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# 防爆合格证

证号：GYJ22.1052X

制 造 商 恩德斯+豪斯公司

(地址：CH-4153, Reinach BL1, Switzerland)

产 品 名 称 质量流量计

型 号 规 格 Proline Promass 300/500, Proline Cubemass 300/500

防 爆 标 志 详见合格证附件

产 品 标 准 /

图 样 编 号 961001814-D, 961002020-D, 961002023-D, 961002082-B,  
961002083-B, 961002967-A, 961001825-B, 323518-0001ZAA

经图样及技术文件的审查和样品检验，确认上述产品符合下列标准：  
GB/T 3836.1-2021, GB/T 3836.2-2021, GB/T 3836.3-2021, GB/T 3836.4-2021,  
GB/T 3836.8-2021, GB3836.20-2010, GB/T 3836.31-2021

特颁发此证。

本证书有效期：2022年02月17日至2027年02月16日

备 注

1. 安全使用注意事项见本证书附件。
2. 证书编号后缀“X”表明产品具有安全使用特殊条件，内容见本证书附件。
3. 型号规格说明见本证书附件。
4. 电气安全参数见本证书附件。
5. 本证书同时适用于恩德斯豪斯流量仪表技术（中国）有限公司（地址：苏州工业园区苏虹中路465号）生产的同型号产品。
6. [更改 I] 变更标准版本。2023年1月13日签发。



本证书仅对与认可文件和样品一致的产品有效。

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(GYJ22.1052X)

(Attachment II)

### GYJ22.1052X防爆合格证附件 II

由恩德斯+豪斯公司生产的Proline Promass 300/500和Proline Cubemass 300/500质量流量计，经检验符合下列标准：

- GB/T 3836.1-2021 爆炸性环境 第1部分：设备 通用要求
  - GB/T 3836.2-2021 爆炸性环境 第2部分：由隔爆外壳“d”保护的的设备
  - GB/T 3836.3-2021 爆炸性环境 第3部分：由增安型“e”保护的的设备
  - GB/T 3836.4-2021 爆炸性环境 第4部分：由本质安全型“i”保护的的设备
  - GB/T 3836.8-2021 爆炸性环境 第8部分：由“n”型保护的的设备
  - GB 3836.20 - 2010 爆炸性环境 第20部分：设备保护级别（EPL）为Ga级的设备
  - GB/T 3836.31-2021 爆炸性环境 第31部分：由防粉尘点燃外壳“t”保护的的设备
- 防爆合格证号GYJ22.1052X。

本证书认可的产品型号规格如下：

Proline Promass 300, Cubemass 300:

- 8**a**3**b** **cc** -**dd e f f g h j l p s s t t t v w w**+**\*\*\*#**
- O8**a**3**b** **cc** -**dd e f f g h j l p s s t t t v w w y y**+**\*\*\*#** OEM版本
- 8X3**b**XX-**dd e f f g h j l p r r s s w w**+**\*\*\*#** 可换转换器适用
- O8X3**b**XX-**dd e f f g h j l p r r s s w w y y**+**\*\*\*#** 可换转换器（OEM）

Proline Promass 500, Cubemass 500:

- 8**a**5**b** **cc** -**dd e f f g h i j k m n o p s s t t t v w w**+**\*\*\*#**
- O8**a**5**b** **cc** -**dd e f f g h i j k m n o p s s t t t v w w y y**+**\*\*\*#** OEM版本
- 8X5**b**XX-**dd e f f g h i j k m o p q q r r s s w w**+**\*\*\*#** 可换转换器适用
- O8X5**b**XX-**dd e f f g h i j k m o p q q r r s s w w y y**+**\*\*\*#** 可换转换器（OEM）

其中：**a**表示传感器型号，可为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;



**b**表示产品代系识别码, 可为B = Promass A (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 (8A\*C\*\*, O8A\*C\*\*)

**cc**表示测量口径;

**dd**表示NEPSI认证代码, 详见附件;

**e**表示电源, 可为D = 24Vdc, E = 100~230Vac, I = 100~230Vac/24Vdc, X = 仅传感器;

**ff**表示输入/输出1, 可为BA = 4~20mA HART;

BB = 4~20mA WHART;

CA = 4~20mA HART Ex i (无源);

CB = 4~20mA WHART Ex i (无源);

CC = 4~20mA HART Ex i (有源);

CD = 4~20mA WHART Ex i (有源);

GA = Profibus PA;

HA = Profibus PA Ex i;

LA = Profibus DP;

NA = EtherNet/IP;

RA = Profinet IO;

RB = Profinet;

RC = Profinet Ex i;

SA = Foundation Fieldbus;

TA = Foundation Fieldbus Ex i;

MA = Modbus RS485;

MB = Modbus TCP;

MC = Modbus TCP Ex i;

XX = 仅为传感器;

**g**表示输入/输出2, 可为A = 不带输入/输出2;

B = 4~20mA;

C = 4~20mA Ex i (无源);

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 = 仅为传感器;



**h**表示输入/输出3, 可为A = 不带输入/输出3;

B = 4~20mA;

C = 4~20mA Ex i (无源);

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 = 仅为传感器;

**i**表示输入/输出4, 可为 A = 不带输入/输出4;

(Proline 500适用)

B = 4~20mA;

C = 4~20mA Ex i (无源);

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 = 仅为传感器;

**j**表示显示/运行, 可为O (带远程显示) 或其它 (不带远程显示);

**k**表示内置ISEM模块 (Proline 500适用), 可为A = 传感器, B = 转换器;

**l**表示外壳 (Proline 300适用);

**m**表示转换器外壳 (Proline 500适用);

**n**表示传感器外壳 (Proline 500适用);

**o**表示传感器电缆连接 (Proline 500适用);

**p**表示电缆引入规格;

**qq**表示升级套组;

**rr**表示现有产品;

**ss**表示测量管材质;

**ttt**表示过程连接;

**v**表示校准;

**ww**表示设备型号, 可为A1 = 版本1

A2 = 版本2



**yy**表示客户信息；

**\*\***表示备选信息；

**#, +**表示扩展订购码。

详见产品规格说明书。

### 一、产品安全使用特殊条件

产品防爆合格证号后缀“X”表示产品有安全使用特殊要求，具体内容如下：

1、关联装置应优先选用隔离式安全栅；如选用齐纳式安全栅，应符合GB/T 3836.15-2017标准关于本安电路接地的要求。

2、涉及隔爆接合面的维修须联系产品制造商。

3、测量介质不得对产品接液部件有不良影响。

4、产品认证代码**dd** = NI或NJ的转换器塑料外壳（Proline 500适用）应安装在污染等级最多为2级的区域。

5、当产品配接远程显示单元(O)DKX001时，应满足以下匹配要求：

Promass 300代码 <b>dd</b>	远程显示单元(O)DKX001代码 <b>bb</b> （证号GYJ21.1084）
NA, NB, NC或ND	NE, NF或NG
NS	NS

6、产品转换器外壳或传感器外壳可带有不锈钢吊牌，应采取措施防止因摩擦或清洗引起的静电火花危险。

7、对于认证代码**dd** = NA, NB, NC, ND, NI, NJ, NM或NN的Promass 300/500系列产品：0区仅适用于测量管中有工艺介质的传感器

8、仅可使用Renata型CR1632,3V锂电池。



## 二、产品使用注意事项

## 1、传感器分组

安装于1区的Promass和Cubemass传感器:

传感器分组	传感器型号	测量管尺寸	等级	T <sub>med,min</sub> [°C]
A1	A (8A*B**)	01, 02, 04	IIC	-50
	C	01, 02, 04, 06	IIC	-50
	E	25, 40, 50	IIC	-50
	F	08, 15, 25, 40, 50	IIC	-50/-60 *)
	F(HT)	15, 25, 50	IIC	-50
	H, S, P	08, 15, 25, 40	IIC	-50
	I	08, 15, 16, 25, 26, 40	IIC	-50
	Q	25, 50, 150, 200, 250	IIC	-50
B1	A (8A*C**)	01, 02, 04	IIC	-50
	E	08, 15, 80	IIC	-50
	F	08, 15	IIC	-50/-60 *)
	F, F(HT), O	80, 100, 150, 250	IIC	-50/-60 *)
	I	41, 50, 51, 80	IIC	-50
	H, S, P	50	IIC	-50
	Q	80, 100	IIC	-50/-60 *)
	X	350	IIC	-50/-60 *)
C1	F	25, 40, 50	IIC	-200
	H	08, 15, 25, 40, 50	IIC	-200
	Q	25, 50	IIC	-200
D1	F	08, 15, 80, 100, 150, 250	IIC	-200
	H	50	IIC	-200
	Q	80, 100, 150, 200, 250	IIC	-200
E1	E	80	IIB	-50
	F, F(HT), O	80, 100, 150, 250	IIB	-50/-60 *)
	H, S, P	50	IIB	-50
	I	41, 50, 51, 80	IIB	-50
	Q	80, 100, 150, 200, 250	IIB	-50/-60 *)
	X	350	IIB	-50/-60 *)
H1	F, F(HT)	80, 100, 150, 250	IIB	-200
	H	50	IIB	-200
	Q	80, 100, 150, 200, 250	IIB	-200

\*)：T<sub>med,min</sub> = -60°C仅适用于Promass F 500、Promass Q 500和Promass X 500 转换器外壳内置ISEM

注：除了传感器Promass A DN01, Promass H DN08~50和Promass I DN08~80仅适用于EPL Gb以外，其余型号传感器均适用于EPL Ga/Gb。EPL Ga应用仅针对于测量管内部。



安装于2区的Promass和Cubemass传感器:

传感器分组	传感器型号	测量管尺寸	T <sub>med,min</sub> [°C]
A2	C	01, 02, 04, 06	-50
	E	25, 40, 50, 80	-50
	F	25, 40, 50, 80, 100, 150, 250	-50/-60 *)
	F (HT)	15, 25, 50, 80, 100, 150, 250	-50
	H, S, P	15, 25, 40, 50	-50
	I	08, 15, 16, 25, 26, 40, 41, 50, 51, 80	-50
	O	80, 100, 150, 250	-50
	Q	25, 40, 80, 100, 150, 200, 250	-50/-60 *)
	X	350	-50/-60 *)
B2	A (8A*B**)	01, 02, 04	-50
	F	08, 15	-50
	E	08, 15	-50
	H, S, P	08	-50
C2	F	25, 40, 50, 80, 100, 150, 250	-200
	F (HT)	15, 25, 50, 80, 100, 150, 250	-200
	H	08, 15, 25, 40, 50	-200
	Q	25, 40, 80, 100, 150, 200, 250	-200
D2	F	08, 15	-200
	H	50	-200
E2	A (8A*C**)	01, 02, 04	-50

\*)： T<sub>med,min</sub> = -60°C 仅适用于Promass F 500、Promass Q 500和Promass X 500 转换器  
外壳内置ISEM



2、温度参数 (1区)

Proline Promass A/E/F/H/I/O/P/Q/S/X 300 Proline Cubemass C 300

Notes: Pages 1 and 2 apply to versions with extended order code covering: 8\*3B\*\* - dd... with approval option: dd = NA, NB, NC, ND

8x3Bxx - dd... O8x3Bxx - dd...

Temperature table for versions with sensor not insulated

Sensor	Size / DN	T <sub>amb</sub>		T <sub>inst,max</sub> [°C]												
		min	max	T6	T5	T4	T3	T2	T1	T6	T5	T4	T3	T2	T1	
Promass A	01 ... 04	-50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		205	205	50	95	130	150	150	205	205	205	205	205	205	205	205
Cubemass C	01 ... 06	-50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		205	205	50	95	130	150	150	205	205	205	205	205	205	205	205
Promass E	08 ... 50	-50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		205	205	50	95	130	150	150	205	205	205	205	205	205	205	205
Promass F	08 ... 15	-50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		205	205	50	95	130	150	150	205	205	205	205	205	205	205	205
Promass H	15 ... 25	-50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		205	205	50	95	130	150	150	205	205	205	205	205	205	205	205
Promass S, P	25 ... 50	-50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		205	205	50	95	130	150	150	205	205	205	205	205	205	205	205
Promass H	80 ... 250	-50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		205	205	50	95	130	150	150	205	205	205	205	205	205	205	205
Promass H	50 ... 250	-50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		205	205	50	95	130	150	150	205	205	205	205	205	205	205	205
Promass H	80 ... 250	-50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		205	205	50	95	130	150	150	205	205	205	205	205	205	205	205

Sensor	Size / DN	T <sub>amb</sub>		T <sub>inst,max</sub> [°C]												
		min	max	T6	T5	T4	T3	T2	T1	T6	T5	T4	T3	T2	T1	
Promass I	8, 15	-50	150	50	95	130	150	150	205	205	205	205	205	205	205	205
		50	150	50	95	130	150	150	205	205	205	205	205	205	205	205
		205	150	50	95	130	150	150	205	205	205	205	205	205	205	205
Promass O	80 ... 250	-50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		205	205	50	95	130	150	150	205	205	205	205	205	205	205	205
Promass X	350	-50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		50	205	50	95	130	150	150	205	205	205	205	205	205	205	205
		205	205	50	95	130	150	150	205	205	205	205	205	205	205	205
Promass Q	25 ... 250	-50	240	50	95	130	150	150	205	205	205	205	205	205	205	205
		50	240	50	95	130	150	150	205	205	205	205	205	205	205	205
		205	240	50	95	130	150	150	205	205	205	205	205	205	205	205

Notes: (1) T<sub>a min</sub> = -40°C, -50°C respectively (see nameplate)  
 (2) values in brackets are applicable for installation where the transmitter is not installed; above the sensor  
 (3) for applicable version with maximum medium temperature and minimum medium temperature see nameplate

Änderungen: A 28.10.2016 / EKE F 20.09.2022/BEOE G 15.02.2017 / EKE G C 02.11.2017 / EKE H D 14.01.2019 / EKE J E 03.03.2020 / EKE K

Alle gesetzlichen Umhängetechnik vorgehalten  
 Diese Zeichnung darf ohne unsere Genehmigung weder vervielfältigt werden noch Dritten, Personen und Konkurrenzfirmen zugänglich gemacht werden.

Ersatz für:  
 Ersteller: RDES / BEOE  
 FILE: MZ\Zehnpf\FES0283F\FES0283F.doc

Ersetzt durch:  
 Gezeichnet: 28.10.2016 EKE  
 Geprüft: BEOE  
 Ex-geprüft: 20.09.2022 BEOE  
 Gelesen: BEOE

Installation Drawing NEPSI (acc. to FES0283F)  
 Zone 1, Zone 21  
 Thermal Parameter  
 Proline Promass 300/500, Proline Cubemass 300/500

**FES0283F 1/6**

Flowtec AG, Kägenstrasse 7, CH-4153 Reinach BL 1, Postfach



Continued of previous page

Temperature table for versions with sensor insulated (for insulation refer to manual of Endress+Hauser Flowtec)

Sensor	Size / DN	T <sub>min</sub>		T <sub>max</sub> [°C]											
		min [°C]	max [°C]	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)
Promass A	01 ... 04	-50	205	55	95	130	150	205	205	205	205	205	205	205	205
Cubermass C	01 ... 06	-50	205	55	95	130	150	205	205	205	205	205	205	205	205
Promass D	08 ... 50	-50	205	55	95	130	150	205	205	205	205	205	205	205	205
E	80	-50	205	55	95	130	150	205	205	205	205	205	205	205	205
F	08 ... 15	-50	150	55	95	130	150	150	150	150	150	150	150	150	150
G	15 ... 25	-50 / -200	350	60	95	130	175	275	350	350	350	350	350	350	350
H	25 ... 50	-50 / -200	150	55	95	130	150	150	150	150	150	150	150	150	150
I	80 ... 250	-50 / -200	150	60	95	130	160	240	240	240	240	240	240	240	240
J	50 ... 250	-50 / -200	350	60	95	130	175	275	350	350	350	350	350	350	350
K	8	-50 / -200	205	55	95	130	150	150	150	150	150	150	150	150	150
L	15 ... 50	-50 / -200	205	55	95	130	150	150	150	150	150	150	150	150	150
M	8	-50	150	45	85	120	175	275	350	350	350	350	350	350	350
N	8	-50	205	45	85	120	175	275	350	350	350	350	350	350	350
O	15 ... 50	-50 / -200	205	55	95	130	150	150	150	150	150	150	150	150	150
P	8	-50	150	45	85	120	175	275	350	350	350	350	350	350	350
Q	8	-50	205	45	85	120	175	275	350	350	350	350	350	350	350
R	15 ... 50	-50 / -200	150	50	95	130	150	150	150	150	150	150	150	150	150
S	8	-50	150	45	85	120	175	275	350	350	350	350	350	350	350
T	8, 15	-50	150	45	85	120	175	275	350	350	350	350	350	350	350
U	15FB, 25	-50	150	45	85	120	175	275	350	350	350	350	350	350	350
V	25FB, 40	-50	150	45	85	120	175	275	350	350	350	350	350	350	350
W	40FB, 50	-50	150	45	85	120	175	275	350	350	350	350	350	350	350
X	50FB, 80	-50	150	45	85	120	175	275	350	350	350	350	350	350	350

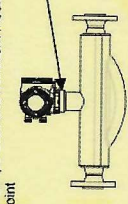
Sensor	Size / DN	T <sub>min</sub>		T <sub>max</sub> [°C]											
		min [°C]	max [°C]	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)
Promass O	80 ... 250	-50	205	55	95	130	150	205	205	205	205	205	205	205	205
Promass P	350	-50	205	55	95	130	150	205	205	205	205	205	205	205	205
Promass Q	25 ... 250	-50 / -200	240	55	95	130	150	205	205	205	205	205	205	205	205

Notes: (1) T<sub>min</sub> = -40°C, -50°C respectively (see nameplate)  
(2) values in brackets are applicable for installation where the transmitter is not installed above the sensor  
(3) for applicable version with maximum medium temperature and minimum medium temperature see nameplate

**Temperature table for versions with sensor insulated**  
(for insulation not in compliance to manual of Endress+Hauser Flowtec)

Sensor	Size / DN	T <sub>max</sub> to be measured at reference point at sensor neck [°C]											
		T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)
all	all	59	72	75	76	77	77	77	77	77	77	77	77

Notes: (1) for sale use temperatures shall not exceed all of the following:  
- temperature table for versions with sensor not insulated (refer to table above)  
- temperature at reference point as listed in this table  
- T<sub>min</sub> = -40°C, -50°C respectively (see nameplate)  
- for maximum medium temperature and minimum medium temperature see nameplate  
(2) location of reference point



Änderungen:		A	28.10.2016 / EKE	F	20.09.2022/BE0E	Alle gesetzlichen Urheberrechte, vorbehalten Diese Zeichnung darf ohne unsere Genehmigung weder vervielfältigt werden noch dritten Personen unter Kopiermaschinen zugänglich gemacht werden.				Erstellt durch: Erstellt für: Ersteller: RDES / BE0E FILE: MAZachngFES0283F/FES0283F.doc	
B		15.02.2017 / EKE	G					Gezeichnet		24.10.2016	
C		02.11.2017 / EKE	H					Geprüft			
D		14.01.2019 / ENE	J					Ex-pprült		20.09.2022	
E		03.03.2020 / EKE	K					Gesehen			
Installation Drawing NEPSI (acc. to FES0283F)											
Zone 1, Zone 21											
Thermal Parameter											
Proline Promass 300/500, Proline Cubermass 300/500											
FES0283F										2/6	
Flowtec AG, Kätenstrasse 7, CH-41153 Reinach BL1, Postfach											



**Proline Promass A/E/F/H/I/O/P/Q/S/X 500**

Notes: This page applies to versions with extended order code covering: 8\*5\*\*\* - dd\*\*\*\*\*B... with approval option: dd = NA, NB, NC, ND

Proline Cubemass C 500  
 Notes: This page applies to versions with extended order code covering: 08\*5\*\*\* - dd\*\*\*\*\*B... with approval option: dd = NA, NB, NC, ND

**Temperature table for versions with sensor not insulated**

Sensor	Size / DN	T <sub>meas</sub> [°C]		T <sub>max</sub> [°C]		T <sub>min</sub> [°C]		T <sub>max</sub> [°C]		T <sub>min</sub> [°C]	
		min	max	min	max	min	max	min	max	min	max
Promass A (type 8A5B)	01 ... 04	-50	205	T6 (85°C)	60	T1 (450°C)	150	T10 (300°C)	150	T11 (450°C)	205
				T5 (100°C)	95	T2 (300°C)	150	T9 (300°C)	205		
Promass A (type 8A5C)	01 ... 04	-50	205	T6	60	T1	150	T10	150	T11	205
				T5	95	T2	150	T9	205		
Cubemass C	01 ... 06	-50	205	T6	55	T1	150	T10	150	T11	205
				T5	95	T2	150	T9	205		
Promass E	08 ... 50	-50	205	T6	60	T1	150	T10	150	T11	205
				T5	95	T2	150	T9	205		
Promass F	08 ... 15	-50 / -60 / -80	205 / 150 / 55	T6	60	T1	150	T10	150	T11	205
				T5	95	T2	150	T9	205		
	15 ... 25	-50 / -200	352	T6	60	T1	150	T10	150	T11	205
				T5	95	T2	150	T9	205		
	25 ... 40	-50 / -60	150	T6	55	T1	150	T10	150	T11	205
				T5	95	T2	150	T9	205		
	50	-50 / -200	240	T6	55	T1	150	T10	150	T11	205
				T5	95	T2	150	T9	205		
	80 ... 250	-50 / -200	350	T6	60	T1	150	T10	150	T11	205
				T5	95	T2	150	T9	205		
Promass H	8	-50 / -200	205	T6	60	T1	150	T10	150	T11	205
				T5	95	T2	150	T9	205		
Promass S, P	15 ... 50	-50 / -200	205	T6	60	T1	150	T10	150	T11	205
				T5	95	T2	150	T9	205		

**Transmitter for all versions:**

T <sub>max</sub>
T6 (85°C)
55
T5 (100°C)
60

Notes: (1) T<sub>a,min</sub> = -40°C, -50°C / -60°C respectively (see nameplate)  
 (2) for applicable version with maximum medium temperature and minimum medium temperature see nameplate

**Installation Drawing NEPSI (acc. to FES0283F)**  
 Zone 1, Zone 21  
 Thermal Parameter  
 Proline Promass 300/500, Proline Cubemass 300/500

Erstellt durch:	A	28.10.2016 / EKE	F	20.09.2022 / BEOE	Alle gesetzlichen Umföhrbereiche, vordaherhalten Diese Zeichnung darf ohne unsere Genehmigung weder vervielfältigt werden noch dritten Personen und Konkurrenzfirmen zugänglich gemacht werden.		Ersetzt durch:		
Gezeichnet:	B	13.02.2017 / EKE	G				Ersteller:	ROES / BEOE	
Gepüft:	C	02.11.2017 / EKE	H				FILE:	M:Zeichnung\FES0283F\FES0283F.doc	
Ex-gesprüht:	D	14.01.2019 / EKE	J				Geschnitten:	28.10.2016	EKE
Gesehen:	E	03.03.2020 / EKE	K				Gesehen:		
							Ex-gesprüht:	20.09.2022	BEOE
							Gesehen:		

**FES0283F 3/6**

Flowtec AG, Käcgenstrasse 7, CH-4153 Reinach BL1, Postfach



**Continued of previous page**

**Temperature table for versions with sensor insulated (for insulation refer to manual of Endress+Hauser Flowtec)**

Sensor	Size / DN	T <sub>amb</sub>		T <sub>meas,max</sub> [°C]											
		min [°C]	max [°C]	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)
Promass A (type BA5B)	01 ... 04	-50	205	60	95	130	150	150	150	150	150	150	150	150	150
Promass A (type BA5E)	01 ... 04	-50	205	60	95	130	150	150	150	150	150	150	150	150	150
Promass C (type BA5C)	01 ... 05	-50	205	60	95	130	150	150	150	150	150	150	150	150	150
Promass E	08 ... 50	-50	205	60	95	130	130	130	130	130	130	130	130	130	130
Promass F	80 ... 15	-50 / -60	150	55	95	130	150	150	150	150	150	150	150	150	150
Promass H	15 ... 25	-50 / -60 / -200	240	60	95	130	160	160	160	160	160	160	160	160	160
Promass S, P	80 ... 250	-50 / -60 / -200	350	60	95	130	175	175	175	175	175	175	175	175	175
Promass I	8, 15, 25, 40, 80	-50 / -60 / -200	150	55	95	130	150	150	150	150	150	150	150	150	150
Promass O	80 ... 250	-50	205	60	75	110	170	170	170	170	170	170	170	170	170

**Temperature table for versions with sensor insulated (for insulation refer to manual of Endress+Hauser Flowtec)**

Sensor	Size / DN	T <sub>amb</sub>		T <sub>meas,max</sub> [°C]											
		min [°C]	max [°C]	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)
Promass X	350	-50	205	60	70	90	120	170	205	205	205	205	205	205	205
Promass O	25 ... 250	-50 / -60 / -200	240	60	55	75	110	160	240	240	240	240	240	240	240


Notes: (1) T<sub>amb</sub> min = -40°C, -50°C / -60°C respectively (see nameplate)  
 (2) values in brackets are applicable for installation where the sensor enclosure is not installed above the sensor  
 (3) for applicable version with max. medium temperature and min. medium temperature see nameplate

**Temperature table for versions with sensor insulated (for insulation refer to manual of Endress+Hauser Flowtec)**

Sensor	Size / DN	T <sub>meas,max</sub> [°C]											
		T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)
all	all	83	72	84	91	91	91	83	72	84	91	91	91

Notes: (1) for safe use temperatures shall not exceed all of the following:  
 - temperature table for versions with sensor not insulated (refer to table above)  
 - T<sub>amb</sub> min = -40°C, -50°C respectively (see nameplate)  
 - for maximum medium temperature and minimum medium temperature see nameplate  
 (2) location of reference point



reference point

**Transmitter for all versions:**

T <sub>max</sub>	T5 (100°C)	60
T <sub>max</sub>	T6 (85°C)	55

Notes: (1) T<sub>amb</sub> min = -50°C (for limitation see name plate)

**Installation Drawing NEPSI (acc. to FES0263F)**

Zone 1, Zone 21

Thermal Parameter

Proline Promass 300/500, Proline Cubemass 300/500

Erstellt durch:	Ersatz für:	28-10.2016	ERKE
Erstellt für:	Ersteller:	20.09.2022	BE0E
Erstellt durch:	Ersteller:		
Erstellt für:	Ersteller:		

**FES0263F** **4/6**

Flowtec AG, Kätenstrasse 7, CH-41153 Reinach BL1, Postfach



Sensor		T <sub>amb,max</sub> [°C]										T <sub>amb</sub> [°C]		T <sub>amb,max</sub> [°C]				
Size / DN	min [°C]	max [°C]	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	min	max	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)		
Promass A	-50	205	35	60	95	130	150	205	205	205	35	60	95	130	150	205		
Promass A (type 8A5B)	-50	205	60	95	130	150	205	205	205	205	60	95	130	150	205	205		
Promass A (type 8A5C)	-50	205	55	95	130	150	205	205	205	205	55	95	130	150	205	205		
Cubemass C	-50	205	35	40	75	130	150	205	205	205	35	40	75	130	150	205		
Promass E	-50	205	35	40	60	130	130	205	205	205	35	40	60	130	130	205		
Promass F	-50	150	35	40	65	130	150	150	150	150	35	40	65	130	150	150		
Promass G	-50 / -200	240	35	40	65	130	130	240	240	240	35	40	65	130	130	240		
Promass H	-50 / -200	350	35	40	80	130	175	275	350	350	35	40	80	130	175	275		
Promass S, P	-50	150	35	45	85	100	160	205	205	205	35	45	85	100	160	205		
Promass Q	-50 / -200	240	35	40	60	110	170	205	205	205	35	40	60	110	170	205		

Sensor		T <sub>amb</sub> [°C]		T <sub>amb,max</sub> [°C]				
Size / DN	min [°C]	max [°C]	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)
Promass S, P	-50	205	35	60	95	130	150	205
Promass X	-50	205	35	45	65	110	170	205
Promass Y	-50 / -200	240	35	45	65	110	170	205
Promass Z	-50 / -200	240	35	45	65	110	170	205

Notes: (1) T<sub>amb,min</sub> = -40°C, -50°C, respectively (see nameplate)  
 (2) values in brackets are applicable for installation where the transmitter is not installed above the sensor  
 (3) for applicable version with maximum medium temperature and minimum medium temperature see nameplate

Transmitter for all versions:		T <sub>amb,max</sub>			
Type of enclosure	Ordinary location (°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)	T1 (450°C)
aluminium	60	---	45	60	---
plastic	60	---	---	---	---

Notes: (1) aluminium enclosure: T<sub>amb,min</sub> = 50°C (for limitation see name plate)  
 (2) plastic enclosure: T<sub>amb,min</sub> = 40°C

Anderungen:		Alle gesetzlichen Urheberrechte vorbehalten.	
Code	Datum	Erstellt durch:	Ersetzt durch:
A	28.10.2016 / E/KE	E	20.09.2022/BE/OE
B	15.02.2017 / E/KE	B	---
C	02.11.2017 / E/KE	H	---
D	14.01.2019 / E/KE	J	---
E	03.03.2020 / E/KE	K	---

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Ersteller: RDES / BEOE  
 FILE: MZabeng\FES0283F\FES0283F.doc

Installation Drawing NEPSI (acc. to FES0283F)	
Zone	Zone 1, Zone 21
Thermal Parameter	Proline Promass 300/500, Proline Cubemass 300/500
Gezeichnet	28.10.2016 E/KE
Gepüft	---
Ex-gepüft	20.09.2022 BEOE
Gesehen	---

<b>FES0283F</b>	<b>5/6</b>
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Temperature table for versions with sensor insulated (for insulation refer to manual of Endress+Hauser Flowtec)																	
Sensor	Size / DN	T <sub>min</sub>		T <sub>max</sub>		T <sub>med,max</sub> [°C]					T <sub>med,max</sub> [°C]						
		min [°C]	max [°C]	min [°C]	max [°C]	T6	T5	T4	T3	T2	T1	T6	T5	T4	T3	T2	T1
Promass Q	25 ... 250	-200	240	35	40	85	100	135	160	180	240	85	100	135	160	180	240
Gubemass C	01 ... 06	-50	205	35	40	90	100	150	150	150	150	90	100	150	150	150	150
Promass E	08 ... 50	-50	205	35	40	55	60	100	100	100	100	55	60	100	100	100	100
Promass F	08 ... 50	-50	150	35	40	60	60	100	100	100	100	60	60	100	100	100	100
Promass H	8	-50 / -200	205	35	40	65	65	100	100	100	100	65	65	100	100	100	100
Promass S, P	8	-50 / -200	150	35	40	55	55	100	100	100	100	55	55	100	100	100	100
Promass I	8, 80	-50	150	35	45	70	70	90	90	90	90	70	70	90	90	90	90
Promass O	80 ... 250	-50	205	35	40	55	55	110	110	110	110	55	55	110	110	110	110
Promass X	350	-50	205	35	40	55	55	120	120	120	120	55	55	120	120	120	120

Temperature table for versions with sensor insulated (for insulation refer to manual of Endress+Hauser Flowtec)																	
Sensor	Size / DN	T <sub>min</sub>		T <sub>max</sub>		T <sub>med,max</sub> [°C]					T <sub>med,max</sub> [°C]						
all	all	-200	240	35	45	80	85	135	160	180	240	85	100	135	160	180	240
Notes:																	
(1) for safe use temperatures shall not exceed all of the following:																	
- temperature table for versions with sensor not insulated (refer to table above)																	
- Ta.min = -40°C, -50°C respectively (see nameplate)																	
- for maximum medium temperature and minimum medium temperature see nameplate																	
(2) location of reference point																	

reference point

Transmitter for all versions:														
Type of enclosure	Ordinary location (°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)	T4 (135°C)									
aluminium	60	---	45	60	---									
plastic	60	---	---	---	---									

Notes: (1) aluminium enclosure: Ta.min = -50°C (for limitation see name plate)  
 plastic enclosure: Ta.min = -40°C

Aenderungen:														
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
28.10.2016/EKE	15.02.2017/EKE	02.11.2017/EKE	14.01.2019/EKE	03.03.2020/EKE	20.09.2022/BEDE	---	---	---	---	---	---	---	---	---

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Erstellt durch: FES0283F  
 Ersteller: RDES / BEOE  
 FILE: MZ0309\FES0283F\FES0283F.dwg

Gezeichnet: 28.10.2016 EKE  
 Gepruft: ---  
 Ex-gepruft: 20.09.2022 BEOE  
 Gelesen: ---

Installation Drawing NEPSI (acc. to FES0263F)  
 Zone 1, Zone 21  
 Thermal Parameter  
 Proline Promass 300/500, Proline Cubemass 300/500

Flowtec AG, Kadenstrasse 7, CH-4153 Reinach BLI, Postfach



3、温度参数 (2区)

Proline Promass A/EI/H/O/P/Q/S/X 300		Proline Cubemass C 300	
Notes: This page applies to versions with extended order code covering: 8*3B** - dd... with approval option: dd = NS		8*3B** - dd... with approval option: dd = NS	
8*3Bxx - dd...		8*3Bxx - dd...	
OBx3Bxx - dd...		OBx3Bxx - dd...	

Sensor	Size / DN	Type of protection	T <sub>amb</sub> [°C]		T <sub>meas</sub> [°C]													
			min	max	T <sub>16</sub>	T <sub>15</sub>	T <sub>14</sub>	T <sub>13</sub>	T <sub>12</sub>	T <sub>11</sub>	T <sub>16</sub>	T <sub>15</sub>	T <sub>14</sub>	T <sub>13</sub>	T <sub>12</sub>	T <sub>11</sub>		
Promass A	01 ... 04	Ex ec	-50	205	50	90	130	170	205	205	205	205	205	205	205	205	205	205
Cubemass C	01 ... 06	Ex ec	-50	205	50	90	130	140	205	205	205	205	205	205	205	205	205	205
Promass E	08 ... 15	Ex ec	-50	205	55	80	115	165	205	205	205	205	205	205	205	205	205	205
Promass F	25 ... 80	Ex ec	-50	205	60	80	95	140	205	205	205	205	205	205	205	205	205	205
Promass H	06 ... 15	Ex ec	-50 / -200	150	80	115	150	150	150	150	150	150	150	150	150	150	150	150
Promass S, P	25 ... 80	Ex ec	-50 / -200	240	55	80	115	170	240	240	240	240	240	240	240	240	240	240
Promass I	15 ... 250	Ex ec	-50 / -200	150	60	95	160	170	170	170	170	170	170	170	170	170	170	170
Promass J	8 ... 80	Ex ec	-50 / -200	150	60	95	160	160	160	160	160	160	160	160	160	160	160	160

Sensor	Size / DN	Type of protection	T <sub>amb</sub> [°C]		T <sub>meas</sub> [°C]													
Promass O	80...250	Ex ec	-50	205	50	60	95	160	205	205	205	205	205	205	205	205	205	205
Promass X	350	Ex ec	-50	205	50	60	95	160	205	205	205	205	205	205	205	205	205	205
Promass Q	25...250	Ex ec	-50 / -200	240	50	60	95	160	240	240	240	240	240	240	240	240	240	240

Notes: (1) this page covers sensors with type of protection Ex ec. Sensors with type of protection Ex nc is applicable only for sensor versions without purge connection or rupture disk (temperature table see next page)	
(2) T <sub>amb</sub> = -10°C, -50°C respectively (see nameplate)	
(3) values in brackets are applicable for installation where the transmitter is not installed above the sensor	
(4) for maximum medium temperature and minimum medium temperature see nameplate	
(5) versions with transmitter enclosure stainless steel (hygienic) only for installation where transmitter is not installed above the sensor	
(6) Versions with transmitter enclosure stainless steel (hygienic) installed in temperature class T5, a degree of 3°C for ambient temperature shall be taken into account	

A	28.10.2016 / EKE	F	03.03.2020 / EKE	Alle gesetzlichen Vorschriften werden eingehalten	
B	15.02.2017 / EKE	G	20.09.2022 / BEOE	Diese Zeichnung darf ohne unsere Genehmigung weiter vervielfältigt werden nach dem Willen der Hersteller	
C	02.11.2017 / EKE	H		Geeignete Personen und Konkurrenzfirmen zuzulassen	
D	15.01.2018 / EKE	J			
E	14.01.2019 / EKE	K			

Ersatz durch:	
Ersatz für:	
Ersteller: RDES / BEOE	
FILE: M2\winy\FES0284G\FES0284G.doc	

Gezeichnet:	28.10.2016	EKE
Geprüft:		
Ex-geprüft:	20.09.2022	BEOE
Gesehen:		

Installation Drawing NEPSI (acc. to FES0284G)	
Zone 2	
Thermal Parameter	
Proline Promass 300/500, Proline Cubemass 300/500	

FES0284G		1/12
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**Proline Promass A/E/F/H/I/O/P/Q/S/X 300** Proline Cubemass C 300

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

8\*3B\*...-dd...  
with approval option: dd = NS

08\*3B\*...-dd...

8x3Bxx - dd...

08\*3Bxx - dd...

**Temperature table for versions in type of protection Ex ec nC with sensor not insulated**

Sensor	Size / DN	Type of protection	T <sub>max</sub> [°C]		T <sub>max</sub> [°C]							
			min	max	T6	T5	T4	T3	T2	T1		
Promass A	01 ... 04	Ex ec nC	-50	205	50	95	130	165	195	205	205	205
					60	95	130	165	195	205	205	
					80	95	130	165	195	205	205	
Cubemass C	01 ... 06	Ex ec nC	-50	205	50	95	130	165	195	205	205	
					60	95	130	165	195	205	205	
					80	95	130	165	195	205	205	
Promass E	08 ... 15	Ex ec nC	-50	205	50	95	130	165	195	205	205	
					60	95	130	165	195	205	205	
					80	95	130	165	195	205	205	
Promass F	08 ... 15	Ex ec nC	-50 / -200	150	50	95	130	165	195	205	205	
					60	95	130	165	195	205	205	
					80	95	130	165	195	205	205	
25 ... 80		Ex ec nC	-50 / -200	240	50	95	130	165	195	205	205	
					60	95	130	165	195	205	205	
					80	95	130	165	195	205	205	
100...250		Ex ec nC	-50 / -200	150	50	95	130	165	195	205	205	
					60	95	130	165	195	205	205	
					80	95	130	165	195	205	205	
15...250		Ex ec nC	-50 / -200	350	50	95	130	165	195	205	205	
					60	95	130	165	195	205	205	
					80	95	130	165	195	205	205	
Promass H	8	Ex ec nC	-50 / -200	205	50	95	130	165	195	205	205	
					60	95	130	165	195	205	205	
					80	95	130	165	195	205	205	
Promass S, P	15 ... 50	Ex ec nC	-50 / -200	205	50	95	130	165	195	205	205	
					60	95	130	165	195	205	205	
					80	95	130	165	195	205	205	
8		Ex ec nC	-50	150	50	95	130	165	195	205	205	
					60	95	130	165	195	205	205	
					80	95	130	165	195	205	205	
15 ... 50		Ex ec nC	-50	150	50	95	130	165	195	205	205	
					60	95	130	165	195	205	205	
					80	95	130	165	195	205	205	
8 ... 80		Ex ec nC	-50	150	50	95	130	165	195	205	205	
					60	95	130	165	195	205	205	
					80	95	130	165	195	205	205	

Sensor	Size / DN	Type of protection	T <sub>max</sub> [°C]		T <sub>max</sub> [°C]							
			min	max	T6	T5	T4	T3	T2	T1		
Promass O	80...250	Ex ec nC	-50	205	50	95	130	165	195	205	205	
					60	95	130	165	195	205	205	
					80	95	130	165	195	205	205	
Promass X	350	Ex ec nC	-50	205	50	95	130	165	195	205	205	
					60	95	130	165	195	205	205	
					80	95	130	165	195	205	205	
Promass Q	25...250	Ex ec nC	-50 / -200	240	50	95	130	165	195	205	205	
					60	95	130	165	195	205	205	
					80	95	130	165	195	205	205	

Notes: (1) Type of protection Ex ec nC is applicable only for sensor versions without purge connection or rupture disk  
 (2) T<sub>max</sub> = -40°C, -50°C respectively (see nameplate)  
 (3) values in brackets are applicable for installation where the transmitter is not installed above the sensor  
 (4) for maximum medium temperature and minimum medium temperature see nameplate  
 (5) versions with transmitter enclosure stainless steel (hygienic) only for installation where transmitter is not installed above the sensor  
 (6) Versions with transmitter enclosure stainless steel (hygienic) installed in temperature class T5, a degree of 3°C for ambient temperature shall be taken into account

A	28.10.2016/EKE	F	03.03.2020/EKE	Alle gesetzlichen Unberücksichtigungsvorhaben Diese Zeichnung darf ohne unsere Genehmigung weder vervielfältigt werden noch dritten Personen und Konzernfirmen zugänglich gemacht werden		Ersetzt durch: Ersatz für: Ersteller: RDES / BEOE P.L.E. M. Zöbinger/FES0284G@FES0284G.de	
B	15.02.2017/EKE	G	20.09.2022/BEOE			Gazachtet: 28.10.2016 EKE	
C	02.11.2017/EKE	H				Gepöht	
D	15.01.2018/EKE	J				Er-gprüft: 20.09.2022 BEOE	
E	14.01.2019/EKE	K				Gelesen	

**Installation Drawing NEPSI (acc. to FES0284G)**  
**Zone 2**  
**Thermal Parameter**  
**Proline Promass 300/500, Proline Cubemass 300/500**



Flowtec AG, Kagenstrasse 7, CH-4153 Reinach BL1, Postfach

**FES0284G** 2/12



Proline Promass A/E/F/H/I/O/P/Q/S/X 300

Proline Cubemass C 300

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

8\*3B\*\* - dd... with approval option: dd = NS

O8\*3B\*\* - dd...

8x3Bxx - dd...

O8x3Bxx - dd...

Temperature table for versions in type of protection Ex ec with sensor insulated (for insulation refer to manual of Endress+Hauser Flowtec)

Table with columns: Sensor, Size/DN, type of protection, T\_min, T\_max, T1-T6, T7-T11, T12-T16. Rows include Promass A, Cubemass C, Promass E, Promass F, Promass H, Promass S, P, Promass I, Promass O, Promass X.

Temperature table for versions in type of protection Ex nA with sensor insulated (for insulation not in compliance to manual of Endress+Hauser Flowtec)

Table with columns: Sensor, Size/DN, type of protection, T\_min, T\_max, T1-T6, T7-T11, T12-T16. Rows include Promass Q.

Notes: (1) this page covers sensors with type of protection Ex ec. Sensors with type of protection Ex nC is applicable only for sensor versions without purge connection or rupture disk (temperature table see next page) (2) T\_min = -40°C, -50°C respectively (see nameplate) (3) values in brackets are applicable for installation where the transmitter is not installed above the sensor (4) for maximum medium temperature and minimum medium temperature see nameplate (5) Versions with transmitter enclosure stainless steel (hygienic) are not allowed to be installed with insulation

Temperature table for versions in type of protection Ex nA with sensor insulated (for insulation not in compliance to manual of Endress+Hauser Flowtec)

Table with columns: Sensor, Size/DN, T\_max, T1-T6, T7-T11, T12-T16. Rows include all.

Notes: (1) for safe use temperatures shall not exceed all of the following: - temperature table for versions with sensor not insulated (refer to table above) - T\_min = -40°C, -50°C respectively (see nameplate) - for maximum medium temperature and minimum medium temperature see nameplate (2) location of reference point



Table with columns: A-E, F, G, H, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z. Includes technical specifications and drawing reference.

Table with columns: Zone 2, Thermal Parameter, Proline Promass 300/500, Proline Cubemass 300/500. Includes drawing reference FES0284G and 3/12.



**Proline Promass A/E/F/H/I/O/P/Q/S/X 300**

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

8\*3B\*\* - dd... with approval option: dd = NS

**Proline Cubemass C 300**

08\*3B\*\* - dd...

8x3Bxx - dd...

08x3Bxx - dd...

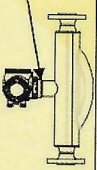
**Temperature table for versions in type of protection Ex ec nC with sensor insulated (for insulation refer to manual of Endress+Hauser Flowtec)**

Sensor	Size / DN	Type of protection	T <sub>max</sub> [°C]										
			min	max	T6	T5	T4	T3	T2	T1			
Promass A	25...250	Ex ec nC	-50 / -200	240	50	85	100	135	150	195	205	205	
Cubemass C	01...06	Ex ec nC	-50	205	55	85	100	135	150	195	205	205	
Promass E	08...15	Ex ec nC	-50	205	55	85	100	135	150	195	205	205	
Promass F	25...80	Ex ec nC	-50	205	55	85	100	135	150	195	205	205	
Promass G	08...15	Ex ec nC	-50 / -200	150	50	85	100	135	150	195	205	205	
Promass H	25...80	Ex ec nC	-50 / -200	150	50	85	100	135	150	195	205	205	
Promass I	100...250	Ex ec nC	-50 / -200	150	50	85	100	135	150	195	205	205	
Promass O	15...50	Ex ec nC	-50 / -200	350	50	85	100	135	150	195	205	205	
Promass X	8	Ex ec nC	-50	205	55	85	100	135	150	195	205	205	
Promass S, P	15...50	Ex ec nC	-50	205	55	85	100	135	150	195	205	205	

**Temperature table for versions in type of protection Ex nA nC with sensor insulated (for insulation not in compliance to manual of Endress+Hauser Flowtec)**

Sensor	Size / DN	T <sub>max</sub> to be measured at reference point at sensor neck [°C]				
		T6	T5	T3	T2	T1
all	all	85	100	135	150	195

Notes: (1) for safe use temperatures shall not exceed all of the following:  
 - temperature table for versions with sensor not insulated (refer to table above)  
 - T<sub>min</sub> = -40°C, -30°C respectively (see nameplate)  
 - for maximum medium temperature and minimum medium temperature see nameplate  
 (2) location of reference point



Erstellt durch:	Ersetzt durch:
A 28.10.2016 / E/KE F 03.03.2020 / E/KE	Alle gesetzlichen Unbedenkliche vorerhalten
B 15.02.2017 / E/KE G 20.09.2022/BEOE	Diese Zeichnung darf ohne unsere
C 02.11.2017 / E/KE H	Genehmigung weder vervielfältigt werden noch
D 15.01.2018 / E/KE J	drucken. Personen und Konstruktionen
E 14.01.2019 / E/KE K	zugelänge gemacht werden.

Installation Drawing NEPSI (acc. to FES0284G)	
Zone 2	EKE
Thermal Parameter	
Proline Promass 300/500, Proline Cubemass 300/500	
Ex-gesprüht	20.09.2022
Gesehen	BEOE



Flowtec AG, Kägelstrasse 7, CH-4153 Reinach BL1, Postfach

**FES0284G 4/12**



**Proline Promass A/E/F/H/I/O/P/Q/S/X 500**

**Proline Cubemass C 500**

**Notes:**  
This page applies to versions with extended order code covering:  
8\*5\*\*\* - dd\*\*\*\*\*B...  
with approval option: dd = NS

O8\*5\*\*\* - dd\*\*\*\*\*B...  
8x5Bxx - dd\*\*\*\*\*B...  
O8x5Bxx - dd\*\*\*\*\*B...

**Temperature table for versions in type of protection Ex ec with sensor not insulated**

Sensor	Size / DN	Type of protection	T <sub>med</sub>		T <sub>a,max</sub> [°C]	T <sub>ext,max</sub> [°C]						
			min [°C]	max [°C]		T <sub>6</sub> (85°C)	T <sub>5</sub> (100°C)	T <sub>4</sub> (135°C)	T <sub>3</sub> (200°C)	T <sub>2</sub> (300°C)	T <sub>1</sub> (450°C)	
Promass A	01 ... 04	Ex ec	-50	205	50	50	95	130	170	170	205	205
Cubemass C	01 ... 06	Ex ec	-50	205	60	60	90	130	140	205	205	205
Promass E	08 ... 15	Ex ec	-50	205	45	80	115	165	205	205	205	205
Promass F	25 ... 80	Ex ec	-50	205	60	60	95	140	205	205	205	205
Promass H	08 ... 15	Ex ec	-50 / -200	150	50	80	115	150	150	150	150	150
	25 ... 80	Ex ec	-50 / -200	240	60	80	115	170	240	240	240	240
	100 ... 250	Ex ec	-50 / -200	150	45	60	95	150	150	150	150	150
Promass S, P	8	Ex ec	-50 / -200	240	45	60	95	130	240	240	240	240
	15 ... 50	Ex ec	-50 / -200	350	60	70	85	120	185	280	350	350
	8	Ex ec	-50 / -200	205	50	45	80	115	165	205	205	205
Promass I	8	Ex ec	-50 / -200	205	60	80	115	165	205	205	205	205
	15 ... 50	Ex ec	-50 / -200	205	60	80	115	165	205	205	205	205
	8	Ex ec	-50 / -200	150	45	80	115	150	150	150	150	150
Promass J	8	Ex ec	-50 / -200	205	60	80	115	165	205	205	205	205
	15 ... 50	Ex ec	-50 / -200	205	60	80	115	165	205	205	205	205
	8	Ex ec	-50 / -200	150	45	80	115	150	150	150	150	150

Sensor	Size / DN	Type of protection	T <sub>med</sub>		T <sub>a,max</sub> [°C]	T <sub>ext,max</sub> [°C]						
			min [°C]	max [°C]		T <sub>6</sub> (85°C)	T <sub>5</sub> (100°C)	T <sub>4</sub> (135°C)	T <sub>3</sub> (200°C)	T <sub>2</sub> (300°C)	T <sub>1</sub> (450°C)	
Promass O	80 ... 250	Ex ec	-50	205	45	60	95	160	205	205	205	205
Promass X	350	Ex ec	-50	205	45	60	95	160	205	205	205	205
Promass Q	25 ... 250	Ex ec	-50 / -200	240	45	60	95	160	240	240	240	240

**Notes:** (1) This page covers sensors with type of protection Ex ec. Sensors with type of protection Ex ic applicable only for versions without purge connection or rupture disk (temperature tables see next page)  
(2) T<sub>a,min</sub> = -40°C, -50°C respectively (see nameplate)  
(3) for maximum medium temperature and minimum medium temperature see nameplate

**Transmitter for all versions:**

T <sub>a,max</sub>	
T <sub>6</sub> (85°C)	T <sub>5</sub> (100°C)
---	45
---	60

Note: (1) T<sub>a,min</sub> = -40°C, -50°C respectively (see name plate)

Code	Description	Approval	Approval Date	Approval Authority
A	28.10.2016/ EKE	F	03.03.2020/ EKE	Alle gesetzlichen Ufahbarkeiten, vorbehalten
B	15.02.2017/ EKE	G	20.09.2022/ BEOE	Diese Zeichnung darf ohne unsere Genehmigung weder vervielfältigt werden noch ansonsten in irgendeiner Weise verbreitet werden
C	02.11.2017/ EKE	H		Genehmigung durch zuständige Behörden
D	15.01.2018/ EKE	J		Ansonsten in irgendeiner Weise verbreitet werden
E	14.01.2019/ EKE	K		

Erstellt durch:  
Erstellt für:  
Ersteller: RDES / BEOE  
FILE: M2201901/FES0284G/FES0284G.ec

Gezeichnet: 28.10.2016 EKE  
Geprüft: BEOE  
E-geprüft: 20.09.2022 BEOE  
Gelesen:

Installation Drawing NEPSI (acc. to FES0264G)  
Zone 2  
Thermal Parameter  
Proline Promass 300/500, Proline Cubemass 300/500



Flowtec AG, Käfigstrasse 7, CH-4153 Reinach, BL, Postfach

**FES0284G** 5/12



**Proline Promass A/E/F/H/I/O/P/Q/S/X 500**

**Proline Cubemass C 500**

**Notes:**  
This page applies to versions with extended order code covering:  
8\*5\*\*\* - dd\*\*\*\*\*B...  
with approval option: dd = NS

O8\*5\*\*\* - dd\*\*\*\*\*B...  
8\*5Bxx - dd\*\*\*\*\*B...  
O8\*5Bxx - dd\*\*\*\*\*B...

**Temperature table for versions in type of protection Ex ec nC with sensor not insulated**

Sensor	Size / DN	Type of protection	T <sub>med</sub>		T <sub>amb,max</sub> [°C]						
			min [°C]	max [°C]	T6	T4	T3	T2	T1		
Promass A	01 ... 04	Ex ec nC	-50	205	80	130	195	205	205	205	205
					80	130	195	205	205	205	205
Cubemass C	01 ... 06	Ex ec nC	-50	205	80	130	195	205	205	205	205
					80	130	195	205	205	205	205
Promass E	08 ... 15	Ex ec nC	-50	205	80	130	195	205	205	205	205
					80	130	195	205	205	205	205
Promass F	08 ... 15	Ex ec nC	-50 / -200	150	80	130	150	150	150	150	150
			-50 / -200	240	80	130	195	240	240	240	240
	25 ... 80	Ex ec nC	-50 / -200	150	80	130	150	150	150	150	150
			-50 / -200	240	80	130	195	240	240	240	240
	100...250	Ex ec nC	-50 / -200	150	80	130	150	150	150	150	150
			-50 / -200	240	80	130	195	240	240	240	240
Promass H	15...250	Ex ec nC	-50 / -200	350	80	130	195	290	350	350	350
			-50 / -200	205	80	130	195	205	205	205	
Promass S, P	8	Ex ec nC	-50 / -200	205	80	130	195	205	205	205	205
			-50 / -200	150	80	130	150	150	150	150	
	15 ... 50	Ex ec nC	-50 / -200	205	80	130	195	205	205	205	205
			-50 / -200	150	80	130	150	150	150	150	
Promass I	8 ... 80	Ex ec nC	-50 / -200	205	80	130	195	205	205	205	205
			-50 / -200	150	80	130	150	150	150	150	
Promass O	80 ... 250	Ex ec nC	-50	205	80	130	195	205	205	205	
Promass X	350	Ex ec nC	-50	205	80	130	195	205	205	205	
Promass Q	25 ... 250	Ex ec nC	-50 / -200	240	80	130	195	240	240	240	

Notes: (1) type of protection Ex ec nC is applicable only for sensor versions without purge connection or rupture disk  
(2) T<sub>amb,max</sub> = -40°C, -50°C, respectively (see nameplate)  
(3) for maximum medium temperature and minimum medium temperature see nameplate


**Transmitter for all versions:**

T <sub>amb,max</sub>	
T6 (85°C)	T5 (100°C)
---	45
	T4 (135°C)
	60

Note: (1) T<sub>amb,max</sub> = -40°C, -50°C respectively (see name plate)

A	28.10.2016 / EKE	F	03.03.2020 / EKE	Alle gesetzlichen Umaberrechte, vorbehalten. Diese Zeichnung darf ohne unsere Genehmigung weder vervielfältigt werden noch Dritten Personen und Konkurrenzfirmen zugänglich gemacht werden.			Erstellt durch:	28.10.2016	EKE
B	15.02.2017 / EKE	G	20.09.2022 / BEOE				Ersatz für:		
C	02.11.2017 / EKE	H					Ersteller, RDES / BEOE		
D	15.01.2018 / EKE	J					FILE: M:\Zeichnung\FES0284G\FES0284G.doc		
E	14.01.2019 / EKE	K					Gezeichnet	28.10.2016	EKE
							Geprüft		
							Exgeprüft	20.09.2022	BEOE
							Gesehen		
							<b>FES0284G</b>		<b>6/12</b>

Installation Drawing NEPSI (acc. to FES0284G)  
Zone 2  
Thermal Parameter  
Proline Promass 300/500, Proline Cubemass 300/500



Flowtec AG, Kädenstrasse 7, CH-4153, Reinach BL1, Postfach



**Proline Promass A/E/F/H/I/O/P/Q/S/X 500** Proline Cubemass C 500

Notes: This page applies to versions with extended order code covering: 8\*5\*\*\*-dd\*\*\*\*\*B... with approval option: dd = NS

06\*5\*\*\*-dd\*\*\*\*\*B... 8x5Bxx - dd\*\*\*\*\*B... 08x5Bxx - dd\*\*\*\*\*B...

**Temperature table for versions in type of protection Ex ec with sensor insulated**  
(for insulation refer to manual of Endress+Hauser Flowtec)

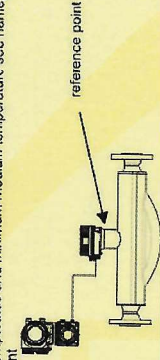
Sensor	Size / DN	Type of protection	T <sub>med</sub>		T <sub>max</sub>												
			min [°C]	max [°C]	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)							
Promass A	01 ... 04	Ex ec	-50	205	50	95	130	150	150	150	150	150	150	150	150	150	150
Cubemass C	01 ... 06	Ex ec	-50	205	60	95	130	150	150	150	150	150	150	150	150	150	150
Promass E	08 ... 15	Ex ec	-50	205	45	80	115	165	205	205	205	205	205	205	205	205	205
Promass F	25 ... 80	Ex ec	-50	205	60	95	140	140	150	150	150	150	150	150	150	150	150
Promass H	8	Ex ec	-50 / -200	150	50	80	115	150	150	150	150	150	150	150	150	150	150
Promass S, P	15 ... 50	Ex ec	-50 / -200	240	50	80	115	170	170	240	240	240	240	240	240	240	240
Promass I	8	Ex ec	-50	150	45	80	115	150	150	150	150	150	150	150	150	150	150
Promass C	80 ... 250	Ex ec	-50	205	45	80	115	160	205	205	205	205	205	205	205	205	205
Promass X	350	Ex ec	-50	205	45	80	115	160	205	205	205	205	205	205	205	205	205
Promass Q	25 ... 250	Ex ec	-50 / -200	240	45	80	115	160	240	240	240	240	240	240	240	240	240

Notes: (1) this page covers sensors with type of protection Ex ec. Sensors with type of protection Ex nC applicable only for versions without: purge connection or rupture disk (temperature tables see next page)  
(2) T<sub>min</sub> = -40°C, -50°C respectively (see nameplate)  
(3) values in brackets are applicable for installation where the transmitter is not installed above the sensor  
(4) for maximum medium temperature and minimum medium temperature see nameplate

**Temperature table for versions in type of protection Ex ec with sensor insulated**  
(for insulation refer to manual of Endress+Hauser Flowtec)

Sensor	Size / DN	T <sub>max</sub> to be measured at reference point at sensor neck [°C]					
		T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)
all	all	69	72	84	91	91	91

Notes: (1) for safe use temperatures shall not exceed all of the following:  
- temperature table for versions with sensor not insulated (refer to table above)  
- temperature at reference point as listed in this table  
- T<sub>min</sub> = -40°C, -50°C respectively (see nameplate)  
- for maximum medium temperature and minimum medium temperature see nameplate  
(2) location of reference point



**Transmitter for all versions:**

T <sub>max</sub>	
T6 (85°C)	45
T5 (100°C)	60
T4 (135°C)	60

Note: (1) T<sub>min</sub> = -40°C, -50°C respectively (see name plate)

A   28.10.2016 / EKE	F   03.03.2020 / EKE	Alle gesetzlichen Urheberrechte vorbehalten		Ersetzt durch:	
B   15.02.2017 / EKE	G   20.08.2022/BE0E	Diese Zeichnung darf ohne unsere Genehmigung weder vervielfältigt werden noch		Erstellt für:	
C   02.11.2017 / EKE	H	dritten Personen und Konkurrenten zugänglich gemacht werden		Ersteller: RDES / BEOE	
D   15.01.2018 / EKE	J			FILE: M:\Zeichn\ES0284G\FES0284G.dwg	
E   14.01.2019 / EKE	K			Gezeichnet	
Installation Drawing NEPSI (acc. to FES0284G)				28.10.2016	EKE
Zone 2				Geprüft	
Thermal Parameter				Ex-geprüft	20.09.2022
Proline Promass 300/500, Proline Cubemass 300/500				Gesehen	BEOE
FES0284G				7/12	

Flowtec AG, Kästenstrasse 7, CH-4113 Reinach, BL.LI, Postfach



**Proline Promass A/E/F/H/I/O/P/Q/S/X 500** Proline Cubemass C 500

Notes: This page applies to versions with extended order code covering: 8\*5\*\*\* - dd\*\*\*\*\*B... with approval option: dd = NS

08\*5\*\*\* - dd\*\*\*\*\*B... 8x5Bxx - dd\*\*\*\*\*B... 08x3Bxx - dd\*\*\*\*\*B...

**Temperature table for versions in type of protection Ex ec nC with sensor insulated**  
(for insulation refer to manual of Endress+Hauser Flowtec)

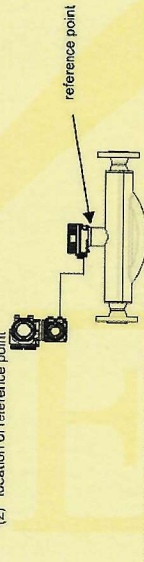
Sensor	Size / DN	type of protection	T <sub>max</sub> [°C]	T <sub>max</sub> [°C]											
				min	max	T <sub>6</sub>	T <sub>5</sub>	T <sub>4</sub>	T <sub>3</sub>	T <sub>2</sub>	T <sub>1</sub>				
Promass A	01 ... 04	Ex ec nC	205	-50	205	80	95	130	150	150	150	150	150	150	150
Cubemass C	01 ... 06	Ex ec nC	205	-50	205	80	95	130	150	150	150	150	150	150	150
Promass C	08 ... 15	Ex ec nC	205	-50	205	80	95	130	150	150	150	150	150	150	150
Promass E	25 ... 80	Ex ec nC	205	-50	205	80	95	130	150	150	150	150	150	150	150
Promass F	08 ... 15	Ex ec nC	150	-50 / -200	150	80	95	130	150	150	150	150	150	150	150
	100 ... 250	Ex ec nC	240	-50 / -200	150	80	95	130	150	150	150	150	150	150	150
Promass H	8	Ex ec nC	350	-50 / -200	205	80	95	130	150	150	150	150	150	150	150
Promass S, P	15 ... 50	Ex ec nC	205	-50 / -200	205	80	95	130	150	150	150	150	150	150	150
Promass I	8 ... 80	Ex ec nC	205	-50 / -200	205	80	95	130	150	150	150	150	150	150	150
Promass O	80 ... 250	Ex ec nC	205	-50 / -200	205	80	95	130	150	150	150	150	150	150	150
Promass X	350	Ex ec nC	205	-50 / -200	205	80	95	130	150	150	150	150	150	150	150
Promass Q	25 ... 250	Ex ec nC	240	-50 / -200	205	80	95	130	150	150	150	150	150	150	150

Notes: (1) type of protection Ex ec nC is applicable only for sensor versions without purge connection or rupture disk  
(2) T<sub>6,min</sub> = -40°C, -50°C respectively (see nameplate)  
(3) values in brackets are applicable for installation where the transmitter is not installed above the sensor  
(4) for maximum medium temperature and minimum medium temperature see nameplate

**Temperature table for versions in type of protection Ex ec nC with sensor insulated**  
(for insulation not in compliance to manual of Endress+Hauser Flowtec)

Sensor	Size / DN	T <sub>max</sub> to be measured at reference point at sensor neck [°C]				
		T <sub>6</sub>	T <sub>5</sub>	T <sub>4</sub>	T <sub>3</sub>	T <sub>1</sub>
all	all	69	72	84	91	91

Notes: (1) for safe use temperatures shall not exceed all of the following:  
- temperature table for versions with sensor not insulated (refer to table above)  
- temperature at reference point as listed in this table  
- T<sub>6,min</sub> = -40°C, -50°C respectively (see nameplate)  
- for maximum medium temperature and minimum medium temperature see nameplate  
(2) location of reference point



**Transmitter for all versions:**

T <sub>6</sub> (85°C)	T <sub>5</sub> (100°C)	T <sub>4</sub> (135°C)
---	45	60

Note: (1) T<sub>6,min</sub> = -40°C, -50°C respectively (see name plate)

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B	15.02.2017 / EKE	G	20.09.2022 / BEOE		Ersatz für:
C	02.11.2017 / EKE	H			Entwickler: RDES / BEOE
D	15.01.2018 / EKE	J			FILE: M_Zeichnung\FES0284G\FES0284G.doc
E	14.01.2019 / EKE	K			

Installation Drawing NEPSI (acc. to FES0264G)  
Zone 2  
Thermal Parameter  
Proline Promass 300/500, Proline Cubemass 300/500

Gezeichnet	28.10.2016	EKE
Gepflicht		
Ergeprüft	20.09.2022	BEOE
Gesehen		

**FES0284G 8/12**

Flowtec AG, Kägenstrasse 7, CH-4153 Reinach BL1, Postfach



**Proline Promass A/E/F/H/I/O/P/Q/S/X 500**

**Proline Cubemass C 500**

Notes:  
 This page applies to versions with extended order code covering:  
 8\*5\*\*\* - dd\*\*\*\*\*A... with approval option: dd = NS, NL  
 8\*5Bxx - dd\*\*\*\*\*A...  
 08\*5\*\*\* - dd\*\*\*\*\*A...  
 08\*5Bxx - dd\*\*\*\*\*A...

**Temperature table for versions in type of protection Ex ec with sensor hot insulated**

Sensor	Size / DN	type of protection	T <sub>amb</sub>		T <sub>med,max</sub> [°C]									
			min [°C]	max [°C]	T4	T5	T6	T7	T8	T9	T10	T11		
Promass A (type 8A5B)	01 ... 04	Ex ec	-50	205	60	95	130	170	170	205	205	205	205	205
Promass A (type 8A5C)	01 ... 04	Ex ec	-50	205	60	95	130	170	170	205	205	205	205	205
Cubemass C	01 ... 06	Ex ec	-50	205	60	95	130	140	140	205	205	205	205	205
Promass E	08 ... 15	Ex ec	-50	205	60	75	115	165	165	205	205	205	205	205
Promass F	25 ... 80	Ex ec	-50	205	60	60	95	140	140	205	205	205	205	205
Promass G	08 ... 15	Ex ec	-50 / -200	150	55	80	115	130	130	150	150	150	150	150
Promass H	25 ... 80	Ex ec	-50 / -200	240	60	60	95	160	160	240	240	240	240	240
Promass I	100...250	Ex ec	-50 / -200	150	55	60	95	150	150	150	150	150	150	150
Promass J	15...250	Ex ec	-50 / -200	240	60	60	95	160	160	240	240	240	240	240
Promass K	8	Ex ec	-50 / -200	350	60	85	120	185	185	280	280	350	350	350
Promass L	15 ... 50	Ex ec	-50 / -200	205	60	80	115	165	165	205	205	205	205	205
Promass M	8	Ex ec	-50 / -200	205	60	60	95	130	130	205	205	205	205	205
Promass N	15 ... 50	Ex ec	-50 / -200	150	60	80	115	150	150	150	150	150	150	150
Promass O	8 ... 15	Ex ec	-50 / -200	205	60	80	115	170	170	205	205	205	205	205
Promass P	15 ... 50	Ex ec	-50 / -200	150	60	80	95	150	150	150	150	150	150	150
Promass Q	8 ... 80	Ex ec	-50 / -200	205	60	80	95	160	160	205	205	205	205	205
Promass R	80...250	Ex ec	-50 / -200	150	60	80	95	150	150	150	150	150	150	150

Sensor	Size / DN	Type of protection	T <sub>amb</sub>		T <sub>med,max</sub> [°C]								
			min [°C]	max [°C]	T4	T5	T6	T7	T8	T9	T10	T11	
Promass X	350	Ex ec	-50	205	60	60	95	160	160	205	205	205	205
Promass Y	25 ... 100	Ex ec	-50 / -200	240	60	60	95	160	160	240	240	240	240

Notes: (1) this page covers sensors with type of protection Ex ec. Sensors with type of protection Ex nC applicable only for versions without purge connection or rupture disk (temperature tables see next page)  
 (2) T<sub>amb</sub> = -40°C, -50°C respectively (see nameplate)  
 (3) values in brackets are applicable for installation where the transmitter is not installed above the sensor  
 (4) for maximum medium temperature and minimum medium temperature see nameplate

**Transmitter for all versions:**

Type of enclosure	Ordinary location (°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)
aluminium	60	---	45	60
plastic	60	---	---	---

Note: (1) aluminium enclosure: T<sub>amb</sub> = -40°C, -50°C respectively (for limitation see name plate)  
 plastic enclosure: T<sub>amb</sub> = -40°C

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C	02.11.2017 / EKE	H		enthalten Personen und Konformitfsm	
D	15.01.2018 / EKE	J		zugnglich gemacht werden	
E	14.01.2019 / EKE	K		FILE: M_ZeichnungFES0284G/FES0284G.doc	

Erstellt durch:  
 Ersatz fr:  
 Ersteller: RDES / BEOE  
 Gezeichnet: 28.10.2016 EKE  
 Geprft:  
 Ex-gengeprft: 20.09.2022 BEOE  
 Gelesen:

**FES0284G 9/12**

Installation Drawing NEPSI (acc. to FES0284G)  
 Zone 2  
 Thermal Parameter  
 Proline Promass 300/500, Proline Cubemass 300/500

Flowtec AG, Kdenstrasse 7, CH-4153 Rdnach BLJ, Postfach







**Proline Promass A/E/F/H//O/P/Q/S/X 500**

Notes: This page applies to versions with extended order code covering: 8\*5\*\*\* - dd\*\*\*\*\*A... with approval option: dd = NS, NL

08\*5\*\*\* - dd\*\*\*\*\*A... 8x5Bxx - dd\*\*\*\*\*A... 08x5Bxx - dd\*\*\*\*\*A...

**Temperature table for versions in type of protection Ex ec with sensor insulated**  
(for insulation refer to manual of Endress+Hauser Flowtec)

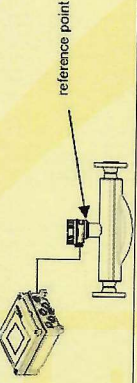
Sensor	Size / DN	type of protection	T <sub>max</sub>		T <sub>max</sub> [°C]						
			min	max	T6	T5	T4	T3	T2	T1	
			[°C]	[°C]	(85°C)	(100°C)	(135°C)	(200°C)	(300°C)	(450°C)	(450°C)
Promass A	01 ... 04	Ex ec	-50	205	---	95	130	130	130	130	130
Cubemass C	01 ... 06	Ex ec	-50	205	---	90	130	130	130	130	130
Promass E	08 ... 15	Ex ec	-50	205	---	75	115	165	205	205	205
	25 ... 80	Ex ec	-50	205	---	60	95	140	205	205	205
Promass F	08 ... 15	Ex ec	-50 / -200	150	45	80	115	150	150	150	150
	25 ... 80	Ex ec	-50 / -200	240	50	80	115	130	130	130	130
	100 ... 250	Ex ec	-50 / -200	240	50	80	95	150	150	150	150
Promass H	15 ... 250	Ex ec	-50 / -200	350	50	85	120	185	280	350	350
Promass S, P	8	Ex ec	-50	205	55	80	115	165	205	205	205
	15 ... 50	Ex ec	-50	205	55	60	95	130	205	205	205
	15 ... 50	Ex ec	-50	150	45	80	100	150	150	150	150
	8 ... 80	Ex ec	-50	205	55	80	115	170	205	205	205
	80 ... 250	Ex ec	-50	150	45	60	95	150	150	150	150
	330	Ex ec	-50	205	55	60	95	160	205	205	205
Promass Q	25 ... 250	Ex ec	-50 / -200	240	50	60	95	160	240	240	240

Notes: (1) this page covers sensors with type of protection Ex ec. Sensors with type of protection Ex ec nC applicable only for versions without purge connection or rupture disk (temperature tables see next page)  
(2) T<sub>max</sub> = -40°C, -50°C respectively (see nameplate)  
(3) for maximum medium temperature and minimum medium temperature see nameplate

**Temperature table for versions in type of protection Ex ec with sensor insulated**  
(for insulation not in compliance to manual of Endress+Hauser Flowtec)

Sensor	Size / DN	T <sub>max</sub> to be measured at reference point at sensor neck [°C]						
		T6	T5	T4	T3	T2	T1	
		(85°C)	(100°C)	(135°C)	(200°C)	(300°C)	(450°C)	
all	all	---	72	82	85	85	85	

Notes: (1) for safe use temperatures shall not exceed all of the following:  
- temperature table for versions with sensor not insulated (refer to table above)  
- T<sub>max</sub> = -40°C, -50°C respectively (see nameplate)  
- for maximum medium temperature and minimum medium temperature see nameplate  
(2) location of reference point



**Transmitter for all versions:**

Type of enclosure	Ordinary location (°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)
aluminium	60	---	45	80
plastic	60	---	---	---

Note: (1) aluminium enclosure: T<sub>max</sub> = -40°C, -50°C respectively (for limitation see name plate)  
plastic enclosure: T<sub>max</sub> = -40°C

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B	15.02.2017 / EKE	G	20.09.2022 / BEOE	Erstellt durch:	
C	02.11.2017 / EKE	H		Erstellt für: RDES / BEOE	
D	15.01.2018 / EKE	J		FILE // Zeichnung\FES0284G\FES0284G.doc	
E	14.01.2019 / EKE	K		Gezeichnet: 28.10.2016 EKE	
Installation Drawing NEPSI (acc. to FES0284G)				Geprüft: 20.09.2022 BEOE	
Zone 2				Gesehen: 20.09.2022 BEOE	
Thermal Parameter				FES0284G 11/12	
Proline Promass 300/500, Proline Cubemass 300/500				Flowtec AG, Kästenstrasse 7, CH-4153 Reinach BL 1, Postfach	



**Proline Promass A/E/F/H/I/O/P/Q/S/X 500 Proline Cubemass C 500**

Notes: This page applies to versions with extended order code covering: 8'5''... - dd''\*\*\*\*\*A... with approval option: 08'5'Bxx - dd''\*\*\*\*\*A...  
dd = NS, NL

**Temperature table for versions in type of protection Ex ec nC with sensor insulated**  
(for insulation refer to manual of Endress+Hauser Flowtec)

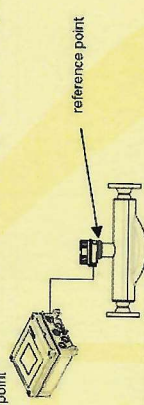
Sensor	Size / DN	type of protection	T <sub>max</sub>		T <sub>med</sub> max. (°C)										
			min [°C]	max [°C]	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)					
Promass A	01 ... 04	Ex ec nC	-50	50	95	130	130	130	130	130	130	130	130	130	130
Cubemass C	01 ... 06	Ex ec nC	-50	50	95	130	130	130	130	130	130	130	130	130	130
Promass E	08 ... 15	Ex ec nC	-50	50	95	130	130	130	130	130	130	130	130	130	130
Promass F	25 ... 80	Ex ec nC	-50	50	95	130	130	130	130	130	130	130	130	130	130
	08 ... 15	Ex ec nC	-50 / -200	150	45	95	130	130	130	130	130	130	130	130	130
	25 ... 80	Ex ec nC	-50 / -200	150	45	95	130	130	130	130	130	130	130	130	130
	100 ... 250	Ex ec nC	-50 / -200	150	45	95	130	130	130	130	130	130	130	130	130
	15 ... 250	Ex ec nC	-50 / -200	350	50	95	130	130	130	130	130	130	130	130	130
Promass H	8	Ex ec nC	-50 / -200	205	55	95	130	130	130	130	130	130	130	130	130
	15 ... 50	Ex ec nC	-50 / -200	205	55	95	130	130	130	130	130	130	130	130	130
Promass S, P	β	Ex ec nC	-50	150	45	95	130	130	130	130	130	130	130	130	130
	15 ... 50	Ex ec nC	-50	205	55	95	130	130	130	130	130	130	130	130	130
Promass I	8 ... 80	Ex ec nC	-50	205	55	95	130	130	130	130	130	130	130	130	130
Promass O	80 ... 250	Ex ec nC	-50	205	55	95	130	130	130	130	130	130	130	130	130
Promass X	350	Ex ec nC	-50	205	55	95	130	130	130	130	130	130	130	130	130
Promass Q	25 ... 250	Ex ec nC	-50 / -200	240	40	95	130	130	130	130	130	130	130	130	130

Notes: (1) type of protection Ex ec nC is applicable only for sensor versions without purge connection or rupture disk  
(2) T<sub>min</sub> = -40°C, -50°C respectively (see nameplate)  
(3) for maximum medium temperature and minimum medium temperature see nameplate

**Temperature table for versions in type of protection Ex ec nC with sensor insulated**  
(for insulation not in compliance to manual of Endress+Hauser Flowtec)

Sensor	Size / DN	T <sub>max</sub> to be measured at reference point at sensor neck [°C]									
all	all	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)				
		72	82	85	85	85	85				

Notes: (1) for safe use temperatures shall not exceed all of the following:  
- temperature table for versions with sensor not insulated (refer to table above)  
- T<sub>min</sub> = -40°C, -50°C respectively (see nameplate)  
- for maximum medium temperature and minimum medium temperature see nameplate  
(2) location of reference point.



**Transmitter for all versions:**

Type of enclosure	Ordinary location (°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)
aluminium	60	---	45	60
plastic	60	---	---	---

Note: (1) aluminium enclosure: T<sub>min</sub> = -40°C, -50°C respectively (for limitation see name plate)  
plastic enclosure: T<sub>min</sub> = -40°C

**Installation Drawing NEPSI (acc. to FES0264G)**  
Zone 2  
Thermal Parameter  
Proline Promass 300/500, Proline Cubemass 300/500

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B	15.02.2017 / EKE	G	20.09.2022 / BEOE	Diese Zeichnung darf ohne unsere Genehmigung weder vervielfältigt werden noch Dritten Personen und Konstrukteuren zugänglich gemacht werden.		Erstellt:	RDES / BEOE
C	02.11.2017 / EKE	H				FILE:	M:\2\cngp\FES0264G\FES0264G.doc
D	15.01.2018 / EKE	J				Gesichtet:	28.10.2016
E	14.01.2019 / EKE	K				Geprüft:	
						Ex-geprüft:	20.09.2022
						Gesehen:	

**FES0284G 12/12**

Flowtec AG, Kästenstrasse 7, CH-4153 Reinach, B.L.I. Postfach



## 4、产品防爆标志详细如下:

Promass 300:

dd 代码	ff 代码	传感器分组	气体防爆标志
NA	CA, CB, CC, CD, HA, TA, MC, RC	Ex db eb ia [ia Ga] II B T1...T6 Ga/Gb <sup>1)</sup>	Ex tb [ia Da] IIIC T** °C Db
		Ex db eb ia [ia Ga] II B T1...T6 Gb	
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	Ex db eb ia II B T1...T6 Ga/Gb <sup>1)</sup>	Ex tb IIIC T** °C Db
		Ex db eb ia II B T1...T6 Gb	
NB	CA, CB, CC, CD, HA, TA, MC, RC	Ex db eb ia [ia Ga] II C T1...T6 Ga/Gb <sup>1)</sup>	Ex tb [ia Da] IIIC T** °C Db
		Ex db eb ia [ia Ga] II C T1...T6 Gb	
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	Ex db eb ia II C T1...T6 Ga/Gb <sup>1)</sup>	Ex tb IIIC T** °C Db
		Ex db eb ia II C T1...T6 Gb	
NC	CA, CB, CC, CD, HA, TA, MC, RC	Ex db ia [ia Ga] II B T1...T6 Ga/Gb <sup>1)</sup>	Ex tb [ia Da] IIIC T** °C Db
		Ex db ia [ia Ga] II B T1...T6 Gb	
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	Ex db ia II B T1...T6 Ga/Gb <sup>1)</sup>	Ex tb IIIC T** °C Db
		Ex db ia II B T1...T6 Gb	
ND	CA, CB, CC, CD, HA, TA, MC, RC	Ex db ia [ia Ga] II C T1...T6 Ga/Gb <sup>1)</sup>	Ex tb [ia Da] IIIC T** °C Db
		Ex db ia [ia Ga] II C T1...T6 Gb	
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	Ex db ia II C T1...T6 Ga/Gb <sup>1)</sup>	Ex tb IIIC T** °C Db
		Ex db ia II C T1...T6 Gb	
NS	CA, CB, CC, CD, HA, TA, MC, RC	Ex ec nC [ic] II C T1...T5 Gc	---
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	Ex ec nC II C T1...T5 Gc	---

注<sup>1)</sup>: 传感器Promass A DN01, Promass H DN08~50和Promass I DN08~80仅适用于EPL Gb场所



Promass 500 转换器外壳内置ISEM:

dd 代码	ff 代码	转换器	传感器
		气体/粉尘防爆标志	气体/粉尘防爆标志
NA	CA, CB, CC, CD, HA, TA, BA, BB, GA, LA, NA, RA, RB, RC, SA, MA, MB, MC	Ex db eb ia [ia Ga] II B T5...T6 Gb Ex tb [ia Da] IIIC T85°C Db	Ex ia II B T1...T6 Ga/Gb <sup>1)</sup> Ex ia II B T1...T6 Gb Ex ia tb IIIC T** °C Db
NB	CA, CB, CC, CD, HA, TA, BA, BB, GA, LA, NA, RA, RB, RC, SA, MA, MB, MC	Ex db eb ia [ia Ga] II C T5...T6 Gb Ex tb [ia Da] IIIC T85°C Db	Ex ia II C T1...T6 Ga/Gb <sup>1)</sup> Ex ia II C T1...T6 Gb Ex ia tb IIIC T** °C Db
NC	CA, CB, CC, CD, HA, TA, BA, BB, GA, LA, NA, RA, RB, RC, SA, MA, MB, MC	Ex db ia [ia Ga] II B T5...T6 Gb Ex tb [ia Da] IIIC T85°C Db	Ex ia II B T1...T6 Ga/Gb <sup>1)</sup> Ex ia II B T1...T6 Gb Ex ia tb IIIC T** °C Db
ND	CA, CB, CC, CD, HA, TA, BA, BB, GA, LA, NA, RA, RB, RC, SA, MA, MB, MC	Ex db ia [ia Ga] II C T5...T6 Gb Ex tb [ia Da] IIIC T85°C Db	Ex ia II C T1...T6 Ga/Gb <sup>1)</sup> Ex ia II C T1...T6 Gb Ex ia tb IIIC T** °C Db
NS	CA, CB, CC, CD, HA, TA, MC, RC	Ex ec nC [ic] II C T4...T5 Gc	Ex ec II C T1...T6 Gc Ex ec nC II C T1...T6 Gc <sup>2)</sup>
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	Ex ec nC II C T4...T5 Gc	

注<sup>1)</sup>: 传感器Promass A DN01, Promass H DN08~50和Promass I DN08~80仅适用于EPL Gb场所;

注<sup>2)</sup>: 防爆标志Ex ec nC仅适用于不带吹扫连接或爆破片的传感器。



Promass 500 传感器外壳内置ISEM:

dd 代码	ff 代码	转换器	传感器
		气体/粉尘防爆标志	气体/粉尘防爆标志
NI	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	[Ex ia] II C	Ex ia II B T1...T6 Ga/Gb <sup>1)</sup>
		[Ex ia] IIIC	Ex ia II B T1...T6 Gb Ex ia tb IIIC T** °C Db
NJ	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	[Ex ia] II C	Ex ia II C T1...T6 Ga/Gb <sup>1)</sup>
		[Ex ia] IIIC	Ex ia II C T1...T6 Gb Ex ia tb IIIC T** °C Db
NL	CA, CB, CC, CD, HA, TA, MC, RC	[Ex ic] II C	Ex ec II C T1...T5 Gc Ex ec nC II C T1...T5 Gc <sup>2)</sup>
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	non-Ex	Ex ec II C T1...T5 Gc Ex ec nC II C T1...T5 Gc <sup>2)</sup>
NM	CA, CB, CC, CD, HA, TA, MC, RC	Ex ec nC [ic] [ia Ga] II C T4...T5 Gc [Ex ia] IIIC	Ex ia II B T1...T6 Ga/Gb <sup>1)</sup> Ex ia II B T1...T6 Gb Ex ia tb IIIC T** °C Db
	BA, BB, GA, NA, RA, SA, MA, MB, RB	Ex ec nC [ia Ga] II C T4...T5 Gc [Ex ia] IIIC	
NN	CA, CB, CC, CD, HA, TA, MC, RC	Ex ec nC [ic] [ia Ga] II C T4...T5 Gc [Ex ia] IIIC	Ex ia II C T1...T6 Ga/Gb <sup>1)</sup> Ex ia II C T1...T6 Gb Ex ia tb IIIC T** °C Db
	BA, BB, GA, NA, RA, SA, MA, MB, RB	Ex ec nC [ia Ga] II C T4...T5 Gc [Ex ia] IIIC	
NS	CA, CB, CC, CD, HA, TA, MC, RC	Ex ec nC [ic] II C T4...T5 Gc	Ex ec II C T1...T5 Gc Ex ec nC II C T1...T5 Gc <sup>2)</sup>
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	Ex ec nC II C T4...T5 Gc	

注<sup>1)</sup>: 传感器Promass A DN01, Promass H DN08~50和Promass I DN08~80仅适用于EPL Gb场所;

注<sup>2)</sup>: 防爆标志Ex ec nC仅适用于不带吹扫连接或爆破片的传感器。



## 5、产品电气参数:

电源		
dde 代码	端子	参数
NAD, NBD NCD, NDD	No. 1(L+/L), 2(L-/N)	$U_N = 19.2\sim 28.8\text{Vdc}$ $U_M = 250\text{Vac}$
NAE, NBE NCE, NDE	No. 1(L+/L), 2(L-/N)	$U_N = 85\sim 264\text{Vac}$ $U_M = 250\text{Vac}$
NSI, NII, NJI NLI, NMI, NNI	No. 1(L+/L), 2(L-/N)	$U_N = 19.2\sim 28.8\text{Vdc} / 85\sim 264\text{Vac}$ $U_M = 250\text{Vac}$

输入/输出1						
ff 代码	端子	参数				
BA, BB, MA	No. 26, 27	$U_N = 30\text{Vdc}$ $U_M = 250\text{Vac}$				
LA, GA, SA	No. 26, 27	$U_N = 32\text{Vdc}$ $U_M = 250\text{Vac}$				
CA, CB	No. 26, 27	$U_i = 30\text{V}$ $I_i = 100\text{mA}$ $P_i = 1.25\text{W}$ $L_i = 0$ $C_i = 6\text{nF}$				
CC, CD	No. 26, 27	<table border="0"> <tr> <td> <b>dd</b> = NA, NB, NC, ND:  <math>U_o = 21.8\text{V}</math>  <math>I_o = 90\text{mA}</math>  <math>P_o = 491\text{mW}</math>  <math>L_o = 4.1\text{mH}</math> (IIC)/            15mH (IIB)  <math>C_o = 160\text{nF}</math> (IIC)/            1160nF (IIB)         </td> <td> <b>dd</b> = NS, NM, NN:  <math>U_o = 21.8\text{V}</math>  <math>I_o = 90\text{mA}</math>  <math>P_o = 491\text{mW}</math>  <math>L_o = 9\text{mH}</math> (IIC)/            39mH (IIB)  <math>C_o = 600\text{nF}</math> (IIC)/            4000nF (IIB)         </td> </tr> <tr> <td> <math>U_i = 30\text{V}</math>  <math>I_i = 10\text{mA}</math>  <math>P_i = 0.3\text{W}</math>  <math>L_i = 5\mu\text{H}</math>  <math>C_i = 6\text{nF}</math> </td> <td> <math>U_i = 30\text{V}</math>  <math>I_i = 10\text{mA}</math>  <math>P_i = 0.3\text{W}</math>  <math>L_i = 5\mu\text{H}</math>  <math>C_i = 6\text{nF}</math> </td> </tr> </table>	<b>dd</b> = NA, NB, NC, ND: $U_o = 21.8\text{V}$ $I_o = 90\text{mA}$ $P_o = 491\text{mW}$ $L_o = 4.1\text{mH}$ (IIC)/ 15mH (IIB) $C_o = 160\text{nF}$ (IIC)/ 1160nF (IIB)	<b>dd</b> = NS, NM, NN: $U_o = 21.8\text{V}$ $I_o = 90\text{mA}$ $P_o = 491\text{mW}$ $L_o = 9\text{mH}$ (IIC)/ 39mH (IIB) $C_o = 600\text{nF}$ (IIC)/ 4000nF (IIB)	$U_i = 30\text{V}$ $I_i = 10\text{mA}$ $P_i = 0.3\text{W}$ $L_i = 5\mu\text{H}$ $C_i = 6\text{nF}$	$U_i = 30\text{V}$ $I_i = 10\text{mA}$ $P_i = 0.3\text{W}$ $L_i = 5\mu\text{H}$ $C_i = 6\text{nF}$
<b>dd</b> = NA, NB, NC, ND: $U_o = 21.8\text{V}$ $I_o = 90\text{mA}$ $P_o = 491\text{mW}$ $L_o = 4.1\text{mH}$ (IIC)/ 15mH (IIB) $C_o = 160\text{nF}$ (IIC)/ 1160nF (IIB)	<b>dd</b> = NS, NM, NN: $U_o = 21.8\text{V}$ $I_o = 90\text{mA}$ $P_o = 491\text{mW}$ $L_o = 9\text{mH}$ (IIC)/ 39mH (IIB) $C_o = 600\text{nF}$ (IIC)/ 4000nF (IIB)					
$U_i = 30\text{V}$ $I_i = 10\text{mA}$ $P_i = 0.3\text{W}$ $L_i = 5\mu\text{H}$ $C_i = 6\text{nF}$	$U_i = 30\text{V}$ $I_i = 10\text{mA}$ $P_i = 0.3\text{W}$ $L_i = 5\mu\text{H}$ $C_i = 6\text{nF}$					



续上表

HA, TA	No. 26, 27	<b>dd</b> = NA, NB, NC, ND: PA/FF $U_i = 30V$ $I_i = 570mA$ $P_i = 8.5W$ $L_i = 10\mu H$ $C_i = 5nF$	<b>dd</b> = NS, NM, NN: PA/FF $U_i = 32V$ $I_i = 570mA$ $P_i = 8.5W$ $L_i = 10\mu H$ $C_i = 5nF$
MC, RC	No. 26, 27	<b>dd</b> = NA, NB, NC, ND: 2-WISE power load APL port profile SLAA $U_i = 17.5V$ $I_i = 380mA$ $P_i = 5.32W$ $L_i \leq 10\mu H$ $C_i \leq 5nF$	<b>dd</b> = NS, NM, NN: 2-WISE power load APL port profile SLAC $U_i = 17.5V$ $I_i = 380mA$ $P_i = 5.32W$ $L_i \leq 10\mu H$ $C_i \leq 5nF$
MB, RB	No. 26, 27	APL port profile SLAX/SPE PoDL classes 10, 11, 12 $U_N = 30Vdc$ $U_M = 250Vac$	
NA, RA	IO1 / RJ45	$U_N = 30Vdc$ $U_M = 250Vac$	

输入/输出2		
g 代码	端子	参数
C, G, K	No. 24, 25	$U_i = 30V$ $I_i = 100mA$ $P_i = 1.25W$ $L_i = 0$ $C_i = 0$
B, D, E, F, I, J, L	No. 24, 25	$U_N = 30Vdc$ $U_M = 250Vac$
H	No. 24, 25	$U_N = 30Vdc$ $I_N = 100mA / 500mA$ $U_M = 250Vac$



输入/输出3		
<b>h</b> 代码	端子	参数
C, G, K	No. 22, 23	$U_i = 30V$ $I_i = 100mA$ $P_i = 1.25W$ $L_i = 0$ $C_i = 0$
B, D, E, F, I, J, L	No. 22, 23	$U_N = 30Vdc$ $U_M = 250Vac$
H	No. 22, 23	$U_N = 30Vdc$ $I_N = 100mA/ 500mA$ $U_M = 250Vac$

输入/输出4		
<b>i</b> 代码	端子	参数
C, G, K	No. 20, 21	$U_i = 30V$ $I_i = 100mA$ $P_i = 1.25W$ $L_i = 0$ $C_i = 0$
B, D, E, F, I, J, L	No. 20, 21	$U_N = 30Vdc$ $U_M = 250Vac$
H	No. 20, 21	$U_N = 30Vdc$ $I_N = 100mA/ 500mA$ $U_M = 250Vac$

服务接口		
<b>dd</b> 代码	<b>dd</b> 代码	<b>dd</b> 代码
NA, NB	服务接口	服务接口仅能安装在非爆炸危险场所连接一个非本安回路: $U_N = 3.3V, U_M = 250VAC$ 或 连接一个本安回路: $U_i = 10V, I_i = n.a., P_i = n.a., C_i = 200nF,$ $L_i = 0$
NC, ND	服务接口	服务接口仅可连接一个非本安回路: $U_N = 3.3V, U_M = 250VAC$ 或 连接一个本安回路: $U_i = 10V, I_i = n.a., P_i = n.a., C_i = 200nF,$ $L_i = 0$
不适用于 NB, ND, N7, N8	服务接口	$U_N = 3.3V$



服务接口		
dd 代码	端子	参数
NA, NB, NC, ND	服务接口	服务接口仅能安装在非爆炸危险场所
不适用于 NA, NB, NC, ND	服务接口	$U_N = 3.3V$

天线套管		
dd 代码	端子	参数
NA, NB, NI, NJ, NL, NM, NN, NS	N connector	使用Endress+Hauser提供的RF天线; 或使用符合下列要求的RF天线: - 最小阻抗 $50\ \Omega$ - 频率范围不超过 1710MHz... 6000MHz - 额定功率不低于100mW

远程显示		
dd 代码	端子	参数
NA, NB, NC, ND	No. 81, 82, 83, 84	$U_o = 3.9V$ $I_o = 1.5A$ (spark) 200mA (power) $P_o = 600mW$ $R_i = 2.6\ \Omega$ $L_o = 0$ $C_o = 670\ \mu F$
不适用于 NA, NB, NC, ND	No. 81, 82, 83, 84	$U_N = 3.3V$ $I_N = 150mA$

认证代码 **dd** = NA、NB、NC和ND的产品连接E+H公司远程显示单元DKX001或ODKX001时，连接电缆应满足 $L/R \leq 0.024mH/\Omega$ 的要求。



## 6、远程变送器和远程传感器的电气参数 (Proline 500) :

dd k 代码	转换器		
NAB, NBB, NCB, NDB	端子41, 42 (激励线圈电路)	$U_o = 15V$ $I_o = 129mA$ $P_o = 484mW$	传感器分组 A1, C1, E1
		$U_o = 15V$ $I_o = 46mA$ $P_o = 173mW$	传感器分组 B1, D1, H1
	端子9, 10, 11, 12, X3, X4 (温度传感器电路)	$U_o = 15V$ $I_o = 18.2mA$ $P_o = 68.3mW$	-
	端子4, 5, 6, 7 (传感器线圈电路)	$U_o = 15V$ $I_o = 15.2mA$ $P_o = 57mW$	-
	传感器		
	端子41, 42 (激励线圈电路)	$U_i = 15V$ $I_i = 132mA$ $P_i = 494mW$	传感器分组 A1, C1, E1
		$U_i = 15V$ $I_i = 48mA$ $P_i = 180mW$	传感器分组 B1, D1, H1
	端子9, 10, 11, 12, X3, X4 (温度传感器电路)	$U_i = 15V$ $I_i = 60.6mA$ $P_i = 227.3mW$	-
	端子4, 5, 6, 7 (传感器线圈电路)	$U_i = 15V$ $I_i = 15.2mA$ $P_i = 57mW$	-
转换器与传感器之间的连接电缆最长允许120m, 电缆参数如下: 分布电感 $L_c \leq 0.5 \text{ mH/km}$ 分布电容 $C_c \leq 0.5 \text{ }\mu\text{F/km}$			



dd k 代码	转换器			
NSB	端子41, 42 (激励线圈电路)	$U_N = 15V$	传感器分组 A2, C2	
		$I_N = 100mA$		
	端子9, 10, 11, 12, X3, X4 (温度传感器电路)	$U_N = 15V$	传感器分组 B2, D2	
		$I_N = 72mA$		
	端子4, 5, 6, 7 (传感器线圈电路)	$U_N = 15V$	-	
		$I_N = 15.2mA$		
	传感器			
	端子41, 42 (激励线圈电路)	$U_N = 15V$	-	
端子9, 10, 11, 12, X3, X4 (温度传感器电路)	$U_N = 15V$	-		
端子4, 5, 6, 7 (传感器线圈电路)	$U_N = 15V$	-		

dd k 代码	转换器		
NIA, NJA, NMA, NNA	端子61, 62, 63, 64	$U_o = 13.8V$	-
		$I_o = 1.156A$ $P_o = 3.3W$	
传感器			
	端子61, 62, 63, 64	$U_i = 14V$ $I_i = 1.2A$ $P_i = 3.4W$	-
转换器与传感器之间的连接电缆应满足下列要求: $L/R \leq 0.0089 \text{ mH}/\Omega$ 和 $C_{\text{cable}} \leq 760 \text{ nF}$ (IIC) $L/R \leq 0.0356 \text{ mH}/\Omega$ 和 $C_{\text{cable}} \leq 4.2 \mu\text{F}$ (IIB) 或 $L_{\text{cable}} \leq 26 \mu\text{H}$ 和 $C_{\text{cable}} \leq 760 \text{ nF}$ (IIC) $L_{\text{cable}} \leq 104 \mu\text{H}$ 和 $C_{\text{cable}} \leq 4.2 \mu\text{F}$ (IIB)			

dd k 代码	转换器		
NLA, NSA	端子61, 62	$U_N = 32V$	-
	端子63, 64	$U_N = 3.3V$	-
	传感器		
端子61, 62	$U_N = 32V$	-	
端子63, 64	$U_N = 3.3V$	-	



7、产品的电缆引入口须配用经防爆检验认可的、符合相应防爆型式和防爆等级的电缆引入装置或堵头；当接线腔为增安型时，可使用厂家指定的Ex e电缆引入装置。产品装配完整后，外壳防护等级不得低于GB/T 4208-2017规定的IP66/67。

8、产品在现场维护使用时应遵循“断电源后开盖”的原则。

9、产品在粉尘环境使用维护时，应定期采取清洁措施，以防止表面积聚粉尘。

10、用户不得自行随意更换该产品的电气零部件，应会同产品制造商共同解决运行中出现的故障，以免影响防爆性能和损坏现象的发生。

11、产品的安装、使用和维护应同时遵守产品使用说明书、GB/T 3836.13-2021“爆炸性环境 第13部分：设备的修理、检修、修复和改造”、GB/T 3836.15-2017“爆炸性环境 第15部分：电气装置的设计、选型和安装”、GB/T 3836.16-2017“爆炸性环境 第16部分：电气装置的检查与维护”、GB/T 3836.18-2017“爆炸性环境 第18部分：本质安全电气系统”、GB 50257-2014“电气设备安装工程爆炸和火灾危险环境电气装置施工及验收规范”及GB 15577-2018“粉尘防爆安全规程”的有关规定。

### 三、制造厂责任

1、产品制造厂必须将上述产品安全使用特殊条件和使用注意事项纳入该产品使用说明书；

2、制造厂必须严格按照NEPSI认可的文件资料生产。







# EXPLOSION PROTECTION CERTIFICATE OF CONFORMITY

Cert No. GYJ22.1052X

**Manufacturer** Endress + Hauser Flowtec AG  
(Address: CH-4153, Reinach BL1, Switzerland)

**Product** Coriolis Mass Flowmeter

**Model** Proline Promass 300/500, Proline Cubemass 300/500

**Ex marking** Refer to the attachment for details

**Product standard** /

**Drawing number** 961001814-D, 961002020-D, 961002023-D, 961002082-B,  
961002083-B, 961002967-A, 961001825-B, 323518-0001ZAA

The product was found to comply with the following standard(s):  
GB/T 3836.1-2021, GB/T 3836.2-2021, GB/T 3836.3-2021, GB/T 3836.4-2021,  
GB/T 3836.8-2021, GB3836.20-2010, GB/T 3836.31-2021

Valid until: 2027.02.16

**Remarks**

1. Conditions for safe use are specified in the attachment(s) to this certificate.
2. Symbol "X" placed after the certification number denotes specific conditions of use, which are specified in the attachment(s) to this certificate.
3. Model designation is specified in the attachment(s) to this certificate.
4. Safe parameters specified in the attachment(s) to this certificate.
5. This certificate is also applicable for the product with the same type manufactured by Endress+Hauser Flowtec (China) Co., Ltd. (address: Su Hong Zhong Lu No.465, Suzhou-SIP, China).
6. [Variation I] Change of standard version. issued on 2023.1.13.



Approval

Shanghai Inspection and Testing Institute of  
Instruments and Automation Systems Co., Ltd.  
National Supervision and Inspection Center for  
Explosion Protection and Safety of Instrumentation  
Date of issue 2022.02.17

This Certificate is valid for products compatible with the documents and samples approved by NEPSI.





(GYJ22.1052X)

(Attachment II)

**Attachment II to GYJ22.1052X**

1. Description

Proline Promass 300/500 and Proline Cubemass 300/500 Series Coriolis Mass Flowmeter, manufactured by Endress+Hauser Flowtec AG, has been accords with following standards:

GB/T 3836.1-2021 Explosive atmospheres-Part 1: Equipment-General requirements

GB/T3836.2-2021 Explosive atmospheres-Part 2: Equipment protection by flameproof enclosure“d”

GB/T3836.3-2021 Explosive atmospheres-Part 3: Equipment protection by increased safety“e”

GB/T 3836.4-2021 Explosive atmospheres-Part 4: Equipment protection by intrinsic safety“i”

GB/T 3836.8-2021 Explosive atmospheres-Part 8: Equipment protection by type of protection“n”

GB 3836.20-2010 Explosive atmospheres-Part 20: Equipment with equipment protection level (EPL) Ga

GB/T3836.31-2021 Explosive atmospheres-Part 31: Equipment dust ignition protection by enclosure“t”

Its certificate number is GYJ22.1052X.

Type approved in this certificate is detailed as below:

Proline Promass 300 and Cubemass 300:

8**a**3**b** **cc** -**dd** **e** **ff** **g** **h** **j** **l** **p** **ss** **t****t** **v** **ww**+###

O8**a**3**b** **cc** -**dd** **e** **ff** **g** **h** **j** **l** **p** **ss** **t****t** **v** **ww** **yy**+###

for OEM-version

8x3**b****xx**-**dd** **e** **ff** **g** **h** **j** **l** **p** **rr** **ss** **ww**+###

for replacement transmitter only

O8x3**b****xx**-**dd** **e** **ff** **g** **h** **j** **l** **p** **rr** **ss** **ww** **yy**+###

for replacement transmitter OEM-version

Proline Promass 500 and Cubemass 500:

8**a**5**b** **cc** -**dd** **e** **ff** **g** **h** **i** **j** **k** **m** **n** **o** **p** **ss** **t****t** **v** **ww**+###

O8**a**5**b** **cc** -**dd** **e** **ff** **g** **h** **i** **j** **k** **m** **n** **o** **p** **ss** **t****t** **v** **ww** **yy**+###

for OEM-version

8x5**b****xx**-**dd** **e** **ff** **g** **h** **i** **j** **k** **m** **o** **p** **qq** **rr** **ss** **ww**+###

for replacement transmitter only

O8x5**b****xx**-**dd** **e** **ff** **g** **h** **i** **j** **k** **m** **o** **p** **qq** **rr** **ss** **ww** **yy**+###

for replacement transmitter OEM-version

**a** indicates type of sensor, including 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;

**.b** indicates generation, including 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** indicates size, any double digits with combination of number or letter;

**dd** indicates NEPSI approval code, refer to Clause 3.4 for the detail;



**e** indicates power supply, including D = 24Vdc, E = 100~230Vac, I = 100~230Vac/ 24Vdc, X = sensor only;

**ff** indicates input/output 1, including BA = 4~20mA HART;

- BB = 4~20mA WHART;
- CA = 4~20mA HART Ex i (passive);
- CB = 4~20mA WHART Ex i (passive);
- CC = 4~20mA HART Ex i (active);
- CD = 4~20mA WHART Ex i (active);
- GA = Profibus PA;
- HA = Profibus PA Ex i;
- LA = Profibus DP;
- NA = EtherNet/IP;
- RA = Profinet IO;
- RB = Profinet;
- RC = Profinet Ex i;
- SA = Foundation Fieldbus;
- TA = Foundation Fieldbus Ex i;
- MA = Modbus RS485;
- MB = Modbus TCP
- MC = Modbus TCP Ex i
- XX = sensor only;

**g** indicates input/output 2, including 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 = 4~20mA input;
- J = status input;
- K = Pulse output Ex i;
- L = Pulse output;
- X = sensor only;

**h** indicates input/output 3, including 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** indicates input/output 4, including A = without input/output 4;  
(Proline 500 only)

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;

**j** indicates display/operation, including O (with remote display) or any single number or letter except O (without remote display);

**k** indicates integrated ISEM electronic (Proline 500 only), including A = Sensor, B = Transmitter;

**l** indicates housing (Proline 300 only), any single number or letter;

**m** indicates transmitter housing (Proline 500 only), any single number or letter;

**n** indicates sensor housing (Proline 500 only), any single number or letter;

**o** indicates cable sensor connection (Proline 500 only), any single number or letter;

**p** indicates cable entry, any single number or letter;

**qq** indicates upgrade kit, any double digits with combination of number or letter;

**rr** indicates existing product, any double digits with combination of number or letter;

**ss** indicates measuring tube material, any double digits with combination of number or letter;

**ttt** indicates process connection, any triple digits with combination of number or letter;

**v** indicates calibration, any single number or letter;

**ww** indicates device model, including A1 = product version 1

A2 = product version 2

**yy** indicates customer version, any double digits with combination of number and/or letter;

\*\* indicates option in two digits, any combination of number and/or letter;

#, + indicates signs used as indicator for optional abbreviation of extended order codes.

For the details, see the instruction manual.



## 2. Special Conditions for Safe Use

The suffix "X" placed after the certificate number indicates that this product is subject to special conditions for safe use, that is:

2.1 The isolated safety barrier should be preferred for the associated equipment. If the Zener type safety gate is selected, it should meet the requirements of GB/T 3836.15-2017 standard on the grounding of the intrinsic safety circuit.

2.2 The flameproof joints are not intended to be repaired.

2.3 The sensors may only be used for those process media, for which the wetted parts are known to be suitable.

2.4 Plastic transmitter enclosures of product Proline 500 with approval code **dd** = NI or NJ, shall be installed in an area of at least pollution degree 2.

2.5 If the flowmeter system is connected to remote display type (O)DKX001, they should be paired as the following:

Approval code <b>dd</b> of Proline Promass 300	Approval code <b>bb</b> of remote display (O)DKX001 as covered by GYJ21.1084
NA, NB, NC or ND	NE, NF or NG
NS	NS

2.6 The Proline 300/500 Flowmeter that may include, stainless steel label tag with rope, when not bonded to earth used on coated transmitter and/or sensor enclosure, shall be prevented from risk of electrostatic charging caused by friction and/or cleaning.

2.7 For Proline Promass 300/500 with approval code **dd** = NA, NB, NC, ND, NI, NJ, NM or NN: Zone 0 is only applicable to sensor with process medium in the measuring tube.

2.8 Only use battery type lithium CR1632, 3V.



### 3. Conditions for Safe Use

#### 3.1 Sensor Groups

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

Sensor group	Type of sensor	Size of sensor	Group	T <sub>med,min</sub> [°C]
A1	A (type 8A*B**)	01, 02, 04	IIC	-50
	C	01, 02, 04, 06	IIC	-50
	E	25, 40, 50	IIC	-50
	F	08, 15, 25, 40, 50	IIC	-50/-60 *)
	F(HT)	15, 25, 50	IIC	-50
	H, S, P	08, 15, 25, 40	IIC	-50
	I	08, 15, 16, 25, 26, 40	IIC	-50
	Q	25, 50	IIC	-50/-60 *)
B1	A (type 8A*C**)	01, 02, 04	IIC	-50
	E	08, 15, 80	IIC	-50
	F	08, 15	IIC	-50/-60 *)
	F, F(HT), O	80, 100, 150, 250	IIC	-50/-60 *)
	I	41, 50, 51, 80	IIC	-50
	H, S, P	50	IIC	-50
	Q	80, 100, 150, 200, 250	IIC	-50/-60 *)
	X	350	IIC	-50/-60 *)
C1	F	15, 25, 40, 50	IIC	-200
	H	08, 15, 25, 40, 50	IIC	-200
	Q	25, 50	IIC	-200
D1	F	08, 15, 80, 100, 150, 250	IIC	-200
	H	50	IIC	-200
	Q	80, 100, 150, 200, 250	IIC	-200
E1	E	80	IIB	-50
	F, F(HT), O	80, 100, 150, 250	IIB	-50/-60 *)
	H, S, P	50	IIB	-50
	I	41, 50, 51, 80	IIB	-50
	Q	80, 100, 150, 200, 250	IIB	-50/-60 *)
	X	350	IIB	-50/-60 *)
H1	F, F(HT)	80, 100, 150, 250	IIB	-200
	H	50	IIB	-200
	Q	80, 100, 150, 200, 250	IIB	-200

\*) : T<sub>med, min</sub> = -60°C only applicable for sensor of Promass F 500, Promass Q 500 and Promass X 500 version with ISEM integrated in transmitter.

Note: All sensors of Promass 300 and Promass 500 versions are available for EPL Ga/Gb except the versions "A"



(size DN01), "H" (all sizes) and "I" (all sizes) which are only available for EPL Gb. For sensors with EPL Ga, the protection is only applicable for the interior of the measuring tube.

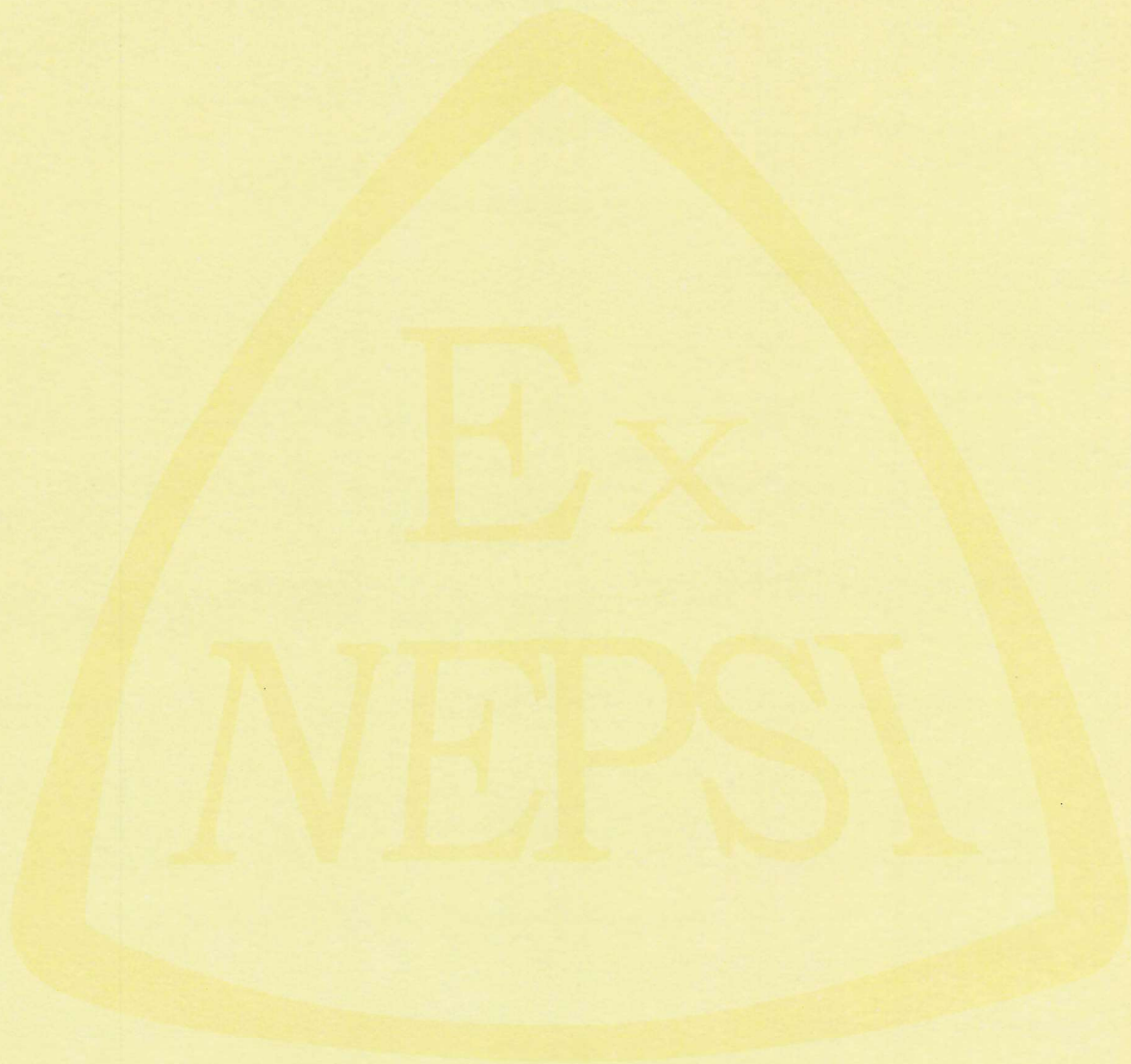
Assignment of Promass sensors and Cubemass sensors installed in Zone 2:

Sensor group	Type of sensor	Size of sensor	T <sub>med,min</sub> [°C]
A2	C	01, 02, 04, 06	-50
	E	25, 40, 50, 80	-50
	F	25, 40, 50, 80, 100, 150, 250	-50/-60 *)
	F (HT)	15, 25, 50, 80, 100, 150, 250	-50
	H, S, P	15, 25, 40, 50	-50
	I	08, 15, 16, 25, 26, 40, 41, 50, 51, 80	-50
	O	80, 100, 150, 250	-50
	Q	25, 50, 80, 100, 150, 200, 250	-50/-60 *)
	X	350	-50/-60 *)
B2	A (type 8A*B**)	01, 02, 04	-50
	F	08, 15	-50
	E	08, 15	-50
	H, S, P	08	-50
C2	F	25, 40, 50, 80, 100, 150, 250	-200
	F (HT)	15, 25, 50, 80, 100, 150, 250	-200
	H	08, 25, 40, 50	-200
	Q	25, 40, 80, 100, 150, 200, 250	-200
D2	F	08, 15	-200
	H	50	-200
E2	A (type 8A*C**)	01, 02, 04	-50

\*) : T<sub>med, min</sub> = -60°C only applicable for sensor of Promass F 500, Promass Q 500 and Promass X 500 version with ISEM integrated in transmitter.



3.2 Thermal Parameters (Zone 1)





08x3Bxx - dd...  
8x3Bxx - dd...

08x3B\*\* - dd...  
with approval option; dd = NA, NB, NC, ND

Proline Cubemass C 300  
8x3B\*\* - dd...  
with approval option; dd = NA, NB, NC, ND

Proline Promass A/E/F/H/I/O/P/Q/S/X 300  
8x3B\*\* - dd...  
with approval option; dd = NA, NB, NC, ND

**Temperature table for versions with sensor not insulated**

Sensor	Size / DN	T <sub>max</sub> [°C]		T <sub>max,prax</sub> [°C]												
		min	max	T6	T5	T4	T3	T2	T1	T6	T5	T4	T3	T2	T1	
Promass	8, 15	-50	150	50	85	100	135	200	300	450	50	95	120	150	150	150
Promass	15FB, 25	-50	150	50	85	100	135	200	300	450	50	95	120	150	150	150
Promass	25FB, 40	-50	150	50	85	100	135	200	300	450	50	95	120	150	150	150
Promass	40FB, 50	-50	150	50	85	100	135	200	300	450	50	95	120	150	150	150
Promass	50FB, 80	-50	150	50	85	100	135	200	300	450	50	95	120	150	150	150
Promass	80 ... 250	-50	205	50	75	110	170	205	205	205	55	75	110	170	205	205
Promass	350	-50	205	50	75	110	170	205	205	205	55	75	110	170	205	205
Promass	25 ... 250	-50 / -200	240	50	75	110	170	205	205	205	55	75	110	170	205	205

Notes:  
 (1) T<sub>a,min</sub> = -40°C, -50°C respectively (see nameplate)  
 (2) values in brackets are applicable for installation where the transmitter is not installed above the sensor  
 (3) for applicable version with maximum medium temperature and minimum medium temperature see nameplate

Sensor	Size / DN	T <sub>max</sub> [°C]		T <sub>max,prax</sub> [°C]												
		min	max	T6	T5	T4	T3	T2	T1	T6	T5	T4	T3	T2	T1	
Promass	01 ... 04	-50	205	50	95	130	150	205	205	205	50	95	130	150	205	205
Promass	01 ... 06	-50	205	50	95	130	150	205	205	205	50	95	130	150	205	205
Promass	08 ... 50	-50	205	50	100	130	130	205	205	205	50	100	130	130	205	205
Promass	80	-50	205	50	80	100	130	205	205	205	50	80	100	130	205	205
Promass	08 ... 15	-50	150	50	75	110	170	205	205	205	55	75	110	170	205	205
Promass	15 ... 25	-50 / -200	350	50	45	95	130	175	275	350	50	45	95	130	175	275
Promass	25 ... 50	-50	150	50	95	130	150	150	150	150	50	95	130	150	150	150
Promass	80 ... 250	-50	150	50	75	110	150	150	150	150	50	75	110	150	150	150
Promass	8	-50	240	50	75	110	170	240	240	240	50	75	110	170	240	240
Promass	15 ... 250	-50 / -200	350	50	45	95	120	175	275	350	50	45	95	120	175	275
Promass	8	-50	205	50	65	100	160	205	205	205	50	65	100	160	205	205
Promass	15 ... 50	-50 / -200	205	50	75	115	180	205	205	205	50	75	115	180	205	205
Promass	8	-50	150	45	65	100	150	150	150	150	45	65	100	150	150	150
Promass	15 ... 50	-50	150	45	65	100	160	205	205	205	45	65	100	160	205	205
Promass	8	-50	205	50	75	115	150	150	150	150	50	75	115	150	150	150
Promass	15 ... 50	-50	205	50	75	115	180	205	205	205	50	75	115	180	205	205
Promass	8	-50	205	50	75	115	180	205	205	205	50	75	115	180	205	205

Amdernungen:		20.08.2022/BE0E		Alle gesetzlichen Umstände, vobahalten		Ersatz durch:	
A	28.10.2016/ERKE	E	20.08.2022/BE0E	Diese Zeichnung darf ohne unsere Genehmigung weder vervollständigt werden noch dritten Parteien und Konkurrenzfirmen zugänglich gemacht werden.		Ersatz für: Ersteller: RDES / BE0E FILE: MZ2022/BE0E/BE0E0283F.doc	
B	15.02.2017/ERKE	S				Gezeichnet 28.10.2016 EKE	
C	02.11.2017/ERKE	H				Geprüft	
D	14.01.2019/ERKE	J				Ex-geprüft 20.08.2022 BE0E	
E	03.03.2020/ERKE	K				Gesehen	

Installation Drawing NEPSI (acc. to FES0263F)  
 Zone 1, Zone 21  
 Thermal Parameter  
 Proline Promass 300/500, Proline Cubemass 300/500



Flowtec AG, Kägenstrass 7, CH-4153 Reinach BL1, Postfach

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Continued of previous page

Sensor	Size / DN	T <sub>max</sub>		T <sub>ref,max</sub> [°C]											T <sub>1</sub> (450°C)		
		min [°C]	max [°C]	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)		T1 (450°C)	
Promass	01 ... 04	-50	205	50	50	95	130	150	205	205	205	205	205	205	205	205	205
A				55		(95)	(130)	(150)	(205)	(205)	(205)	(205)	(205)	(205)	(205)	(205)	(205)
Cubemass	01 ... 06	-50	205	50	50	95	130	150	205	205	205	205	205	205	205	205	205
C				55		(95)	(130)	(150)	(205)	(205)	(205)	(205)	(205)	(205)	(205)	(205)	(205)
Promass	08 ... 50	-50	205	50	50	100	130	130	205	205	205	205	205	205	205	205	205
E				55		(100)	(130)	(130)	(205)	(205)	(205)	(205)	(205)	(205)	(205)	(205)	(205)
Promass	08 ... 15	-50	150	50	50	75	110	170	205	205	205	205	205	205	205	205	205
F				55		(75)	(110)	(170)	(205)	(205)	(205)	(205)	(205)	(205)	(205)	(205)	(205)
Promass	15 ... 25	-50 / -200	350	50	45	95	130	175	275	275	275	350	350	350	350	350	350
A				60		(95)	(130)	(170)	(240)	(240)	(240)	(350)	(350)	(350)	(350)	(350)	(350)
Promass	25 ... 50	-50	150	50	50	95	130	150	150	150	150	150	150	150	150	150	150
C				55		(95)	(130)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)
Promass	80 ... 250	-50	150	50	50	75	110	150	150	150	150	150	150	150	150	150	150
H				60		(75)	(110)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)
Promass	50 ... 250	-50 / -200	350	50	45	85	120	175	275	275	275	350	350	350	350	350	350
H				60		(85)	(120)	(175)	(275)	(275)	(275)	(350)	(350)	(350)	(350)	(350)	(350)
Promass	8	-50 / -200	205	50	50	65	100	160	205	205	205	205	205	205	205	205	205
H				55		(65)	(100)	(160)	(205)	(205)	(205)	(205)	(205)	(205)	(205)	(205)	(205)
Promass	15 ... 50	-50 / -200	205	50	50	75	115	180	205	205	205	205	205	205	205	205	205
H				55		(75)	(115)	(180)	(205)	(205)	(205)	(205)	(205)	(205)	(205)	(205)	(205)
Promass	8	-50	150	45	45	65	100	150	150	150	150	150	150	150	150	150	150
S, P				60		(65)	(100)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)
Promass	8, 15	-50	205	50	50	65	100	125	160	205	205	205	205	205	205	205	205
I	15FB, 25			60		(65)	(100)	(125)	(160)	(205)	(205)	(205)	(205)	(205)	(205)	(205)	(205)
	25FB, 40			60		(65)	(100)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)
	40FB, 50			60		(65)	(100)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)
	50FB, 80			60		(65)	(100)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)	(150)

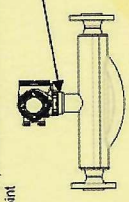
  

Sensor	Size / DN	T <sub>max</sub> [°C]	T <sub>ref,max</sub> [°C]	T <sub>1</sub> [°C]
Promass	all	59	72	77
		T6 (85°C)	T5 (100°C)	T4 (135°C)
		59	72	77

Notes:

- (1) for safe use temperatures shall not exceed all of the following:
  - temperature table for versions with sensor not insulated (refer to table above)
  - temperature table for reference point as listed in this table
  - T<sub>a,min</sub> = -40°C, -50°C respectively (see nameplate)
  - for maximum medium temperature and minimum medium temperature see nameplate
- (2) location of reference point

**Temperature table for versions with sensor insulated**  
(for insulation not in compliance to manual of Endress+Hauser Flowtec)

T<sub>max</sub> to be measured at reference point at sensor neck [°C]

Sensor	Size / DN	T <sub>max</sub> [°C]	T <sub>ref,max</sub> [°C]	T <sub>1</sub> [°C]
Promass	all	59	72	77
		T6 (85°C)	T5 (100°C)	T4 (135°C)
		59	72	77

Notes:

- (1) for safe use temperatures shall not exceed all of the following:
  - temperature table for versions with sensor not insulated (refer to table above)
  - temperature table for reference point as listed in this table
  - T<sub>a,min</sub> = -40°C, -50°C respectively (see nameplate)
  - for maximum medium temperature and minimum medium temperature see nameplate
- (2) location of reference point



Flowtec AG, Käpenstrasse 7, CH-4153 Reinach BL, Postfach

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Änderungen:		Alle gesetzlichen Umföhrbereichs- vorbehalten. Diese Zeichnung darf ohne unsere Genehmigung weder vervielfältigt werden noch dritten Personen und Konkurrenzfirmen zusätzlich gemacht werden.												
A	28.10.2016 / EKE	F	20.09.2022/BE0E	Ersetzt durch:										
B	15.02.2017 / EKE	G		Ersatz für:										
C	02.11.2017 / EKE	H		Ersteller: RDES / BE0E										
D	14.01.2019 / EKE	J		FILE: M:\2\ehg\FES0283F\FES0283F.doc										
E	03.03.2020 / EKE	K												

Installation Drawing NEPSI (acc. to FES0263F)		Gezeichnet	
Zone 1, Zone 21		28.10.2016	
Thermal Parameter		EKE	
Proline Promass 300/500, Proline Cubemass 300/500		Geprüft	
		20.09.2022	
		BE0E	
		Gesehen	



**Proline Promass A/E/F/H/I/O/P/Q/S/X 500**

Proline Cubemass C 500  
 8'S\*\*\* - dd\*\*\*\*\*B...  
 with approval option: dd = NA, NB, NC, ND

08x5Bxx - dd\*\*\*\*\*B...

8x3Bxx - dd\*\*\*\*\*B...

**Temperature table for versions with sensor not insulated**

Sensor	Size / DN	T <sub>min</sub>		T <sub>meas,max</sub> [°C]											T <sub>max</sub>	
		min [°C]	max [°C]	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	T6	T5	T4	T3	T2	T1	min [°C]
Promass A	01 ... 04	-50	205	60	95	130	150	150	205	205	205	205	205	205	60	205
Promass A (type BA5E)	01 ... 04	-50	205	55	95	130	150	150	205	205	205	205	205	205	60	205
Promass A (type BA5C)	01 ... 04	-50	205	60	95	130	150	150	205	205	205	205	205	205	60	205
Promass C	01 ... 06	-50	205	50	95	130	150	150	205	205	205	205	205	205	50	205
Promass E	08 ... 50	-50	205	50	95	130	130	130	205	205	205	205	205	205	50	205
Promass F	80 ... 15	-50 / -60	150	55	95	130	150	150	205	205	205	205	205	205	55	205
	08 ... 15	-50 / -60	240	55	95	130	160	160	240	240	240	240	240	240	55	240
	15 ... 25	-50 / -200	350	60	95	130	175	175	265	265	265	265	265	265	60	350
	25 ... 40	-50 / -60	150	55	95	130	150	150	205	205	205	205	205	205	55	205
	40 ... 50	-50 / -200	240	55	95	130	160	160	240	240	240	240	240	240	55	240
	50	-50 / -60	150	55	95	130	150	150	205	205	205	205	205	205	55	205
	50	-50 / -60	240	60	95	130	170	170	240	240	240	240	240	240	60	240
	80 ... 250	-50 / -60	150	55	75	110	150	150	205	205	205	205	205	205	55	205
	80 ... 250	-50 / -60	240	60	75	110	170	170	240	240	240	240	240	240	60	240
	50 ... 250	-50 / -200	350	60	73	85	120	175	265	265	265	265	265	265	60	350
Promass H	6	-50 / -200	205	50	65	100	160	160	205	205	205	205	205	205	50	205
	15 ... 50	-50 / -200	205	60	65	100	160	160	205	205	205	205	205	205	60	205
Promass S,P	8	-50 / -200	150	45	65	100	150	150	205	205	205	205	205	205	45	150
	15 ... 40	-50 / -200	150	50	65	100	160	160	205	205	205	205	205	205	50	150
	50	-50 / -200	150	60	75	115	150	150	205	205	205	205	205	205	60	150
	50	-50 / -200	205	60	75	115	180	180	205	205	205	205	205	205	60	205
	50	-50 / -200	150	60	75	115	150	150	205	205	205	205	205	205	60	150
	50	-50 / -200	205	60	75	115	180	180	205	205	205	205	205	205	60	205

Sensor	Size / DN	T <sub>min</sub>		T <sub>meas,max</sub> [°C]											T <sub>max</sub>	
		min [°C]	max [°C]	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	T6	T5	T4	T3	T2	T1	min [°C]
Promass I	8, 15	-50	150	60	95	130	150	150	205	205	205	205	205	205	60	150
	15FB, 25	-50	150	60	95	130	150	150	205	205	205	205	205	205	60	150
	25FB, 40,	-50	150	60	85	120	150	150	205	205	205	205	205	205	60	150
	40FB, 50,	-50	150	60	75	110	170	170	205	205	205	205	205	205	60	150
	50FB, 80	-50	205	60	75	110	170	170	205	205	205	205	205	205	60	205
Promass O	80 ... 250	-50	205	60	70	90	120	170	205	205	205	205	205	205	60	205
Promass X	350	-50 / -60	205	60	70	90	120	170	205	205	205	205	205	205	60	205
Promass Q	25 ... 250	-50 / -200	240	60	55	75	110	160	240	240	240	240	240	240	60	240

Notes:  
 (1) T<sub>a,min</sub> = -40°C, -50°C, -60°C respectively (see nameplate)  
 (2) for applicable version with maximum medium temperature and minimum medium temperature see nameplate

**Transmitter for all versions:**

T <sub>a,max</sub>	T5 (100°C)
T6 (85°C)	60

Notes: (1) T<sub>a,min</sub> = -50°C (for limitation see name plate)

A 28.10.2016 / ERE		F 20.09.2022 / BECE		Alle gesetzlichen Umkehrrechte vorbehalten.		Erstellt durch:	
B 15.02.2017 / ERE		G		Diese Zeichnung darf ohne unsere		Erstellt für:	
C 02.11.2017 / ERE		H		Genehmigung wieder verbindlich werden nach		Ersteller: RDES / BEOE	
D 14.01.2019 / ERE		J		dritten Personen und Konkurrenzfirmen		FILE: MZ Zeichnung\FES0283F\FES0283F.doc	
E 03.03.2020 / ERE		K		zugänglich gemacht werden		Gezeichnet 28.10.2016	
Installation Drawing NEPSI (acc. to FES0263F)				Geprüft			
Zone 1, Zone 21				Ex-geprüft 20.09.2022			
Thermal Parameter				Gesehen			
Proline Promass 300/500, Proline Cubemass 300/500				FES0283F			
Flowtec AG, Kägenstrasse 7, CH-41153 Reinach BL 1, Postfach				3/6			



**Continued of previous page**

**Temperature table for versions with sensor insulated** (for insulation refer to manual of Endress+Hauser Flowtec)

Sensor	Size / DN	T <sub>max</sub> [°C]		T <sub>min</sub> [°C]		T <sub>ind,max</sub> [°C]						
		min	max	min	max	T6	T5	T4	T3	T2	T1	
Promass A	01 ... 04	-50	205	60	60	85	95	130	150	180	180	150
Promass (type 8A5E)	01 ... 04	-50	205	60	60	85	95	130	150	180	180	150
Promass A	01 ... 06	-50	205	60	60	85	95	130	150	180	180	150
Cubemass C	01 ... 06	-50	205	60	60	85	95	130	150	180	180	150
Promass E	08 ... 50	-50	205	60	60	85	95	130	150	180	205	205
Promass F	08 ... 15	-50 / -60 / -200	150	60	60	75	75	110	130	150	150	150
	15 ... 25	-50 / -60 / -200	150	60	60	75	75	110	130	150	150	150
	25 ... 40	-50 / -60 / -200	150	60	60	75	75	110	130	150	150	150
	50	-50 / -60 / -200	150	60	60	75	75	110	130	150	150	150
Promass H	8	-50 / -200	205	60	60	75	75	110	130	150	150	150
Promass S, P	15 ... 50	-50 / -200	205	60	60	75	75	110	130	150	150	150
	8	-50 / -200	150	60	60	75	75	110	130	150	150	150
	15 ... 40	-50 / -200	150	60	60	75	75	110	130	150	150	150
	50	-50 / -200	150	60	60	75	75	110	130	150	150	150
Promass I	8, 15, 15FB, 25, 80	-50 / -200	150	60	60	75	75	110	130	150	150	150
Promass O	80 ... 250	-50	205	60	60	75	75	110	130	150	170	205

Sensor	Size / DN	T <sub>max</sub> [°C]	T <sub>min</sub> [°C]	T <sub>1</sub> (450°C)	T <sub>2</sub> (300°C)	T <sub>3</sub> (200°C)	T <sub>4</sub> (135°C)	T <sub>5</sub> (100°C)	T <sub>6</sub> (85°C)
Promass X	360	205	-50	205	205	170	120	90	80
Promass Q	25 ... 250	240	-50 / -60 / -200	240	240	160	110	75	60

Notes: (1) T<sub>min</sub> = -40°C, -50°C, -60°C respectively (see nameplate)  
 (2) values in brackets are applicable for installation where the sensor enclosure is not installed above the sensor  
 (3) for applicable version with max. medium temperature and min. medium temperature see nameplate

**Temperature table for versions with sensor insulated**  
 (for insulation not in compliance to manual of Endress+Hauser Flowtec)

Sensor	Size / DN	T <sub>max</sub> [°C]	T <sub>min</sub> [°C]	T <sub>1</sub> (450°C)	T <sub>2</sub> (300°C)	T <sub>3</sub> (200°C)	T <sub>4</sub> (135°C)	T <sub>5</sub> (100°C)	T <sub>6</sub> (85°C)
all	all	205	-50	205	205	170	120	90	80

Notes: (1) for safe use temperatures shall not exceed all of the following:  
 - temperature table for versions with sensor not insulated (refer to table above)  
 - temperature at reference point: as listed in this table  
 - T<sub>min</sub> = -40°C, -50°C, respectively (see nameplate)  
 - for maximum medium temperature and minimum medium temperature see nameplate  
 (2) location of reference point

reference point

**Transmitter for all versions:**

T <sub>max</sub>	T <sub>min</sub>
T6 (85°C)	T5 (100°C)
55	60

Notes: (1) T<sub>min</sub> = -50°C (for limitation see name plate)

**Installation Drawing NEPSI (acc. to FES0263F)**  
 Zone 1, Zone 21  
 Thermal Parameter  
 Proline Promass 300/500, Proline Cubemass 300/500

Erstellt durch:	EKE
Erstellt für:	Ersteller: RDES / BEOE
Erstellt am:	28.10.2016
Gezeichnet:	28.10.2016
Geprüft:	
Ex-geprüft:	20.09.2022
Gesehen:	

**FES0283F 4/6**

Flowtec AG, Kägenstrasse 7, CH-4153 Reinach BL1, Postfach



**Proline Promass A/E/F/H/I/O/P/Q/S/X 500**

Notes: This page applies to versions with extended order code covering: 8\*5\*\*\* - dd\*\*\*\*\*A... with approval option: dd = NI, NJ, NM, NN

08\*5Bxx - dd\*\*\*\*\*A...

8\*5Bxx - dd\*\*\*\*\*A...

08\*5\*\*\* - dd\*\*\*\*\*A...

with approval option: dd = NI, NJ, NM, NN

**Temperature table for versions with sensor not insulated**

Sensor	Size / DN	T <sub>amb</sub>		T <sub>meas,max</sub> (°C)											
		min [°C]	max [°C]	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)
Promass A (type 8A5B)	01 ... 04	-50	205	60	95	130	150	150	205	205	205	205	205	205	205
		60	205	60	95	130	150	150	205	205	205	205	205	205	205
Promass A (type 8A5C)	01 ... 04	-50	205	55	95	130	150	150	205	205	205	205	205	205	205
		60	205	55	95	130	150	150	205	205	205	205	205	205	205
Cubemass C	01 ... 06	-50	205	35	40	75	130	150	205	205	205	205	205	205	205
		60	205	35	40	75	130	150	205	205	205	205	205	205	205
Promass E	08 ... 50	-50	205	35	40	60	110	170	205	205	205	205	205	205	205
		60	205	35	40	60	110	170	205	205	205	205	205	205	205
Promass F	08 ... 50	-50	150	35	40	65	130	150	150	150	150	150	150	150	150
		-50 / -200	240	35	40	65	130	150	150	150	150	150	150	150	150
	15 ... 25	-50 / -200	350	35	40	80	130	175	275	350	350	350	350	350	350
		60	350	35	40	80	130	175	275	350	350	350	350	350	350
	80 ... 250	-50	150	35	40	65	110	150	150	150	150	150	150	150	150
		60	150	35	40	65	110	150	150	150	150	150	150	150	150
	50 ... 250	-50 / -200	350	35	40	80	120	175	275	350	350	350	350	350	350
		60	350	35	40	80	120	175	275	350	350	350	350	350	350
Promass H	8	-50 / -200	205	35	40	65	100	160	205	205	205	205	205	205	205
		60	205	35	40	65	100	160	205	205	205	205	205	205	205
Promass S, P	15 ... 50	-50 / -200	205	35	40	65	115	180	205	205	205	205	205	205	205
		60	205	35	40	65	115	180	205	205	205	205	205	205	205
	8	-50	150	35	45	65	100	150	150	150	150	150	150	150	
		60	150	35	45	65	100	150	150	150	150	150	150	150	
	15 ... 50	-50	205	35	45	65	100	160	205	205	205	205	205	205	
		60	205	35	45	65	100	160	205	205	205	205	205	205	

Sensor	Size / DN	T <sub>amb</sub>		T <sub>meas,max</sub> (°C)											
		min [°C]	max [°C]	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)
Promass S, P	15 ... 80	-50	205	35	45	65	110	180	205	205	205	205	205	205	205
		60	205	35	45	65	110	180	205	205	205	205	205	205	205
Promass I	8, 80	-50	150	35	45	70	115	140	140	140	140	140	140	140	
		60	150	35	45	70	115	140	140	140	140	140	140	140	
Promass O	80 ... 250	-50	205	35	45	65	110	170	205	205	205	205	205	205	
		60	205	35	45	65	110	170	205	205	205	205	205	205	
Promass X	350	-50	205	35	45	65	110	170	205	205	205	205	205	205	
		60	205	35	45	65	110	170	205	205	205	205	205	205	
Promass Q	25 ... 250	-50 / -200	240	35	45	65	100	160	240	240	240	240	240	240	
		60	240	35	45	65	100	160	240	240	240	240	240	240	

Notes: (1) T<sub>amb</sub> min = -40°C, -50°C respectively (see nameplate)  
 (2) values in brackets are applicable for installation where the transmitter is not installed above the sensor  
 (3) for applicable version with maximum medium temperature and minimum medium temperature see nameplate

**Transmitter for all versions:**

Type of enclosure	Ordinary location (°C)	T5 (100°C)	T4 (135°C)
aluminium	60	45	60
plastic	60	---	---

Notes: (1) aluminium enclosure: T<sub>amb</sub> min = 50°C (for limitation see name plate)  
 plastic enclosure: T<sub>amb</sub> min = -40°C

Änderungen:	A	B	C	D	E	F	G	H	J	K
	28.10.2016 / EKE	15.02.2017 / EKE	02.11.2017 / EKE	14.01.2019 / EKE	03.03.2020 / EKE	20.09.2022/BECE				

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Ersatz für:  
 Ersteller: RDES / BEOE  
 F.L.E. M.Zeichnung/FES0283F/FES0283F.doc

Ersatz durch:  
 Gezeichnet: 28.10.2016 EKE  
 Geprüft: BEOE  
 Ex-geprüft: 20.09.2022 BEOE  
 Gelesen: EKE

Installation Drawing NEPSI (acc. to FES0263F)  
 Zone 1, Zone 21  
 Thermal Parameter  
 Proline Promass 300/500, Proline Cubemass 300/500



Flowtec AG, Käckenstrasse 7, CH-4153 Reinach Bl.1, Postfach

**FES0283F**

**5/6**



Temperature table for versions with sensor insulated (for insulation refer to manual of Endress+Hauser Flowtec)																
Sensor	Size / DN	T <sub>amb</sub>		T <sub>ins,max</sub> [°C]				T <sub>ins,max</sub> [°C]								
		min [°C]	max [°C]	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	
Promass A	01 ... 04	-50	205	35	40	90	90	130	130	150	150	150	150	150	150	150
Cubemass C	01 ... 06	-50	205	45	50	90	90	120	120	120	120	120	120	120	120	120
Promass E	08 ... 50	-50	205	35	40	90	90	100	100	150	150	150	150	150	150	150
Promass F	08 ... 50	-50	150	45	50	90	90	100	100	150	150	150	150	150	150	150
Promass G	15 ... 25	-50 / -200	350	45	50	90	90	100	100	150	150	150	150	150	150	150
Promass H	8	-50 / -200	205	45	50	90	90	100	100	150	150	150	150	150	150	150
Promass S, P	8	-50 / -200	205	45	50	90	90	100	100	150	150	150	150	150	150	150
Promass I	8, 80	-50	150	45	50	90	90	100	100	150	150	150	150	150	150	150
Promass O	80 ... 250	-50	205	35	40	90	90	100	100	150	150	150	150	150	150	150
Promass X	350	-50	205	35	40	90	90	100	100	150	150	150	150	150	150	150

Temperature table for versions with sensor insulated (for insulation refer to manual of Endress+Hauser Flowtec)																
Sensor	Size / DN	T <sub>amb</sub>		T <sub>ins,max</sub> [°C]				T <sub>ins,max</sub> [°C]								
		min [°C]	max [°C]	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	
Promass Q	25 ... 250	-200	240	35	40	55	55	100	100	160	160	160	160	160	160	160

Notes: (1) T<sub>amb</sub> min = -40°C, -50°C respectively (see nameplate)  
 (2) for applicable version with maximum medium temperature and minimum medium temperature see nameplate

Temperature table for versions with sensor insulated (for insulation refer to manual of Endress+Hauser Flowtec)																
Sensor	Size / DN	T <sub>amb</sub>		T <sub>ins,max</sub> [°C]				T <sub>ins,max</sub> [°C]								
		min [°C]	max [°C]	T6 (80°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	T6 (80°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	
all	all	-45	64	82	82	85	85	85	85	85	85	85	85	85	85	85

Notes: (1) for safe use temperatures shall not exceed all of the following:  
 - temperature table for versions with sensor not insulated (refer to table above)  
 - T<sub>amb</sub> min = -40°C, -50°C respectively (see nameplate)  
 - for maximum medium temperature and minimum medium temperature see nameplate  
 (2) location of reference point

reference point

Transmitter for all versions:												
Type of enclosure	Ordinary location (°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)								
aluminium	60	---	45	60								
plastic	60	---	---	---								

Notes: (1) aluminium enclosure: T<sub>amb</sub> min = -50°C (for limitation see name plate)  
 plastic enclosure: T<sub>amb</sub> min = -40°C

Installation Drawing NEPSI (acc. to FES0263F)												
Zone 1, Zone 21												
Thermal Parameter												
Proline Promass 300/500, Proline Cubemass 300/500												

Anderungen:												
A	B	C	D	E	F	G	H	J	K	L	M	N
28.10.2016 / EKE	15.02.2017 / EKE	02.11.2017 / EKE	14.01.2019 / EKE	03.03.2020 / EKE	20.09.2022 / BEOE	15.02.2017 / EKE	02.11.2017 / EKE	14.01.2019 / EKE	03.03.2020 / EKE	20.09.2022 / BEOE	15.02.2017 / EKE	02.11.2017 / EKE

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Ersetzt durch:												
Erstellt für: BEOE												
Ersteller: RDES / BEOE												
FILE: M:\Zechproj\FES0283F\FES0283F.doc												
Gezeichnet	28.10.2016											EKE
Geprüft												
Ex-geprüft	20.09.2022											BEOE
Gesehen												

FES0283F												
6/6												

Flowtec AG, Kägenstrasse 7, CH-41153 Reinach BL1, Postfach



3.3 Thermal Parameters (Zone 2)

Proline Promass A/E/F/H/I/O/P/Q/S/X 300		Proline Cubemass C 300										
<p>Notes:                      This page applies to versions with extended order code covering:                      8*3B** - cd... with approval option: cd = NS                      8x3Bxx - dd...                      O8*3B** - dd...                      O8x3Bxx - dd...</p>												
Temperature table for versions in type of protection Ex ec with sensor not insulated												
Sensor	Size / DN	type of protection	T <sub>max</sub> [°C]		T <sub>max,ext</sub> [°C]							
			min	max	T <sub>6</sub> (85°C)	T <sub>15</sub> (100°C)	T <sub>16</sub> (100°C)	T <sub>14</sub> (135°C)	T <sub>13</sub> (200°C)	T <sub>12</sub> (300°C)	T <sub>11</sub> (450°C)	
Promass A	01 ... 04	Ex ec	-50	205	60	90	90	130	130	170	205	205
Cubemass C	01 ... 06	Ex ec	-50	205	60	90	90	130	140	140	205	205
Promass E	08 ... 15	Ex ec	-50	205	55	80	115	115	140	140	205	205
Promass F	08 ... 15	Ex ec	-50 / -200	205	55	80	95	140	140	205	205	205
Promass H	15 ... 50	Ex ec	-50 / -200	150	50	80	115	150	150	150	150	150
Promass S, P	8 ... 80	Ex ec	-50 / -200	150	50	80	115	170	170	240	240	240
Promass I	8 ... 80	Ex ec	-50 / -200	150	50	80	115	170	170	240	240	240

Sensor	Size / DN	type of protection	T <sub>max</sub> [°C]		T <sub>max,ext</sub> [°C]							
			min	max	T <sub>6</sub> (85°C)	T <sub>15</sub> (100°C)	T <sub>16</sub> (100°C)	T <sub>14</sub> (135°C)	T <sub>13</sub> (200°C)	T <sub>12</sub> (300°C)	T <sub>11</sub> (450°C)	
Promass O	80 ... 250	Ex ec	-50	205	55	60	95	95	160	160	205	205
Promass X	350	Ex ec	-50	205	55	60	95	95	160	160	205	205
Promass Q	25 ... 250	Ex ec	-50 / -200	240	60	60	95	95	160	160	240	240

Notes:											
(1) this page covers sensors with type of protection Ex ec. Sensors with type of protection Ex nC is applicable only for sensor versions without purge connection or rupture disk (temperature table see next page)											
(2) T <sub>max</sub> = -40°C, -50°C, respectively (see nameplate)											
(3) values in brackets are applicable for installation where the transmitter is not installed above the sensor											
(4) for maximum medium temperature and minimum medium temperature see nameplate											
(5) versions with transmitter enclosure stainless steel (hygienic) only for installation where transmitter is not installed above the sensor											
(6) Versions with transmitter enclosure stainless steel (hygienic) installed in temperature class T5, a degree of 3°C for ambient temperature shall be taken into account											

A	B	C	D	E
28.10.2016 / EKE	15.02.2017 / EKE	02.11.2017 / EKE	15.01.2018 / EKE	14.01.2019 / EKE
F	G	H	J	K
03.03.2020 / EKE	20.09.2022 / BEOE			


  

Erstellt durch:	
Alle genehmigten Umzeichnungen, vorbehalten	Erstellt durch:
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	FILE: M:\Übungen\FES0284G\FES0284G.doc

Installation Drawing NEPSI (acc. to FES0284G)	
Zone 2	Gezeichnet: 28.10.2016 EKE
Thermal Parameter	Gepfult:
Proline Promass 300/500, Proline Cubemass 300/500	Er-gedruckt: 20.09.2022 BEOE
	Gesehen:

	Flowtec AG, Kägenstrasse 7, CH-4153 Reinach, BL1, Postfach
<b>FES0284G</b>	<b>1/12</b>



**Proline Promass A/E/F/H/I/O/P/Q/S/X 300 Proline Cubemass C 300**

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

8\*3B\*\* – dd... with approval option dd = NS

O8\*3B\*\* – dd...

O8x3Bxx – dd...

**Temperature table for versions in type of protection Ex ec nC with sensor not insulated**

Sensor	Size / DN	Type of protection	T <sub>max</sub> [°C]		T <sub>enc,max</sub> [°C]							
			min	max	T <sub>6</sub>	T <sub>5</sub>	T <sub>4</sub>	T <sub>3</sub>	T <sub>2</sub>	T <sub>1</sub>		
Promass A	01...04	Ex ec nC	-50	205	50	95	130	195	205	205	205	205
Promass C	01...06	Ex ec nC	-50	205	60	95	130	195	205	205	205	205
Promass E	08...15	Ex ec nC	-50	205	60	95	130	195	205	205	205	205
Promass F	08...15	Ex ec nC	-50 / -200	150	60	95	130	195	205	205	205	150
Promass H	15...250	Ex ec nC	-50 / -200	350	60	95	130	195	205	205	205	150
Promass S, P	8	Ex ec nC	-50 / -200	205	60	95	130	195	205	205	205	150
Promass I	6...80	Ex ec nC	-50	150	60	95	130	195	205	205	205	150

Sensor	Size / DN	Type of protection	T <sub>max</sub> [°C]		T <sub>enc,max</sub> [°C]						
			min	max	T <sub>6</sub>	T <sub>5</sub>	T <sub>4</sub>	T <sub>3</sub>	T <sub>2</sub>	T <sub>1</sub>	
Promass O	80...250	Ex ec nC	-50	205	50	95	130	195	205	205	205
Promass X	350	Ex ec nC	-50	205	50	95	130	195	205	205	205
Promass Q	25...250	Ex ec nC	-50 / -200	240	60	95	130	195	205	205	240

Notes: (1) type of protection Ex ec nC is applicable only for sensor versions without purge connection or rupture disk  
(2) T<sub>max</sub> = -40°C, -50°C respectively (see nameplate)  
(3) values in brackets are applicable for installation where the transmitter is not installed above the sensor  
(4) for maximum medium temperature and minimum medium temperature see nameplate  
(5) versions with transmitter enclosure stainless steel (hygienic) only for installation where transmitter is not installed above the sensor  
(6) Versions with transmitter enclosure stainless steel (hygienic) installed in temperature class T5, a degree of 3°C for ambient temperature shall be taken into account

A	28.10.2016 / EKE	F	03.03.2020 / EKE	Alle gesetzlichen Urheberrechte vorbehalten Diese Zeichnung darf ohne unsere Genehmigung weiter vervielfältigt werden nach dritten Personen und Konkurrenzfirmen zugänglich gemacht werden		Erstellt durch: Erstellt für: Datei: M:\Zwilling\FES0284G\FES0284G.doc	
B	15.02.2017 / EKE	G	20.09.2022/BE0E			Gezeichnet: 28.10.2016 EKE	
C	02.11.2017 / EKE	H				Geprüft:	
D	15.01.2018 / EKE	J				Ex-geprüft: 20.09.2022 BE0E	
E	14.01.2019 / EKE	K				Gesehen:	

**Installation Drawing NEPSI (acc. to FES0264G)**

**Zone 2**

**Thermal Parameter**

**Proline Promass 300/500, Proline Cubemass 300/500**



Flowtec AG, Kästenstrasse 7, CH-4153 Reinach BL1, Postfach

**FES0284G 2/12**



**Proline Promass A/E/F/H/O/P/Q/S/X 300** Proline Cubemass C 300  
 8\*3B\*\* - dd... with approval option: dd = NS  
 8\*3B\*\* - dd...  
 08\*3B\*\* - dd...  
 08x3Bxx - dd...

**Temperature table for versions in type of protection Ex ec with sensor insulated** (for insulation refer to manual of Endress+Hauser Flowtec)

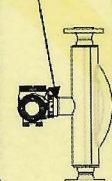
Sensor	Size / DN	type of protection	T <sub>amb</sub> [°C]		T <sub>med,max</sub> [°C]													
			min	max	T6	T5	T4	T3	T2	T1	T6	T5	T4	T3	T2	T1		
Promass A	01 ... 04	Ex ec	-50	205	55	90	130	170	205	205	205	205	205	205	205	205	205	205
Cubemass C	01 ... 06	Ex ec	-50	205	55	95	130	170	205	205	205	205	205	205	205	205	205	205
Promass E	08 ... 15	Ex ec	-50	205	55	80	115	140	165	205	205	205	205	205	205	205	205	205
Promass F	08 ... 15	Ex ec	-50	150	50	80	115	140	165	205	205	205	205	205	205	205	205	205
Promass H	08 ... 15	Ex ec	-50	150	50	80	115	140	165	205	205	205	205	205	205	205	205	205
Promass S, P	15 ... 50	Ex ec	-50	150	50	80	115	140	165	205	205	205	205	205	205	205	205	205
Promass X	350	Ex ec	-50	205	55	95	130	170	205	205	205	205	205	205	205	205	205	205

**Temperature table for versions in type of protection Ex nA with sensor insulated** (for insulation not in compliance to manual of Endress+Hauser Flowtec)

Sensor	Size / DN	T <sub>amb</sub> [°C]		T <sub>med,max</sub> [°C]					
		min	max	T6	T5	T4	T3	T1	
all	all	-50	240	85	100	135	175	200	240

**Notes:**

- (1) for safe use temperatures shall not exceed all of the following:
  - temperature table for versions with sensor not insulated (refer to table above)
  - T<sub>amb</sub> = -40°C, -50°C respectively (see nameplate)
  - for maximum medium temperature and minimum medium temperature see nameplate
- (2) location of reference point



**Installation Drawing NEPSI (acc. to FES0264G)**

Zone 2

Thermal Parameter  
 Proline Promass 300/500, Proline Cubemass 300/500

A	28.10.2016 / EKE	F	03.03.2020 / EKE	Alle gesetzlichen Lithierichte: verhalten.		Ersetzt durch:
B	15.02.2017 / EKE	G	20.09.2022/BE0E	Diese Zeichnung darf ohne unsere Genehmigung weder vervielfältigt werden noch		Ersatz für:
C	02.11.2017 / EKE	H		dritten Personen und Konkurrenten zugänglich gemacht werden.		Ersteller: ROES / BE0E
D	15.01.2018 / EKE	J				PL E: M.Zieling/FES0284G/FES0284G.doc
E	14.01.2019 / EKE	K				Gezeichnet
		L				28.10.2016
		M				EKE
		N				Geprüft
		O				20.09.2022
		P				BE0E
		Q				Gesehen
		R				
		S				
		T				
		U				
		V				
		W				
		X				
		Y				
		Z				

**FES0284G 3/12**

Flowtec AG, Kägenstrasse 7, CH-4153 Rainach BLI, Postfach



**Proline Promass A/E/F/H/I/O/P/Q/S/X 300**

8\*3B\*\* - dd...  
with approval option dd = NS

**Proline Cubemass C 300**

8\*3B\*\* - dd...  
with approval option dd = NS

O8x3Bxx - dd...

8x3Bxx - dd...

O8x3Bxx - dd...

**Temperature table for versions in type of protection Ex ec nC with sensor insulated (for insulation refer to manual of Endress+Hauser Flowtec)**

Sensor	Size / DN	Type of protection	T <sub>max</sub>		T <sub>medium</sub> [°C]														
			min	max	T6	T5	T4	T3	T2	T1									
Promass A	01 ... 04	Ex ec nC	-50	205	55	95	130	185	205	205	205	205	205	205	205	205	205	205	205
Cubemass C	01 ... 06	Ex ec nC	-50	205	55	95	130	185	205	205	205	205	205	205	205	205	205	205	205
Promass E	08 ... 15	Ex ec nC	-50	205	55	95	130	185	205	205	205	205	205	205	205	205	205	205	205
Promass F	25 ... 80	Ex ec nC	-50	205	55	95	130	185	205	205	205	205	205	205	205	205	205	205	205
Promass H	08 ... 15	Ex ec nC	-50 / -200	150	55	95	130	185	205	205	205	205	205	205	205	205	205	205	205
Promass S, P	08 ... 15	Ex ec nC	-50 / -200	150	55	95	130	185	205	205	205	205	205	205	205	205	205	205	205
Promass X	350	Ex ec nC	-50	205	55	95	130	185	205	205	205	205	205	205	205	205	205	205	205

**Temperature table for versions in type of protection Ex nA nC with sensor insulated (for insulation not in compliance to manual of Endress+Hauser Flowtec)**

Sensor	Size / DN	T <sub>max</sub>		T <sub>medium</sub> [°C]								
		min	max	T6	T5	T4	T3	T1				
all	all	-200	240	55	95	130	185	205	205	205	205	205

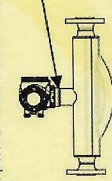
Notes: (1) Type of protection Ex ec nC is applicable only for sensor versions without purge connection or rupture disk  
 (2) T<sub>max</sub> = -40°C, -50°C respectively (see nameplate)  
 (3) values in brackets are applicable for installation where the transmitter is not installed above the sensor  
 (4) for maximum medium temperature and minimum medium temperature see nameplate  
 (5) Versions with transmitter enclosure stainless steel (hygienic) are not allowed to be installed with insulation

**Temperature table for versions in type of protection Ex nA nC with sensor insulated (for insulation refer to manual of Endress+Hauser Flowtec)**

Sensor	Size / DN	T <sub>max</sub>		T <sub>medium</sub> [°C]								
		min	max	T6	T5	T4	T3	T1				
all	all	-200	240	55	95	130	185	205	205	205	205	205

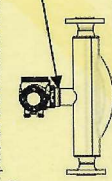
Notes: (1) for safe use temperatures shall not exceed all of the following:  
 - temperature table for versions with sensor not insulated (refer to table above)  
 - T<sub>max</sub> = -40°C, -50°C respectively (see nameplate)  
 - for maximum medium temperature and minimum medium temperature see nameplate  
 (2) location of reference point



**Temperature table for versions in type of protection Ex nA nC with sensor insulated (for insulation not in compliance to manual of Endress+Hauser Flowtec)**

Sensor	Size / DN	T <sub>max</sub>		T <sub>medium</sub> [°C]							
		min	max	T6	T5	T4	T3	T1			
all	all	-200	240	55	95	130	185	205	205	205	205

Notes: (1) for safe use temperatures shall not exceed all of the following:  
 - temperature table for versions with sensor not insulated (refer to table above)  
 - T<sub>max</sub> = -40°C, -50°C respectively (see nameplate)  
 - for maximum medium temperature and minimum medium temperature see nameplate  
 (2) location of reference point



**Installation Drawing NEPSI (acc. to FES0264G)**

Zone 2

Thermal Parameter

Proline Promass 300/500, Proline Cubemass 300/500

Ersetzt durch:

Erstellt für:

Ersteller: RDES, BEOE

FILE: M:\300mg\FES0264G\FES0264G.doc

Gezeichnet: 28.10.2016 EKE

Geprüft:

Ex-geprüft: 20.09.2022 BEOE

Gesehen:

A 28.10.2016 / EKE F 03.03.2020 / EKE

B 15.02.2017 / EKE G 20.09.2022 / BEOE

C 02.11.2017 / EKE H 14

D 15.01.2018 / EKE J


E 14.01.2019 / EKE K

Alle gesetzlichen Ueberbereiche, vorbehalten

Diese Zeichnung darf ohne unsere Genehmigung weder vervielfältigt werden noch Dritten Personen und Konkurrenzfirmen zugänglich gemacht werden.

Flowtec AG, Käsenstrasse 7, CH-4153 Reinach BL1, Postfach



**FES0284G**

4/12







**Proline Promass A/E/F/H/I/O/P/Q/S/X 500**

**Proline Cubemass C 500**

Notes:  
This page applies to versions with extended order code covering:  
8'5\*\*\* - dd\*\*\*\*\*B... with approval option: dd = NS

08'5\*\*\* - dd\*\*\*\*\*B... 8x5Bxx - dd\*\*\*\*\*B... 08x5Bxx - dd\*\*\*\*\*B...

**Temperature table for versions in type of protection Ex ec nC with sensor not insulated**

Sensor	Size / DN	type of protection	T <sub>max</sub>		T <sub>meas,max</sub> [°C]							
			min [°C]	max [°C]	T6	T5	T4	T3	T2	T1		
Promass A	01 ... 04	Ex ec nC	-50	205	80	95	130	195	205	205	205	
					80	95	130	195	205	205	205	
Cubemass C	01 ... 06	Ex ec nC	-50	205	80	95	130	195	205	205	205	
					80	95	130	195	205	205	205	
Promass E	08 ... 15	Ex ec nC	-50	205	80	95	130	195	205	205	205	
					80	95	130	195	205	205	205	
Promass F	08 ... 15	Ex ec nC	-50 / -200	150	80	95	130	150	150	150	150	
			-50 / -200	240	80	95	130	195	240	240	240	
	25 ... 80	Ex ec nC	-50 / -200	150	80	95	130	150	150	150	150	
			-50 / -200	240	80	95	130	195	240	240	240	
	100...250	Ex ec nC	-50 / -200	150	80	95	130	150	150	150	150	
			-50 / -200	240	80	95	130	195	240	240	240	
	15 ... 250	Ex ec nC	-50 / -200	350	80	95	130	195	290	350	350	
			-50 / -200	205	80	95	130	195	205	205	205	
Promass H	8	Ex ec nC	-50 / -200	205	80	95	130	195	205	205	205	
			-50 / -200	205	80	95	130	195	205	205	205	
	15 ... 50	Ex ec nC	-50 / -200	205	80	95	130	150	150	150	150	
			-50 / -200	205	80	95	130	195	205	205	205	
Promass S, P	8	Ex ec nC	-50 / -200	150	80	95	130	150	150	150	150	
			-50 / -200	205	80	95	130	195	205	205	205	
	15 ... 50	Ex ec nC	-50 / -200	150	80	95	130	150	150	150	150	
			-50 / -200	205	80	95	130	195	205	205	205	
Promass I	8 ... 80	Ex ec nC	-50 / -200	150	80	95	130	150	150	150	150	
			-50 / -200	205	80	95	130	195	205	205	205	
Promass O	80 ... 250	Ex ec nC	-50 / -200	205	80	95	130	195	205	205	205	
			-50 / -200	205	80	95	130	195	205	205	205	
Promass X	350	Ex ec nC	-50 / -200	205	80	95	130	195	205	205	205	
			-50 / -200	240	80	95	130	195	240	240	240	
Promass Q	25 ... 250	Ex ec nC	-50 / -200	240	80	95	130	195	240	240	240	
			-50 / -200	240	80	95	130	195	240	240	240	

Notes: (1) type of protection Ex ec nC is applicable only for sensor versions without purge connection or rupture disk  
(2) T<sub>min</sub> = -40°C, -50°C respectively (see nameplate)  
(3) for maximum medium temperature and minimum medium temperature see nameplate

**Transmitter for all versions:**

T <sub>max</sub>	
T6 (85°C)	T5 (10°C)
---	45
T4 (135°C)	60

Note: (1) T<sub>min</sub> = -40°C, -50°C respectively (see name plate)


A	28.10.2016 / EKE	F	03.03.2020 / EKE	Alle gesetzlichen Umhbrechte vorbehalten	
B	15.02.2017 / EKE	G	20.09.2022 / BEOE	Diese Zeichnung darf ohne unsere Genehmigung weder vervielfältigt werden noch	
C	02.11.2017 / EKE	H		einen Patentschutz und Konkurrenzmaßnahmen	
D	15.01.2018 / EKE	J		zugänglich gemacht werden	
E	14.01.2019 / EKE	K			

Erstellt durch: Ersetzt durch:  
Erstellt für: RDES / BEOE  
FILE: M:\Zeichnung\FES0284G\FES0284G.dwg

Gezeichnet: 28.10.2016 EKE  
Geprüft:  
Ex-gespruft: 20.09.2022 BEOE  
Gesehen:

**FES0284G 6/12**

Installation Drawing NEPSI (acc. to FES0284G)  
Zone 2  
Thermal Parameter  
Proline Promass 300/500, Proline Cubemass 300/500

 Flowtec AG, Kägenstrasse 7, CH-4153 Reinach BLI, Postfach



**Proline Promass A/E/F/H/I/O/P/Q/S/X 500**

**Proline Cubemass C 500**

Notes: This page applies to versions with extended order code covering: 8\*5\*\*\* - dd\*\*\*\*\*B... with approval option: dd = NS

8\*5\*\*\* - dd\*\*\*\*\*B... with approval option: dd = NS

8x5Bxx - dd\*\*\*\*\*B...

O8x5Bxx - dd\*\*\*\*\*B...

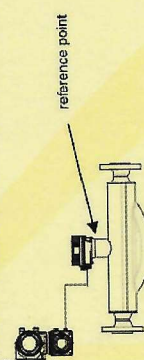
**Temperature table for versions in type of protection Ex ec with sensor insulated**  
(for insulation refer to manual of Endress+Hauser Flowtec)

**Temperature table for versions in type of protection Ex ec with sensor insulated**  
(for insulation refer to manual of Endress+Hauser Flowtec)

Sensor	Size / DN	type of protection	T <sub>temp</sub> [°C]		T <sub>med,max</sub> [°C]							T1 (450°C)
			min	max	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)		
Promass A	01 ... 04	Ex ec	-50	205	50	95	130	150	150	150	150	150
Cubemass C	01 ... 06	Ex ec	-50	205	60	95	130	150	150	150	150	150
Promass G	08 ... 15	Ex ec	-50	205	45	80	115	140	150	150	150	150
Promass E	25 ... 80	Ex ec	-50	205	60	95	130	150	150	150	150	150
Promass F	08 ... 15	Ex ec	-50 / -200	150	50	80	115	150	150	150	150	150
Promass H	15 ... 50	Ex ec	-50 / -200	205	60	95	130	150	150	150	150	150
Promass S, P	8	Ex ec	-50	205	45	80	115	150	150	150	150	150
Promass I	8	Ex ec	-50	205	45	80	115	150	150	150	150	150
Promass O	80 ... 250	Ex ec	-50	205	45	80	115	150	150	150	150	150
Promass X	350	Ex ec	-50	205	45	80	115	150	150	150	150	150
Promass Q	25 ... 250	Ex ec	-50 / -200	240	45	80	115	150	150	150	150	150

Sensor	Size / DN	T <sub>max</sub> to be measured at reference point at sensor neck [°C]						
		T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	
all	all	69	72	84	91	91	91	

Notes: (1) for safe use temperatures shall not exceed all of the following:  
 - temperature table for versions with sensor not insulated (refer to table above)  
 - temperature at reference point as listed in this table  
 - T<sub>min</sub> = -40°C, -50°C respectively (see nameplate)  
 - for maximum medium temperature and minimum medium temperature see nameplate  
 (2) location of reference point



**Transmitter for all versions:**

T <sub>max</sub>	T <sub>min</sub>
T6 (85°C)	T5 (100°C)
45	60
T4 (135°C)	60

Note: (1) T<sub>min</sub> = -40°C, -50°C respectively (see name plate)

Alle gesetzlichen Unbeschränkungen vorbehalten.  
 Diese Zeichnung darf ohne unsere Genehmigung weiter vervielfältigt werden nach dritten Personen und Konkurrenten zugunsten gemacht werden

Erstellt durch:	Ersetzt durch:
A 28.10.2016 / EKE	F 03.03.2020 / EKE
B 16.02.2017 / EKE	G 20.09.2022 / BECE
C 02.11.2017 / EKE	H
D 15.01.2018 / EKE	J
E 14.01.2019 / EKE	K

Erstellt für:  
 Ersteller: RDES / BECE  
 FILE: M:\Zeichnung\FES0284G\FES0284G.doc

Gezeichnet	28.10.2016	EKE
Gepflicht		
Er-geprüft	20.09.2022	BECE
Gesehen		

Installation Drawing NEPSI (acc. to FES0284G)  
 Zone 2  
 Thermal Parameter  
 Proline Promass 300/500, Proline Cubemass 300/500

**FES0284G 7/12**

Flowtec AG, Kätenstrasse 7, CH-41153 Reinach BL, Postfach







**Proline Promass A/E/F/H/I/O/P/Q/S/X 500**

Notes:  
This page applies to versions with extended order code covering:  
with approval option: dd = NS, NL

**Proline Cubemass C 500**

8\*5\*\*\* - dd\*\*\*\*\*A...  
with approval option: dd = NS, NL

**Proline Promass X... 500**

08\*5\*\*\* - dd\*\*\*\*\*A...  
with approval option: dd = NS, NL

**Proline Promass A/E/F/H/I/O/P/Q/S/X 500**

08\*5\*\*\* - dd\*\*\*\*\*A...  
with approval option: dd = NS, NL

**Proline Cubemass C 500**

8\*5\*\*\* - dd\*\*\*\*\*A...  
with approval option: dd = NS, NL

**Proline Promass X... 500**

08\*5\*\*\* - dd\*\*\*\*\*A...  
with approval option: dd = NS, NL

**Temperature table for versions in type of protection Ex ec with sensor not insulated**

Sensor	Size / DN	type of protection	T <sub>amb</sub>		T <sub>fluid,max</sub> [°C]											
			min [°C]	max [°C]	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)
Promass A (type 8A5B)	01 ... 04	Ex ec	-50	205	60	95	130	170	205	205	205	205	205	205	205	205
Promass A (type 8A5C)	01 ... 06	Ex ec	-50	205	60	95	130	140	205	205	205	205	205	205	205	205
Promass C	08 ... 15	Ex ec	-50	205	60	75	115	165	205	205	205	205	205	205	205	205
Promass E	25 ... 80	Ex ec	-50	205	60	60	95	140	205	205	205	205	205	205	205	205
Promass F	08 ... 15	Ex ec	-50 / -200	150	60	80	115	130	150	150	150	150	150	150	150	150
Promass G	25 ... 80	Ex ec	-50 / -200	150	60	80	115	130	150	150	150	150	150	150	150	150
Promass H	100...250	Ex ec	-50 / -200	150	60	80	115	130	150	150	150	150	150	150	150	150
Promass I	15...250	Ex ec	-50 / -200	350	60	85	120	185	280	280	280	280	280	280	280	280
Promass J	8 ... 80	Ex ec	-50	205	60	80	115	165	205	205	205	205	205	205	205	205
Promass O	80...250	Ex ec	-50	205	60	60	95	160	205	205	205	205	205	205	205	205

**Notes:**

(1) this page covers sensors with type of protection Ex ec. Sensors with type of protection Ex nC applicable only for versions without purge connection or rupture disk; temperature tables see next page)

(2) T<sub>amb</sub> = -40°C, -50°C respectively (see nameplate)

(3) values in brackets are applicable for installation where the transmitter is not installed above the sensor

(4) for maximum medium temperature and minimum medium temperature see nameplate

**Transmitter for all versions:**

Type of enclosure	Ordinary location (°C)	T <sub>6</sub> (85°C)	T <sub>5</sub> (100°C)	T <sub>4</sub> (135°C)
aluminium	60	---	45	60
plastic	60	---	---	---

Note: (1) aluminium enclosure: T<sub>amb</sub> = -40°C, -50°C respectively (for limitation see name plate)  
plastic enclosure: T<sub>amb</sub> = -40°C

A	28.10.2016/EKE	F	10.03.2020/EKE	Ersetzt durch:
B	15.02.2017/EKE	G	20.09.2022/BECE	Ersetzt für:
C	02.11.2017/EKE	H		Ersteller: RDES / BECE
D	15.01.2018/EKE	J		FILE: M_Zeichnung\FES0284G\FES0284G.doc
E	14.01.2019/EKE	K		

Alle gesetzlichen Unberechenliche, aktualisieren  
Diese Zeichnung darf ohne unsere  
Genehmigung weiter verarbeitet werden nach  
eigenem Prozess und Konstruktiv  
zuständig gemacht werden

**Installation Drawing NEPSI (acc. to FES0284G)**

Zone 2

Thermal Parameter

Proline Promass 300/500, Proline Cubemass 300/500

Flowtec AG, Kägenstrasse 7, CH-4153 Reinach BL1, Postfach

FES0284G 9/12



**Proline Promass A/E/F/H/I/O/P/Q/S/X 500**

**Proline Cubemass C 500**

Notes:  
This page applies to versions with extended order code covering:  
8\*5\*\*\* - dd\*\*\*\*\*A... with approval option: dd = NS, NL

08\*5\*\*\* - dd\*\*\*\*\*A...  
8x5Bxx - dd\*\*\*\*\*A...  
08x5Bxx - dd\*\*\*\*\*A...

**Temperature table for versions in type of protection Ex ec nC with sensor not insulated**

Sensor	Size / DN	type of protection	T <sub>max</sub>		T <sub>medium</sub> (°C)							
			min [°C]	max [°C]	T4 (135°C)	T5 (100°C)	T6 (85°C)	T8	T9	T10	T11 (450°C)	
Promass A	01 ... 04	Ex ec nC	-50	205	60	95	130	195	205	205	205	205
Promass A (type 8A5B)	01 ... 04	Ex ec nC	-50	205	60	95	130	195	205	205	205	205
Promass A (type 8A5C)	01 ... 06	Ex ec nC	-50	205	60	95	130	195	205	205	205	205
Promass C	08 ... 15	Ex ec nC	-50	205	60	95	130	195	205	205	205	205
Promass E	25 ... 80	Ex ec nC	-50	205	60	95	130	195	205	205	205	205
Promass F	08 ... 15	Ex ec nC	-50 / -200	150	60	95	130	195	205	205	205	205
Promass G	25 ... 80	Ex ec nC	-50 / -200	150	60	95	130	195	205	205	205	205
Promass H	100...250	Ex ec nC	-50 / -200	150	60	95	130	195	205	205	205	205
Promass I	15 ... 250	Ex ec nC	-50 / -200	350	60	95	130	195	205	205	205	205
Promass J	8	Ex ec nC	-50 / -200	205	60	95	130	195	205	205	205	205
Promass K	15 ... 50	Ex ec nC	-50 / -200	205	60	95	130	195	205	205	205	205
Promass L	8	Ex ec nC	-50 / -200	150	60	95	130	195	205	205	205	205
Promass M	15 ... 50	Ex ec nC	-50 / -200	150	60	95	130	195	205	205	205	205
Promass N	8 ... 80	Ex ec nC	-50 / -200	150	60	95	130	195	205	205	205	205
Promass O	80...250	Ex ec nC	-50 / -200	140	60	95	130	195	205	205	205	205
Promass P	350	Ex ec nC	-50 / -200	205	60	95	130	195	205	205	205	205
Promass Q	25...250	Ex ec nC	-50 / -200	240	60	95	130	195	205	205	205	240

Notes:  
(1) type of protection Ex ec nC is applicable only for sensor versions without purge connection or rupture disk  
(2) T<sub>max</sub> = 40°C, -50°C respectively (see nameplate)  
(3) values in brackets are applicable for installation where the transmitter is not installed above the sensor  
(4) for maximum medium temperature and minimum medium temperature see nameplate

**Transmitter for all versions:**

Type of enclosure	Ordinary location (°C)	T6 (85°C)	T5 (100°C)	T4 (135°C)
aluminium	60	---	45	60
plastic	60	---	---	---

Note: (1) aluminium enclosure: T<sub>max</sub> = 40°C, -50°C respectively (for limitation see name plate)  
plastic enclosure: T<sub>max</sub> = 40°C

A	28.10.2016 / EKE	F	03.03.2020 / EKE	Alle gesetzlichen Vorschriften, vorseiten.	
B	15.02.2017 / EKE	G	20.09.2022/BEOE	Diese Zeichnung darf ohne unsere Genehmigung weder vervielfältigt werden noch	
C	02.11.2017 / EKE	H		dabei Änderungen und Konstruktionen	
D	15.01.2019 / EKE	J		zugänglich gemacht werden.	
E	14.01.2019 / EKE	K			

Ersetzt durch:  
Ersetzt für:  
Ersteller, RDES / BEOE  
FILE: M:\Zehring\FES0284G\FES0284G.doc

Gezeichnet: 28.10.2016 EKE  
Geprüft:  
Ex-geprüft: 20.09.2022 BEOE  
Gesehen:

**FES0284G 10/12**

Flowtec AG, Kästenleesse 7, CH-4153 Reinach BL1, Postfach



**Proline Promass A/E/F/H/I/O/P/Q/S/X 500** Proline Cubemass C 500  
 8\*5\*\*\* - dd\*\*\*\*\*A... with approval option:  
 Notes: This page applies to versions with extended order code covering: 8x5Bxx - dd\*\*\*\*\*A... 08x5Bxx - dd\*\*\*\*\*A...  
 dd = NS, NL

Sensor	Size / DN	type of protection	T <sub>amb</sub> [°C]		T <sub>ext, max</sub> [°C]												
			min	max	T <sub>6</sub>	T <sub>5</sub>	T <sub>4</sub>	T <sub>3</sub>	T <sub>2</sub>	T <sub>1</sub>	T <sub>6</sub>	T <sub>5</sub>	T <sub>4</sub>	T <sub>3</sub>	T <sub>2</sub>	T <sub>1</sub>	
Promass A	01 ... 04	Ex ec	-50	205	50	95	130	130	130	130	130	130	130	130	130	130	130
Promass C	01 ... 06	Ex ec	-50	205	50	90	130	130	130	130	130	130	130	130	130	130	130
Promass E	08 ... 15	Ex ec	-50	205	50	75	115	165	165	205	205	205	205	205	205	205	205
Promass F	25 ... 80	Ex ec	-50	205	50	60	95	140	140	205	205	205	205	205	205	205	205
Promass H	8	Ex ec	-50 / -200	150	45	80	115	150	150	150	150	150	150	150	150	150	150
Promass S, P	15 ... 250	Ex ec	-50 / -200	205	50	85	120	185	185	280	280	350	350	350	350	350	350
Promass I	8 ... 80	Ex ec	-50	205	50	80	100	150	150	150	150	150	150	150	150	150	150
Promass O	80 ... 250	Ex ec	-50	205	50	80	100	130	130	130	130	130	130	130	130	130	130
Promass X	350	Ex ec	-50	205	50	80	115	170	170	205	205	205	205	205	205	205	205
Promass Q	25 ... 250	Ex ec	-50 / -200	240	60	95	160	160	160	240	240	240	240	240	240	240	240

Notes: (1) this page covers sensors with type of protection Ex ec. Sensors with type of protection Ex ec nC applicable only for versions without purge connection or rupture disk (temperature tables see next page)  
 (2) T<sub>amb</sub> = -40°C, -50°C respectively (see nameplate)  
 (3) for maximum medium temperature and minimum medium temperature see nameplate

**Temperature table for versions in type of protection Ex ec with sensor insulated**  
 (for insulation not in compliance to manual of Endress+Hauser Flowtec)

T<sub>ext</sub>, to be measured at reference point at:

Sensor	Size / DN	T <sub>6</sub> (85°C)	T <sub>5</sub> (100°C)	T <sub>4</sub> (135°C)	T <sub>3</sub> (200°C)	T <sub>2</sub> (300°C)	T <sub>1</sub> (450°C)
all	all	72	82	85	85	85	85

Notes: (1) for safe use temperatures shall not exceed all of the following:  
 - temperature table for versions with sensor not insulated (refer to table above)  
 - temperature at reference point as listed in this table  
 - T<sub>amb</sub> = -40°C, -50°C respectively (see nameplate)  
 - for maximum medium temperature and minimum medium temperature see nameplate  
 (2) location of reference point

**Transmitter for all versions:**

Type of enclosure	Ordinary location (°C)	T <sub>6</sub> (85°C)	T <sub>5</sub> (100°C)	T <sub>4</sub> (135°C)
aluminium	60	---	45	60
plastic	60	---	---	---

Note: (1) aluminium enclosure: T<sub>amb</sub> = -40°C, -50°C respectively (for limitation see name plate)  
 plastic enclosure: T<sub>amb</sub> = -40°C

Code	Description	File	Access
A	28.10.2016 / E/KE	F	03.03.2020 / E/KE
B	15.02.2017 / E/KE	G	20.09.2022 / BEOE
C	02.11.2017 / E/KE	H	
D	15.01.2018 / E/KE	J	
E	14.01.2019 / E/KE	K	

Alle gesetzlichen Umgebungsbedingungen  
 Diese Zeichnung darf ohne unsere  
 Genehmigung weder vervielfältigt werden noch  
 ohne Personen und Koordinaten  
 zugänglich gemacht werden

Erstellt für: RDEES / BEOE  
 FILE: M:\Zeichnung\FES0284G\FES0284G.dwg

Ersetzt durch: 28.10.2016 E/KE

Geprüft: 20.09.2022 BEOE  
 Gegeben: 20.09.2022 BEOE  
 Gelesen: 20.09.2022 BEOE

**FES0284G 11/12**

Flowtec AG, Käöntstrasse 7, CH-41153 Reinach B.1, Postfach



**Proline Promass A/E/F/H/I/O/P/Q/S/X 500**

Notes: This page applies to versions with extended order code covering: 8\*5\*\*\* - dd\*\*\*\*\*A... with approval option: dd = NS, NL

OB\*5\*\*\* - dd\*\*\*\*\*A... 8x5Bxx - dd\*\*\*\*\*A... 08x5Bxx - dd\*\*\*\*\*A...

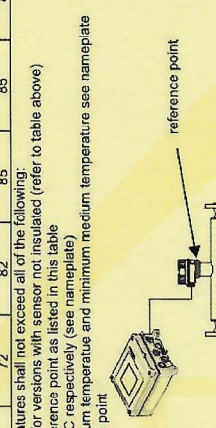
**Temperature table for versions in type of protection Ex ec nC with sensor insulated**  
(for insulation refer to manual of Endress+Hauser Flowtec)

Sensor	Size / DN	type of protection	T <sub>med</sub> [°C]		T <sub>max</sub> [°C]							
			min	max	T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)		
Promass A	01 ... 04	Ex ec nC	-50	205	50	95	130	130	130	130	130	130
Cubemass C	01 ... 06	Ex ec nC	-50	205	50	95	130	130	130	130	130	130
Promass E	08 ... 15	Ex ec nC	-50	205	50	95	130	195	205	205	205	205
Promass F	25 ... 80	Ex ec nC	-50	205	50	95	130	195	205	205	205	205
Promass G	08 ... 15	Ex ec nC	-50 / -200	150	45	95	130	150	150	150	150	150
Promass H	25 ... 80	Ex ec nC	-50 / -200	150	45	95	130	130	130	130	130	130
Promass I	100 ... 250	Ex ec nC	-50 / -200	150	45	95	130	130	130	130	130	130
Promass J	15 ... 250	Ex ec nC	-50 / -200	350	50	95	130	195	280	350	350	350
Promass K	8	Ex ec nC	-50 / -200	205	55	95	130	195	205	205	205	205
Promass L	15 ... 50	Ex ec nC	-50 / -200	205	55	95	130	195	205	205	205	205
Promass M	8	Ex ec nC	-50	150	45	95	130	150	150	150	150	150
Promass N	15 ... 50	Ex ec nC	-50	150	45	95	130	130	130	130	130	130
Promass O	8 ... 80	Ex ec nC	-50	205	55	95	130	195	205	205	205	205
Promass P	80 ... 250	Ex ec nC	-50	205	55	95	130	130	130	130	130	130
Promass Q	350	Ex ec nC	-50	205	55	95	130	195	205	205	205	205
Promass R	25 ... 250	Ex ec nC	-50 / -200	240	50	95	130	195	240	240	240	240

Notes: (1) type of protection Ex ec nC is applicable only for sensor versions without purge connection or rupture disk  
(2) T<sub>max</sub> = -40°C, -50°C respectively (see nameplate)  
(3) for maximum medium temperature and minimum medium temperature see nameplate

**Temperature table for versions in type of protection Ex ec nC with sensor insulated**  
(for insulation not in compliance to manual of Endress+Hauser Flowtec)

Sensor	Size / DN	T <sub>max</sub> to be measured at reference point at sensor neck [°C]							
		T6 (85°C)	T5 (100°C)	T4 (135°C)	T3 (200°C)	T2 (300°C)	T1 (450°C)		
all	all	---	72	82	85	85	85	85	



Notes: (1) for safe use temperatures shall not exceed all of the following:  
- temperature table for versions with sensor not insulated (refer to table above)  
- temperature at reference point as listed in this table  
- T<sub>min</sub> = -47°C, -50°C respectively (see nameplate)  
(2) location of reference point

**Transmitter for all versions:**

Type of enclosure	Ordinary location [°C]	T <sub>max</sub>
aluminium	60	T4 (135°C)
plastic	60	T5 (100°C)

Note: (1) aluminium enclosure: T<sub>min</sub> = -40°C, -50°C respectively (for limitation see name plate)  
plastic enclosure: T<sub>min</sub> = -40°C

A	28.10.2016 / EKE	F	03.03.2020 / EKE	Alle gesetzlichen Unberücksichtigungen vorbehalten.		Erstellt durch:
B	15.02.2017 / EKE	G	20.09.2022 / BEOE	Diese Zeichnung darf ohne unsere Genehmigung weder vervielfältigt, worden noch entfern Parameter und Konstruktivmaßnahmen zugängig gemacht werden.		Erstellt für:
C	02.11.2017 / EKE	H				Ersteller: RDES / BEOE
D	15.01.2018 / EKE	J				FILE: M_Zeichnung\FES0284G\FES0284G.doc
E	14.01.2019 / EKE	K				

**Installation Drawing NEPSI (acc. to FES0284G)**

**Zone 2**

**Thermal Parameter**

**Proline Promass 300/500, Proline Cubemass 300/500**

Gezeichnet	28.10.2016	EKE
Geprüft		
Ex-geprüft	20.09.2022	BEOE
Gesehen		

**FES0284G 12/12**

Flowtec AG, Kügenstrasse 7, CH-4153 Reinach BL1, Postfach



3.4 The Ex marking of this product is detailed as following:

Promass 300:

<b>dd</b> code	<b>ff</b> code	Marking Gas	Marking Dust
NA	CA, CB, CC, CD, HA, TA, MC, RC	Ex db eb ia [ja Ga] II B T1...T6 Ga/Gb <sup>1)</sup>	Ex tb [ja Da] IIIC T** °C Db
		Ex db eb ia [ja Ga] II B T1...T6 Gb	
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	Ex db eb ia II B T1...T6 Ga/Gb <sup>1)</sup>	Ex tb IIIC T** °C Db
		Ex db eb ia II B T1...T6 Gb	
NB	CA, CB, CC, CD, HA, TA, MC, RC	Ex db eb ia [ja Ga] II C T1...T6 Ga/Gb <sup>1)</sup>	Ex tb [ja Da] IIIC T** °C Db
		Ex db eb ia [ja Ga] II C T1...T6 Gb	
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	Ex db eb ia II C T1...T6 Ga/Gb <sup>1)</sup>	Ex tb IIIC T** °C Db
		Ex db eb ia II C T1...T6 Gb	
NC	CA, CB, CC, CD, HA, TA, MC, RC	Ex db ia [ja Ga] II B T1...T6 Ga/Gb <sup>1)</sup>	Ex tb [ja Da] IIIC T** °C Db
		Ex db ia [ja Ga] II B T1...T6 Gb	
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	Ex db ia II B T1...T6 Ga/Gb <sup>1)</sup>	Ex tb IIIC T** °C Db
		Ex db ia II B T1...T6 Gb	
ND	CA, CB, CC, CD, HA, TA, MC, RC	Ex db ia [ja Ga] II C T1...T6 Ga/Gb <sup>1)</sup>	Ex tb [ja Da] IIIC T** °C Db
		Ex db ia [ja Ga] II C T1...T6 Gb	
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	Ex db ia II C T1...T6 Ga/Gb <sup>1)</sup>	Ex tb IIIC T** °C Db
		Ex db ia II C T1...T6 Gb	
NS	CA, CB, CC, CD, HA, TA, MC, RC	Ex ec nC [ic] II C T1...T5 Gc	---
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	Ex ec nC II C T1...T5 Gc	---

Note <sup>1)</sup>: The following sensors are marked for EPL Gb only without zone separation: Promass A DN01, Promass



H DN08~50, Promass I DN08~80.

Promass 500 with ISEM integrated in transmitter:

<b>dd</b> code	<b>ff</b> code	Transmitter	Sensor
		Marking Gas & Dust	Marking Gas & Dust
NA	CA, CB, CC, CD, HA, TA, BA, BB, GA, LA, NA, RA, RB, RC, SA, MA, MB, MC	Ex db eb ia [ia Ga] II B T5...T6 Gb Ex tb [ia Da] IIIC T85°C Db	Ex ia II B T1...T6 Ga/Gb <sup>1)</sup> Ex ia II B T1...T6 Gb Ex ia tb IIIC T** °C Db
NB	CA, CB, CC, CD, HA, TA, BA, BB, GA, LA, NA, RA, RB, RC, SA, MA, MB, MC	Ex db eb ia [ia Ga] II C T5...T6 Gb Ex tb [ia Da] IIIC T85°C Db	Ex ia II C T1...T6 Ga/Gb <sup>1)</sup> Ex ia II C T1...T6 Gb Ex ia tb IIIC T** °C Db
NC	CA, CB, CC, CD, HA, TA, BA, BB, GA, LA, NA, RA, RB, RC, SA, MA, MB, MC	Ex db ia [ia Ga] II B T5...T6 Gb Ex tb [ia Da] IIIC T85°C Db	Ex ia II B T1...T6 Ga/Gb <sup>1)</sup> Ex ia II B T1...T6 Gb Ex ia tb IIIC T** °C Db
ND	CA, CB, CC, CD, HA, TA, BA, BB, GA, LA, NA, RA, RB, RC, SA, MA, MB, MC	Ex db ia [ia Ga] II C T5...T6 Gb Ex tb [ia Da] IIIC T85°C Db	Ex ia II C T1...T6 Ga/Gb <sup>1)</sup> Ex ia II C T1...T6 Gb Ex ia tb IIIC T** °C Db
NS	CA, CB, CC, CD, HA, TA, MC, RC	Ex ec nC [ic] II C T4...T5 Gc	Ex ec II C T1...T6 Gc Ex ec nC II C T1...T6 Gc <sup>2)</sup>
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	Ex ec nC II C T4...T5 Gc	

Note <sup>1)</sup>: The following sensors are marked for EPL Gb only without zone separation: Promass A DN01, Promass H DN08~50, Promass I DN08~80.

<sup>2)</sup>: Marking Ex ec nC only applicable for sensors without purge connection or rupture disk.



Promass 500 with ISEM integrated in sensor:

dd code	ff code	Transmitter	Sensor
		Marking Gas & Dust	Marking Gas & Dust
NI	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	[Ex ia] II C	Ex ia II B T1...T6 Ga/Gb <sup>1)</sup>
		[Ex ia] IIIC	Ex ia II B T1...T6 Gb Ex ia tb IIIC T** °C Db
NJ	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	[Ex ia] II C	Ex ia II C T1...T6 Ga/Gb <sup>1)</sup>
		[Ex ia ] IIIC	Ex ia II C T1...T6 Gb Ex ia tb IIIC T** °C Db
NL	CA, CB, CC, CD, HA, TA, MC, RC	[Ex ic ] II C	Ex ec II C T1...T5 Gc Ex ec nC II C T1...T5 Gc <sup>2)</sup>
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	non-Ex	Ex ec II C T1...T5 Gc Ex ec nC II C T1...T5 Gc <sup>2)</sup>
NM	CA, CB, CC, CD, HA, TA, MC, RC	Ex ec nC [ic] [ja Ga] II C T4...T5 Gc [Ex ia ] IIIC	Ex ia II B T1...T6 Ga/Gb <sup>1)</sup> Ex ia II B T1...T6 Gb Ex ia tb IIIC T** °C Db
	BA, BB, GA, NA, RA, SA, MA, MB, RB	Ex ec nC [ja Ga] II C T4...T5 Gc [Ex ia ] IIIC	
NN	CA, CB, CC, CD, HA, TA, MC, RC	Ex ec nC [ic] [ja Ga] II C T4...T5 Gc [Ex ia ] IIIC	Ex ia II C T1...T6 Ga/Gb <sup>1)</sup> Ex ia II C T1...T6 Gb Ex ia tb IIIC T** °C Db
	BA, BB, GA, NA, RA, SA, MA, MB, RB	Ex ec nC [ja Ga] II C T4...T5 Gc [Ex ia ] IIIC	
NS	CA, CB, CC, CD, HA, TA, MC, RC	Ex ec nC [ic] II C T4...T5 Gc	Ex ec II C T1...T5 Gc Ex ec nC II C T1...T5 Gc <sup>2)</sup>
	BA, BB, GA, LA, NA, RA, SA, MA, MB, RB	Ex ec nC II C T4...T5 Gc	

Note <sup>1)</sup>: The following sensors are marked for EPL Gb only without zone separation: Promass A DN01, Promass H DN08~50, Promass I DN08~80.

<sup>2)</sup>: Marking Ex ec nC only applicable for sensors without purge connection or rupture disk.



## 3.5 Electrical parameters

Power supply		
<b>dd e</b> code	terminal no.	values
NAD, NBD NCD, NDD	No. 1(L+/L), 2(L-/N)	$U_N = 19.2\sim 28.8\text{Vdc}$ $U_M = 250\text{Vac}$
NAE, NBE NCE, NDE	No. 1(L+/L), 2(L-/N)	$U_N = 85\sim 264\text{Vac}$ $U_M = 250\text{Vac}$
NSI, NII, NJI NLI, NMI, NNI	No. 1(L+/L), 2(L-/N)	$U_N = 19.2\sim 28.8\text{Vdc} / 85\sim 264\text{Vac}$ $U_M = 250\text{Vac}$

Input/output 1			
<b>ff</b> code	terminal no.	values	
BA, BB, MA	No. 26, 27	$U_N = 30\text{Vdc}$ $U_M = 250\text{Vac}$	
LA, GA, SA	No. 26, 27	$U_N = 32\text{Vdc}$ $U_M = 250\text{Vac}$	
CA, CB	No. 26, 27	$U_i = 30\text{V}$ $I_i = 100\text{mA}$ $P_i = 1.25\text{W}$ $L_i = 0$ $C_i = 6\text{nF}$	
CC, CD	No. 26, 27	<b>dd</b> = NA, NB, NC, ND: $U_o = 21.8\text{V}$ $I_o = 90\text{mA}$ $P_o = 491\text{mW}$ $L_o = 4.1\text{mH (IIC)}/$ $15\text{mH (IIB)}$ $C_o = 160\text{nF (IIC)}/$ $1160\text{nF (IIB)}$	<b>dd</b> = NS, NM, NN: $U_o = 21.8\text{V}$ $I_o = 90\text{mA}$ $P_o = 491\text{mW}$ $L_o = 9\text{mH (IIC)}/$ $39\text{mH (IIB)}$ $C_o = 600\text{nF (IIC)}/$ $4000\text{nF (IIB)}$
HA, TA	No. 26, 27	<b>dd</b> = NA, NB, NC, ND: PA/FF $U_i = 30\text{V}$ $I_i = 570\text{mA}$ $P_i = 8.5\text{W}$ $L_i = 10\mu\text{H}$ $C_i = 5\text{nF}$	<b>dd</b> = NS, NM, NN: PA/FF $U_i = 32\text{V}$ $I_i = 570\text{mA}$ $P_i = 8.5\text{W}$ $L_i = 10\mu\text{H}$ $C_i = 5\text{nF}$



MC, RC	No. 26, 27	<b>dd</b> = NA, NB, NC, ND: 2-WISE power load APL port profile SLAA $U_i = 17.5V$ $I_i = 380mA$ $P_i = 5.32W$ $L_i \leq 10\mu H$ $C_i \leq 5nF$	<b>dd</b> = NS,NM,NN: 2-WISE power load APL port profile SLAC $U_i = 17.5V$ $I_i = 380mA$ $P_i = 5.32W$ $L_i \leq 10\mu H$ $C_i \leq 5nF$
MB, RB	No. 26, 27	APL port profile SLAX/SPE PoDL classes 10, 11, 12 $U_N = 30Vdc$ $U_M = 250Vac$	
NA, RA	IO1 / RJ45	$U_N = 30Vdc$ $U_M = 250Vac$	

Input/output 2		
<b>g</b> code	terminal no.	values
C, G, K	No. 24, 25	$U_i = 30V$ $I_i = 100mA$ $P_i = 1.25W$ $L_i = 0$ $C_i = 0$
B, D, E, F, I, J, L	No. 24, 25	$U_N = 30Vdc$ $U_M = 250Vac$
H	No. 24, 25	$U_N = 30Vdc$ $I_N = 100mA/ 500mA$ $U_M = 250Vac$

Input/output 3		
<b>h</b> code	terminal no.	values
C, G, K	No. 22, 23	$U_i = 30V$ $I_i = 100mA$ $P_i = 1.25W$ $L_i = 0$ $C_i = 0$
B, D, E, F, I, J, L	No. 22, 23	$U_N = 30Vdc$ $U_M = 250Vac$
H	No. 22, 23	$U_N = 30Vdc$ $I_N = 100mA/ 500mA$ $U_M = 250Vac$



Input/output 4		
<b>i</b> code	terminal no.	values
C, G, K	No. 20, 21	$U_i = 30V$ $I_i = 100mA$ $P_i = 1.25W$ $L_i = 0$ $C_i = 0$
B, D, E, F, I, J, L	No. 20, 21	$U_N = 30Vdc$ $U_M = 250Vac$
H	No. 20, 21	$U_N = 30Vdc$ $I_N = 100mA/ 500mA$ $U_M = 250Vac$

Service interface		
<b>dd</b> code	terminal no.	values
NA,NB	Service interface	Service interface shall only be installed in areas which are known to be non hazardous with a non intrinsically safe circuit. $U_N = 3.3V$ , $U_M = 250VAC$ or to an intrinsically safe circuit with $U_i = 10V$ , $I_i = n.a.$ , $P_i = n.a.$ , $C_i = 200nF$ , $L_i = 0$
NC,ND	Service interface	Service interface shall only be installed to a non intrinsically safe circuit with $U_N = 3.3V$ , $U_M = 250VAC$ or to an intrinsically safe circuit with $U_i = 10V$ , $I_i = n.a.$ , $P_i = n.a.$ , $C_i = 200nF$ , $L_i = 0$
not for NA, NB, NC, ND	Service interface	$U_N = 3.3V$

Antenna bushing		
<b>dd</b> code	terminal no.	values
NA, NB, NI, NJ, NL, NM, NN, NS	N connector	RF antenna supplied by Endress+Hauser; As an alternate, any passive omni-directional RF antenna is permitted to be connected when meeting the following parameters: - have an impedance of at least $50\Omega$ - frequency range not exceeding 1710MHz ...6000MHz - rated power at least 100mW



Remote display		
dd code	terminal no.	values
NA, NB, NC, ND	No. 81, 82, 83, 84	$U_o = 3.9V$ $I_o = 1.5A$ (spark) 200mA (power) $P_o = 600mW$ $R_i = 2.6\Omega$ $L_o = 0$ $C_o = 670\mu F$
not for NA, NB, NC, ND	No. 81, 82, 83, 84	$U_N = 3.3V$ $I_N = 150mA$

For transmitter with approval code **dd** = NA, NB, NC and ND connected to the remote display of Endress+Hauser, Type DKX001 or ODKX001, the cable parameter with ration  $L/R \leq 0.024mH/\Omega$  applies.

### 3.6 Electrical parameters of remote transmitter and remote sensor (Proline 500)

dd k code	Transmitter:		
NAB, NBB, NCB, NDB	Terminals 41, 42 (exciter coil circuit)	$U_o = 15V$	Sensor group A1, C1, E1
		$I_o = 129mA$ $P_o = 484mW$	
	Terminals 9, 10, 11, 12, X3, X4 (temperature circuit)	$U_o = 15V$	-
		$I_o = 18.2mA$ $P_o = 68.3mW$	
		Terminals 4, 5, 6, 7 (sensor coil circuit)	
Sensor:			
Terminals 41, 42 (exciter coil circuit)	$U_i = 15V$	Sensor group A1, C1, E1	
	$I_i = 132mA$ $P_i = 494mW$		
Terminals 9, 10, 11, 12, X3, X4 (temperature circuit)	$U_i = 15V$	-	
	$I_i = 60.6mA$ $P_i = 227.3mW$		
	Terminals 4, 5, 6, 7 (sensor coil circuit)		$U_i = 15V$ $I_i = 15.2mA$ $P_i = 57mW$

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  $\leq 0.5 \mu F/km$



<b>dd k code</b>	Transmitter:		
NSB	Terminals 41, 42 (exciter coil circuit)	$U_N = 15V$ $I_N = 100mA$	Sensor group A2, C2
		$U_N = 15V$ $I_N = 72mA$	Sensor group B2, D2
		$U_N = 15V$ $I_N = 25mA$	Sensor group E2
	Terminals 9, 10, 11, 12, X3, X4 (temperature circuit)	$U_N = 15V$ $I_N = 18.2mA$	-
	Terminals 4, 5, 6, 7 (sensor coil circuit)	$U_N = 15V$ $I_N = 15.2mA$	-
	Sensor:		
	Terminals 41, 42 (exciter coil circuit)	$U_N = 15V$	-
	Terminals 9, 10, 11, 12, X3, X4 (temperature circuit)	$U_N = 15V$	-
Terminals 4, 5, 6, 7 (sensor coil circuit)	$U_N = 15V$	-	

<b>dd k code</b>	Transmitter:		
NIA, NJA, NMA, NNA	Terminals 61, 62, 63, 64	$U_o = 13.8V$ $I_o = 1.156A$ $P_o = 3.3W$	-
	Sensor:		
	Terminals 61, 62, 63, 64	$U_i = 14V$ $I_i = 1.2A$ $P_i = 3.4W$	-
For interconnection of transmitter to sensor any cable may be used with following requirements: $L/R \leq 0.0089 \text{ mH}/\Omega$ and $C_{\text{cable}} \leq 760 \text{ nF}$ for group IIC, $L/R \leq 0.0356 \text{ mH}/\Omega$ and $C_{\text{cable}} \leq 4.2 \mu\text{F}$ for group IIB or $L_{\text{cable}} \leq 26 \mu\text{H}$ and $C_{\text{cable}} \leq 760 \text{ nF}$ for group IIC, $L_{\text{cable}} \leq 104 \mu\text{H}$ and $C_{\text{cable}} \leq 4.2 \mu\text{F}$ for group IIB			

<b>dd k code</b>	Transmitter:		
NLA, NSA	Terminals 61, 62	$U_N = 32V$	-
	Terminals 63, 64	$U_N = 3.3V$	-
	Sensor:		
	Terminals 61, 62	$U_N = 32V$	-
	Terminals 63, 64	$U_N = 3.3V$	-



3.7 For cable entries, appropriate separately certified cable glands or blind plugs shall be used. Otherwise/alternatively Ex e cable glands specified/provided by the manufacture can be used (terminal compartment in increased safety only). After installation, the ingress protection shall be at least IP66/67 according to GB/T 4208-2017.

3.8 Any maintenance shall be done after power off or the area known to be non hazardous.

3.9 Clean the surface of this product termly when using in combustibile dust atmospheres.

3.10 The user shall not change the configuration in order to maintain/ensure the explosion protection performance of this product. Any change may impair safety.

3.11 For installation, use and maintenance of this product, the end user should observe the instruction manual and the following standards:

GB/T 3836.13-2021 "Explosive atmospheres- Part 13:Equipment repair,overhaul,reclamation and modification".

GB/T 3836.15-2017 "Explosive atmospheres- Part 15:Electrical installations design, selection and erection".

GB/T 3836.16-2017 "Explosive atmospheres- Part 16:Electrical installations inspection and maintenance".

GB/T 3836.18-2017 "Explosive atmospheres-Part 18: Intrinsically safe electrical systems".

GB 50257-2014 "Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering".

GB 15577-2018 "Safety regulations for dust explosion prevention and protection". (Only if installed in dust hazardous areas)

#### 4. Manufacturer's Responsibility

4.1 Conditions for safe use and special conditions for safe use, as specified above, should be included in the documentation the user is provided with.

4.2 Manufacturing should be done according to the documentation approved by NEPSI.

