Flowtec AG

Applicant:

Temperature table for versions with sensor insulated (for insulation refer to manual of Endress+Hauser Flowtec)																						
Temperat	Gire (DN)	T Versi	ons wi	un senso	rinsula	ted (for it	TSUIAUUN	refer to i	manual o	Endress	+nauser Flow	60)										
Sensor	Size / DN	min	max	a.max	TE	T5	TA	= (°C) T3	T2	T1	Sensor	Size / DN	Tm	ed	Tamax	TC	TE	Ta	atmax ("C)	T2	74	
		(°C)	(°C)	(°C)	(85°C)	(100°C)	(135°C)	(200°C)	(300°C)	(450°C)		1	(°C)	(°C)	CO	(85°C)	(100°C)	(135°C)	(200°C)	(300°C)	(450°C)	
Promass	0104	-50	205	35	40	90	90	150	150	150	Promass	25250	-50 /	240	35	40	55	100	160	240	240	
A				40		90	90	150	150	150	9		-200		50		55	100	160	240	240	
			1	45			90	150	150	150	Promass	8	-50 /	205	35	40	65	100	160	205	205	
			· [50			90	120	120	120	н		-200		45		65	100	160	205	205	
Cubemass	01 06	-50	205	35	40	90	100	150	150	150					55			100	160	205	205	
C				40		90	100	150	150	150		15 50	-50 /	205	35	40	65	115	180	205	205	
				45			100	150	150	150			-200		45		65	115	180	205	205	
-	00.50	50	005	50			100	120	120	120					55			115	180	205	205	
Promass	08 50	-50	205	35	40	55	130	160	205	205	Notes: (1)	Ta,min = -40	°C, -50°C	C respec	ctively (se	e namepla	te)	d minimum t	medium term		a secolate	
E	80	50	205	30	40	55	130	170	205	205	(2)	for applicable	version	with ma	aximum m	edium tem	peratue and		medium sen	iperature see	nameplate	
	00	-50	205	50	40	55	110	170	205	205	Temperat	ure table fo	r versio	ons wi	th sense	or insulat	ted					
Promass	08 40	-50	150	35	40	60	130	130	130	130	(for inculat	tion not in c	omolian	ce to m	anual of	Endrace	Hausar	Flowtec)				
F				45		60	130	130	130	130	(IOI IIIaula		ompilain	001011	ianual o	LIIUI633	-Hauser r	iowiec)				
				50			130	130	130	130	Sensor	Size / DN			T _{max} t	o be meas	ured at refe	rence point	at sensor n	eck (°C)		
	[-50 /	240	35	40	60	130	170	240	240				T6	Т	5	T4	Т	3	T2	T1	
		-200	[45		60	130	170	240	240			(8)	0°C)	(100°C	2)	(135°C)	(200)°C) (300°C)	(450°C)	
				50			130	170	240	240	all	all		45	6	4	82	8	2	85	85	
	50	-50	150	35	40	60	130	130	130	130	Notes: (1) for safe u	se tempe	eratures o for you	shall not	exceed all	of the follow	ving: (refer to tek				
				45		60	130	130	130	130		- tempera	ture at re	eference	e point as	listed in th	is table	(relei to tau	ne above)			
		50 /	0.40	50			130	130	130	130		- Ta.min	= -40°C.	-50°C re	espectivel	v (see nam	replate)	~				
		-507	240	35	40	60	130	160	240	240		- for max	mum me	dium te	mperatue	and minim	um I		'n			
		-200	- I	40		60	130	160	240	240		medium temperature see nameplate										
	15 25	-50 /	350	35	40	80	130	175	275	350		(2) location of	of referen	ce point	1			Pass	~	refere	ance point	
		-200		50		80	130	175	275	350												
				60			130	175	240	240												
									(275)	(350)												
	80 250	-50	150	35	40	60	110	130	130	130												
				45		60	110	130	130	130												
			0.10	50			110	130	130	130	Transmitte	r for all ver	sions:									
		-50 /	240	35	40	60	110	170	240	240	Type of enclo	sure					Terre	(°C)				
		-200		45		60	110	170	240	240			0.1			70.000	10.01		00101		0000	3
	60 260	-50 /	260	36	40	80	120	175	240	240			Ordinary	locato	n	10 (05	50)	15(1	00.0)	14(1	35 ()	
	50 250	-200	550	50	40	80	120	175	275	350	aluminium		6	0				4	5	6	0	
		200		60			120	175	240	240	plastic		6	0				-		-		
									(275)	(350)	Notes: (1)	aluminium en	closure:	Ta,min	= -50°C (for limitatio	n see name	e plate)				
Promass	8	-50	150	35	40	55	100	150	150	150		plastic enclos	ure: Ta,m	nin = -40	0°C							
S, P				45		55	100	150	150	150	Anotaningen	A 100 07 04	te / De	IE I ~	00 0004 1	De Aller	esetziichen i ke	ehemerhte work	obalten E.	mater durch		
				50			100	120	120	120	senuerungen:	B 24 10.05.20	16 / Bn	09	07 2022 /	DOMI Des	Zeichnung dar	f ohne unsere		seat durun:		
		-50	205	35	40	55	100	160	205	205		0 24.10.20	17/Bn	- 15 		Gene	ihmigung weder	vervieifatiot we	rden noch	mate file		
				50		55	100	160	205	205		0 03.05.20	17 / Bn	17		-	Personen und	Konkumenzfirm	-	staller FES / 4	le.	
	16 60	60	160	30	40	66	100	160	205	205		D 04.07.20	18 / Bh	1						Steller: FEG/ I		dan
	10 00	-30	100	45	40	55	110	150	150	150		E 22.10.20	19 / Bn	ĸ		2.9	ingig gemacht w	Arben.		LE: McZachig/E	SUMBIOPESUMO	o.doc
				50			110	120	120	120	Control Dr	rawing IE	CEX, A	TEX,	CSA,	CSAUS	5		G	ensichent	10.05.2016	Bn
		-50	205	35	40	55	100	180	205	205									Ľ	Cale of the t		
				50		55	100	180	205	205	Zone 1, Zo	one 21, C	I.I Div.	1, Cl	III, CI.I	II, CI.I Z	Zone 1		G	füron		
				55			100	180	205	205									Ľ	apran	-	
Promass	8,80	-50	150	35	45	70	90	150	150	150	Thermal F	arameter							E	x-geprüft	15.07.2023	DOM
1				45		70	90	150	150	150												
				50			90	120	120		Proline Promass 300/500, Proline Cubemass 300/500											
Promass	80 250	-50	205	35	40	55	110	170	205	205									-			
0	252		005	50		55	110	170	205	205												
Promass	350	-50	205	35	40	55	120	170	205	205										FERM	0620	CIC.
~			ŀ	50		35	120	170	205	205						-				LE20	2036	0/0
				55	-		120	170	205	205		Flow	rtec AG,	Käger	nstrasse	7, CH-41	53 Reinac	th BL1, Po	stfach			

Project Number 80174205

Certificate Number:

Sira 16ATEX2219X



Proline Promag 300/500, Proline Promass 300/500, Equipment: Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Applicant: Endress+Hauser Flowtec AG

Proline Promag 300/500 2.

2.1. Marking

Proline Pr	omag 300			
Order Coc	le:			
5*3*** -	dd*ff******	*****+#**#		
05*3***	<u>– dd*ff******</u>	<u>********</u> +#*	·*#	
dd = approval	ff = I/O	ATEX marking	Marking of Ex protection	Information: Marking of protection representative for
BB	CA, CB, CC, CD, HA, TA, MC, RC	[©] II2(1)G [©] II2(1)D	Ex db eb ia [ia Ga] IIC T6T1 Gb Ex tb [ia Da] IIIC T** °C Db	db -> electronic compartment eb -> terminal compartment, sensor, electronic for
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	ଦ୍ଧି II2G ତ୍ୟି II2D	Ex db eb ia IIC T6T1 Gb Ex tb IIIC T** °C Db	sensor circuit Ex eb ia -> sensor, display tb -> transmitter enclosure and sensor [ia Ga]-> electronic with input/output Ex ia [ia Da]-> electronic with
BD	CA, CB, CC, CD, HA, TA, MC, RC	[©] Ⅱ2(1)G [©] Ⅲ2(1)D	Ex db eb ia [ia Ga] IIC T6T1 Gb Ex tb [ia Da] IIIC T** °C Db	db -> electronic and terminal compartments eb -> sensor, electronic for
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	ତ୍ତିII2G ତ୍ତିII2D	Ex db eb ia IIC T6T1 Gb Ex tb IIIC T** °C Db	sensor circuit Ex eb ia -> sensor, display tb -> transmitter enclosure and sensor [ia Ga]-> electronic with input/output Ex ia [ia Da]-> electronic with input/output Ex ia

Proline Pro	omag 500 Analo	g (with ISEM	integrated in	transmitter)		
Order Coc	le:					
5*5*** -	dd*ff****B***					
05*5***	<u>– dd*ff****B**</u>	*******	**+#**#			
dd =	ff =	Device	ATEX	Marking of Ex protection	Infe	ormation: Marking of
approval	1/0		marking		pro	tection representative for
BB	CA, CB, CC,	Transmitter	🗟 II2(1)G	Ex db eb [ia Ga] IIC T6T5 Gb	db	-> electronic
	CD, HA, TA,		🗟 II2(1)D	Ex tb [ia Da] IIIC T85°C Db		compartment
	BA, BB, GA,				eb	-> terminal
	LA, NA, RA,					compartment,

Certificate Number:



Sira 16ATEX2219X

Proline Promag 300/500, Proline Promass 300/500, Equipment: Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Applicant: Endress+Hauser Flowtec AG

Proline Pro	omag 500 Analo					
Order Cod	e:		<i></i>			
5^5^^^ - 05*5*** -	aavii.					
	RB, RC, SA, MA, MB, MC	Sensor	₩ π [©] II2G [©] II2D	Ex eb ia IIC T6T1 Gb Ex ia tb IIIC T** °C Db	ia -> tb -> [ia Ga]-> [ia Da]->	sensor, wall mounted terminal box, sensor terminal box, electronic for sensor circuit Ex eb sensor, display transmitter enclosures, sensor, sensor terminal box electronic with input/output Ex ia and/or output for sensor circuit electronic with input/output Ex ia and/or output for sensor circuit
BD	CA, CB, CC, CD, HA, TA, BA, BB, GA, LA, NA, RA,	Transmitter	๎๎๎ ⊌ II2(1)G ๎๎๎ ⊌ II2(1)D	Ex db eb [ia Ga] IIC T6T5 Gb Ex tb [ia Da] IIIC T85°C Db	db -> eb ->	electronic and terminal compartments sensor, wall mounted
	RB, RC, SA, MA, MB, MC	Sensor	© II2G © II2D	Ex eb ia IIC T6T1 Gb Ex ia tb IIIC T** °C Db	ia -> tb -> [ia Ga]-> [ia Da]->	terminal box, electronic for sensor circuit Ex eb sensor, display transmitter enclosures, sensor, sensor terminal box electronic with input/output Ex ia and/or output for sensor circuit electronic with input/output Ex ia and/or output for sensor circuit
B7	CA, CB, CC, CD, HA, TA, BA, BB, GA, LA, NA, RA,	CA, CB, CC, Transmitter ^(E) II2(1)G Ex db eb [ia Ga] CD, HA, TA, CA, BB, GA, A, NA, RA,	Ex db eb [ia Ga] IIC T6 T5 Gb	db -> eb ->	electronic compartment terminal compartment,sensor,	
	RB, RC, SA, MA, MB, MC	Sensor	[©] II2G	Ex eb ia IIC T6T1 Gb	ia -> [ia Ga]->	terminal box, sensor terminal box, electronic for sensor circuit Ex eb sensor, display electronic with input/output Ex ia and/or output for sensor circuit

Certificate Number: Sira 16ATEX2219X

GROUP"

Equipment: Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Applicant: Endress+Hauser Flowtec AG

Proline F	Promag 500 Analo					
Order Co	ode:					
5*5***	– dd*ff****B***	*********	#**#			
05*5**	* - dd*ff****B**	*******	**+#**#			
B8	CA, CB, CC, CD, HA, TA, BA, BB, GA, LA, NA, RA,	Transmitter	[©] Ⅱ2(1)G	Ex db eb [ia Ga] IIC T6 T5 Gb	db -> electronic an terminal compartmen eb -> sensor, wall	 electronic and terminal compartments sensor, wall mounted
	RB, RC, SA, MA, MB, MC	Sensor	[©] Ⅲ2G	Ex eb ia IIC T6T1 Gb	ia -> [ia Ga]->	terminal box, electronic for sensor circuit Ex eb sensor, display electronic with input/output Ex ia and/or output for sensor circuit

Proline Pro	omag 500 Digit						
Order Cod	le:						
5*5*** -	dd*ff****A***						
05*5***	- dd*ff****A**	*****	**+#**#				
dd =	ff =	Device	ATEX	Marking of Ex protection	Information: Marking of		
approval	I/O		marking		protection representative for		
BN and	CA, CB, CC,	Transmitter			db -> sensor terminal box ia -> sensor		
BJ	CD, HA, TA,	Sensor	🗟 IIG	Ex db ia IIC T6T1 Gb			
	BA, BB, GA,	Ex ia tb IIIC T** °C Db	tb -> sensor, sensor				
	LA, NA, RA,				terminal box		
	RB, RC, SA,						
	MA, MB, MC						

2.2. Order Code

Extended order code Proline Promag 300: 5a3bcc – ddzeffghjlpstttuvww + #**# O5a3bcc – ddzeffghjlpstttuvwwyy + #**# 5x3bxx – ddeffghjlpww + #**# O5x3bxx – ddeffghjlpwwyy + #**# for rep

for OEM-version for replacement transmitter only for replacement transmitter OEM

Extended order code Proline Promag 500:

5a5bcc - ddzeffghijkmnopstttuvww + #**#O5a5bcc - ddzeffghijkmnopstttuvwwyy + #**#5x5bxx - ddeffghijkmopqqwwy + #**#O5x5bxx - ddeffghijkmopqqwwyy + #**#for replacement transmitter onlyfor replacement transmitter OEM

a = Type of sensor H = Sensor Promag H P = Sensor Promag P W = Sensor Promag W b = Generation B = Generation of Flowmeter cc = Size any combination of number and/or letter up to size = DN3000

Project Number 80174205

Certificate Annexe								
Certificate Nu	mber:	Sira 16ATEX2219X						
Equipment: Applicant:		Prolir Prolir Prolir Endre	Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endress+Hauser Flowtec AG					
	dd =	 Appro Proline BB 	∋val <u>∋ Promag 300 :</u> = Ex db eb ia [ia] IIC T6T1 Gb					
		BD	Ex tb IIIC T* Db = Ex db ia [ia] IIC T6T1 Gb Ex tb IIIC T* Db					
		Proline	e Promag 500 :					
		BB	= Ex db eb [ia] IIC T6T5 Gb (transmitter) Ex eb ia IIC T6T1 Gb (sensor)					
		BD	= Ex db [ia] IIC T6T5 Gb (transmitter) Ex eb ia IIC T6T1 Gb (sensor)					
		BJ	Ex tb IIIC 1** Db (transmitter + sensor) = Ex db ia IIC T6T1 Gb (sensor) Ex ia tb IIIC T** Db (sensor)					
		BN	= Ex db ia IIC T5T4 Gb (sensor) Ex ia th IIIC T* Db (sensor)					
		B7	= Ex db eb [ia] IIC T6T5 Gb (transmitter) Ex eb [ia] IIC T6T1 Gb (sensor)					
		B8	= Ex db [ia] IIC T6T5 Gb (transmitter) Ex eb [ia] IIC T6T1 Gb (sensor)					
	z =	Desig	n (Promag W 300 and Proline W 500 only)					
	• -	any si	ngle number or letter					
	e =	D D	= 24 V dc					
		E	= 100-230Vac					
		I	= 100-230Vac / 24Vdc					
	<i></i>	X	= sensor only					
	TT =	E Input	$- 4_20$ mA HART					
		BB	= 4-20mA WHART					
		СА	= 4-20mA HART Ex i (passive)					
		CB	= 4-20mA WHART Ex i (passive)					
			= 4.20 mA HART EXT (active)					
		GA	= $4-20$ mARTEXT (active) = Profibus PA					
		HA	= Profibus PA Ex i					
		LA	= Profibus DP					
		MA	= Modbus RS485					
		MC	= Modbus TCP Ex i					
		NA	= EtherNet/IP					
		RA	= Profinet IO					
		RB	= Profinet					
		RC SA	= Profinet EX I = Foundation Fieldbus					
		TA	= Foundation Fieldbus Ex i					
		XX	= sensor only					

Certificate Number	Sira 16ATEX2219X					
Equipmont:	Drolino Dromag 200/E00 Drolino Dromass 200/E00					
Equipment:	Proline Cubemass 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500,					
	Proline t-mass 300/500					
Applicant:	Endress+Hauser Flowtec AG					
g =	Input / Output 2					
-	A = without Input/Output 2					
	B = 4-20mA					
	C = 4-20mA Ex i (passive)					
	D = Configurable IO					
	E = Pulse/Frequency/Switch output					
	F = Pulse output phase-shifted					
	G = Pulse/Frequency/Switch output EX I					
	H = Relay					
	I = 4-2011A Iliput I = Status input					
	K = Pulse output Ex i					
	= Pulse output EXT					
	X = sensor only					
h =	Input / Output 3					
	A = without Input/Output 3					
	B = 4-20mA					
	C = 4-20mA Ex i (passive)					
	D = Configurable IO					
	E = Pulse/Frequency/Switch output					
	F = Pulse output phase-shifted					
	G = Pulse/Frequency/Switch output Ex i					
	H = Relay					
	I = 4-20mA input					
	J = Status input					
	K = Pulse output Ex i					
	L = Pulse output					
:	X = Sensor only					
I =	A = - without Input (Output 4)					
	$B = \frac{1}{20}$					
	C = 4-20 mA Ex i (nassive)					
	D = Configurable IO					
	E = Pulse/Frequency/Switch output					
	F = Pulse output phase-shifted					
	G = Pulse/Frequency/Switch output Ex i					
	H = Relay					
	I = 4-20 mA input					
	J = Status input					
	K = Pulse output Ex i					
	L = Pulse output					
	X = sensor only					
j =	Display / Operation					
	with remote Display : O					
	without remote Display : any single number or letter except O					
k =	Integrated ISEM electronic (Proline 500 only)					
	A = Sensor					
	B = Iransmitter					

Certificate Annexe								
Certificate Num	ertificate Number: Sira 16ATEX2219X							
Equipment:			Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500					
Applicant:			Endress+Hauser Flowtec AG					
I		=	Housing (Proline 300 only)					
n	n	=	Transmitter Housing (Proline 500 only) any single number or letter					
n		=	Sensor Housing (Proline 500 only) any single number or letter					
0		=	Cable Sensor Connection (Proline 500 only) any single number or letter					
р		=	Cable Entry any single number or letter					
q	q	=	any double digits with combination of number or letter					
5	••	=	any single number or letter					
		_	any triple digits with combination of number or letter					
u		_	any number or letter					
v	/\\/	_	any single number or letter Device Model (two digit) (refer to assignment of flowmeter to replacement transmitter)					
			A1 = product version 1 A2 = product version 2					
У	У	=	Customer version (two digits) any double digits with combination of number or letter					
*	*	=	Option in two digits (none, two or multiple of two digits) any combination of number and/or letter					
#	[±] , +	=	Signs used as indicator for optional abbreviation of extended order code					

2.3. Assignment of Flowmeter to Replacement Transmitter The replacement transmitters are assigned to the flowmeter Proline Promag 300/500 as follows:

Product flowmeters		Replacement transmitter type			
Order code	Generation code b =	device model code ww =	Order code	Generation code b =	device model code ww =
5H*b**ww, O5H*b**ww 5P*b**ww, O5P*b**ww 5W*b**ww, O5W*b**ww	В	A1 / A2	5x*bxxww, O5x*bxxww	В	A1 / A2

2.4. Parameters

2.4.1. Electrical Parameters

Power Supply		
Order Code e =	terminal no.	values
· · · · · · · · · · · · · · · · · · ·		

Certificate Anne	exe		000
Certificate Number:	Sira 16ATEX2219X	(SP	GROUP
Equipment:	Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 30 Proline t-mass 300/500	0/500,	
Applicant:	Endress+Hauser Flowtec AG		

D ¹⁾	No. 1(L+/L), 2(L-/N)	UN	= 19.228.8V _{DC}
		Uм	= 250V _{AC}
E ¹⁾	No. 1(L+/L), 2(L-/N)	UN	$= 85264V_{AC}$
		Uм	= 250V _{AC}
²⁾	No. 1(L+/L), 2(L-/N)	UN	$= 19.228.8V_{DC} / 85264V_{AC}$
		UM	= 250V _{AC}
1) applicable for products	with approval code dd - BB		27 B0

applicable for products with approval code dd = BB, BD, B7, B82) applicable for products with approval code dd = BJ, BN

Input/Output 1		
Order Code ff =	terminal no.	values
BA, BB, MA	No. 26, 27	$U_N = 30V_{DC}$
		$U_{M} = 250 V_{AC}$
LA, GA, SA	No. 26, 27	$U_N = 32V_{DC}$
		$U_{M} = 250V_{AC}$
CA, CB	No. 26, 27	$U_i = 30V$
		li = 100mA
		$P_i = 1.25W$
		$L_i = 0$
		$C_i = 6nF$
CC, CD	No. 26, 27	1)
		$U_0 = 21.8V$
		$I_0 = 90 \text{mA}$
		$P_0 = 491 \text{mW}$
		$L_0 = 4.1 \text{mH} (\text{IIC}) /$
		15mH (IIB)
		$C_0 = 160 nF (IIC) /$
		1160nF (IIB)
		Ui = 30V
		li = 10mA
		Pi = 0.3W
		Ci = 6nF
		$Li = 5\mu H$
HA, TA	No. 26, 27	1)
		Profibus PA (Fisco Field Device) /
		Foundation Fieldbus
		$U_i = 30V$
		$I_i = 570 \text{mA}$
		$P_i = 8.5W$
		$L_i = 10\mu H$
		$C_i = 5nF$
MB, RB	No. 26, 27	APL port profile SLAX / SPE PoDL classes 10, 11, 12
		$U_N = 30V_{DC}$
		$U_{M} = 250V_{AC}$

|--|

Certificate Number: Sira 16ATEX2219X

Equipment: Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Applicant: Endress+Hauser Flowtec AG

MC, RC	No. 26, 27	<u>1), 2)</u>
		2-WISE power load
		APL port profile SLAA
		$U_i = 17.5V$
		$I_i = 380 \text{mA}$
		$P_i = 5.32W$
		Li ≤ 10µH
		Ci ≤ 5nF
NA, RA	IO1 / RJ45	$U_N = 30V_{DC}$
		$II_{M} = 250 V_{AC}$

¹⁾ applicable for products with approval code dd = BB, BD, B7, B8

²⁾ no additional internal capacitances are effective to the output value (refer to note 1 of drawing "Ethernet-APL Installation Drawing - Device Vendors v1.0, March 8th 2022")

Input/Output 2		
Order Code g =	terminal no.	values
С, G, К	No. 24, 25	$U_i = 30V$
		$I_i = 100 \text{mA}$
		$P_i = 1.25W$
		$L_i = 0$
		$C_i = 0$
B, D, E, F, I, J, L	No. 24, 25	$U_N = 30V_{DC}$
		$U_{M} = 250 V_{AC}$
Н	No. 24, 25	$U_N = 30V_{DC}$
		$I_N = 100 \text{mA}_{DC} / 500 \text{mA}_{AC}$
		$U_{M} = 250 V_{AC}$

Input/Output 3		
Order Code h =	terminal no.	values
С, G, К	No. 22, 23	$U_i = 30V$
		$I_i = 100 \text{mA}$
		$P_i = 1.25W$
		$L_i = 0$
		$C_i = 0$
B, D, E, F, I, J, L	No. 22, 23	$U_N = 30V_{DC}$
		$U_M = 250V_{AC}$
Н	No. 22, 23	$U_N = 30V_{DC}$
		$I_{N} = 100 \text{mA}_{DC} / 500 \text{mA}_{AC}$
		$U_{M} = 250 V_{AC}$

Input/Output 4										
Order Code i =	terminal no.	values								
С, G, К	No. 20, 21	$U_i = 30V$								
		$I_i = 100 \text{mA}$								
		$P_i = 1.25W$								
		$L_i = 0$								
		$C_i = 0$								
B, D, E, F, I, J, L	No. 20, 21	$U_N = 30V_{DC}$								
		$U_{M} = 250 V_{AC}$								

Project Number 80174205



Certificate Number: Sira 16ATEX2219X

Equipment:Proline Promag 300/500, Proline Promass 300/500,
Proline Cubemass 300/500, Proline Prosonic Flow 300/500,
Proline t-mass 300/500Applicant:Endress+Hauser Flowtec AG

H	No. 20, 21	$U_N = 30V_{DC}$
		$I_N = 100 \text{mA}_{DC} / 500 \text{mA}_{AC}$
		$U_M = 250V_{AC}$

Service Interface									
Order Code dd =	terminal no.	values							
В7, ВВ	Service Interface	 Service Interface shall only be installed in areas which are known to be non hazardous with a non-intrinsically safe circuit: U_N = 3.3 V, U_M = 250 V_{AC} or to an intrinsically safe circuit with: Ui = 10V, Ii = n.a., Pi = n.a., Ci = 200nF, Li = 0 							
B8, BD	Service Interface	 Service Interface shall only be installed to a non-intrinsically safe circuit with: U_N = 3.3V, U_M = 250V_{AC} or to an intrinsically safe circuit with: Ui = 10V, Ii = n.a., Pi = na., Ci = 200nF, Li = 0 							
BJ, BN	Service Interface	$U_{\rm N} = 3.3V$							

Antenna bushing		
Order Code dd =	terminal no.	values
BB, BJ, BN, B7	Type N connector	See conditions of safe use

Remote Display	Remote Display										
Order Code dd =	terminal no.	values									
BB, BD, B7, B8	No. 81, 82, 83, 84	Uo = 3.9V									
		Io = 1.5A (spark)									
		200mA (power)									
		Po = 600 mW									
		$Ri = 2.6\Omega$									
		$Co = 670 \mu F$									
		Lo = 0									

Notes:

 For Transmitter with approval code dd = BB, BD, B7 and B8 connected to the Remote Display of Endress+Hauser, Type DKX001 or ODKX001, the cable parameter with ration L/R = ≤ 0.024 mH/Ω applies.

 Remote display type DKX001 or ODKX001 is not intended to be connected to the transmitter electronics with approval code dd = BJ, BN

Certificate Anne	xe		SA
Certificate Number:	Sira 16ATEX2219X	GR	GROUP
Equipment:	Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 30 Proline t-mass 300/500	00/500,	
Applicant:	Endress+Hauser Flowtec AG		

Proline Promag Remote Transmitter and Remote Sensor:

5***** and O5***** with order	<u>code</u> d	<u>Id = BB, BD, B7, B8 in combination with k = B (ISEM in transmitter):</u>
Transmitter terminal board:		
Terminals 4, 5, 6, 7, 8, 32, 33,	->	Uo = 26.6V, Io = 19.2mA, Po = 128mW, Lo = 20mH, Co = 94nF
34, 35, 36, 37		and Uo = 13.3V, Io = 39.2mA, Po =
131mW, Lo = 20mH, Co = 94nF		
Terminals 41, 42	->	$U_N = 60V, I_N = 90mA$
Sensor terminal board:		
Terminals 4, 5, 6, 7, 8, 32, 33,	->	Ui = 26.6V, Ii = n.a., Pi = n.a., Li = 0, Ci = 0
34, 35, 36, 37		
Terminals 41, 42	->	$U_N = 60V, I_N = 90mA$

Interconnection of circuit connected to terminals 4, 5, 6, 7, 8, 37, 36 for use of a cable with a maximum length of 200m is allowed when using a cable which has the following parameters:

Cable inductance \leq 1 mH/km Cable capacitance \leq 0.42 µF/km

5***** and O5***** with	<u>order code d</u>	d = BJ, BN in combination with $k = A$ (ISEM in sensor):
Transmitter terminal board:		
Terminals 61, 62	->	$U_N = 35V$
Terminals 63, 64	->	$U_{N} = 3.3V$
Sensor terminal board:		
Terminals 61, 62	->	$U_N = 35V$
Terminals 63, 64	->	$U_{N} = 3.3V$

Certificate Number: Sira 16ATEX2219X



Equipment:Proline Promag 300/500, Proline Promass 300/500,
Proline Cubemass 300/500, Proline Prosonic Flow 300/500,
Proline t-mass 300/500Applicant:Endress+Hauser Flowtec AG

2.4.2. Thermal Parameters (Zone 1)

Proline P	romag H	/P/W :	300																				
Notes: This page applies to versions with extended order code covering: 5(H/P)3B** - dd 5W3B** - dd with approval option								cCSAus	O5(H/P)3B** - dd O5W3B** - dd cCSAus : dd = CD, CE, C2, C4 IECEx / ATEX: dd = BB, BD						O5x3Bxx - dd O5x3Bxx - dd								
	Standard version with sensor not insulated:										High temperature version with sensor insulated (for insulation refer to manual of E+H Flowtec):												
Sensor	Size / DN	Liner	Tmedmin (°C)	Tamas (°C)	T6	T5	T _{med,max} T4	(°C) (2) T3	T2	T1		Sensor	Size / DN	Size / DN Liner 1		Tamax Tmedmax (°C) T6 T5 T4			(°C) (2) T3	T2 T1			
Promag P Promag W	15600	PTFE	-40	(1) 45 50 55	(85°C) 80 60 	(100°C 90 90 	(135°C) 130 130 130	(200°C) 130 130 130	(300°C) 130 130 130	(450°C) 130 130 130		Promag P Promag W	15600	PTFE	-40	(1) 50 55 60	(85°C) 60 	(100°C 95 95 	(135°C) 130 130 100	(200°C) (3 130 130 100	00°C) (450° 130 130 130 130 100 100	C) 0	
	25200	PFA	-40	60 40 45 50	80 80 60	95 95 90	100 130 130 130	100 150 130 130	100 150 130 130	100 150 130 130			503000	PFA HG	-40	45 50 60 50	80 60 60	95 95 80	130 130 100 80	150 150 100 80	150 150 150 150 100 100 80 80	0	
	503000	HG	-20	60 50 60	60	80	100 80 80	100 80 80	100 80 80	100 80 80			251000 253000	PU	-20 -40	50 45	50 80	50 95	50 120	50 120	50 50 120 121	2	
	253000	ETFE (4)	-20	50 45 55 60	80 	95 95 95	50 120 120 100	50 120 120 100	50 120 120 100	50 120 120 100	-	Notes: (1) (2)	Ta,min = -40 Tmetmas may	(3) 0°C (for li be redu	imitation se ced by ver	60 ee name sions. F	e plate) or limitation	95 95 n of range f	100 for T _{met} se	100 e name plate	100 10	0	
Promag H	2150	PFA	-40	50 55 (3) 60 (3)	80 (3) 65 (3)	95 80	130 130 115	150 150 115	150 150 115	150 150 115		(3) Limitation of T _{imet,nex} = 120°C depending on process pressure (see nameplate) High temperature version with sensor insula Insulation on the compliance with measure of Est					neplate) ensor insulat anual of E+H	ed Flowtec):					
Notes: (1) (2) (3) (4)	Ta,min = -40 T _{met,max} may Promag H lin versions ava Limitation of	be redu nited to illable wi Treatment	th medium = 120°C d	ee name rsions. Fo 50°C @ c tempera lepending	plate) r limitation class T6 ar iture meas on proces	of range nd Tmed,r urement as pressu	for T _{med} se max = 50°C	e name p C @ class neplate)	T6 for op	tional		Sensor	Size / DN	Liner	Trada (*C)	T. C.	(*C	1) T6 (85°C	Tmax to T5 (100*	C (135°C)	t at reference eck (°C) T3 (200°C) (3	T2 00°C)	11 (450°C)
				High ter	mperature	version	with sens	or not in	sulated:		1	Promag P Promag W	all	PTFE PFA HG	-40 -40 -20	6	0 130 0 150 0 80	0 56.4 0 56.4 56.4	71.3 71.3 71.3	72.0	72.0 72.0 72.0	72.0 72.0 72.0	72.0 72.0 72.0
Sensor	Size / DN	Liner	Tmetmin (°C)	(°C) (1)	T6 (85°C)	T5 (100°C	Tretman T4 (135°C)	(°C) (2) T3 (200°C)	T2 (300°C)	T1 (450°C)	1	Notes:		PU ETFE	-20	6	0 50	(3) 56.3	71.3	72.0	72.0	72.0	72.0
Promag P Promag W	15600	PTFE	-40	50 55 60	60 	95 95 	130 130 100	130 130 100	130 130 100	130 130 100		(1) Ta,min = (2) Location (3) Limitatio	 -40°C (for lin of reference in of T_{med,max} * 	point 120°C o	depending	on proc	ess pressu	ire (see nar	meplate)		(2) reference point	~	
	50, 3000	HG		40 50 60	60 	95	130 130 100	150 150 100	150 100 80	150	Aenderung	en: A 10.0 B 24.1	05.2016 / Bn 10.2016 / Bn	F 12.1 G	10.2022 / Br	Alle	gesetzlichen U w Zeichnung di	rheberrechte, w arf ohne unsere	orbehalten.	Ersetzt durch	c		
	251000	PU	-20	60 50	50	80 50	80 50	80 50	80 50	80	1	C 03.0 D 15.0	05.2017 / Bn 02.2018 / Bn	J		Gen	ehmigung wed en Personen ur	er vervielfältigt v od Konkumenzfir	werden noch	Ersatz für: Ersteller: FES	S/ Bn		
	253000	(3)	-40	45 55 60	80	95 95 95	120 120 100	120 120 100	120 120 100	120 120 100	Contro	Drawing	IECEX, A	TEX,	CSA, c	CSAu	S	THE LEVEL		Gezeichnet	10.05.20	16	Bn
Notes: (1) Ta,min = -40°C (for limitation see name plate) (2) T _{matrax} may be reduced by versions. For limitation of range for T _{med} see name plate (3) Limitation of T _{matrax} = 120°C depending on process pressure (see nameplate)								Zone 1	Zone 1, Zone 21, Cl.I Div. 1, Cl.II, Cl.III, Cl.I Zone 1						_								
								Proline	Promag 3	ter 300/500							Ex-geprüft	12.10.20	22	ân			
												311,	lowtec AG.	Kägens	strasse 7.	CH-4	153 Reina	ch BL1, P	ostfach	FES	02601	F	1/3

Certificate Number: Sira 16ATEX2219X



Proline Promag 300/500, Proline Promass 300/500, Equipment: Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endress+Hauser Flowtec AG

Applicant:

Proline Pr	omag H/	/P/W 5	500																				
<u>lotes:</u> This page ap	tes: is page applies to versions with extended order code covering: 5(H/P)5B** - dd 5W5B** - dd*** with approval o							- dd d al option	*B cCS	SAus: dd = C	O5(H/P)5B O5W5B** - D, CE, C2,	- dd dd C4, C7,	B C8	5	x5Bxx - (x5Bxx - (IEC	dd id Ex / ATE	B B X: dd = BB	O5x5Bx O5x5Bx BD, B7, E	ox - dd** ox - dd** 88	B			
				Sensor	of Standa	ird versio	on with se	nsor not i	nsulated							Sensor of (for insulat	High ten ion refer t	o manual	version with of E+H Flow	h sensor in tec)	sulated		
Sensor	Size / DN	Liner	Tmedmin	Tamax			Treatme	(°C) (2)			1	Sensor	Size / DN	Liner	Treatmin	Tamas			Treatmas (°C)	(2)		_	
			(°C)	(°C) (1)	T6 (85°C)	T5 (100°C	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	1				(°C)	(°C)	T6 85°C) (T5	T4 (135°C) (20	T3 T2 (300°C) (300°	2 1 (45	[1 (0°C)	
Promag P	15600	PTFE	-40	60	80	95	130	130	130	130	1	Promag P	15600	PTFE	-40	60	75	95	130 1	30 130	0 1	30	
Promag W	25200	PFA	-40	50	80	95	130	150	150	150	1	Promag W	25200	PFA	-40	60	80	95	130 1	50 15	0 1	50	
				60	80	95	130	130	130	130	1		503000	HG	-20	60	75	80	80 (80 80) 8	80	
	503000	HG	-20	60	80	80	80	80	80	80	-		251000	PU	-20	50	50	50	50 5	50 50) ;	50	
L	251000	PU	-20	50	50	50	50	50	50	50	-		253000	ETFE	-40	55	80	95	120 1	20 120	0 1	20	
1	253000	ETFE (4)	-40	60	80	95	120	120	120	120		Plates: (4)	The min and the	(3)	Tation of	60	75	95	120 1	20 120	0 1	20	
Promag H	2 150	PEA	-40	45	80	95	130	150	150	150	1	Notes: (1)	Tamin = -40	be reduce	ad by yer	sions. For li	imitation o	f ranne fo	T	ame plate			
Proming				55 (3)	80 (3)	95	130	130	130	130	1	(3)	Limitation of	Tonton =	120°C de	epending of	n process	pressure	(see namep)	late)			
	1 1			60 (3)	80 (3)	95	110	110	110	110	1									and,			
Notes: (1)	Ta,min = -40	I°C (for li	mitation s	ee name	plate)		-			-	1					Senso	r of High	temperat	ure version	with senso	r insulat	ted	
(2)	Tredmax may	be reduc	ced by ver	sions. Fo	ir limitation	a of range	for Tred Sf	e name p	late	,						(insula)	tion not in	complian	ce with manu	ual of E+H F	lowtec)		
(3)	Promag H lin	nited to 7	fa,max = !	50°C @ c	lass T6 an	nd Tmed,r	max = 50°C	2 @ class	T6 for opt	ional		Concor	Size / DN	Liner	T	T	T	1	T to be r	measured of	t rafarani	to point at	
(4)	versions available	lable wit	th medium	tempera	dure meas	Aurement		(atelace				Sensor	Sizerun	Lines	1 med.m	nin a,max	@T1		I max 10 De i	sensor ner	ck (°C)	se point at	
(4)	Limitation or	I med/max	120 0 0	epending	on proces	AS pressur	Te (see man	heplater				1	1		(°C)	("C)	(°C)	T6	T5	T4	T3	T2	T1
			1	Sensor	of bligh to	moerati	TO VEREIO	with ser	an an ant i	betel						(1)		(85°C)	(100°C	(135°C) (200°C)	(300°C) (4	50°C)
				Selisui	or myn te	mperatu	re version	with sen	SOF NOT	sulated	1	Promag P	all	PTFE	-40	60	130	63.8	65.7	69	69	69	69
											4	Promag W		PFA	-40	60	150	63.8	65.7	69	69	69	69
Sensor	Size / DN	Liner	Tredmin	Талтах			Tredman	(°C) (2)			1	-		HG	-20	60	80	63.8	65.7	69	69	69	69
		()	(°C)	(°C)	T6	T5	T4	T3	T2	T1	1		1	PU	-20	50	50	63.8	65.7	69	69	69	69
	L			(1)	(85°C)	(100°C	(135°C)	(200°C)	(300°C)	(450°C)				ETFE	-40	60	120 (3)	63.8	65.7	68	68	68	68
Promag P	15600	PTFE	-40	60	80	95	130	130	130	130	-	Notes:	1010 (5-1)	in a land						1		100	
Promag vv	25200	PFA	-40	60	80	90	130	150	150	150	-	(1) 1a,mm =	-40°C (for in	mitation se	se name p	plate)						u <u>e</u> r	
	35 1000	PU	-20	50	50	50	50	50	50	50		(3) Limitatio	of Transmer	= 120°C d	enending	on process	pressure	/see nam	(ate)			D	
	251000	STEE	-20	60	80	95	120	120	120	120	4	(3) Chinado	IT OF TRANSPORT	120 0 0	ebenand.	on process	pressure	(966	iepiate/	(2)	1		
	200000	(3)	-40	00	00	30	120	120	120	120	1	1								(2) 10	terence		ΠΙ
Notes: (1)	Ta,min = -40	"C (for li	mitation s	ee name	plate)						1	1								Prov		67	EN I
(2)	Tredmax may	be reduc	ced by ver	sions. Fo	r limitation	A of range	for Tread S/	e name p	late		1	1										109	
(3)	Limitation of	Tmed,max	= 120°C d	lepending	on procer	ss pressu	re (see nar	meplate)															
												decisions in the	10.05.0010		40.40.00		Alle opsetzlick	on Lithebore	while unchaballing	Emotal 4	for state		
											Aena	derungen: A	10.05.2016	/Bn F	12.10.20	122 / Bn	Pale gesetzion Diese Zeichos	ion darf chos	unsere. vorbenatien	Ersetzt d	Jurch:		
												B	24.10.2016	/Bn G	+		Cenebraicauno	warder warde	Editor warden nor	The second second	0		
													03.05.2017	/Bn Pr	+		Contract Descore	weight Martin		Ersatz iu	ar:		
												P	15.02.2018	/Bn µ			criben Person	en uno nome	menzhriken	Ersteller:	FES/ B	JA	
Transmitte	er for all ve	rsions										E	10.06.2021	/Bn K			zugangig gen	hacht worben.	-	FILE: MYZ	leichng/FES	0260 FIFES0260F	.doc
		Tamax (°C) (1)		-						Co	ontrol Drav	wing IECE	Ex, ATE	EX, CS	A, cCS/	Aus			Gezeich	net	10.05.2016	Bn
	TG			TS	5						Zo	ne 1. Zon	e 21. Cl.I	Div. 1.	CLIL C		I Zone	1		Carrolle			
L	(85°C)		+	(100	(<u>C)</u>															Gepruit		ļ	
Notes: (1)	Ta.min = -50	PC (for I	imitation s	ee name	plate)						Th	ermal Par	ameter							Ex-gepri	üft	12.10.2022	Bn
	14,	a fran			pinere,						Pre	oline Pron	nag 300/5	500						Geseher	n .		+
											F		_										
											L .	Ei	Flowte	c AG. Kā	igenstra	sse 7, CH	-4153 Re	einach Bl	L1. Postfac	, FE	S02	260F	2/3

Project Number 80174205

Certificate Number: Sira 16ATEX2219X



Proline Promag 300/500, Proline Promass 300/500, Equipment: Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endress+Hauser Flowtec AG

Applicant:

Proline Pro lotes: his page appl	mag H/P	/W 50	0 n extende	ed order	code cov	vering:		5(H/ 5W5 with	P)5B** - (B** - dd* approval	option	'A	O5(H/ O5W5 cCSAus: dd	/P)5B** - dd 5B** - dd*** I = CN, C6	A	A	5x58 5x58 CEx / AT	xx - dd*** xx - dd** EX: dd =	A A BJ, BN		O5x5Bxx O5x5Bxx	- dd****	A	
				Sensor	of Standa	ird versio	in with ser	nsor not i	insulated							Sensor (for insu	of High to lation refe	emperatu r to manu	re version al of E+H I	Flowtec)	or insula	ited	
Sensor	Size / DN	Liner	Treat,min (°C)	Ta.max (°C) (1)	T6 (85°C)	T5 (100°C	Tmed,max T4 (135°C)	(°C) (2) T3 (200°C)	T2 (300°C)	T1 (450°C	0	Sensor	Size / DN	Liner	T _{med,min} (°C)	T _{amax} (°C) (1)	T6 (85°C)	T5 (100°C	Tmedmax T4 (135°C)	(°C) (2) T3 (200°C)	T2 (300°C)	T1 (450°C)	
Promag P Promag W	15600 25200 503000	PTFE PFA HG	-40 -40 -20	60 50 60 60	80 80 80 80	95 95 95 80	130 130 130 80	130 150 130 80	130 150 130 80	130 150 130 80		Promag P Promag W	15600 25200 503000 251000	PTFE PFA HG PU	-40 -40 -20 -20	60 60 60 50	70 75 75 50	95 95 80 50	130 130 80 50	130 150 80 50	130 150 80 50	130 150 80 50	
Dennes H	251000	PU ETFE (4)	-20 -40	50 60	50 80	50 95	50 120	50 120	50 120	50 120		Notes: (1)	253000 Ta,min = -4/	ETFE (3) 0°C (for I	-40 limitation s	60 ee name	70 plate)	95	120	120	120	120	
Promag H	2150	PFA	-40	35 45 60	80 80 80	95 95 95	130 135 115	150 135 115	150 135 115	150 135 115	-	(2) (3)	Tmetmax may Limitation of	f Tred,max	ced by ver	tepending	or limitation	ss pressu	for T _{med} se re (see nar	ee name pla meplate)	ite		
Notes: (1) (2) (3)	Ta,min = -40 Tmed.max may Promag H lin	°C (for lin be reduce mited to 1	mitation s bed by ver Ta,max =	rsions. Fo 50°C @ c	plate) r limitation lass T6 ar	of range nd Tmed,r	for T _{met} se max = 50°C	e name p C @ class	late T6 for opt	tional]					Sensor (insulati	of High te on not in c	ompliance	e with man	with sense ual of E+H I	or insula Flowtec):	ted	
(4)	Limitation of	Tmed.max	h medium = 120°C d	a temperal depending	on procer	ss pressur	re (see nar	neplate)				Sensor	Size / DN	Liner	Tmed,min (°C)	Tamas (°C)	@T1 (°C)	тө	Tmax to be	sensor ne T4	ck (°C) T3	T2	T1
				Sensor	of High te	emperatur	re version	with sen	isor not in	sulated:		Promag P Promag W	all	PTFE	-40	(1) 60	130	(85°C) 63.8	(100°C 65.7	(135°C) 69	(200°C) 70.9	(300°C) 70.9 70.9	(450°C) 70.9
Sensor	Size / DN	Liner	Treat,min (°C)	(°C) (1)	T6 (85°C)	T5 (100°C	Tred/max T4 (135°C)	(°C) (2) T3 (200°C)	T2 (300°C)	T1 (450°C	a	r toining th		HG PU ETEE	-20 -20	60 50	80 50	63.8 63.8	65.7 65.7	69 69	70.9	70.9	70.9
Promag P Promag W	15600 25200 503000 251000 253000	PTFE PFA HG PU ETFE (3)	-40 -40 -20 -20 -40	60 60 60 50 60	80 80 80 50 80	95 95 80 50 95	130 130 80 50 120	130 150 80 50 120	130 150 80 50 120	130 150 80 50 120		Notes: (1) Ta,min = (2) Location (3) Limitation	= -40°C (for li of reference n of T _{medmax} :	point = 120°C	see name depending	plate) on proce	ess pressu	re (see na	ameplate)		eference		T
Notes: (1) (2) (3)	Ta,min = -40 Tmet.max may Limitation of	*C (for lin be reduced Treetmax	mitation s bed by ver = 120°C c	ee name p rsions. Fo depending	plate) r limitation on proces	s of range	for Treat se re (see nar	e name p meplate)	late											point	t	Ų	
											Aenderunge	n: A 10.05 B 24.10 C 03.01 D 15.03 E 10.0	5.2016 / Bn 0.2016 / Bn 5.2017 / Bn 2.2018 / Bn 6.2021 / Bn	F 12.1 G H J	10.2022 / Bn	Alle g Diese Genel dritter zugäl	esetzlichen Un Zeichnung da hmigung wede Personen und ngig gemacht v	heberrochte, v rf ohne unsere r vervielfältigt d Konkumenzfi werden.	vorbehalten. a werden noch irmen	Ersetzt dun Ersatz für: Ersteller: Fi FLE: M'Zeic	ES / Bn	60/F/FES0260F	doc
Transmitter Type of	for all version	ons:		Tames (°C	1(1)						Control	Drawing	ECEX, A	TEX,	CSA, c	CSA _{US}				Gezeichnet	10	0.05.2016	Bn
enclosure	Ordinary loc (°C)	ation	T6 (85*(C)	T5 (100°	с	T4 (135°C)				Therma	l Parame	ter	1, 01.	II, CI.III,	, CI.1 Z	one 1			Geprüft	12	2 10 2022	Ba
plastic Notes: (1)	60 aluminium er	nclosure:		= -50°C (fi	or limitatio	n see nan	ne plate)	\exists			Proline	Promag 3	300/500							Gesehen		. 10.2022	Div.
	plastic enclos	sure. Ta,		0									lowtec AG.	Kägens	strasse 7.	CH-41	53 Reina	ch BL 1. F	Postfach	FES	5020	60F	3/3

Project Number 80174205

Certificate Number:Sira 16ATEX2219XEquipment:Proline Promag 300/500, Proline Promass 300/500,
Proline Cubemass 300/500, Proline Prosonic Flow 300/500,
Proline t-mass 300/500Applicant:Endress+Hauser Flowtec AG

3. Proline Prosonic Flow G300/500 and Proline Prosonic Flow P 500

3.1. Marking

Proline Pro Order Cod 9*3*** –	osonic Flow G 3 le: dd*ff********	00 *****+#**# ********	*#	
dd = approval	ff = I/O	ATEX marking	Marking of Ex protection	lr pr
BB	HA, TA, CA, CB, CC, CD, MC, RC	ll2(1)G ll2(1)D	Ex db eb ia [ia Ga] IIC T6T1 Gb Ex tb [ia Da] IIIC T** °C Db	db eb ia
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	ଛି II2G ଛି II2D	Ex db eb ia IIC T6T1 Gb Ex tb IIIC T** °C Db	tb [ia [ia
BD	HA, TA, CA, CB, CC, CD, MC, RC	 II2(1)G II2(1)D 	Ex db ia [ia Ga] IIC T6T1 Gb Ex tb [ia Da] IIIC T** °C Db	db ia
	BA, BB, GA, LA, NA, RA, SA, MA, MB,	[©] II2G [©] II2D	Ex db ia IIC T6T1 Gb Ex tb IIIC T** °C Db	tb [ia
	RB			[ia

Informat	ion: Marking of
protectio	n representative for
db ->	electronic compartment
eb ->	terminal compartment
ia ->	sensor, display
tb ->	transmitter enclosures
[ia Ga]->	electronic with
	input/output Ex ia
[ia Da]->	electronic with
	input/output Ex ia
db ->	electronic and terminal
	compartments
ia ->	sensor, display
tb ->	transmitter enclosures
[ia Ga]->	electronic with
	input/output Ex ia
[ia Da]->	electronic with
	input/output Ex ia

Proline Pr	osonic Flow G 5	500 Digital (wit	egrated in sensor)		
Order Coo	de:				
9*5*** -	dd*ff****A***				
09*5***	- dd*ff****A*	*****	**+#**#		
dd =	ff =	Device	ATEX	Marking of Ex protection	Information: Marking of
approval	1/0		marking		protection representative for
BJ and	CA, CB, CC,	Transmitter			db -> sensor terminal box
BN	CD, HA, TA,	Sensor	🗟 II2G	Ex db ia IIC T6T1 Gb	ia -> sensor
	BA, BB, GA,		🗟 II2D	Ex ia tb IIIC T** °C Db	tb -> sensor, sensor terminal
	LA, NA, RA,				box
	RB, RC, SA,				
	MA, MB, MC				
BN	CD, HA, TA, BA, BB, GA, LA, NA, RA, RB, RC, SA, MA, MB, MC	Sensor	ଦ୍ଧି II2G ତ୍ରି II2D	Ex db ia IIC T6T1 Gb Ex ia tb IIIC T** °C Db	ia -> sensor tb -> sensor, sensor terminal box



Certificate Anne		CSA	
Certificate Number:	Sira 16ATEX2219X	QF	GROUP
Equipment:	Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 30 Proline t-mass 300/500	0/500,	
Applicant:	Endress+Hauser Flowtec AG		

Proline Pro	osonic Flow P 5	rated in transmitter)			
Order Coc	le:				
9P5*** -	dd*ff***B****	*******+#**	*#		
O9P5***	- dd*ff***B***				
DK9013 -	dd*******				
ODK9013	- dd******	* *			
dd =	ff =	Device	ATEX	Marking of Ex protection	Information: Marking of
approval	1/0		marking		protection representative for
BB	CA, CB, CC,	Transmitter	🗟 II2(1)G	Ex db eb ia [ia Ga] IIC T6 T5 Gb	db -> electronic
	CD, HA, TA,		🗟 II2(1)D	Ex tb [ia Da] IIIC T85°C Db	compartment
	BA, BB, GA,	Sensor	🗟 II2G	Ex ia IIC T6T1 Gb	eb -> terminal
	LA, NA, RA,		🗟 II2D	Ex ia IIIC T** °C Db	compartment
	RB, RC, SA,				ia -> sensor, display
	MA, MB, MC				tb -> transmitter
					enclosures
					[ia Ga] -> electronic with
					input/output Ex ia
					and/or output for
					sensor circuit
					[ia Da]-> electronic with
					input/output Ex ia
					and/or output for
	04 05 00	T			sensor circuit
BD	CA, CB, CC,	Transmitter	[™] 112(1)G		db -> electronic and
		Caraaan	₩ 112(1)D		terminal
	BA, BB, GA,	Sensor	II2G		
			W IIZD		the strangemitter
	KD, KC, SA,				
					Fig. Cal > electropic with
					[Id Gd]-> electronic with
					and/or output for
					sensor circuit
					[ia Da]-> electronic with
					input/output Ex ia
					and/or output for
					sensor circuit

Cer	tificat	e An	inexe	CR CSA						
Cert	ificate I	Numbe	er: Sira 16ATEX2219X	GROUP"						
Equipment: Applicant:			Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endress+Hauser Flowtec AG							
3.2.	Order Extend 9G3 09G 9x3I 09x Extend 9G5 09G	Code led ord bcc - (3bcc - bxx - (3bxx - led ord bcc - (5bcc - bxx - (er code Proline Prosonic Flow G 300: ddeffghjlpsstuuuvww + #**# - ddeffghjlprsstuuuvwwyy + #**# ddeffghjlprrssww + #**# - ddeffghjlprrsswwyy + #**# er code Proline Prosonic Flow G 500: ddeffghijkmnopsstuuuvww + #**# - ddeffghijkmnopsstuuuvwwy + #**#	for OEM-version for replacement transmitter for replacement transmitter OEM for OEM-version for replacement transmitter						
	09x	5DXX -	- ddeffgnijkmopqqrrsswwyy + #^^#	for replacement transmitter OEM						
	b cc dd	=	GenerationB = Generation of FlowmeterSizeany double digits with combination of numlApprovalProline Prosonic Flow G 300:BB = Ex db eb [ia] IIC T6T1 Gb Ex tb IIIC T** DbBD = Ex db [ia] IIC T6T1 Gb Ex tb IIIC T** DbProline Prosonic Flow G 500:BJ = Ex ia IIC T6T1 Gb Ex tb IIIC T** DbBN = Ex ia IIC T6T1 Gb Ex tb IIIC T** Db	ber or letter (sensor) (sensor) (sensor)						
	e	=	Power Supply D = 24Vdc E = 100-230Vac I = 100-230Vac / 24Vdc X = sensor only							

Certificat	te Anne	exe						
Certificate	Number:	Sira 16ATEX2219X						
Equipment: Applicant:		Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endress+Hauser Flowtec AG						
££	1							
ff	= In BA BE CA CE CC CC CC GA HA LA M/ ME MC NA	<pre>put / Output 1 A = 4-20mA HART B = 4-20mA WHART A = 4-20mA HART Ex i (passive) B = 4-20mA WHART Ex i (passive) C = 4-20mA WHART Ex i (active) A = Profibus PA A = Profibus PA A = Profibus PA Ex i A = Profibus DP A = Modbus RS485 B = Modbus C = Modbus Ex i A = EtherNet/IP A = Profinet IO</pre>						
	RB RC SA TA XX	 = Profinet = Profinet Ex i = Foundation Fieldbus = Foundation Fieldbus Ex i = sensor only 						
g	= In A B C D E F G H I J K L X	<pre>put / Output 2 = without Input/Output 2 = 4-20mA = 4-20mA Ex i (passive) = Configurable IO = Pulse/Frequency/Switch output = Pulse output phase-shifted = Pulse/Frequency/Switch output Ex i = Relay = 4-20mA input = Status input = Pulse output Ex i = Pulse output Ex i = Pulse output Ex i = Pulse output = sensor only</pre>						
h	= In A B C D E F G H I J K L X	<pre>put / Output 3 = without Input/Output 3 = 4-20mA = 4-20mA Ex i (passive) = Configurable IO = Pulse/Frequency/Switch output = Pulse output phase-shifted = Pulse/Frequency/Switch output Ex i = Relay = 4-20mA input = Status input = Pulse output Ex i = Pulse output = sensor only </pre>						

Certificate N	lumber:	Sira 16ATEX2219X									
Equipment: Applicant:		Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endress+Hauser Flowtec AG									
i	= Ir A B C D E F G H I J K L X	<pre>iput / Output 4 (Proline 500 only) = without Input/Output 4 = 4-20mA = 4-20mA Ex i (passive) = Configurable IO = Pulse/Frequency/Switch output = Pulse output phase-shifted = Pulse/Frequency/Switch output Ex i = Relay = 4-20mA input = Status input = Pulse output Ex i = Pulse output Ex i = Pulse output Ex i = Sensor only</pre>									
j	= Di wi	isplay / Operation ith remote Display : Ο ithout remote Display : any single number or letter except Ο									
k	= Ir A	ntegrated ISEM electronic (Proline 500 only)									
I	= He	ousing (Proline 300 only)									
m	= Tr	ansmitter Housing (Proline 500 only)									
n	= Se	ensor Housing (Proline 500 only)									
0	= Ca	able Sensor Connection (Proline 500 only)									
р	= Ca	able Entry									
qq	= Uj	pgrade Kid									
rr	= Ex G/ 00	kisting Product (refer to assignment of flowmeter to replacement transmitter) A = Prosonic Flow G D = not used									
SS	= M ar	easuring tube material, sensor version 1y double digits with combination of number or letter									
t	= Pr ar	ocess component av single number or letter									
uuu	= Pr ar	ocess connection by triple digits with combination of number or letter									
V	= Ca ar	alibration ny single number or letter									
ww	= De A1 A2	evice model (two digit) (refer to assignment of flowmeter to replacement transmitter) I = product version 1 2 = product version 2									
уу	= Cu ar	ustomer version (two digits) ny double digits with combination of number or letter									
* *	= O ar	ption in two digits (none, two or multiple of two digits) by combination of number and/or letter									



Certificate	e A	nnex	(e	AR CSA					
Certificate N	lum	ber:	Sira 16ATEX2219X	GROUP"					
Equipment: Applicant:			Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endress+Hauser Flowtec AG						
	_	Siar	s used as indicator for ontional a	obbreviation of extended order code					
Extendo 9P5b 09P5 9x5b 09x5	ed o occ - obcc oxx - oxx - obx>	rder coo - ddeffg - ddeff - ddeff < - dde	le Proline Prosonic Flow P 500: ghjkmosstuuvvww + #**# ffghjkmosstuuvvwwyy + #**# ghijkmnopprrssww + #**# ffghijkmnopprrsswwyy + #**#	for OEM-version for replacement transmitter for replacement transmitter OEM					
b =	= G	ienerat	ion						
CC =	B = N a	lountin ny doub	 Generation of Flowmeter Ig Type Ide digits with combination of number 	and/or letter					
dd =	= A B B	pprova B =	 I Transmitter Ex db eb [ia] IIC T6T5 Gb Ex tb IIIC T** Db Ex ia IIC T6T1 Gb Ex ia IIIC T** Db Ex db [ia] IIC T6T5 Gb Ex tb IIIC T** Db Ex tb IIIC T** Db Ex ia IIC T6T1 Gb Ex ia IIIC T6T1 Gb Ex ia IIIC T** Db 	(transmitter) (transmitter) (Sensor) (Sensor) (transmitter) (transmitter) (Sensor) (Sensor)					
e =	= P D E	ower S	Supply = 24Vdc = 100-230Vac = 100-230Vac / 24Vdc						
ff =	= I B B C C C C C C C C C C C C C C C C C	nput / A : B : A : B : C : D : A	Output 1 = 4-20mA HART = 4-20mA WHART = 4-20mA WHART Ex i (passive) = 4-20mA WHART Ex i (

Certificat	e Anne	exe							
Certificate I	Number:	Sira 16ATEX2219X							
Equipment:		roline Promag 300/500, Proline Promass 300/500, roline Cubemass 300/500, Proline Prosonic Flow 300/500, roline t-mass 300/500 indress+Hauser Flowtec AG							
g	= Input A B C D E F G H I J K L X A B C D E F G H I J K L X Input A B C D E F G H I J K L X X Input X X X X X X X X X X X X X X X X X X X	<pre>/ Output 2 = without Input/Output 2 = 4-20mA = 4-20mA Ex i (passive) = Configurable IO = Pulse/Frequency/Switch output = Pulse output phase-shifted = Pulse/Frequency/Switch output Ex i = Relay = 4-20mA input = Status input = Pulse output Ex i = Pulse output Ex i = Pulse output = Sensor only / Output 3 = without Input/Output 3 = 4-20mA = 4-20mA Ex i (passive) = Configurable IO = Pulse/Frequency/Switch output = Pulse/Frequency/Switch output Ex i = Relay = 4-20mA input = Status input = Pulse output phase-shifted = Pulse/Frequency/Switch output Ex i = Relay = 4-20mA input = Status input = Pulse output Ex i = Pulse output Ex i</pre>							
i	= Input A	/ Output 4 = without Input/Output 4							
j	 X Display any sin 	 Sensor only y / Operation gle number or letter 							
k	= Integr A B	ated ISEM electronic = Sensor = Transmitter							
m	= Transr	nitter Housing ale number or letter							
n	= Cable any sin	Sensor Connection gle number or letter							
0	= Cable any sin	Entry gle number or letter							
рр	= Upgrad	de Kit							
rr	= Existin PA 00	 g Product (see assignment of flowmeter to replacement transmitter) = Prosonic Flow P 500 = not used 							

ertinca		EXE CSA
Certificate Number: Equipment:		Sira 16ATEX2219X GROUP
		Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endross - Hauser Flowtos AC
чрысант.		
SS	= Senso	ir type
t	any do = Proce	uble digits with combination of number and/or letter ss Temperature
	any sir = Cable	ngle number or letter
uu	any do	uble digits with combination of number and/or letter
VV	= Instal	lation set
	any do	uble digits with combination of number and/or letter
WW	= Device	= product version 2
уу	= Custo	mer version (two digits)
**	any do	uble digits with combination of number or letter
		mbination of number and/or letter
<i>#</i> _	- Signs	used as indicator for ontional abbreviation of extended order code
OD	K9013 –de	dqqrwwyy + #**# for OEM-version
dd	= Appro	val
	Proline	Prosonic Flow P 500
	BB	= Ex ia IIC T6T1 Gb
	חח	Ex la HIC I ** Db
	BD	
aa	- Sonso	
ЧЧ	any do	uble digits with combination of number and/or letter
r	= Proce	ss Temperature
	any sir	ngle number or letter
ww	= Device	e model (two digit) (see assignment of flowmeter to replacement transmitter)
vv	= Custo	mer version (two digits)
	any do	uble digits with combination of number or letter
* *	= Option	n in two digits (none, two or multiple of two digits)
#,+	any co = Signs	mbination of number and/or letter used as indicator for optional abbreviation of extended order code
Note:	Clamp-C	In sensors types DK9013 and ODK9013 are intended for use as replacement of sensors
	types 9P	5B and O9P5B from one sensor set to two sensor sets

Certificate Number:	Sira 16ATEX2219X	G
Equipment:	Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500,	
Applicant:	Proline t-mass 300/500 Endress+Hauser Flowtec AG	

3.3. Assignment of Flowmeter to Replacement Transmitter

The replacement transmitters are assigned to the flowmeter Proline Prosonic Flow 300/500 as follows:

Product flowmeters	Replacement transmitter type					
Order code	Generation code b =	device model code ww =	Order code	Generation code b =	existing product rr =	device model code ww =
9G*b**ww, 09G*b**ww	В	A1 / A2	9x*bxxrrww, O9x*bxxrrww	В	GA	A1 / A2
9P*b**ww, 09P*b**ww	В	A1 / A2	9x*bxxrrww, O9x*bxxrrww	В	PA	A1 / A2

3.4. Parameters

3.4.1. Electrical Parameters

Power Supply		
Order Code e =	terminal no.	values
D ¹⁾	No. 1(L+/L), 2(L-	$U_N = 19.228.8V_{DC}$
	/N)	$U_{M} = 250 V_{AC}$
E ¹⁾	No. 1(L+/L), 2(L-	$U_N = 85264V_{AC}$
	/N)	$U_M = 250V_{AC}$
²)	No. 1(L+/L), 2(L-	$U_N = 19.228.8V_{DC} / 85264V_{AC}$
	/N)	$U_{M} = 250 V_{AC}$

applicable for products with approval code dd = BB, BD
 applicable for products with approval code dd = BJ, BN

Input/Output 1		
Order Code ff =	terminal	values
	no.	
BA, BB, MA	No. 26, 27	$U_N = 30V_{DC}$
		$U_{M} = 250V_{AC}$
LA, GA, SA	No. 26, 27	$U_N = 32V_{DC}$
		$U_{M} = 250V_{AC}$
CA, CB	No. 26, 27	$U_i = 30V$
		$I_i = 100 \text{mA}$
		$P_i = 1.25W$
		$L_i = 0$
		$C_i = 6nF$





Equipment: Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Applicant: Endress+Hauser Flowtec AG

CC, CD	No. 26, 27	1) $U_0 = 21.8V$ $I_0 = 90mA$ $P_0 = 491mW$ $L_0 = 4.1mH (IIC) / 15mH (IIB)$ $C_0 = 160nF (IIC) / 1160nF (IIB)$ $U_i = 30V$ $I_i = 10mA$ $P_i = 0.3W$ $C_i = 6nF$ $I_i = 5uH$
HA, TA	No. 26, 27	1)
		Profibus PA (Fisco Field Device) /
		Foundation Fieldbus
		$U_i = 30V$
		$I_i = 570 \text{mA}$
		$P_i = 8.5W$
		$L_i = 10\mu H$
	N	$C_i = 5 \text{ h}$
MB, RB	NO. 26, 27	APL port profile SLAX / SPE PODL classes 10, 11, 12
		$U_{\rm N} = 30 V_{\rm DC}$
MC. RC	No 26 27	1) 2)
	10. 20, 21	2-WISE power load
		APL port profile SLAA
		$U_i = 17.5V$
		$I_i = 380 \text{mA}$
		$P_{i} = 5.32W$
		$ L_i \leq 10\mu H$
		$C_i \leq 5nF$
NA, RA	101 / RJ45	$U_{\rm N} = 30 V_{\rm DC}$
		$U_{M} = 250V_{AC}$

¹⁾ applicable for products with approval code dd = BB, BD

²⁾ no additional internal capacitances are effective to the output value (refer to note 1 of drawing "Ethernet-APL Installation Drawing - Device Vendors v1.0, March 8th 2022")

Certificate Anne	xe		CSA
Certificate Number:	95	GROUP	
Equipment:	Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300 Proline t-mass 300/500	0/500,	
Applicant:	Endress+Hauser Flowtec AG		

Input/Output 2		
Order Code g =	terminal	values
	no.	
C, G, K	No. 24, 25	$U_i = 30V$
		$I_i = 100 \text{mA}$
		$P_i = 1.25W$
		$L_i = 0$
		$C_i = 0$
B, D, E, F, I, J, L	No. 24, 25	$U_N = 30V_{DC}$
		$U_{M} = 250 V_{AC}$
Н	No. 24, 25	$U_N = 30V_{DC}$
		$I_N = 100 \text{mA}_{DC} / 500 \text{mA}_{AC}$
		$U_{M} = 250 V_{AC}$

Input/Output 3		
Order Code h =	terminal	values
	no.	
C, G, K	No. 22, 23	$U_i = 30V$
		$I_i = 100 \text{mA}$
		$P_i = 1.25W$
		$L_i = 0$
		$C_i = 0$
B, D, E, F, I, J, L	No. 22, 23	$U_N = 30V_{DC}$
		$U_{M} = 250V_{AC}$
Н	No. 22, 23	$U_N = 30V_{DC}$
		$I_N = 100 \text{mA}_{DC} / 500 \text{mA}_{AC}$
		$U_{M} = 250V_{AC}$

Input/Output 4		
Order Code i =	terminal	values
	no.	
C, G, K	No. 20, 21	$U_i = 30V$
		$I_i = 100 \text{mA}$
		$P_i = 1.25W$
		$L_i = 0$
		$C_i = 0$
B, D, E, F, I, J, L	No. 20, 21	$U_N = 30V_{DC}$
		$U_{M} = 250 V_{AC}$
Н	No. 20, 21	$U_N = 30V_{DC}$
		$I_N = 100 \text{mA}_{DC} / 500 \text{mA}_{AC}$
		$U_{M} = 250 V_{AC}$

Certificate Number:	Sira 16ATEX2219X
Equipment:	Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500,
	Proline t-mass 300/500
Applicant:	Endress+Hauser Flowtec AG

Service Interfac	ce		
Order dd =	Code	terminal no.	values
BB		Service Interface	 Service Interface shall only be installed in areas which are known to be non hazardous with a non-intrinsically safe circuit: U_N = 3.3 V, U_M = 250 V_{AC} or to an intrinsically safe circuit with: Ui = 10V, Ii = n.a., Pi = n.a., Ci = 200nF, Li = 0
BD		Service Interface	 Service Interface shall only be installed to a non-intrinsically safe circuit with: U_N = 3.3V, U_M = 250V_{AC} or to an intrinsically safe circuit with: Ui = 10V, Ii = n.a., Pi = n.a., Ci = 200nF, Li = 0
BJ, BN		Service Interface	$U_{N} = 3.3V$

Antenna bushing		
Order Code dd =	terminal no.	values
BB, BJ, BN	Type N connector	See conditions of safe use

Remot	e Disp	olay	
Order	term	inal	values
Code	no.		
dd =			
BB,	No.	81,	Uo = 3.9V
BD	82,	83,	Io = 1.5A (spark)
	84		200mA (power)
			Po = 600 mW
			$Ri = 2.6\Omega$
			$Co = 670 \mu F$
			Lo = 0

Notes:

- For Transmitter with approval code dd = BB and BD connected to the Remote Display of Endress+Hauser, Type DKX001 or ODKX001, the cable parameter with ration $L/R = \le 0.024 \text{ mH}/\Omega$ applies.
- Remote display type DKX001 or ODKX001 is not intended to be connected to the transmitter electronics with approval code dd = BJ, BN

Prosonic Flow G Remote Transmitter and Remote Sensor:



GROUP"

Certificate Number:Sira 16ATEX2219XEquipment:Proline Promag 300/500, Proline Promass 300/500,
Proline Cubemass 300/500, Proline Prosonic Flow 300/500,
Proline t-mass 300/500Applicant:Endress+Hauser Flowtec AG

Sensor terminal board:	
Terminals 61, 62	$-> U_N = 35V$
Terminals 63, 64	$-> U_N = 3.3V$

Prosonic Flow P Remote Transmitter and Remote Sensor:

<u>9P**** and O9P**** v</u>	vith order code dd = BB, BD in combination with k = B (ISEM in transmitter):
Transmitter terminal board: CH1, CH2	-> Uo = 40V, Io = 36.7mA, Po =459mW, Li = n.a., Ci = n.a.
Sensor terminal board: Connector	-> Ui = 40V, Ii = n.a., Pi =n.a., Li = n.a., Ci = n.a.

Certificate Number: Sira 16ATEX2219X



Equipment:Proline Promag 300/500, Proline Promass 300/500,
Proline Cubemass 300/500, Proline Prosonic Flow 300/500,
Proline t-mass 300/500Applicant:Endress+Hauser Flowtec AG

3.4.2. Thermal Parameters (Zone 1)

3.4.2.1. Proline Prosonic Flow G 300/500



Certificate Number: Sira 16ATEX2219X



Proline Promag 300/500, Proline Promass 300/500, Equipment: Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endress+Hauser Flowtec AG

Applicant:



Certificate Number: Sira 16ATEX2219X



Equipment:Proline Promag 300/500, Proline Promass 300/500,
Proline Cubemass 300/500, Proline Prosonic Flow 300/500,
Proline t-mass 300/500Applicant:Endress+Hauser Flowtec AG

3.4.2.2. Proline Prosonic Flow P 500

g - FF	naea oraer coae covering:	DK9013-dd with approval opti	tion c	DDK901 CSAus ECEx / J	- dd 3-dd / CSA: ATEX:	dd = dd =	CD, C2 BB, BD	9x5Bx0 2, C4	(– da	в	0	9x5Bxx – dd	в	
Transmitter: Temperature tab	e for all versions	Sen	nsor: Tempe ulated and r	erature not insu	table f ilated	or vers	ions wi	ith sen	sor					
Terr	-	Туре	e of	Treed	<u>г</u>	T,			Tree	In I'Cl				
T6 (85°C)	T5 (100°C)	sens	sor mir	n max	min [°Cl	max [°C]	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)		
55	60	C-03	30-A -50	120	-50	80	80	95	120	120	120	120		
Notes: (1) Ta,min = -50°C (for lin	nitation see name plate)	C-10	00-В -40	80	-40	50	50	80	80	80	80	80		
		C-10	00-C 0	170	-40	50	50	95	130	170	170	170		
						80		95	130	170	170	170		
		C-20	00-B -40	80	-40	65	65	80	80	80	80	80		
		C-20	0.0	170	-40	80	85	95	130	170	170	170		
		0.20				80		95	130	170	170	170		
		C-50	00-A -40	150	-40	75	75	95	130	150	150	150		
		CHO	060 A	435	60	80	75	95	130	150	150	150		
		Child	-50	435	-50	80	75	95	130	190	285	435		
		CH-1	100-A -50	435	-50	75	75	95	130	190	285	435		
						80		95	130	190	285	435		
		Ae	enderungen: A B C D	07.08.20 30.07.20 30.09.20	19 / Bn 20 / Bn 21 / Bn	5 G H H		Alle g Disse Genel dritter	zeichnung de Zeichnung de hmigung wede Personen un nois gemacht	rheberrechte. af ohne unser er vervielfältigt af Konkurrenzt werden.	vorbehalten. e werden noch inmen	Ersetzt durch: Ersetz für: Ersteller: FES / FLE: M*Zeizhwitz	Bn	C.der
		C	ontrol Draw	ring IE	CEx, A	TEX,	CSA, c	CSAus				Gezeichnet	07.08.2019	в
		Z	one 1, Zone	a 21, C	I.I Div	. 1, CI.I	I, CI.III	, CI.I Z	one 1			Geprüft		T
		т	hermal Para	ameter								Ex-geprüft	30.09.2021	В
		P	roline Prose	onic Flo	wP5	500						Gesehen		

Certificate Number: Sira 16ATEX2219X



Proline Promag 300/500, Proline Promass 300/500, Equipment: Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Applicant: Endress+Hauser Flowtec AG

Proline t-mass 300/500 4.

Marking 4.1.

Marking							
Proline t-mass F/I 300							
Order Cod	le:						
6F3*** –	dd*ff******	*****+#**#					
O6F3***	- dd*ff******	*******	*#				
613*** -	dd*ff*******	*****+#**#					
0613*** -	- dd*ff******	*********	**#				
dd =	ff = I/O	ATEX	Marking of Ex protection				
approval		marking					
BB	CA, CB, CC,	☑ II2(1)G	Ex db eb ia [ia Ga] IIC T4T1 Gb				
	CD, HA, TA,	🗟 II1/2(1)G	Ex db eb ia [ia Ga] IIC T4T1 Ga/Gb				
	MC, RC	☑ II2(1)D	Ex tb [ia Da] IIIC T** °C Db				
	BA, BB, GA,	🗟 II2G	Ex db eb ia IIC T4T1 Gb				
	LA, NA, RA,	🗟 II1/2G	Ex db eb ia IIC T4T1 Ga/Gb				
	SA, MA, MB,	🗟 II2D	Ex tb IIIC T** °C Db				
	RB						
BD	CA, CB, CC,	🖗 II2(1)G	Ex db ia [ia Ga] IIC T4T1 Gb				
	CD, HA, TA,	☑ II1/2(1)G	Ex db ia [ia Ga] IIC T4T1 Ga/Gb				
	MC, RC	☑ II2(1)D	Ex tb [ia Da] IIIC T** °C Db				
	BA, BB, GA.	[©] II2G	Ex db ia IIC T4T1 Gb				
	LA, NA, RA,	☑ II1/2G	Ex db ia IIC T4T1 Ga/Gb				
	SA. MA. MB.	© ∐2D	Fx th IIIC T** °C Db				
	RB						

Informat	ion Marking of
nrotoctio	n ronrocontativo for
protectio	in representative for
db ->	electronic compartment
eb ->	terminal compartment
ia ->	sensor, display
tb ->	transmitter enclosures,
	sensor
[ia Ga]->	electronic with
	input/output Ex ia
[ia Da]->	electronic with
	input/output Ex ia
db ->	transmitter electronic
	and terminal
	compartment
ia ->	sensor
tb ->	enclosures
[ia Ga]->	input/output Ex ia
[ia Da]->	input/output Ex ia

Proline t-r	nass F/I 50				
Order Coc	le:				
6F5*** -	dd*ff****A				
O6F5***	– dd*ff****	*A********	*****+#**#		
615*** -	dd*ff****A	*********	***+#**#		
O6I5*** -	- d*ff****A	********	****+#**#		
dd =	ff =	Device	ATEX	Marking of Ex protection	Information: Marking of
approval	1/0		marking		protection representative for
BJ and	CA, CB,	Transmitter	🗟 II(1)G	[Ex ia] IIC	[Ex ia] -> electronic with output
BN	CC, CD,		🗟 II(1)D	[Ex ia] IIIC	for sensor circuit
	HA, TA,	Sensor	🗟 II2G	Ex db ia IIC T4T1 Gb	db -> sensor terminal box
	BA, BB,		🗟 II1/2G	Ex db ia IIC T4T1 Ga/Gb	ia -> sensor
	GA, LA,		🗟 II2D	Ex ia tb IIIC T** °C Db	tb -> sensor terminal box
	NA, RA,				
	RB, RC,				
	SA, MA,				
	MB, MC				

Certificate Anne	exe		CSA
Certificate Number:	Sira 16ATEX2219X	QF	GROUP
Equipment:	Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300 Proline t-mass 300/500	0/500,	
Applicant:	Endress+Hauser Flowtec AG		

4.2. Order Code

Extend 6F3b	ed ord occ – d	er code Proline t-mass 300: deffghjlpsstttvww + #**# deffghjlpsstttuuvww + #**#							
06F3	Bbcc –	ddeffahilpsstttvwwvv + #**#	for OFM-version						
0613	bcc –	ddeffahilpsstttuuvwwvv + #**#	for OEM-version						
6x3b	xx - c	deffahilpssww + #**#	for replacement transmitter						
06x3	Bbxx –	- ddeffghjlpsswwyy + #**#	for replacement transmitter OEM						
Extend	ed ord	er code Proline t-mass 500:							
6F5b	occ – d	ldeffghijkmnopsstttvww + #**#							
615b	cc – d	deffghijkmnopsstttuuvww + #**#							
06F5	5cc — c	deffghijkmnopsstttvwwyy + #**#	for OEM-version						
0615	icc – c	ldeffghijkmnopsstttuuvwwyy + #**#	for OEM-version						
6x5b)хх — с	ddeffghijkmopssww + #**#	for replacement transmitter						
06x5	5bxx -	- ddeffghijkmopsswwyy + #**#	for replacement transmitter OEM						
b	=	Generation							
		B = Generation of Flowmeter							
CC	=	SIZE							
			up to size = $DN 100 (t-mass F) / 1500mm (t-mass$						
dd	_	l) Approval							
uu	=	Approval Droling t mass 200:							
		$\frac{\text{FIOINE (-IIIdss 300.})}{\text{PP}} = \text{Ev db ob [ia] IIC T4 T1 Cb}$							
		DD = EX UD ED [Id] IIC 1411 GD							
		BD = Ex db [ia] IIC T4 T1 Cb							
		$E_{\text{F}} = E_{\text{F}} db [la] HC T^{*} Db$							
		Proline t-mass 500:							
		BJ = [Ex ia] IIC	(transmitter)						
		Ex ia IIC T4T1 Gb	(sensor)						
		Ex tb IIIC T** Db	(sensor)						
		BN = [Ex ia] IIC	(transmitter)						
		Ex ia IIC T4T1 Gb	(sensor)						
		Ex tb IIIC T** Db	(sensor)						
е	=	Power Supply							
		D = 24Vdc							
		E = 100-230 Vac							
		I = 100-230Vac / 24Vdc							
		X = sensor only							

Certificate Annexe						
Certificate I	Number:	Sira 16ATEX2219X				
Equipment:		Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endress+Hauser Flowtec AG				
ff	= I B C C C C C C C C C C C C C C C C C C	hypet / Output 1A= 4-20mA HARTB= 4-20mA WHART Ex i (passive)B= 4-20mA WHART Ex i (passive)C= 4-20mA WHART Ex i (active)D= 4-20mA WHART Ex i (active)A= Profibus PAA= Profibus PA Ex iA= Profibus DPA= Modbus RS485B= Modbus TCPC= Modbus TCP Ex iA= EtherNet/IPA= Profinet IOB= Profinet KiA= Foundation FieldbusA= Foundation Fieldbus Ex i				
a	- X	<pre>x = sensor only pout / Output 2</pre>				
y	– A B C E F G H J K L X	 without Input/Output 2 without Input/Output 2 4-20mA 4-20mA Ex i (passive) Configurable IO Pulse/Frequency/Switch output Pulse output phase-shifted Pulse/Frequency/Switch output Ex i Relay 4-20mA input Status input Pulse output Ex i Pulse output Ex i Pulse output Ex i Pulse output sensor only 				
h	= I A B C C C C C C F G G H J K K L X	<pre>hput / Output 3 = without Input/Output 3 = 4-20mA = 4-20mA Ex i (passive) = Configurable IO = Pulse/Frequency/Switch output = Pulse output phase-shifted = Pulse/Frequency/Switch output Ex i = Relay = 4-20mA input = Status input = Pulse output Ex i = Pulse output Ex i = Pulse output = sensor only</pre>				

Certificat	e Ann	exe						
Certificate N	lumber:	Sira 16ATEX2219X						
Equipment: Applicant:		Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endress + Hauser Flowtec AG						
i	= 	<pre>nput / Output 4 (Proline 500 only) A = without Input/Output 4 3 = 4-20mA C = 4-20mA Ex i (passive) D = Configurable IO E = Pulse/Frequency/Switch output F = Pulse output phase-shifted G = Pulse/Frequency/Switch output Ex i 1 = Relay = 4-20mA input C = Status input C = Pulse output Ex i = Pulse output Ex i</pre>						
j	> = [v	X = sensor only Display / Operation with remote Display : O						
k	=	without remote Display : any single number or letter except O Integrated ISEM electronic (Proline 500 only)						
I	=	Housing (Proline 300 only) any single number or letter						
m	= 1	Fransmitter Housing (Proline 500 only)						
n	= 3	Sensor Housing (Proline 500 only) any single number or letter						
0	= (Cable Sensor Connection (Proline 500 only)						
р	= (Cable Entry						
SS	= N	Material sensor any double digits with combination of number or letter						
ttt	= F	Process connection						
uu	= (Gasket						
v	= (Calibration						
ww	2 = [any single number or letter Device model (two digit) (refer to assignment of flowmeter to replacement transmitter) A1 = product version 1 A2 = product version 2						
уу	= (Customer version (two digits)						
* *	= (Detion in two digits (none, two or multiple of two digits)						
#,+	= 5	Signs used as indicator for optional abbreviation of extended order code						

Certificate Number:	Sira 16ATEX2219X	N C G
Equipment:	Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300,	/500,
	Proline t-mass 300/500	
Applicant:	Endress+Hauser Flowtec AG	

4.3. Assignment of Flowmeter to Replacement Transmitter

The replacement transmitters are assigned to the flowmeter Proline t-mass 300/500 as follows:

Product flowmeters	Replacement t	ransmitter type				
Order code	Generation code b =	device model code ww =	Order code		Generation code b =	device model code ww =
6F*b**ww, 06F*b**ww	В	A1 / A2	6x*bxxww,	06x*bxxww	В	A1 / A2
61*b**ww, 061*b**ww	В	A1 / A2	6x*bxxww,	06x*bxxww	В	A1 / A2

4.4. Parameters

4.4.1. Electrical Parameters

Power Supply		
Order Code e =	terminal no.	values
D ¹⁾	No. 1(L+/L), 2(L-	$U_N = 19.228.8V_{DC}$
	/N)	$U_{M} = 250V_{AC}$
E ¹⁾	No. 1(L+/L), 2(L-	$U_N = 85264V_{AC}$
	/N)	$U_{M} = 250 V_{AC}$
²⁾	No. 1(L+/L), 2(L-	$U_N = 19.228.8V_{DC} / 85264V_{AC}$
	/N)	$U_{M} = 250 V_{AC}$

¹⁾ applicable for products with approval code dd = BB, BD

²⁾ applicable for products with approval code dd = BJ, BN

Input/Output 1		
Order Code ff =	terminal	values
	no.	
BA, BB, MA	No. 26, 27	$U_N = 30V_{DC}$
		$U_{M} = 250V_{AC}$
LA, GA, SA	No. 26, 27	$U_N = 32V_{DC}$
		$U_{M} = 250V_{AC}$
CA, CB	No. 26, 27	$U_i = 30V$
		$I_i = 100 \text{mA}$
		$P_i = 1.25W$
		$L_i = 0$
		C _i = 6nF



Certificate	Number:	Sira 16ATE)





Proline Promag 300/500, Proline Promass 300/500, Equipment: Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Applicant: Endress+Hauser Flowtec AG

CC, CD	No. 26, 27	1) $U_0 = 21.8V$ $I_0 = 90mA$ $P_0 = 491mW$ $L_0 = 4.1mH (IIC) / 15mH (IIB)$ $C_0 = 160nF (IIC) / 1160nF (IIB)$ $U_i = 30V$ $I_i = 10mA$ $P_i = 0.3W$ $C_i = 6nF$ $L_i = 5uH$
ΗΔ ΤΔ	No 26 27	1)
	100. 20, 27	Profibus PA (Fisco Field Device) /
		Foundation Fieldbus
		$\overline{U_i} = 30V$
		$I_i = 570 \text{mA}$
		$P_i = 8.5W$
		$L_i = 10\mu H$
		$C_i = 5nF$
MB, RB	No. 26, 27	APL port profile SLAX / SPE PoDL classes 10, 11, 12
		$U_N = 30V_{DC}$
	No. 27, 27	$U_{M} = 25UV_{AC}$
	NO. 26, 27	1), 2) 2 WISE power lead
		ΔPI port profile SLAA
		$ I _{i} = 175V$
		$I_i = 380 \text{mA}$
		$P_{i} = 5.32W$
		Li ≤ 10μH
		$C_i \leq 5nF$
NA, RA	IO1 / RJ45	$U_N = 30V_{DC}$
		$U_{M} = 250V_{AC}$

1) applicable for products with approval code dd = BB, BD

2) no additional internal capacitances are effective to the output value (refer to note 1 of drawing "Ethernet-APL Installation Drawing - Device Vendors v1.0, March 8th 2022")

Input/Output 2			
Order Code g =	terminal	values	
	no.		
C, G, K	No. 24, 25	$U_i = 30V$	
		$I_i = 100 \text{mA}$	
		$P_i = 1.25W$	
		$L_i = 0$	
		$C_i = 0$	
B, D, E, F, I, J, L	No. 24, 25	$U_N = 30V_{DC}$	
		$U_{M} = 250V_{AC}$	

Project Number 80174205



Certificate Number: Sira 16ATEX2219X

Equipment:Proline Promag 300/500, Proline Promass 300/500,
Proline Cubemass 300/500, Proline Prosonic Flow 300/500,
Proline t-mass 300/500Applicant:Endress+Hauser Flowtec AG

Н	No. 24, 25	$U_N = 30V_{DC}$
		$I_N = 100 \text{mA}_{\text{DC}} / 500 \text{mA}_{\text{AC}}$
		$U_{M} = 250V_{AC}$

Input/Output 3				
Order Code h =	terminal	values		
	no.			
C, G, K	No. 22, 23	$U_i = 30V$		
		$I_i = 100 \text{mA}$		
		$P_i = 1.25W$		
		$L_i = 0$		
		$C_i = 0$		
B, D, E, F, I, J, L	No. 22, 23	$U_N = 30V_{DC}$		
		$U_{M} = 250 V_{AC}$		
Н	No. 22, 23	$U_N = 30V_{DC}$		
		$I_N = 100 \text{mA}_{\text{DC}} / 500 \text{mA}_{\text{AC}}$		
		$U_{M} = 250 V_{AC}$		

Input/Output 4				
Order Code i =	terminal	values		
	no.			
C, G, K	No. 20, 21	$U_i = 30V$		
		$I_i = 100 \text{mA}$		
		$P_i = 1.25W$		
		$L_i = 0$		
		$C_i = 0$		
B, D, E, F, I, J, L	No. 20, 21	$U_N = 30V_{DC}$		
		$U_{M} = 250 V_{AC}$		
Н	No. 20, 21	$U_N = 30V_{DC}$		
		$I_N = 100 \text{mA}_{DC} / 500 \text{mA}_{AC}$		
		$U_{M} = 250 V_{AC}$		

Service In	Service Interface				
Order Co	de terminal	values			
dd =	no.				
BB	Service Interface	 Service Interface shall only be installed in areas which are known to be non hazardous with a non-intrinsically safe circuit: U_N = 3.3 V, U_M = 250 V_{AC} or to an intrinsically safe circuit with: U_I = 10V, I_I = n.a., P_I = n.a., C_I = 200nF, L_I = 0 			
BD	Service Interface	 Service Interface shall only be installed to a non- intrinsically safe circuit with: U_N = 3.3V, U_M = 250V_{AC} or to an intrinsically safe circuit with: Ui = 10V, Ii = n.a., Pi = n.a., Ci = 200nF, Li = 0 			
BJ, BN	Service Interface	$U_{N} = 3.3V$			

GROUP"

Certificate Number: Sira 16ATEX2219X

Equipment: Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Applicant: Endress+Hauser Flowtec AG

Antenna bushing		
Order Code dd =	terminal no.	values
BB, BJ, BN	Type N connector	See conditions of safe use

Remot	Remote Display				
Order	terminal values		values		
Code	no.				
dd =					
BB,	No.	81,	Uo = 3.9V		
BD	82,	83,	Io = 1.5A (spark)		
	84		200mA (power)		
			Po = 600 mW		
			$Ri = 2.6\Omega$		
			$Co = 670 \mu F$		
			Lo = 0		

Notes:

- For Transmitter with approval code dd = BB and BD connected to the Remote Display of Endress+Hauser, Type DKX001 or ODKX001, the cable parameter with ration L/R = ≤ 0.024 mH/Ω applies.
- Remote display type DKX001 or ODKX001 is not intended to be connected to the transmitter electronics with approval code dd = BJ, BN

t-mass Remote Transmitter and Remote Sensor:

 6^{*****} -... and $O6^{*****}$ -... with order code dd = BJ, BN in combination with k = A (ISEM in sensor):Transmitter terminal board:
Terminals 61, 62, 63, 64-> Uo = 13.8V, Io = 1.156A, Po = 3.3WSensor terminal board:
Terminals 61, 62, 63, 64-> Ui = 14V, Ii = 1.2A, Pi = 3.4W

For interconnection of transmitter to sensor any cable may be used with the following requirements:

• L/R \leq 0.0089 mH/ Ω and C_cable \leq 760nF for group IIC, L/R \leq 0.0356 mH/ Ω and C_cable \leq 4.2µF for group IIB

or

• L_{cable} \leq 26µH and C_{cable} \leq 760nF for group IIC, L_{cable} \leq 104µH and C_{cable} \leq 4.2µF for group IIB

Certificate Number: Sira 16ATEX2219X



Equipment:Proline Promag 300/500, Proline Promass 300/500,
Proline Cubemass 300/500, Proline Prosonic Flow 300/500,
Proline t-mass 300/500Applicant:Endress+Hauser Flowtec AG

4.4.2. Thermal Parameters (Zone 1)



Certificate Number: Sira 16ATEX2219X



Proline Promag 300/500, Proline Promass 300/500, Equipment: Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endress+Hauser Flowtec AG

Applicant:



Certificate Number:	Sira 16ATEX2219X	GR
Equipment:	Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 300/	′500,
Applicant:	Proline t-mass 300/500 Endress+Hauser Flowtec AG	

5. Descriptive Documents

Drawing	Sheets	Rev.	Date (Stamp)	Title
323518-0001ZAA	1 of 1	A	10 October 23	Assembly Drawing Promass sensors
323577-0000ZAD	1 to 2	D	10 October 23	Nameplate sensor Promass A,F,H,I,O,P,Q,S,X 500 analog/digital
323578-0000ZAD	1 to 2	D	10 October 23	Nameplate sensor Promass E 500 analog/digital
323579-0000ZAE	1 to 2	E	10 October 23	Nameplate sensor Cubemass sensor C 500 analog/digital
340884-0002ZHA	1 of 1	A	10 October 23	Assembly Drawing Connection Board L319 Ex Promag
340884-0003ZAA	1 of 1	A	10 October 23	Assembly Drawing Housing G350
340950-0000ZFA	1 of 1	A	10 October 23	Assembly Drawing Connector PL3 Promag
340950-0001ZFA	1 of 1	A	10 October 23	Socket housing 14Pin PL3 Promag
341017-0000ZEA	1 of 1	Α	10 October 23	Assembly Drawing Connection Board L339
341211-0002ZAA	1 of 1	A	10 October 23	Assembly Drawing L308 Ex Promag
341475-0000ZAC	1 of 1	С	10 October 23	Assembly Drawing Connection Board L312
341541-0001ZAA	1 of 1	A	10 October 23	Assembly Drawing extended sensor neck Promag
341541-1000ZBB	1 of 1	В	10 October 23	Assembly Drawing Promag W/P Class I Division
341561-0001ZAA	1 of 1	A	10 October 23	Assembly Drawing transmitter G320 500 analog Alu Ex d
341562-0001ZAA	1 of 1	A	10 October 23	Assembly Drawing transmitter G321 500 analog SS Ex d
341568-0001ZAA	1 of 1	A	10 October 23	Assembly Drawing Promag H G04
341568-0002ZAA	1 of 1	A	10 October 23	Assembly Drawing Connection Board L349 Ex
341594-0000ZAD	1 to 2	D	10 October 23	Nameplate sensor Promag H 500 analog/digital
341595-0000ZAE	1 to 2	E	10 October 23	Nameplate sensor Promag P, W 500 analog/digital
370168-0001ZAA	1 of 1	A	10 October 23	Nameplate sensor Prosonic Flow P ATEX/IECEx
380308-0000ZAA	1 of 1	Α	10 October 23	Nameplate sensor t-mass 300/500 digital
961001814-E	1 to 8	E	10 October 23	Assembly Drawing Sensor PL3 500 digital / analog



Applicant:



Certificate Number: Sira 16ATEX2219X

Equipment: Proline Promag 300/500, Proline Promass 300/500, Proline Cubemass 300/500, Proline Prosonic Flow 30

Proline Cubemass 300/500, Proline Prosonic Flow 300/500, Proline t-mass 300/500 Endress+Hauser Flowtec AG

961001825-B	1 to 2	В	10 October 23	Assembly Drawing Transmitter enclosure G306
961002020-F	1 to 2	F	10 October 23	Assembly Drawing Transmitter PL3 300 enclosure G304
961002023-D	1 to 2	D	10 October 23	Assembly Drawing Transmitter enclosure G305/G307
961002082-B	1 to 2	В	10 October 23	Assembly Transmitter Aluminium Enclosure G324
961002895-A	1 of 1	Α	10 October 23	Assembly Drawing Prosonic Flow G sensor
961003164-A	1 of 1	Α	10 October 23	Assembly Drawing t-mass 300/500
961004078-A	1 of 1	Α	10 October 23	Assembly Drawing Prosonic Flow P sensors
961004082-A	1 of 1	A	10 October 23	Assembly Drawing transmitter terminal box Prosonic Flow P500
961005648-A	1 of 1	Α	10 October 23	Enclosure G300 IP68 / Type 6P
FEK3682-0003ZAE	1 of 1	E	10 October 23	Addendum to name plate DKX001
FEK3730-0001ZAH	1 to 4	Н	10 October 23	Nameplate Electronic Proline 300 / 500 analog
FEK3731-0001ZAI	1 to 2	I	10 October 23	Nameplate Electronic Proline 500 digital
FEK3969-0000ZAB	1 of 1	В	10 October 23	Nameplate sensor Prosonic Flow G digital
FEK4020-0000ZAA	1 of 1	A	10 October 23	Warning label electrostatic
FES0256F	1 to 4	F	10 October 23	Installation Drawing IECEx / ATEX, Zone 1, 2, 21, General Requirements Proline Promag 300/500 and Proline Prosonic Flow 300/500
FES0257A	1 to 6	A	10 October 23	Temperature assessment Promag 300/500
FES0258F	1 to 3	F	10 October 23	Installation Drawing IECEx / ATEX, Zone 1, 2, 21, General Requirements Proline Promass 300/500, Proline t-mass 300/500 and Proline Teqwave M 300/500
FES0259F	1 to 3	F	10 October 23	Control Drawing CSA, IECEx, ATEX Electrical Parameter Transmitter Proline 300/500
FES0260F	1 to 3	F	10 October 23	Control Drawing CSA, IECEx, ATEX Zone1, Zone 21, CI.I Div. 1, CI. I Zone 1 Thermal Parameters Proline Promag 300/500
FES0262C	1 to 30	С	10 October 23	Temperature assessment for Proline Promass 300/500



Certificate Number: Sira 16ATEX2219X

Equipment:	Proline Promag 300/500, Proline Promass 300/500,
	Proline Cubemass 300/500, Proline Prosonic Flow 300/500,
	Proline t-mass 300/500
Applicant:	Endress+Hauser Flowtec AG

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FES0263G	1 to 6	G	10 October 23	Control Drawing CSA, IECEx, ATEX Zone 1, Zone 21, CI.I Div. 1, CI. I Zone 1 Thermal Parameters Proline Promass/Cubemass 300/500
FES0321A	1 to 2	A	10 October 23	Control Drawing CSA, IECEx, ATEX Zone 1, Zone 21, CI.I Div. 1, CI. I Zone 1 Thermal Parameters Proline Prosonic G 300/500
FES0324A	1 to 4	A	10 October 23	Temperature assessment Prosonic Flow 300/500
FES0331A	1 to 2	A	10 October 23	Control Drawing CSA, IECEx, ATEX Zone 1, Zone 21, CI.I Div. 1, CI. I Zone 1 Thermal Parameters Proline t-mass 300/500
FES0333A	1 to 4	A	10 October 23	Temperature assessment t-mass 300/500
FES0351C	1 of 1	С	10 October 23	Control Drawing CSA, IECEx, ATEX Zone 1, Zone 21, CI.I Div. 1, CI. I Zone 1 Thermal Parameters Proline Prosonic P 500