

IECEX		IECEx Certificate of Conformity
Certificate No.:	IECEx CSA 21.0020X	Page 2 of 4
Date of issue:	2021-06-24	Issue No: 0
Manufacturer:	Endress+Hauser Flowtec AG Kägenstrasse 7 CH-4153 Reinach/BL1 Other manufacturing locations liste Switzerland	d in certificate annex.
Additional manufacturing locations:		
This certificate is issu IEC Standard list belo found to comply with Rules, IECEx 02 and	ed as verification that a sample(s), r w and that the manufacturer's qualit the IECEx Quality system requireme Operational Documents as amende	epresentative of production, was assessed and tested and found to comply with the y system, relating to the Ex products covered by this certificate, was assessed and nts.This certificate is granted subject to the conditions as set out in IECEx Scheme d
STANDARDS : The equipment and a to comply with the foll	ny acceptable variations to it specific owing standards	ed in the schedule of this certificate and the identified documents, was found
IEC 60079-0:2017 Edition:7.0	Explosive atmospheres - Part 0: Ec	uipment - General requirements
IEC 60079-1:2014-06 Edition:7.0	Explosive atmospheres - Part 1: Ec	uipment protection by flameproof enclosures "d"
IEC 60079-11:2011 Edition:6.0	Explosive atmospheres - Part 11: E	equipment protection by intrinsic safety "i"
IEC 60079-26:2014-10 Edition:3.0	Explosive atmospheres – Part 26:	Equipment with Equipment Protection Level (EPL) Ga
IEC 60079-31:2013 Edition:2	Explosive atmospheres - Part 31: E	equipment dust ignition protection by enclosure "t"
IEC 60079-7:2017 Edition:5.1	Explosive atmospheres - Part 7: Ec	uipment protection by increased safety "e"
	This Certificate does not indica other than those ex	ate compliance with safety and performance requirements pressly included in the Standards listed above.
TEST & ASSESSME A sample(s) of the eq	NT REPORTS: uipment listed has successfully met	the examination and test requirements as recorded in:

Test Report:

CA/CSA/ExTR21.0018/00

Quality Assessment Report:

DE/TUN/QAR06.0004/08



IECEx Certificate of Conformity

Certificate No.:

IECEx CSA 21.0020X

Date of issue:

2021-06-24

Page 3 of 4

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Proline Promass K10 - 8KBB** and O8KBB**

Proline Promag P10 - 5PBB** and O5PBB**

SPECIFIC CONDITIONS OF USE: YES as shown below:

See the annexes attached to this certificate for specific conditions of use.



IECEx Certificate of Conformity

Certificate No .: IECEx CSA 21.0020X

Date of issue:

2021-06-24

Page 4 of 4

Issue No: 0

Equipment (continued):

This certificate covers two types of flowmeter for the platform Proline 10:

- Proline Promass K10

- Proline Promag P10

All versions of Proline 10 are available as a compact version where the transmitter is installed integral to the sensor. In addition, the version Proline Promag P10 is also available as a remote version, where the sensor is installed remotely to the transmitter.

All Proline Promag 10 and Proline Promass 10 flowmeters are available for an ambient temperature of -40°C to +60°C.

The flowmeters Proline Promass 10 and Proline Promag 10 have the ingress protection rating IP66 and IP67.

See the annexes attached to this certificate for further product details.

Annexes:

Annex_A_to_IECEx_CSA_21.0020X_Issue_0_Promass10.pdf Annex B to IECEx CSA 21.0020X Issue 0 Promag10.pdf





Certificate No.: IECEx CSA 21.0020X Issue 0 Annex A | Page 1 of 12

Annex A:

This Annex is applicable for flowmeters type Proline Promass K10

Table of Contents

1.	Description	2
2.	Order Code	3
2.1.	Proline Promass 10	3
2.2.	Assignment of Flowmeter to Replacement Transmitter	5
3.	Parameters	6
3.1.	Electrical Parameters	6
3.2.	Thermal Parameters (Zone 1 and Zone 21)	8
3.3.	Thermal Parameters (Zone 2)	9
4.	Marking	10
5.	Conditions of Certification	11
6.	Manufacturing Locations	12





Certificate No.: IECEx CSA 21.0020X Issue 0 Annex A | Page 2 of 12

1. Description

Proline 10 is a platform used for flowmeters type Proline Promass K 10.

The Promass K 10 is a flowmeter intended for measuring gases and liquids based on the measuring principle of controlled generated coriolis forces. It consists of a transmitter type Promass 10 and a sensor type Promass K for a range of medium temperature of -40°C to +150°C. The transmitter enclosure is connected integral to the Promass K sensor as a compact version. The Promass K sensors are available in sizes DN8 (3/8") to DN80 (3").

All versions of Promass K10 are available for use in hazardous location Zone 1 group IIB, Zone 21 group IIIC or Zone 2 group IIB.

The Proline Promass 10 sensor may be installed in Zone 0 group IIB where the process medium is contained in the measuring tube.

The versions of electronic are designed either with intrinsically safe IO's, Ex ib for Zone 1, Ex ic for Zone 2 respectively 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 for IO's.

All Proline Promass 10 flowmeters are available for an ambient temperature of -40°C to +60°C.

The versions of flowmeters Proline Promass 10 are available for an enclosure protection of degree IP66, IP67.





IECEx Certificate of Conformity Certificate No.: IECEx CSA 21.0020X Issue 0 Annex A | Page 3 of 12

2. Order Code

2.1. Proline Promass 10

Extended order code Proline Promass 10 8aBbcc – eehikInppqqqrss + #**# 08aBbcc – eehikInppqqqrsstt + #**# 8xBbdd – eehikInooppss + #**# 08xBbdd – eehikInooppsstt + #**#

for OEM-version for replacement transmitter for replacement transmitter OEM

8	=	Promass								
а	=	Type of sensor								
		K = Promass K								
Б		x = replacement transmitter without sensor								
B	=	Proline 10 Concretion								
b	=	B – Concration of Flowmater								
22	_	Size								
00	_	any double digits with combination of number or letter								
dd	=	Assignment of replacement transmitter								
		xx = standard transmitter								
		x1 = transmitter for approval code ee = BA or C1								
ee	=	Approval								
		BA = Ex db eb [ib] IIB T4T1 Gb (compact version only) Ex tb IIIC T** Db								
		BC = Ex db [ib] IIB T4T1 Gb (compact version only)								
		Ex tb IIIC T** Db								
		BS = Ex ec IIC T4T1 Gc (compact version only)								
h	=	Power Supply								
		D = 24 V dc								
		E = 100-230 Vac								
		X = 100-230 Vac / 24 Vac								
i	_	Input / Output								
•	-	B = 4-20mA HART Pulse/Frequency/Switch output								
		C = 4-20mA HART. Pulse/Frequency/Switch output Ex i								
		M = Modbus RS485, 4-20mA								
		U = Modbus RS485, 4-20mA (Ex i)								
		X = sensor only for replacement								
k	=	Display / Operation								
_		any single number or letter								
I	=	Housing								
		any single number or letter								
n	=	Cable Entry								
00	_	Existing product								
00	-	any double digits with combination of number or letter								
pp	=	Measuring tube material								
1.1.		any double digits with combination of number or letter								
		· •								





IECEx Certificate of Conformity Certificate No.: IECEx CSA 21.0020X Issue 0 Annex A | Page 4 of 12

SS

- **qqq** = **Process connection** any triple digits with combination of number or letter
- r = Calibration
 - any single number or letter
 - = Device model (two digit)
 - A1 = product version 1
- tt = Customer version (two digits) any double digits with combination of number or letter
- + = Additional optional order codes
- ** = 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





2.2. Assignment of Flowmeter to Replacement Transmitter

The replacement transmitters are assigned to the flowmeter Proline Promass 10 as follows:

Product flowmeters		Replacement transmitter type					
model code	Generation code b =	Approval code ee =	device model code ss =	model code	Generation code b =	Approval code ee =	device model code ss =
8KB b**-ee…ss , O8KB b**-ee…ss	В	BA	A1	8xB bx1-eess , O8xB bx1-eess	В	BA	A1
	В	BC, BS	A1	8xB bxx-eess , O8xB bxx-eess	В	BC, BS	A1





IECEx Certificate of Conformity Certificate No.: IECEx CSA 21.0020X Issue 0 Annex A | Page 6 of 12

3. Parameters

3.1. Electrical Parameters

Power Supply			
Order Code h =	approval code ee =	terminal no.	values
D	BS	No. 1(L+), 2(L-)	$U_N = 19.231.2V_{DC}$ $U_M = 250Vac$
E	BS	No. 1(L), 2(N)	$U_N = 85264V_{AC}$ $U_M = 250Vac$
1	BA, BC, BS	No. 1(L+/L), 2(L-/N)	U _N = 19.231.2V _{DC} /85264V _{AC} U _M = 250 V

Input/Output			
Order Code i =	terminal no.	Values for approval code ee = BA, BC	Values for approval code ee = BS
В	No. 26, 27 (4-20mA HART, active)	$U_{N} = 30V_{DC}$ $U_{M} = 250Vac$	$U_{N} = 30V_{DC}$ $U_{M} = 250Vac$
	No. 24, 25 (4-20mA HART, passive)	$U_N = 30V_{DC}$ $U_M = 250Vac$	$U_N = 30V_{DC}$ $U_M = 250Vac$
	No. 22, 23 (Pulse, frequency, switch)	$U_N = 30V_{DC}$ $U_M = 250Vac$	$U_N = 30V_{DC}$ $U_M = 250Vac$
С	No. 26, 27 (4-20mA HART, active Ex i)	$U_{0} = 22.3V$ $I_{0} = 93mA$ $P_{0} = 520mW$ $L_{0} = 8mH$ $C_{0} = 500nF$ $U_{i} = 6.5V$ $I_{i} = 10mA$ $P_{i} = 20mW$	$U_{0} = 22.3V$ $I_{0} = 93mA$ $P_{0} = 520mW$ $L_{0} = 29mH$ $C_{0} = 1400nF$ $U_{i} = 6.5V$ $I_{i} = 10mA$ $P_{i} = 20mW$
	No. 24, 25 (4-20mA HART, passive Ex i)	$\begin{array}{ll} U_{i} = 30V \\ I_{i} = 100mA \\ P_{i} = 1.25W \\ L_{i} = 0\mu H \\ C_{i} = 6nF \end{array}$	$\begin{array}{ll} U_{i} &= 30V\\ I_{i} &= 100 \text{mA}\\ P_{i} &= 1.25 \text{W}\\ L_{i} &= 0 \text{mH}\\ C_{i} &= 6 \text{nF} \end{array}$
	No. 22, 23 (Pulse, frequency, switch Ex i)	$\begin{array}{ll} U_{i} = 30V \\ I_{i} = 100mA \\ P_{i} = 1.25W \\ L_{i} = 0\mu H \\ C_{i} = 10nF \end{array}$	





IECEx Certificate of Conformity Certificate No.: IECEx CSA 21.0020X Issue 0 Annex A | Page 7 of 12

Μ	No. 26, 27	$U_N = 30V$	$U_N = 30V_{DC}$
	(4-20mA, active)	U _M = 250Vac	U _M = 250Vac
	No. 24, 25	U _N = 30V	$U_N = 30V_{DC}$
	(4-20mA, passive)	U _M = 250Vac	U _M = 250Vac
	No. 22, 23	U _N = 3.3V	$U_N = 3.3 V_{DC}$
	(Modbus)	U _M = 250Vac	U _M = 250Vac
U	No. 26, 27	U ₀ = 22.3V	U ₀ = 22.3V
	(4-20mA, active Ex i)	lo = 93mA	lo = 93mA
		$P_0 = 520 \text{mW}$	$P_0 = 520 \text{mW}$
		$L_0 = 8mH$	Lo = 29mH
		$C_0 = 500 nF$	C ₀ = 1400nF
		U _i = 6.5V	U _i = 6.5V
		$I_i = 10 \text{mA}$	$I_i = 10 \text{mA}$
		$P_i = 20 mW$	$P_i = 20 mW$
	No. 24, 25	$U_i = 30V$	$U_i = 30V$
	(4-20mA, passive	$I_i = 100 \text{mA}$	l _i = 100mA
	Ex i)	P _i = 1.25W	$P_i = 1.25W$
		$L_i = 0\mu H$	$L_i = 0 \mu H$
		$C_i = 6nF$	$C_i = 6nF$
	No. 22, 23	$U_i = 4.2V$	$U_i = 4.2V$
	(Modbus Ex i)	l _i = n.a.	l _i = n.a.
		$P_i = n.a.$	$P_i = n.a.$
		$L_i = 0\mu H$	$L_i = 0 \mu H$
		$C_i = 6nF$	$C_i = 6nF$
		$Lo/Ro = 1.2mH/\Omega$	$Lo/Ro = 2.5mH/\Omega$
		$U_0 = 4.2V$	$U_0 = 4.2V$
		$I_0 = 120 \text{mA}$	$I_0 = 120 \text{mA}$
		Po = 130mW	$P_0 = 130 \text{mW}$
		$L_0 = 10 mH$	$L_0 = 20 mH$
		$C_0 = 900 \mu F$	$C_0 = 900 \mu F$

Service Interface		
Order Code	terminal no.	values
ee =		
all	CDI	$\begin{array}{ll} U_i &= 7.0V\\ Ii &= n.a \mbox{ (current limited circuit)}\\ L_i &= 0 \ \mu H\\ C_i &= 0 \ \mu F \end{array}$
		$U_{O} = 3.9V$ $I_{O} = 10mA$ $P_{O} = 40mW$ $L_{O} = 1H$ $C_{O} = 300\mu F$





3.2. Thermal Parameters (Zone 1 and Zone 21)

Proline Promass 10

Notes: This page applies to versions with extended order code covering:

8*BB** - dd... O8*BB** - dd... with approval option CCSAus / CSA: dd = CC, C1, C3 IECEx / ATEX: dd = BA, BC

Temperature table for versions with sensor insulated and not insulated

(for insulation refer to manual of Endress+Hauser Flowtec)

Size / DN	Τ,	ned	Tamax		Tmed.max [*C]				
	min	max	1	T6	T5	T4	T3	T2	T1
	[°C]	[°C]	[°C]	(85°C)	(100°C)	(135°C)	(200°C)	(300°C)	(450°C)
0850	-40	150	50			130	130	150	150
			60			100	130	150	150
80			60	-		110	135	150	150

(for ins	rature table ulation not in	for versions compliance	s with sensition to manual	sor insulate of Endress+	ed Hauser Flor	wtec)						
Size / DN	1	Tmex to be measured at reference point at sensor neck ("C]										
	T6 (85C)	T5 (100°C)	T4 (135*C)	T3 (200°C)	T2 (300°C)	T1 (450°C)						
ail Notes:	67 68 69 69 (1) for safe use temperatures shall not exceed all of the following: - temperature table for versions with sensor not insulated (refer to table on the left) - temperature at reference point as listed in this table - for maximum medium temperature and minimum medium temperature see nameplate (2) location of reference point											
	reference point											
derungen: A B C D E	13.01.2020 / Bn	F G H J K	Alle ge Diese Geneh dritten zugär	setzlichen Urheberre Zeichnung darf ohne hmigung weder vervie I Personen und Konku ngig gemacht werden.	chte. vorbehaften. unsere Ifältigt werden noch urrenzfirmen	Ersetzt durch: Ersatz für: Ersteller: FES / FILE: M:\Zeichng\FE	Bn S03581A1FES0358A	.doc				
ontrol Draw	ing IECEx, A	ATEX, CSA	A, cCSA _{US}			Gezeichnet	13.01.2020	Bn				
ne 1, Zone	21, Cl.I Div	. 1, CI.II, C	I.III, CI.I Z	one 1		Geprüft						
ermal Para	rmal Parameter					Ex-geprüft	13.01.2020	Bn				
oline Prom	line Promass 10											
	Flowtec AG	, Kägenstrass	se 7, CH-415	53 Reinach Bl	L1, Postfach	FES0	358A	1/				





3.3. Thermal Parameters (Zone 2)

Proline Promass 10

Notes: This page applies to versions with extended order code covering:

8*BB** - dd... with approval option CSAus / CSA: dd = CS, CZ IECEx / ATEX: dd = BS

Temperature table	for versions	with sensor
not insulated		

Size / DN	T,	ned	T _{a,max}	Tmedmax [*C]					
	min	max		T6	T5	T4	T3	T2	T1
	[°C]	[°C]	[°C]	(85°C)	(100°C)	(135°C)	(200°C)	(300°C)	(450°C
0815	-40	150	55			115	150	150	150
			60			115	140	150	150
2580			60			95	140	150	150

Temperature table for versions with sensor insulated

(for insulation refer to manual of Endress+Hauser Flowtec)

Size / DN	T,	ned	T _{a,max}			T _{med,m}	ax [°C]		
	min	max		T6	T5	T4	T3	T2	T1
	[°C]	[°C]	[°C]	(85°C)	(100°C)	(135°C)	(200°C)	(300°C)	(450°C)
0815	-40	150	60			115	135	150	150
2580	1		60			95	135	150	150



E		Flowtec AG,	Kä	genstrasse 7, Cl	1-4153 Reinach BL1, Postfach	FES0	1/	/1					
Proline Pr	om	ass 10				Gesehen							
Thermal F	Para	ameter				Ex-geprüft	13.01.2020	Bn	3n 3n 1/1				
Zone 2, C	1.1 0	Div. 2, CI.I Zo	Geprüft										
Control D	raw	ing IECEx, A	Gezeichnet	13.01.2020	Bn								
	E K zugängig gemacht werden. FILE: MiZeichng/FES0359A/FES0359												
	0		н		dritten Personen und Konkurrenzfirmen Erstellier: EFS / Bn								
	В		G		Diese Zeichnung darf ohne unsere	Engle Co.							
Aenderungen:	Α	13.01.2020 / Bn	F		Alle gesetzlichen Urheberrechte. vorbehalten. Ersetzt durch:								





IECEx Certificate of Conformity Certificate No.: IECEx CSA 21.0020X Issue 0 Annex A | Page 10 of 12

4. Marking

Proline Pro	omass 1	0 (compact v	ersion)		
Model Code 8*B*** – ee 08*B*** – e): *i******** e * i******	****+#**# ********+#**#			
Approval ee =	I/O i =	Marking of	Ex protection	Inf Le re	formation: evel of Protection presentative for …
BA	C, U	Transmitter: Sensor :	Ex db eb ib [ib] IIB T4T1 Gb Ex tb [ib] IIIC T** °C Db Ex ia/ib IIB T4T1 Ga/Gb Ex tb IIIC T** °C Db or Ex ib IIB T4T1 Gb Ex tb IIIC T** °C Db	db eb ib [ib] tb	 -> electronic compartment -> terminal compartment -> display + sensor -> IO's -> enclosure
	B, M	Transmitter: Sensor:	Ex db eb ib IIB T4T1 Gb Ex tb IIIC T** °C Db Ex ia/ib IIB T4T1 Ga/Gb Ex tb IIIC T** °C Db or Ex ib IIB T4T1 Gb Ex tb IIIC T** °C Db	db eb ib tb	 -> electronic compartment -> terminal compartment -> display + sensor -> enclosure
BC	C, U	Transmitter: Sensor:	Ex db ib [ib] IIB T4T1 Gb Ex tb [ib] IIIC T** °C Db Ex ia/ib IIB T4T1 Ga/Gb Ex tb IIIC T** °C Db or Ex ib IIB T4T1 Gb Ex tb IIIC T** °C Db	db [ib [b	 -> electronic compartment + terminal compartment -> display + sensor] -> IO's -> enclosure
	B, M	Transmitter: Sensor:	Ex db ib IIB T4T1 Gb Ex tb IIIC T** °C Db Ex ia/ib IIB T4T1 Ga/Gb Ex tb IIIC T** °C Db or Ex ib IIB T4T1 Gb Ex tb IIIC T** °C Db	db ib tb	 -> electronic compartment + terminal compartment -> display + sensor -> enclosure





IECEx Certificate of Conformity Certificate No.: IECEx CSA 21.0020X Issue 0 Annex A | Page 11 of 12

BS	C, U	Transmitter: Ex ec ic [ic] IIB T4T1 Gc Sensor : Ex ec ic IIB T4T1 Gc	ec ic [ic	 -> electronic compartment + terminal compartment + sensor -> display -> IO's
	В, М	Transmitter: Ex ec ic IIB T4T1 Gc Sensor : Ex ec ic IIB T4T1 Gc	ec ic	 -> electronic compartment + terminal compartment -> display

5. Conditions of Certification

- All equipment of the measurement system shall be included in the equipotential bonding. Along the intrinsically safe circuits potential equalization must exist.
- The sensors may only be used for those process media, for which the wetted parts are known to be suitable (refer to nameplate or installation instructions for applicable materials)
- It is not permitted to use versions of Proline Promass 10 without display module (refer to installation instructions for proper assembly)
- The flameproof joints are not intended to be repaired
- For order code 'ee' = BC: Equipment of Proline Promass 10 with transmitter terminal compartment with type of protection Ex db must be de-energized for 10 minutes before opening enclosure
- For order code 'ee' = BS: Equipment for Proline Promass 10 shall be installed using a transient protection not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment.
- The Proline 10 Flowmeter that may include, stainless steel label tag with rope, when not bonded to earth used on coated metallic transmitter and/or sensor enclosure, shall be prevented from risk of electrostatic charging caused by friction and/or cleaning. The equipment nameplate shall bear the following warning: WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS
- Only use battery Renata type lithium CR1632, 3V for display
- For Proline Promass 10 with order code 'ee' = BA, BC: Zone 0 is only applicable for the process medium in the measuring tube





IECEx Certificate of Conformity Certificate No.: IECEx CSA 21.0020X Issue 0 Annex A | Page 12 of 12

6. Manufacturing Locations

- 1. Endress+Hauser Flowtec AG Kägenstrasse 7 4153 Reinach BL 1 Switzerland
- 2. Endress+Hauser Flowtec AG 35, rue de l' Europe 68700 Cernay France
- Endress+Hauser Flowtec (India) Pvt. Ltd. M-174 Waluj MIDC Aurangabad 431136 Maharashtra State India
- 4. Endress+Hauser Flowtec AG, Division U.S.A. 2330 Endress Place Greenwood, Indiana 46143 USA
- Endress+Hauser Flowtec (China) Co. Ltd. Su-Hong-Zhong-Lu No. 465 Suzhou Industrial Park 215021 Suzhou Province Jiangsu P.R. China
- Endress+Hauser Flowtec (China) Co. Ltd. Jiang-Tian-Li-Lu No. 31 Suzhou Industrial Park 215021 Suzhou Province Jiangsu P.R. China
- Endress + Hauser Flowtec (Brazil) Fluxômetros Ltda.
 Estrada Muncipal Antônio Sesti, 600 A Recreio Costa Verde CEP 13254-085 – Itatiba - SP
 Brazil





IECEx Certificate of Conformity Certificate No.: IECEx CSA 21.0020X Issue 0 Annex B | Page 1 of 13

Annex B:

This Annex is applicable for flowmeters type Proline Promag P10

Table of Contents

1.	Description	2
2.	Order Code	.3
2.1.	Proline Promag 10	.3
2.2.	Assignment of Flowmeter to Replacement Transmitter	5
3.	Parameters	5
3.1.	Electrical Parameters	5
3.2.	Thermal Parameters (Zone 1 and Zone 21)	8
3.3.	Thermal Parameters (Zone 2)	9
4.	Marking1	1
5.	Conditions of Certification1	2
6.	Manufacturing Locations1	3



IECEx Certificate of Conformity Certificate No.: IECEx CSA 21.0020X Issue 0 Annex B | Page 2 of 13



1. Description

Proline 10 is a platform used for flowmeters type Proline Promag P 10.

The Promag P 10 is a magnetic-inductive flowmeter intended for measuring conductive liquids. The measuring principle is based on Fraday's law.

It consists of a transmitter type Promag 10 and the sensors type Promag P. The transmitter enclosure is connected integral to the sensor as a compact version and in alternative installed remote to the sensor as a remote version.

The sensors are available in sizes up to DN3000. An extended sensor neck may also be used for both versions, compact and remote version.

All compact versions of Proline 10 are available for use in hazardous location Zone 1 group IIB, Zone 21 group IIIC or Zone 2 group IIB. A remote version of Proline Promag P10 is available for use in hazardous location Zone 2 group IIB only

The versions of electronic are designed either with intrinsically safe IO's, Ex ib for Zone 1, Ex ic for Zone 2 respectively 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 for IO's.

All Proline Promag 10 flowmeters are available for an ambient temperature of -40°C to +60°C.

The versions of flowmeters Proline Promag 10 are available for an enclosure protection of degree IP66, IP67.



IECEx Certificate of Conformity Certificate No.: IECEx CSA 21.0020X Issue 0 Annex B | Page 3 of 13



2. Order Code

2.1. Proline Promag 10

Extended order code Proline Promag 10: 5aBbcc – eefghiklmnopppqrss + #**# 05aBbcc – eefghiklmnopppqrsstt + #**# 5xBbdd – eeghiklmnss + #**# 05xBbdd – eeghiklmnsstt + #**#

for OEM-version for replacement transmitter for replacement transmitter OEM

-		Province								
5	=	Promag								
а	=	Type of sensor								
		P = Sensor Promag P								
-		x = replacement transmitter without sensor								
в	=	Proline 10								
D	=	Generation								
		B = Generation of Flowmeter								
CC	=	Size								
		any combination of number and/or letter up to size = DN3000								
dd	=	ssignment of replacement transmitter x = standard transmitter								
		xx = standard transmitter								
		x1 = transmitter for approval code ee = BA or C1								
ee	=	Approval								
		BA = Ex db eb [ib] IIB 1411 Gb (compact version only)								
		Ex to IIIC 1* Db								
		BC = Ex db [ib] IIB 1411 Gb (compact version only)								
		Ex tb IIIC 1* Db								
		BS = Ex ec IIC 1411 Gc (compact and remote version)								
t	=	Design								
		any single number or letter								
g	=	Functionality								
		any single number or letter								
h	=	Power Supply								
		D = 24Vdc								
		E = 100-230 Vac								
		I = 100-230 Vac / 24 Vdc								
		X = sensor only for replacement								
I	=	Input / Output								
		B = 4-20mA HART, Pulse/Frequency/Switch output								
		C = 4-20mA HART, Pulse/Frequency/Switch output Ex i								
		M = Modbus RS485, 4-20mA								
		U = Modbus RS485, 4-20mA (Exi)								
		X = sensor only for replacement								
ĸ	=	Display / Operation								
		any single number or letter								
1	=	Housing								
		any single number or letter								
m	=	Cable Sensor Connection Remote Version								
		any single number or letter								



IECEx Certificate of Conformity Certificate No.: IECEx CSA 21.0020X Issue 0 Annex B | Page 4 of 13



- n = Cable Entry any single number or letter
 o = Liner material any single number or letter
 ppp = Process connection any triple digits with combination of number or letter
 q = Electrode any number or letter
 r = Calibration any single number or letter
- ss = Device Model (two digit)
 - A1 = product version 1
- tt = Customer version (two digits) any double digits with combination of number or letter
- + = Additional optional order codes
- ** = 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





2.2. Assignment of Flowmeter to Replacement Transmitter

The replacement transmitters are assigned to the flowmeter Proline Promag 10 as follows:

Product flowmeter	s			Replacement trans	mitter ty	ре	
model code	Generation code b =	Approval code ee =	device model code ss =	model code	Generation code b =	Approval code ee =	device model code ss =
5PB b**-ee…ss , O5PB b**-ee…ss	В	BA	A1	5xB bx1-eess , O5xB bx1-eess	В	BA	A1
	В	BC, BS	A1	5xB bxx-eess , O5xB bxx-eess	В	BC, BS	A1

3. Parameters

3.1. Electrical Parameters

Power Supply			
Order Code	approval code	terminal no.	values
h =	ee =		
D	BS	No. 1(L+), 2(L-)	$U_N = 19.231.2V_{DC}$
			U _M = 250Vac
E	BS	No. 1(L), 2(N)	$U_N = 85264V_{AC}$
			U _M = 250Vac
1	BA, BC, BS	No. 1(L+/L), 2(L-/N)	$U_N = 19.231.2V_{DC}/85264V_{AC}$
			U _M = 250 V





IECEx Certificate of Conformity Certificate No.: IECEx CSA 21.0020X Issue 0 Annex B | Page 6 of 13

Input/Output			
Order Code i =	terminal no.	Values for approval code ee = BA, BC	Values for approval code ee = BS
В	No. 26, 27 (4-20mA HART, active)	$U_{N} = 30V_{DC}$ $U_{M} = 250Vac$	$U_{N} = 30V_{DC}$ $U_{M} = 250Vac$
	No. 24, 25 (4-20mA HART, passive)	$U_{M} = 30V_{DC}$ $U_{M} = 250Vac$	$U_{\rm N} = 30V_{\rm DC}$ $U_{\rm M} = 250Vac$
	No. 22, 23 (Pulse, frequency, switch)	$U_{M} = 30V_{DC}$ $U_{M} = 250Vac$	$U_{\rm N} = 30 V_{\rm DC}$ $U_{\rm M} = 250 V_{\rm AC}$
C	No. 26, 27 (4-20mA HART, active Ex i)	$U_0 = 22.3V$ $I_0 = 93mA$ $P_0 = 520mW$ $L_0 = 8mH$ $C_0 = 500nF$ $U_i = 6.5V$ $I_i = 10mA$ $P_i = 20mW$	$U_{0} = 22.3V$ $I_{0} = 93mA$ $P_{0} = 520mW$ $L_{0} = 29mH$ $C_{0} = 1400nF$ $U_{i} = 6.5V$ $I_{i} = 10mA$ $P_{i} = 20mW$
	No. 24, 25 (4-20mA HART, passive Ex i)	$U_{i} = 30V I_{i} = 100mA P_{i} = 1.25W L_{i} = 0\muH C_{i} = 6nF$	$U_{i} = 30V \\ I_{i} = 100mA \\ P_{i} = 1.25W \\ L_{i} = 0mH \\ C_{i} = 6nF$
	No. 22, 23 (Pulse, frequency, switch Ex i)	$\begin{array}{ll} U_{i} = 30V \\ I_{i} = 100mA \\ P_{i} = 1.25W \\ L_{i} = 0\mu H \\ C_{i} = 10nF \end{array}$	$\begin{array}{ll} U_{i} &= 30V\\ I_{i} &= 100 \text{mA}\\ P_{i} &= 1.25W\\ L_{i} &= 0 \mu \text{H}\\ C_{i} &= 10 \text{nF} \end{array}$
М	No. 26, 27 (4-20mA, active) No. 24, 25 (4-20mA, passive)	$U_{N} = 30V$ $U_{M} = 250Vac$ $U_{N} = 30V$ $U_{M} = 250Vac$ $U_{M} = 250Vac$	$U_{N} = 30V_{DC}$ $U_{M} = 250V_{AC}$ $U_{N} = 30V_{DC}$ $U_{M} = 250V_{AC}$ $U_{M} = 250V_{AC}$
	(Modbus)	U _м = 250Vac	$U_{\rm M} = 250 {\rm Vac}$





IECEx Certificate of Conformity Certificate No.: IECEx CSA 21.0020X Issue 0 Annex B | Page 7 of 13

U	No. 26, 27	U ₀ = 22.3V	U ₀ = 22.3V
	(4-20mA, active Ex i)	lo = 93mA	Io = 93mA
		Po = 520mW	Po = 520mW
		Lo = 8mH	Lo = 29mH
		C _O = 500nF	$C_0 = 1400 nF$
		$U_i = 6.5V$	$U_i = 6.5V$
		$I_i = 10 \text{mA}$	$I_i = 10 \text{mA}$
		$P_i = 20 mW$	$P_i = 20 mW$
	No. 24, 25	U _i = 30V	$U_i = 30V$
	(4-20mA, passive	$I_i = 100 \text{mA}$	$I_i = 100 \text{mA}$
	Ex i)	$P_i = 1.25W$	$P_i = 1.25W$
	,	$L_i = 0 \mu H$	$L_i = 0 \mu H$
		$C_i = 6nF$	$C_i = 6nF$
	No. 22, 23	U _i = 4.2V	U _i = 4.2V
	(Modbus Ex i)	l _i = n.a.	l _i = n.a.
		$P_i = n.a.$	$P_i = n.a.$
		$L_i = 0 \mu H$	$L_i = 0 \mu H$
		$C_i = 6nF$	$C_i = 6nF$
		$Lo/Ro = 1.2mH/\Omega$	$Lo/Ro = 2.5mH/\Omega$
		$U_0 = 4.2V$	$U_0 = 4.2V$
		$I_0 = 120 \text{mA}$	$I_0 = 120 \text{mA}$
		Po = 130mW	Po = 130mW
		$L_0 = 10 \text{mH}$	$L_0 = 20 \text{mH}$
		$C_0 = 900 \mu F$	$C_0 = 900 \mu F$

Service Interface		
Order Code ee =	terminal no.	values
all	CDI	$ \begin{array}{l} U_i = 7.0V \\ Ii = n.a \mbox{ (current limited circuit)} \\ L_i = 0 \ \mu H \\ C_i = 0 \ \mu F \end{array} $
		$U_{O} = 3.9V$ $I_{O} = 10mA$ $P_{O} = 40mW$ $L_{O} = 1H$ $C_{O} = 300\mu F$





3.2. Thermal Parameters (Zone 1 and Zone 21)

Proline Pro	mag P10)																					
l <u>otes:</u> his page appl	ies to versio	ons with	extende	ed order of	code cov	ering:		5PBB**	- dd			O5PB	3** - dd										
								with app	oroval opti	on cCSA IECE:	Aus/C x/AT	CSA: dd = TEX: dd =	CC, CF, C BA, BC	1, C3									
				Tempo insula (for ins	erature ited and sulation	table fo I not ins refer to	r versior ulated manual o	is with s	sensor s+Hause	er Flow)		-				Temp (for in Endre	berature Isulation ess+Hau	table f not in o user Flo	for versi compliar w)	ions with nce to mar	sensor nual of	insula	ted
Sensor	Size / DN	Liner	T _{med,min} [°C]	T _{a,max} [°C]	T6 (85°C)	T5 (100°C	T _{med,n} T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)		Sensor	Size / DN	Liner	T _{med,min} [°C]	Ta,max [°C]	T _{med,max} @T1 [°C]	T6	Tmax to be	e measured sensor ne T4	at referend ck [°C] T3	ce point a T2	t T1
Promag P	all	all (3)	-40 (2)	40 55 (3) 60 (3)			130 (2)	150 (2) 130 (2) 100 (2)	150 (2) 130 (2)	150 (2) 130 (2)		Promag P	all	all	-40 (2)	60 (2)	150 (2)	(85°C)	(100°C	(135°C) 69	200°C) 69	(300°C) 69	(450°C) 69
BO (3) 100 (2) 100											(2) (3) (4)	tor imitation for safe use - tempera - tempera - for maxi- location of r	e of Ta,max ture table ture at re mum mee eference	, Tmed,me & turres shale of or not in ference p dium temp point (4) r	ind Tmed, I not exc sulated s pint as lis eratue a	min depend eed all of the sensor (rel sted in this ind minimu	ling on typ the following fer to table is table um mediur	ng: a on the lef m temperal	ee name pla	te replate			
General Note: - In addition to the temperature tables above it is not permitted to exceed the following range of medium temperature in dependence of the liner. PTFE (130°C): -40°C					Aender	trol [A 10.02 B C D E D D Tawing I	ECEx, A	F G H J FEX, C	CLIII	Alle ge Diese 2 Geneh dritten zugân SAUS	setzlichen Urh Zeichnung dar migung weder Personen und gig gemacht v	teberrechte, v f ohne unsere r verviefätigt v I Konkurrenzfi verden.	orbehalten.) werden noch imen	Ersetzt durch Ersatz für: Ersteller: FE: FILE: M:/Zeichn Gezeichnet	1: S / Bn IgiFES0360/A	A/FES0360A.4	doc Bn					
PTFE (110°C): -10°C 110°C PTFE (90°C): -20°C 90°C (optional version only) PFA: -20°C 150°C						The	rmal	Paramet	er	i, 0i.li	, 0,	01.1 2				Geprüft	10.02	2,2020	Bn				
PU: Hard rubbe	-20°C r: 0°C	. 50°C . 80°C	(optional ve optional ve	ersion only ersion only	() ()				Prol	ine F	Promag 1	D							Gesehen	10.02		
For permitted	range of me	dium tem	nperature.	, see nam	e plate						E	Fic	wtec AG. k	Kägensti	rasse 7. (CH-415	3 Reinac	:h BL1, P	ostfach	FES	036	0A	1/





Proline Promag P10 (compact version)																				
Notes:		-	with outo	-	de equerina:		EDBB** . dd				dd									
I his page applies to versions with extended order code covering: 5PBB** - dd									OJEBB -	uu										
with approval option cC IEC							SAus / CSA: CEx / ATEX:	dd = CS, dd = BS	cz											
				Temperatu Insulated o	ire table for or not insula	versions w ated	ith sensor						Tempo senso	erature r <u>insula</u> sulation	table for ated not in co	r version	s with ext	ended	sensor r	neck and
Sensor	Size / DN	Liner	T _{med,min}	Tamax		T _{med,max} [°C	1		Sensor	Size / DN	Liner	Tmed,min	Tamax	Tmed,max		Tmax to b	e measured	at referen	ce point at	
Promac P	all	all	[°C]	[°C] T6 (85°)	C) (100°C	T4 (135°C) (20	T3 T2 T1 0°C) (300°C) (450° 0 (2) 150 (2) 150 (°C)				[°C]	[°C]	@T1 [°C]	T6 (85°C)	T5 (100°C	T4 (135°C)	T3	T2 (300°C)	T1 (450°C)
Fiolinag P	an	an	-40 (2)	55 (3) 60 (3)		130 (2) 13 100 (2) 10	0 (2) 130 (2) 130 (0 (2) 130 (2) 130 (0 (2) 100 (2) 100 ((2)	Promag P	all	all	-40 (2)	60 (2)	150 (2)			69	69	69	69
Notes: (1) (2) (3) Sensor Promag P Notes: (1) (2) (3)	Ta,min = -40 for further lim Ta,max = 50°C Size / DN all Ta,min = -40 for further lim Ta,max = 50°C	*C (for liner Liner all *C (for liner	nitation s r medium PU Tmet.min [°C] -40 (2) nitation s f medium PU	Temperatu sensor nec (for insulati) Tanza 76 (°C) 76 (°C) </th <th>e general note b</th> <th>versions w cor insulate aanual of En T4 (135°C) (20 15 130 (2) 15 100 (2) 13 pelow</th> <th>ith extended d or not insulated dress+Hauser Flow 2) T3 T2 T3 T2 0(2) 150 (2) 150 (2) 150 (2) 0(2) 150 (2) 130 (2) 130 (2)</th> <th> </th> <th>Notes: (1) (2) (3) (4)</th> <th>Ta,min = -4(for limitation for safe use - tempera - tempera - for maxi- location of r</th> <th>°C (for lii of Tamas tempera ture table ture at re mum me eference</th> <th>mitation set, , Tmetrme & A turres shall e for not in: ference pr dium temp point (4) refe</th> <th>ee name p ind Tmet.m not exce soint as list eratue an</th> <th>blate) ⊨ dependi ed all of tr ed all of tr ed all of tr ed all of tr ed in this d minimum int</th> <th>ing on type he following of to table o table m medium t</th> <th>of liner see is n the left) temperature</th> <th>name plate see namepla</th> <th>te</th> <th></th> <th></th>	e general note b	versions w cor insulate aanual of En T4 (135°C) (20 15 130 (2) 15 100 (2) 13 pelow	ith extended d or not insulated dress+Hauser Flow 2) T3 T2 T3 T2 0(2) 150 (2) 150 (2) 150 (2) 0(2) 150 (2) 130 (2) 130 (2)	 	Notes: (1) (2) (3) (4)	Ta,min = -4(for limitation for safe use - tempera - tempera - for maxi- location of r	°C (for lii of Tamas tempera ture table ture at re mum me eference	mitation set, , Tmetrme & A turres shall e for not in: ference pr dium temp point (4) refe	ee name p ind Tmet.m not exce soint as list eratue an	blate) ⊨ dependi ed all of tr ed all of tr ed all of tr ed all of tr ed in this d minimum int	ing on type he following of to table o table m medium t	of liner see is n the left) temperature	name plate see namepla	te		
General N - In additi tempera PTFE PTFE PTFE PFA: PU: Hard r	ote: on to the temp ture in depen (130°C): -40 (90°C): -20 -20 -20 ubber: 0'	erature 1 dence of °C 13/ °C 110 °C 90° °C 150° °C 80°	ables ab the liner:)°C)°C)°C)°C)°C C C	ove it is not perm (optional ver (optional ver (optional ver	nitted to exceed rsion only) rsion only) rsion only)	i the following ra	ange of medium	Aen Co Zo Th	derungen: A B C D E D ntrol Draw one 2, CI.I I ermal Para oline Prom	ving IECE Div. 2, Cl	Bn F G H J K X, ATI	EX, CS	A, _c CS	Alle gesetzli Diese Zeich Genehmigu dritten Persi zugängig gi SAUS	ichen Uitheberre nung darf ohne i ng weder verviel onen und Konku emacht werden.	chte. vorbehalter unsere if ättigt werden no irrenzfirmen	Ersetzt du Ersetzt du Ersetzt für Ersteller: I FILE: M:Ze Gezeichne Geprüft Ex-geprüf	FES / Bn ichng/FES03 at 1	61/A/FES0361A 0.02.2020 0.02.2020	doc Bn Bn
For permitted range of medium temperature, see name plate								Flowted	AG, Ka	agenstras	se 7. CH	1-4153 R	leinach BL	1, Postfac	Gesehen	503	61A	1/2		

CSA GROUP[™]



Annex B | Page 10 of 13

Proline Promag P10 (remote version)																
Notes: This	Notes: This page applies to versions with extended order code covering: 5PBB** - dd O5PBB** - dd															
					with approval option cC IEC	SAus / CSA: CEx / ATEX:	dd = CS, 0 dd = BS	οz								
Temperature table for versions with sensor Insulated or not insulated										Tempo senso	erature t or <u>insulat</u>	table for v ted	versions	with extende	d sensor	neck and
Sensor	Size / DN	Liner	T _{med,min}	T _{a,max} T _{med,ma}	" [°C]	0	0			(for ins	T _{med,max}	10t in com	T _{max} to be	e measured at refe	rence point at	JSEFFIOW)
			[°C]	[°C] T6 T5 T4	T3 T2 T1	Sensor	Size / DN	Liner	I med,min	La,max	@T1	TC	TE	sensor neck [°C		74
Promag P	all	all (3)	-40 (2)	50 (3)	150 (2) 150 (2) 150 (2) 150 (2) 150 (2) 150 (2)	Deserve D	-	-"	10/22		150 (2)	(85°C)	(100°C	(135°C) (200	°C) (300°C)	(450°C)
Notes: (1)	Ta,min = -4	0°C (for li	mitation s	ee name plate)	130 (2) 130 (2) 130 (2)	Promag P	a	an	-40 (2)	60 (3)	150 (2)			63 63	, ⁷⁰	10
(2)	for further li	mitation o	fmedium	temperature see general note below		Notes: (1)	Ta,min = -40	°C (for lir	nitation se	ee name p	olate)					
(3)	Ta,max = 50°	C for line	r PU			(2)	for limitation	of Tamax, temperat	, Tmed,max 8 tures shell	and T _{med,m}	ed all of the	ig on type of e following:	liner see n	ame plate		
1						(3)	- temperat	ture table	for not in	sulated se	ensor (refe	r to table on	the left)			
				Townships to blo for some to be	with antended	1	- tempera	ture at re	ference po	oint as list	ted in this t	able				
				sensor neck and sensor incula	ated or not insulated	(4)	location of re	eference	point	eratue an	ia minimun	i medium ter	nperature	see nameplate		
				(for insulation refer to manual of	Endress+Hauser Flow)					-						
Sensor	Size / DN	Liner	Tmed,min	Ta,max Tmed,ma	« [°C]											
			[°C]	[°C] T6 T5 T4 (85°C) (100°C (135°C)	T3 T2 T1 (200°C) (300°C) (450°C)											
Promag P	all	all (3)	-40 (2)	50 (3) 60 (3) 130 (2)	150 (2) 150 (2) 150 (2) 130 (2) 130 (2) 130 (2)					Q	<u> </u>					
Notes: (1)	Ta,min = -4	0°C (for li	mitation s	ee name plate) temperature see general note below		1						7 ∏				
(2)	Tamax = 50°	C for line	r PU	temperature see general note below					(4) refe	rence poi	int	n 🗖 n				
						L										
Transmit	ter for all	versio	ns													
TG			T _{a,max}	T4												
(85°C)	(100°C)	(135°C)												
 Notes: Ta,m	60 Notes: Ta min = -40°C (for limitation see name plate)						10.02.2020 /	Bn F			Alle gesetzlic	hen Urheberrecht	te. vorbehalten.	Ersetzt durch:		
						B		G			Genehmigun	ung darf onne uns o weder vervielfall	sere tiat werden noo	h Erentz für		
									<u> </u>		dritten Persor	, nen und Konkurre	nzfirmen	Ersteller: FES /	Bn	
General Not	te:					E		ĸ			zugāngig gei	macht werden.		FILE: M:\Zeichng\FE	S0361\A\FES0361A	doc
 In addition temperatu 	to the temp re in depend	erature to dence of	ables abo the liner:	ve it is not permitted to exceed the following	range of medium Co	ontrol Draw	ing IECE	x, Ate	X, CS	A, _c CS	Aus			Gezeichnet	10.02.2020	Bn
PTFE (1 PTFE (1	130°C): -40° 110°C): -10°	°C 130 °C 110	°C °C		Zo	one 2, CI.I I	Div. 2, Cl	I Zone	2					Geprüft		
PTFE (9 PFA:	PTFE (90°C): -20°C 90°C (optional version only) PFA: -20°C 150°C					Thermal Parameter Proline Promag 10					Ex-geprüft	10.02.2020	Bn			
PU: -20°C 50°C (optional version only) Hard rubber: 0°C 80°C (optional version only) For further limitation see name plate					Pr						Gesehen					
						Flowtec AG, Kägenstrasse 7, CH-4153 Reinach BL1, Postfach						FES0	361A	2/2		

CSA GROUP[™]





IECEx Certificate of Conformity Certificate No.: IECEx CSA 21.0020X Issue 0 Annex B | Page 11 of 13

4. Marking

Proline Pro	omag 10	(compact ver							
Model Code 5*B*** – ee): **i**********************************	*****+#**# ********		_					
Approval ee =	I/O i =	Marking of E	Information: Level of Protection for transmitter representative for						
BA	C, U	Transmitter: Sensor:	Ex db eb ib [ib] IIB T4T1 Gb Ex tb [ib] IIIC T** °C Db Ex eb ib IIB T4T1 Gb Ex tb IIIC T** °C Db	db -> electronic compartment eb -> terminal compartment + sensor ib -> display + sensor [ib] -> IO's tb -> enclosure					
	B, M	Transmitter: Sensor:	Ex db eb ib IIB T4T1 Gb Ex tb IIIC T** °C Db Ex eb ib IIB T4T1 Gb Ex tb IIIC T** °C Db	db -> electronic compartment eb -> terminal compartment + sensor ib -> display + sensor tb -> enclosure					
BC	C, U	Transmitter: Sensor:	Ex db ib [ib] IIB T4T1 Gb Ex tb [ib] IIIC T** °C Db Ex eb ib IIB T4T1 Gb Ex tb IIIC T** °C Db	db -> electronic compartment + terminal compartment ib -> display + sensor [ib] -> IO's tb -> enclosure					
	В, М	Transmitter: Sensor:	Ex db ib IIB T4T1 Gb Ex tb IIIC T** °C Db Ex eb ib IIB T4T1 Gb Ex tb IIIC T** °C Db	db -> electronic compartment + terminal compartment ib -> display + sensor tb -> enclosure					
BS	C, U	Transmitter: Sensor:	Ex ec ic [ic] IIB T4T1 Gc Ex ec ic IIB T4T1 Gc	ec -> electronic compartment + terminal compartment + sensor ic -> display [ic] -> IO's					
	В, М	Transmitter: Sensor:	Ex ec ic IIB T4T1 Gc Ex ec ic IIB T4T1 Gc	ec -> electronic compartment + terminal compartment + sensor ic -> display					





IECEx Certificate of Conformity Certificate No.: IECEx CSA 21.0020X Issue 0 Annex B | Page 12 of 13

Proline Pro	omag 10	(remote version)	
Model Code 5*B*** – ee 05*B*** – e	e: **i******* ee**i******	*****+#**# ********+#	
Approval ee =	I/O i =	Marking of Ex protection	Information: Level of Protection for transmitter representative for
BA, BC	B, C, M, U	Not available for remote version	Not available for remote version
BS	B, C, M, U	Transmitter : Ex ec ic [ic] IIB T4 Gc Sensor : Ex ec ic IIB T4T1 Gc	ec -> electronic compartment + terminal compartment ic -> display [ic] -> IO's

5. Conditions of Certification

- All equipment of the measurement system shall be included in the equipotential bonding. Along the intrinsically safe circuits potential equalization must exist.
- The sensors may only be used for those process media, for which the wetted parts are known to be suitable (refer to nameplate or installation instructions for applicable materials)
- It is not permitted to use versions of Proline Promag 10 without display module (refer to installation instructions for proper assembly)
- The flameproof joints are not intended to be repaired
- For order code 'ee' = BC: Equipment of Proline Promag 10 with transmitter terminal compartment with type of protection Ex db must be de-energized for 10 minutes before opening enclosure
- For order code 'ee' = BS: Equipment for Proline Promag 10 shall be installed using a transient protection not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment.
- The Proline 10 Flowmeter that may include, stainless steel label tag with rope, when not bonded to earth used on coated metallic transmitter and/or sensor enclosure, shall be prevented from risk of electrostatic charging caused by friction and/or cleaning. The equipment nameplate shall bear the following warning: WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS
- Only use battery Renata type lithium CR1632, 3V for display





IECEx Certificate of Conformity Certificate No.: IECEx CSA 21.0020X Issue 0 Annex B | Page 13 of 13

6. Manufacturing Locations

- 1. Endress+Hauser Flowtec AG Kägenstrasse 7 4153 Reinach BL 1 Switzerland
- 2. Endress+Hauser Flowtec AG 35, rue de l' Europe 68700 Cernay France
- Endress+Hauser Flowtec (India) Pvt. Ltd. M-174 Waluj MIDC Aurangabad 431136 Maharashtra State India
- 4. Endress+Hauser Flowtec AG, Division U.S.A. 2330 Endress Place Greenwood, Indiana 46143 USA
- Endress+Hauser Flowtec (China) Co. Ltd. Su-Hong-Zhong-Lu No. 465 Suzhou Industrial Park 215021 Suzhou Province Jiangsu
 P.R. China
- Endress+Hauser Flowtec (China) Co. Ltd. Jiang-Tian-Li-Lu No. 31 Suzhou Industrial Park 215021 Suzhou Province Jiangsu P.R. China
- Fluxômetros Ltda.
 Estrada Muncipal Antônio Sesti, 600 A Recreio Costa Verde CEP 13254-085 – Itatiba - SP
 Brazil