1. TYPE EXAMINATION CERTIFICATE

2. **Equipment or Protective systems intended for use in Potentially Explosive Atmospheres - Directive 2014/34/EU**

3. **Type Examination Certificate No:** **FM17ATEX0017X**

4. **Equipment or protective system: (Type Reference and Name)** **FEP630_ ProcessMaster, FEW630_ProcessMaster FEH630_ HygienicMaster Electromagnetic Flowmeters and FET630_Transmitters**

5. **Name of Applicant:** **ABB AG**

6. **Address of Applicant** **Anna-Vandenhoeck-Ring 5, Gottingen 37081, Germany**

7. This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

8. FM Approvals Europe Ltd, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

   The examination and test results are recorded in confidential report number:

   3059596 dated 22nd May 2018

9. Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

   EN IEC 60079-0:2018, EN IEC 60079-7:2015+A1:2018, EN 60079-31:2014, EN 60529:1991+A1:2000+A2:2013

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

11. This Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

Certificate issued by:

Digitally signed by Richard Zammitt
Location: Ireland
Foxit PDF Editor Version: 13.0.1

Certification Manager, FM Approvals Europe Ltd.

Date 15 January 2024

FM Approvals Europe Ltd. One Georges Quay Plaza, Dublin. Ireland. D02 E440
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12. The marking of the equipment or protective system shall include:

See Annex.

13. **Description of Equipment or Protective System:**

The FEP63_ ProcessMaster, FEW63_ ProcessMaster and FEH63_ HygienicMaster are series of electromagnetic flowmeters. The electronics enclosure is a cylindrical enclosure identified as a dual compartment housing Type 3 or a single compartment rectangular housing identified as Type 4.

The FEP63_ ProcessMaster, FEW63 _ ProcessMaster and FEH63_ HygienicMaster are both available as integral and remote designs. A high process temperature version is available and uses 40 mm or 100 mm stand-offs between the Primary and the electronics or remote connection facilities.

The FET63_ is a the designation for the remote transmitter

The sensor is available in two different versions: Process Sensor and Hygienic Sensor. The Process Sensor is available in meter size DN3 to DN3000, the Hygienic Sensor is available in meter size DN3 to DN100. The medium temperature range for the Hygienic Sensor and the medium temperature range for the Process Sensor identified as Design Level A are -40°C to +130°C for the normal temperature version and -40°C to +180 °C for the high temperature version. The medium temperature range for sensors identified as Design Level B is -40°C to 100°C.

The temperature class is T6…T1 for all integral transmitter options except when the Ethernet Option card is fitted, options t = DR6 and u = DS8 when this is T4…T1.

The temperature class is T6 for all remote transmitter options except when the Ethernet Option card is fitted, options t = DR6 and u = DS8 when this is T4.

Enclosure rating IP65, IP67 or IP68 depending on the option selected.

Electrical parameters

Power Supply (Terminals L and N)

U_{DC} = 16.8 V to 30 V power supply (=U_{Low}); P_{max} ≤ 20W; C, Ripple: < 5 %.
U_{AC} = 100 V(-15%) to 240V (+10%) power supply (=U_{High}); S_{max} ≤ 20VA

See ABB Instruction Manual for the parameters for the Current Output, Digital Output, and Digital Input connections.

14. **Specific Conditions of Use:**

See Annex.

15. **Essential Health and Safety Requirements:**

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

16. **Test and Assessment Procedure and Conditions:**

This Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Europe Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Europe Ltd's ATEX Certification Scheme.

17. **Schedule Drawings**

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by FM Approvals Europe Ltd.

18. **Certificate History**

Details of the supplements to this certificate are described below:

Date	Description
13 June 2018	Original Issue.
12 April 2021	Supplement 7: Report Reference: RR277397 dated 05th April 2021. Description of the Change: Update to address EN IEC 60079-0:2018. Model code changes for Option Card 1 and 2.
1 March 2022	Supplement 9: Report Reference: RR230604 dated 15th February 2022. Description of the Change: 1. Change of company name and location. 2. Update of documentation. 3. Addition of alternative fuse type.
5 April 2022	Supplement 10: Report Reference: RR231984 dated 31st March 2022. Description of the Change: 1. Addition of Bangalore,India manufacturing facility. 2. Modify Label drawing to add Bangalore location as manufacturing facility.
19 September 2022	Supplement 11: Report Reference: PR462717 dated 7th September 2022. Description of the Change: Addition of Profibus card option.

Date	Description
1 November 2022	Supplement 12: Report Reference: RR233846 dated 30th October 2022. Description of the Change: 1. A modification to permit the use of the EPL Gb and Db enclosures for the EPL Gc and Dc marked product due to production problems. 2. Alternative use of PCB -Option Card Active supply AS.
26 April 2023	Supplement 13: Report Reference: RR234830 dated 21st April 2023. Description of the Change: Documentation update.
5 July 2023	Supplement 14: Report Reference: RR236655 dated 4 June 2023. Description of the Change(s):Update to Model Code for Profibus PA and label for FISCO.
15 January 2024	Supplement 15: Report Reference: RR238193 dated 10 January 2024. Description of the Changes: Addition of FEW630 series.

ANNEX

FEH631A2fghijklmnopqrA-t.u.v.y – Hygienic Integral

Markings:

II 3 G Ex ec IIC T**…T1 Gc Ta = * to 60°C IP65/67
II 3 D Ex tc IIIC T80°C…Tmedium Dc Ta = * to 60°C IP65/67
* -20°C or -40°C depending on options chosen
**T6…T1 for all options except t = DR6 and u = DS8 when this is T4…T1
FISCO (when r = P1 or t = DRP)

Description of Equipment:

f = Housing Type/Housing Material/ Cable entry: S1, S2, D1, D2, D3, D4, D6, or D8
g = Meter Size representing DN3 to DN100: 4-digit code – not relevant for safety
h = Process Connection Type: 2-digit code – not relevant for safety
i = Liner material: T1 or P1
j = Process connection material: Single digit – not relevant for safety
k = Electrode design: 1, or 5
l = Measuring electrode material: Single digit code – not relevant for safety
m = Grounding electrode/Full pipe detection: 0 or 2
n = Grounding accessories: A, B or C
o = Protection class transmitter/protection class sensor: 70 or 91
p = Power supply: A, D, C or E
q = Display: 0, 1 or 2
r = Outputs: G0, G1, G2, G3, G4, G5, G6, G7, G8, G9, M1, D1, P1, E2, E3, E4 or Y0

Additional Codes
t = Option card 1: DR0, DRN, DRG, DRT, DRA, DRM, DRD, DRP or DR6
u = Option card 2: DR0, DS0, DSA, DSN, DSG or DS8
v = Temperature range of installation/Ambient temperature range: TK1, TK4, TKH or TKK
y = Connector type: U0, UE, UF, UG, U5, UB, UC, U6, UD, UH, U7, UJ, UK, U8, UN, UP

Specific Conditions of Use:

1. Sensors having exposed electrodes in the process shall be used in a non-flammable liquid process only.
2. The ABB Instruction Manual for the ProcessMaster and HygenicMaster details the permitted Temperature Classification and Ambient Temperature ratings as influenced by the Process Medium temperature.
3. The painted surface of the ProcessMaster and HygenicMaster may store electrostatic charge and become a source of ignition in applications with a low relative humidity <~30% relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust, or oil. Guidance on protection against the risk of ignition due to electrostatic discharge can be found in IEC TR60079-32-2 Cleaning of the painted surface should only be done with a damp cloth.

FEH632A2fghijklmnopqY0A-t.u.v – Hygienic Remote Sensor

Markings:

II 3 G Ex ec IIC T6…T1 Gc Ta = * to 60°C IP65/67/68
II 3 D Ex tc IIIC T80°C…Tmedium Dc Ta = * to 60°C IP65/67/68
* -20°C or -40°C depending on options chosen

Description of Equipment:

f = Housing Type/Housing Material/ Cable entry: A1, A2, U1, or U2
g = Meter Size representing DN3 to DN100: 4-digit code – not relevant for safety
h = Process Connection Type: 2-digit code – not relevant for safety
i = Liner material: T1 or P1
j = Process connection material: Single digit – not relevant for safety
k = Electrode design: 1, or 5
l = Measuring electrode material: Single digit code – not relevant for safety
m = Grounding electrode/Full pipe detection: 0 or 2
n = Grounding accessories: A, B or C
o = Protection class transmitter/protection class sensor: 70, 76, 77 or 91
p = Power supply: Y or W
q = Display: 0 or 8

Additional Codes
t = Option card 1: DR0
u = Option card 2: DR0, DS0
v = Temperature range of installation/Ambient temperature range: TK1, TK4, TKH or TKK

Specific Conditions of Use:

1. Sensors having exposed electrodes in the process shall be used in a non-flammable liquid process only.
2. The ABB Instruction Manual for the ProcessMaster and HygenicMaster details the permitted Temperature Classification and Ambient Temperature ratings as influenced by the Process Medium temperature.
3. The painted surface of the ProcessMaster and HygenicMaster may store electrostatic charge and become a source of ignition in applications with a low relative humidity <~30% relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust, or oil. Guidance on protection against the risk of ignition due to electrostatic discharge can be found in IEC TR60079-32-2 Cleaning of the painted surface should only be done with a damp cloth.

FEP631A2fghijklmnopqrA-t.u.v.w.x.y – Process Integral – Design Level A

Markings:

II 3 G Ex ec IIC T**…T1 Gc Ta = * to 60°C IP65/67
II 3 D Ex tc IIIC T80°C…Tmedium Dc Ta = * to 60°C IP65/67
* -20°C or -40°C depending on options chosen
**T6…T1 for all options except t = DR6 and u = DS8 when this is T4…T1
FISCO (when r = P1 or t = DRP)

Description of Equipment:

f = Housing Type/Housing Material/ Cable entry: S1, S2, D1, D2, D3, D4, D6, or D8
g = Meter Size representing DN3 to DN3000: 4-digit code – not relevant for safety
h = Process Connection Type: 2-digit code – not relevant for safety
i = Liner material: R2, R3, R4, E1, T1, T3, T2, P1, C1, E2, or P2
j = Process connection material: Single digit – not relevant for safety
k = Electrode design: 1, or 5
l = Measuring electrode material: Single digit code – not relevant for safety
m = Grounding electrode/Full pipe detection: 0, 1, 2, or 3
n = Grounding accessories: A, B, C, D, E
o = Protection class transmitter/protection class sensor: 70 or 91
p = Power supply: A, D, C or E
q = Display: 0, 1 or 2
r = Outputs: G0, G1, G2, G3, G4, G5, G6, G7, G8, G9, M1, D1, P1, E2, E3, E4 or Y0

Additional Codes
t = Option card 1: DR0, DRN, DRG, DRT, DRA, DRM, DRD, DRP or DR6
u = Option card 2: DR0, DS0, DSA, DSN, DSG or DS8
v = Temperature range of installation/Ambient temperature range: TK1, TK4, TKH or TKK
w = Sensor housing material: SMA, SMS
x = Sensor length: J6 or JH
y = Connector type: U0, UE, UF, UG, U5, UB, UC, U6, UD, UH, U7, UJ, UK, U8, UN, or UP

Specific Conditions of Use:

1. Sensors having exposed electrodes in the process shall be used in a non-flammable liquid process only.
2. The ABB Instruction Manual for the ProcessMaster and HygenicMaster details the permitted Temperature Classification and Ambient Temperature ratings as influenced by the Process Medium temperature.
3. The painted surface of the ProcessMaster and HygenicMaster may store electrostatic charge and become a source of ignition in applications with a low relative humidity <~30% relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust, or oil. Guidance on protection against the risk of ignition due to electrostatic discharge can be found in IEC TR60079-32-2 Cleaning of the painted surface should only be done with a damp cloth.

FEP631A2fghijklmnopqrB-t.u.v.y.SMA – Process Integral – Design Level B

Markings:

II 3 G Ex ec IIC T**…T1 Gc Ta = * to 60°C IP65/67
II 3 D Ex tc IIIC T80°C…Tmedium Dc Ta = * to 60°C IP65/67
* -20°C or -40°C depending on options chosen
**T6…T1 for all options except t = DR6 and u = DS8 when this is T4…T1
FISCO (when r = P1 or t = DRP)

Description of Equipment:

f = Housing Type/Housing Material/ Cable entry: S1, S2, D1, D2, D3, or D4
g = Meter Size representing DN3 to DN3000: 4-digit code – not relevant for safety
h = Process Connection Type: 2-digit code – not relevant for safety
i = Liner material: R2, R3, R4, E1, T1, T3, T2, P1, C1, E2 or P2
j = Process connection material: Single digit – not relevant for safety
k = Electrode design: 1, or 5
l = Measuring electrode material: Single digit code – not relevant for safety
m = Grounding electrode/Full pipe detection: 0, 1, 2, or 3
n = Grounding accessories: A, B, C, D, E
o = Protection class transmitter/protection class sensor: 70 or 91
p = Power supply: A, D, C or E
q = Display: 0, 1 or 2
r = Outputs: G0, G1, G2, G3, G4, G5, G6, G7, G8, G9, M1, D1, P1, E2, E3, E4 or Y0

Additional Codes
t = Option card 1: DR0, DRN, DRG, DRT, DRA, DRM, DRD, DRP or DR6
u = Option card 2: DR0, DS0, DSA, DSN, DSG or DS8
v = Temperature range of installation/Ambient temperature range: TK1 or TK4
y = Connector type: U0, UE, UF, UG, U5, UB, UC, U6, UD, UH, U7, UJ, UK, U8, UN, or UP

Specific Conditions of Use:

1. Sensors having exposed electrodes in the process shall be used in a non-flammable liquid process only.
2. The ABB Instruction Manual for the ProcessMaster and HygenicMaster details the permitted Temperature Classification and Ambient Temperature ratings as influenced by the Process Medium temperature.
3. The painted surface of the ProcessMaster and HygenicMaster may store electrostatic charge and become a source of ignition in applications with a low relative humidity <~30% relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust, or oil. Guidance on protection against the risk of ignition due to electrostatic discharge can be found in IEC TR60079-32-2 Cleaning of the painted surface should only be done with a damp cloth.

FEP632A2fghijklmnopqY0A-t.u.v.w – Process Remote Sensor – Design Level A

Markings:

II 3 G Ex ec IIC T6…T1 Gc Ta = * to 60°C IP65/67/68

II 3 D Ex tc IIIC T80°C…Tmedium Dc Ta = * to 60°C IP65/67/68
* -20°C or -40°C depending on options chosen

Description of Equipment:

f = Housing Type/Housing Material/ Cable entry: A1, A2, U1, or U2
g = Meter Size representing DN3 to DN3000: 4-digit code – not relevant for safety
h = Process Connection Type: 2-digit code – not relevant for safety
i = Liner material: R2, R3, R4, E1, T1, T3, T2, P1, C1, E2 or P2
j = Process connection material: Single digit – not relevant for safety
k = Electrode design: 1, or 5
l = Measuring electrode material: Single digit code – not relevant for safety
m = Grounding electrode/Full pipe detection: 0, 1, 2 or 3
n = Grounding accessories: A, B, C, D or E
o = Protection class transmitter/protection class sensor: 70, 76, 77 or 91
p = Power supply: Y or W
q = Display: 0 or 8

Additional Codes
t = Option card 1: DR0
u = Option card 2: DR0, DS0
v = Temperature range of installation/Ambient temperature range: TK1, TK4, TKH or TKK
w = Sensor housing material: SMA or SMS
x = Sensor length: J6 or JH

Specific Conditions of Use:

1. Sensors having exposed electrodes in the process shall be used in a non-flammable liquid process only.
2. The ABB Instruction Manual for the ProcessMaster and HygenicMaster details the permitted Temperature Classification and Ambient Temperature ratings as influenced by the Process Medium temperature.
3. The painted surface of the ProcessMaster and HygenicMaster may store electrostatic charge and become a source of ignition in applications with a low relative humidity <~30% relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust, or oil. Guidance on protection against the risk of ignition due to electrostatic discharge can be found in IEC TR60079-32-2 Cleaning of the painted surface should only be done with a damp cloth.

FEP632A2fghT1jklmnopqY0B-t.u.v.SMA – Process Remote Sensor – Design Level B

Markings:

II 3 G Ex ec IIC T6…T1 Gc Ta = * to 60°C IP65/67/68
II 3 D Ex tc IIIC T80°C…Tmedium Dc Ta = * to 60°C IP65/67/68
* -20°C or -40°C depending on options chosen

Description of Equipment:

f = Housing Type/Housing Material/ Cable entry: A1, A2, U1, or U2
g = Meter Size representing DN3 to DN3000: 4-digit code – not relevant for safety
h = Process Connection Type: 2-digit code – not relevant for safety

j = Process connection material: Single digit – not relevant for safety
k = Electrode design: 1, or 5
l = Measuring electrode material: Single digit code – not relevant for safety
m = Grounding electrode/Full pipe detection: 0, 1, 2 or 3
n = Grounding accessories: A, B, C, D or E
o = Protection class transmitter/protection class sensor: 70, 76, 77 or 91
p = Power supply: Y or W
q = Display: 0 or 8

Additional Codes
t = Option card 1: DR0
u = Option card 2: DR0, DS0
v = Temperature range of installation/Ambient temperature range: TK1 or TK4

Specific Conditions of Use:

1. Sensors having exposed electrodes in the process shall be used in a non-flammable liquid process only.
2. The ABB Instruction Manual for the ProcessMaster and HygenicMaster details the permitted Temperature Classification and Ambient Temperature ratings as influenced by the Process Medium temperature.
3. The painted surface of the ProcessMaster and HygenicMaster may store electrostatic charge and become a source of ignition in applications with a low relative humidity <~30% relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust, or oil. Guidance on protection against the risk of ignition due to electrostatic discharge can be found in IEC TR60079-32-2 Cleaning of the painted surface should only be done with a damp cloth.

FET632A2fopqrA - t.u.v.y – Remote Transmitter

Markings:

II 3 G Ex ec IIC T** Gc Ta = * to 60°C IP65/67
II 3 D Ex tc IIIC T80°C Dc Ta = * to 60°C IP65/67
* -20°C or -40°C depending on options chosen
**T6 for all options except t = DR6 and u = DS8 when this is T4
FISCO (when r = P1 or t = DRP)

Description of Equipment:

f = Housing Type/Housing Material/ Cable entry: F1, F2, W1, W2, W3 or W4
o = Protection class transmitter/protection class sensor: 70 or 91
p = Power supply: A, D, C or E
q = Display: 0, 1 or 2
r = Outputs: G0, G1, G2, G3, G4, G5, G6, G7, G8, G9, M1, D1, E2, E3, E4 or Y0

Additional Codes
t = Option card 1: DR0, DRN, DRG, DRT, DRA, DRM, DRD, DRP or DR6
u = Option card 2: DR0, DS0, DSA, DSN, DSG or DS8
v = Temperature range of installation/Ambient temperature range: TK1, TK4, TKH or TKK
y = Connector type: U0, UE, UF, UG, U5, UB, UC, U6, UD, UH, U7, UJ, UK, U8, UN, or UP

Specific Conditions of Use:

1. Sensors having exposed electrodes in the process shall be used in a non-flammable liquid process only.
2. The ABB Instruction Manual for the ProcessMaster and HygenicMaster details the permitted Temperature Classification and Ambient Temperature ratings as influenced by the Process Medium temperature.
3. The painted surface of the ProcessMaster and HygenicMaster may store electrostatic charge and become a source of ignition in applications with a low relative humidity <~30% relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust, or oil. Guidance on protection against the risk of ignition due to electrostatic discharge can be found in IEC TR60079-32-2 Cleaning of the painted surface should only be done with a damp cloth.

FEW631A2fghijklmnopqrA-t.u.v.w.x.y – Process Integral – Design Level A

Markings:

II 3 G Ex ec IIC T**…T1 Gc Ta = * to 60°C IP65/67
II 3 D Ex tc IIIC T80°C…Tmedium Dc Ta = * to 60°C IP65/67
* -20°C or -40°C depending on options chosen
**T6…T1 for all options except t = DR6 and u = DS8 when this is T4…T1
FISCO (when r = P1 or t = DRP)

Description of Equipment:

f = Housing Type/Housing Material/ Cable entry: S1, S2, D1, D2, D3, D4, D6, or D8
g = Meter Size representing DN3 to DN3000: 4-digit code – not relevant for safety

h = Process Connection Type: 2-digit code – not relevant for safety
i = Liner material: R2, R3, R4 or E2
j = Process connection material: Single digit – not relevant for safety
k = Electrode design: 1, or 5
l = Measuring electrode material: Single digit code – not relevant for safety
m = Grounding electrode/Full pipe detection: 0, 1, 2, or 3
n = Grounding accessories: A, B, C, D, E
o = Protection class transmitter/protection class sensor: 70 or 91
p = Power supply: A, D, C or E
q = Display: 0, 1 or 8
r = Outputs: G0, G1, G2, G3, G4, G5, G6, G7, G8, G9, M1, D1, P1, E2, E3, E4 or Y0

Additional Codes
t = Option card 1: DR0, DRN, DRG, DRT, DRA, DRM, DRD, DRP or DR6
u = Option card 2: DR0, DS0, DSA, DSN, DSG or DS8
v = Temperature range of installation/Ambient temperature range: TK1 or TK4
w = Sensor housing material: SMA
x = Sensor length: J6 or JH
y = Connector type: U0, UE, UF, UG, U5, UB, UC, U6, UD, UH, U7, UJ, UK, U8, UN, or UP

Specific Conditions of Use:

1. Sensors having exposed electrodes in the process shall be used in a non-flammable liquid process only.
2. The ABB Instruction Manual for the ProcessMaster and HygenicMaster details the permitted Temperature Classification and Ambient Temperature ratings as influenced by the Process Medium temperature.
3. The painted surface of the ProcessMaster and HygenicMaster may store electrostatic charge and become a source of ignition in applications with a low relative humidity <~30% relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust, or oil. Guidance on protection against the risk of ignition due to electrostatic discharge can be found in IEC TR60079-32-2 Cleaning of the painted surface should only be done with a damp cloth.

FEW632A2fghijklmnopqY0A-t.u.v.w – Process Remote Sensor – Design Level A

Markings:

II 3 G Ex ec IIC T6…T1 Gc Ta = * to 60°C IP65/67/68
II 3 D Ex tc IIIC T80°C…Tmedium Dc Ta = * to 60°C IP65/67/68
* -20°C or -40°C depending on options chosen

Description of Equipment:

f = Housing Type/Housing Material/ Cable entry: A1, A2, U1, or U2
g = Meter Size representing DN3 to DN3000: 4-digit code – not relevant for safety
h = Process Connection Type: 2-digit code – not relevant for safety
i = Liner material: R2, R3, R4 or E2
j = Process connection material: Single digit – not relevant for safety
k = Electrode design: 1, or 5
l = Measuring electrode material: Single digit code – not relevant for safety
m = Grounding electrode/Full pipe detection: 0, 1, 2 or 3

n = Grounding accessories: A, B, C, D or E
o = Protection class transmitter/protection class sensor: 70, 76, 77 or 91
p = Power supply: Y or W
q = Display: 0 or 8

Additional Codes
t = Option card 1: DR0
u = Option card 2: DR0, DS0
v = Temperature range of installation/Ambient temperature range: TK1 or TK4
w = Sensor housing material: SMA
x = Sensor length: J6 or JH

Specific Conditions of Use:

1. Sensors having exposed electrodes in the process shall be used in a non-flammable liquid process only.
2. The ABB Instruction Manual for the ProcessMaster and HygenicMaster details the permitted Temperature Classification and Ambient Temperature ratings as influenced by the Process Medium temperature.
3. The painted surface of the ProcessMaster and HygenicMaster may store electrostatic charge and become a source of ignition in applications with a low relative humidity <~30% relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust, or oil. Guidance on protection against the risk of ignition due to electrostatic discharge can be found in IEC TR60079-32-2 Cleaning of the painted surface should only be done with a damp cloth.