

CERTIFICATE OF CONFORMITY



1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**

2. **Certificate No:** FM19US0092

3. **Equipment:**
(Type Reference and Name)

Listing - 1
H250/M40 a25bcdefghijklmnopqrstuvwxyz, Flowmeter

Listing - 2
H250/M40 aG20bcdefghijklmnopqrstuvwxyz, Flowmeter

Listing - 3
H250/M40 a25bcdefghijklmnopqrstuvwxyz, Flowmeter

Listing - 4
H250/M40 aG20bcdefghijklmnopqrstuvwxyz, Flowmeter

Listing - 5
H250/M40 a25bcdefghijklmnopqrstuvwxyz, Flowmeter

Listing - 6
H250/M40 aG20bcdefghijklmnopqrstuvwxyz, Flowmeter

Listing - 7
H250/M40 a25bcdefghijklmnopqrstuvwxyz, Flowmeter

Listing - 8
H250/M40 aG20bcdefghijklmnopqrstuvwxyz, Flowmeter

Listing - 9
H250/M40 a25bcdefghijklmnopqrstuvwxyz, Flowmeter

Listing - 10
H250/M40 aG20bcdefghijklmnopqrstuvwxyz, Flowmeter

4. **Name of Listing Company:** Krohne Messtechnik GmbH

5. **Address of Listing Company:**
Ludwig Krohne Strasse 5
Duisburg
D-47058
Germany

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

3047703 dated 23rd September 2013

Certificate issued by:

J.E. Marquedant
VP, Manager - Electrical Systems

8 December 2020

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

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FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
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7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM Class 3600:2018, FM Class 3610:2018, FM Class 3611:2004, FM Class 3616:2011,
FM Class 3810:2005, ANSI/ISA 61010-1(82.02.01):2004, ANSI/ISA 60079-0:2009,
ANSI/ISA 60079-11:2009, ANSI/ISA 60079-15: 2009, ANSI/NEMA 250:2004, ANSI/IEC 60529:2004

8. 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.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
10. Equipment Ratings:

Listing – 1, Listing – 2

Intrinsically Safe for Class I, Division 1, Groups A, B, C and D hazardous (classified) locations in accordance with drawing APPR_GD_821070-01; Intrinsically Safe for Class I, Zone 1, Group IIC hazardous (classified) locations in accordance with drawing APPR_GD_821070-01, with an ambient temperature rating of -40°C to +65°C.

Listing – 3, Listing – 4

Intrinsically Safe for Class I, Division 1, Groups A, B, C and D hazardous (classified) locations in accordance with drawing APPR_GD_821070-02; Intrinsically Safe for Class I, Zone 1, Group IIC hazardous (classified) locations in accordance with drawing APPR_GD_821070-02, with an ambient temperature rating of -40°C to +65°C.

Listing – 5, Listing – 6

Intrinsically Safe for Class I, Division 1, Groups A, B, C and D hazardous (classified) locations in accordance with drawing APPR_GD_821070-03; Intrinsically Safe for Class I, Zone 1, Group IIC hazardous (classified) locations in accordance with drawing APPR_GD_821070-03, with an ambient temperature rating of -40°C to +65°C.

Listing – 7, Listing – 8

Intrinsically Safe for Class I, Division 1, Groups A, B, C and D hazardous (classified) locations in accordance with drawing APPR_GD_821070-04; Intrinsically Safe for Class I, Zone 1, Group IIC hazardous (classified) locations in accordance with drawing APPR_GD_821070-04, with an ambient temperature rating of -40°C to +65°C.

Listing – 9, Listing – 10

Nonincendive for Class I, Division 2, Groups A, B, C, and D hazardous (classified) locations; Dust-Ignitionproof for Class II and III, Division 2, Groups E, F and G hazardous (classified) locations; Non-sparking for Class I, Zone 2, Group IIC hazardous (classified) locations, indoors and outdoors IP66, IP68, Type 4X and Type 6 with an ambient temperature rating of -40°C to +65°C.

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11. The marking of the equipment shall include:

Listing – 1, Listing – 2

H250/M40 a25bcdefghijklmnopqrstuvwxyz, Flowmeter

H250/M40 aG20bcdefghijklmnopqrstuvwx, Flowmeter

Class I, Division 1, Groups A, B, C and D; T6

Class I, Zone 1[0], AEx ia [ia Ga] IIC T6 Gb

Control Drawing APPR GD 821070-01

Tamb = -40°C to +65°C;

Listing – 3, Listing – 4

H250/M40 a25bcdefghijklmnopqrstuvwxyz, Flowmeter

H250/M40 aG20bcdefghijklmnopqrstuvwx, Flowmeter

Class I, Division 1, Groups A, B, C and D; T6

Class I, Zone 1[0], AEx ia [ia Ga] IIC T6 Gb

Control Drawing APPR GD 821070-02

Tamb = -40°C to +65°C;

Listing – 5, Listing – 6

H250/M40 a25bcdefghijklmnopqrstuvwxyz, Flowmeter

H250/M40 aG20bcdefghijklmnopqrstuvwx, Flowmeter

Class I, Division 1, Groups A, B, C and D; T6

Class I, Zone 1[0], AEx ia [ia Ga] IIC T6 Gb

Control Drawing APPR GD 821070-03

Tamb = -40°C to +65°C;

Listing – 7, Listing – 8

H250/M40 a25bcdefghijklmnopqrstuvwxyz, Flowmeter

H250/M40 aG20bcdefghijklmnopqrstuvwx, Flowmeter

Class I, Division 1, Groups A, B, C and D; T6

Class I, Zone 1[0], AEx ia [ia Ga] IIC T6 Gb

Control Drawing APPR GD 821070-03

Tamb = -40°C to +65°C;

Listing – 9, Listing 10

H250/M40 a25bcdefghijklmnopqrstuvwxyz, Flowmeter

H250/M40 aG20bcdefghijklmnopqrstuvwx, Flowmeter

Class I, Division 2, Groups A, B, C and D; T6

Class II, III, Division 2, Groups E, F and G; T6

Class I, Zone 2, AEx nA IIC T6 Gb

Ta = -40°C to +65°C; Type 4X, Type 6, IP66 and IP68

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12. Description of Equipment:

General - The H250/M40 Flow Meter is designed for direct recording and display of the flow rate of flammable and nonflammable gases and liquids. All signal outputs are available in 4 to 20 mA, HART, and NAMUR communications.

Construction - The H250/M40 Flow Meter electronic enclosure is made of aluminum or stainless steel for IS versions and uses the MH040 housing for NI versions. Both the IS and NI versions of the device use the H250 flowtube and guided floats.

Ratings - The H250/M40 Flow Meters operate with the following electrical parameters:

Indicator M40 ESK4; Terminal 11, 12

Current Loop:

$U_i \leq 30\text{Vdc}$; $I_i \leq 130\text{mA}$; $P_i \leq 1\text{W}$; $C_i = 0\text{nF}$; $L_i \leq 0.01\text{mH}$

Indicator M40 ESK4-T; Terminal 1, 2 resp. 4, 5

Binary Output 1 & 2 (NAMUR):

$U_i \leq 30\text{Vdc}$; $I_i \leq 130\text{mA}$; $P_i \leq 1\text{W}$; $C_i \leq 10\text{nF}$; $L_i \leq 0.1\text{mH}$

Indicator M40 ESK4-T; Terminal 1, 3 resp. 4, 6

Binary Output 1 & 2 (OC):

$U_i \leq 30\text{Vdc}$; $I_i \leq 130\text{mA}$; $P_i \leq 1\text{W}$; $C_i \leq 10\text{nF}$; $L_i = 0\text{mH}$

Indicator M40 ESK4-T; Terminal 7, 8

Binary Input:

$U_i \leq 30\text{Vdc}$; $I_i \leq 130\text{mA}$; $P_i \leq 1\text{W}$; $C_i \leq 10\text{nF}$; $L_i = 0\text{mH}$

Indicator M40R; Terminal 1, 2 resp. 4, 5

Limit Switch:

$U_i \leq 30\text{Vdc}$; $I_i \leq 100\text{mA}$; $P_i \leq 1\text{W}$; $C_i = 0\text{nF}$; $L_i = 0\text{mH}$

Indicator M40 K.; Terminal 1, 2 resp. 4, 5

Limit switch NAMUR:

SC3,5-NO-Y...

$U_i \leq 16\text{Vdc}$; $I_i \leq 25\text{mA}$; $P_i \leq 34\text{mW}$; $C_i \leq 150\text{nF}$; $L_i = 150\mu\text{H}$

SJ3,5-SN

$U_i \leq 16\text{Vdc}$; $I_i \leq 25\text{mA}$; $P_i \leq 34\text{mW}$; $C_i \leq 30\text{nF}$; $L_i = 100\mu\text{H}$

SJ3,5-S1N

$U_i \leq 16\text{Vdc}$; $I_i \leq 25\text{mA}$; $P_i \leq 34\text{mW}$; $C_i \leq 30\text{nF}$; $L_i = 100\mu\text{H}$

I7S23,5-N

$U_i \leq 16\text{Vdc}$; $I_i \leq 25\text{mA}$; $P_i \leq 34\text{mW}$; $C_i \leq 150\text{nF}$; $L_i = 150\mu\text{H}$

Indicator M40 ESK4-FF / ESK4-PA; Terminal D, D- FISCO:

$U_i \leq 24\text{Vdc}$; $I_i \leq 380\text{mA}$; $P_i \leq 5.32\text{W}$; $C_i = 0\text{nF}$; $L_i = 0\text{mH}$

All other protection techniques, the electronic connection has the following values:

Indicator M40 ESK4 with signal output ESK4:

$U = 14 - 32\text{V}$; $I = 4...20\text{mA}$

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Indicator M40 ESK4-T with signal output ESK4 and module I/O:

U = 14 - 32V; I = 4...20mA

U = 8 - 32V; I = 1...100mA

U = 8V; I ≤ 1 / ≥3mA

U = 8 - 32V; I ≤ 2mA

Indicator M40 ESK4-FF / ESK4-PA:

U = 9 - 32V; I = 16mA

Indicator M40 K:

U = 8V; I ≤ 1 / ≥3mA

Indicator M40 R:

U = 24V; I ≤ 100mA

The H250/M40 Flow Meters are rated for use in an ambient temperature range of -40°C to +65°C. The H250/M40 Flow Meters are rated for use in a process temperature range of -40°C to +300°C.

Listing - 1

H250/M40 a25bcdefghijklmnopqrstuvwxyz, Flowmeter

Entity Parameters:

Current Loop

U_i ≤ 30Vdc; I_i ≤ 130mA; P_i ≤ 1W; L_i ≤ 0.01mH; C_i = 0

Binary Output 1 and/or 2

U_i ≤ 16Vdc; I_i ≤ 52mA; P_i ≤ 169mW

Limit Switch	Type Code Option	C _i (nF)	L _i (μH)
SC3,5-NO-Y...	k = 1, 2 or 3	150	150
SJ3,5-SN	k = A, B or C	30	100
SJ3,5-S1N	k = E or F	30	100
I7S23,5-N	k = 5, 6 or 7	150	150

a = Sensor series: V or S

b = Nominal size: 1,2,3,4 or 5

c = Configuration: 4 or 9

d = Process connection: 1,2,3,4,5,6,7,8,A,B,C,D,E,F,G,H,K,L,M,N,P,R,S,T,U,V,W,X, Y or Z

e = Pressure rating: 0,1,2,3,4,7,8,A,B,C,D,G,H,K, L,M,N,P,R,S or V

f = Flange facing: 0,1,3,5,6,7,8,A,C,D,E,F,G,H,L,M,N,P,R,S,U or V

g = Cone: 1,2,3,4,5,6,7,8,A,G,H,K,L,M,N,P or R

h = Float: 1,2,3,4,5,6,A,B,C,D,E,F,G,H,K,L,M,N,P,R,S,T,U,V,W,X,Y or Z

i = Heating jacket: 0,1,2,3,4 or 5

j = Indication: E,F,G,H,K or L

k = Limit switch: 0,1,2,3,5,6,7,A,B,C,E or F

l = Output: 0,8, or C

m = Approval: A

n = Options Indication: 0,2,3,A,B or C

o = Identification: 0,1,2,A,B,C,L,M,N or P

p = Certificate of compliance: 0 or 1

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q = Confirmation of accuracy: 0,1,2,3,4,5,6 or 7
r = Pressure- / leakage test: 0,5,6,7,A,B,F,G or H
s = Material test / -certification: 0,1,2,5,6,F,G,H,L,N or P
t = Dye penetration test: 0,1 or A
u = Radiographic examination: 0,1 or A
v = Hardness test: 0 or 1
w = Cleaning: 0,1,3,7,A,E,G,K,L,N or P
x = Design: 0 or B
y = Flow direction: 0,1,2,3,4 or 5
z = Manual: 0,1,3 or 4

Listing - 2

H250/M40 aG20bcdefghijklmnopqrstuvw, Flowmeter

Entity Parameters:

Current Loop

$U_i \leq 30V_{dc}$, $I_i \leq 130mA$, $P_i \leq 1W$, $L_i \leq 0.01mH$, $C_i = 0$

Binary Output 1 or 2

$U_i \leq 16V_{dc}$; $I_i \leq 52mA$; $P_i \leq 169mW$

Limit Switch	Type Code Option	C_i (nF)	L_i (μH)
SC3,5-NO-Y...	i = 1, 2 or 3	150	150
SJ3,5-SN	i = A, B or C	30	100
SJ3,5-S1N	i = E or F	30	100
I7S23,5-N	i = 5, 6 or 7	150	150

a = Sensor series: V or S
b = Configuration: 4 or 9
c = Material of liner and float: 2,4,A or C
d = Nominal size / process connection: 1,2,4,5,6,7,A,C,E,F,H or K
e = Pressure rating: 1,2,B or C
f = Flange facing: 1 or A
g = Float: 2,3,4,5,6,7,8,A,B,C,D,E,G,H,K,L,N,P or S
h = Void: 0
i = Indication: E,F,G,H,K or L
j = Limit switch: 0, 1, 2, 3, 5, 6, 7, A, B, C, E or F
k = Output: 0,8,or C
l = Approval: A
m = Options Indication: 0, 2, 3, A, B or C
n = Identification: 0, 1, 2, A, B, C, L, M, N or P
o = Certificate of compliance: 0 or 1
p = Confirmation of accuracy: 0,1,2,3,4,5,6 or 7
q = Pressure- / leakage test: 0,5, A or F
r = Material test / -certification: 0,1,2,5, 6, F, G or H
s = Dye penetration test (PT): 0
t = Radiographic examination (RT): 0
u = Hardness test: 0 or 1
v = Cleaning acc. manufacturer standard: 0
w = Design: 0 or B

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x = Manual: 0,1,3 or 4

Listing - 3

H250/M40 a25bcdefghijklmnopqrstuvwxyz, Flowmeter

Entity Parameters:

Current Loop

$U_i \leq 30V_{dc}$, $I_i \leq 130mA$, $P_i \leq 1W$, $L_i \leq 0.01mH$, $C_i = 0$

Binary Output 1 and/or 2

$U_i \leq 30V_{dc}$, $I_i \leq 100mA$, $P_i \leq 1W$, $L_i = 0$, $C_i = 0$

a = Sensor series: V or S

b = Nominal size: 1,2,3,4 or 5

c = Configuration: 4 or 9

d = Process connection: 1,2,3,4,5,6,7,8,A,B,C,D,E,F,G,H,K,L,M,N,P,R,S,T,U,V,W,X,Y or Z

e = Pressure rating: 0,1,2,3,4,7,8,A,B,C,D,G,H,K, L,M,N,P,R,S or V

f = Flange facing: 0,1,3,5,6,7,8,A,C,D,E,F,G,H,L,M,N,P,R,S,U or V

g = Cone: 1,2,3,4,5,6,7,8,A,G,H,K,L,M,N,P or R

h = Float: 1,2,3,4,5,6,A,B,C,D,E,F,G,H,K,L,M,N,P,R,S,T,U,V,W,X,Y or Z

i = Heating jacket: 0,1,2,3,4 or 5

j = Indication: E,F,G,H,K or L

k = Limit switch: S,T or U

l = Output: 0,8, or C

m = Approval: A

n = Options Indication: 0,2,3,A,B or C

o = Identification: 0,1,2,A,B,C,L,M,N or P

p = Certificate of compliance: 0 or 1

q = Confirmation of accuracy: 0,1,2,3,4,5,6 or 7

r = Pressure- / leakage test: 0,5,6,7,A,B,F,G or H

s = Material test / -certification: 0,1,2,5,6,F,G,H,L,N or P

t = Dye penetration test: 0,1 or A

u = Radiographic examination: 0,1 or A

v = Hardness test: 0 or 1

w = Cleaning: 0,1,3,7,A,E,G,K,L,N or P

x = Design: 0 or B

y = Flow direction: 0,1,2,3,4 or 5

z = Manual: 0,1,3 or 4

Listing - 4

H250/M40 aG20bcdefghijklmnopqrstuvwx, Flowmeter

Entity Parameters:

Current Loop

$U_i \leq 30V_{dc}$, $I_i \leq 130mA$, $P_i \leq 1W$, $L_i \leq 0.01mH$, $C_i = 0$

Binary Output 1 and/or 2

$U_i \leq 30V_{dc}$, $I_i \leq 100mA$, $P_i \leq 1W$, $L_i = 0$, $C_i = 0$

a = Sensor series: V or S

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b = Configuration: 4 or 9
c = Material of liner and float: 2,4,A or C
d = Nominal size / process connection: 1,2,4,5,6,7,A,C,E,F,H or K
e = Pressure rating: 1,2,B or C
f = Flange facing: 1 or A
g = Float: 2,3,4,5,6,7,8,A,B,C,D,E,G,H,K,L,N,P or S
h = 0
i = Indication: E,F,G,H,K or L
j = Limit switch: S,T or U
k = Output: 0,8 or C
l = Approval: A
m = Options Indication: 0, 2, 3, A, B or C
n = Identification: 0, 1, 2, A, B, C, L, M, N or P
o = Certificate of compliance: 0 or 1
p = Confirmation of accuracy: 0,1,2,3,4,5,6 or 7
q = Pressure- / leakage test: 0,5, A or F
r = Material test / -certification: 0,1,2,5, 6, F, G or H
s = Dye penetration test (PT): 0
t = Radiographic examination (RT): 0
u = Hardness test: 0 or 1
v = Cleaning acc. manufacturer standard: 0
w = Design: 0 or B
x = Manual: 0,1,3 or 4

Listing - 5

H250/M40 a25bcdefghijklmnopqrstuvwxy, Flowmeter

Entity Parameters:

Current Loop

$U_i \leq 30V_{dc}$, $I_i \leq 130mA$, $P_i \leq 1W$, $L_i \leq 0.01mH$, $C_i = 0$

Binary Output 1 and/or 2

$U_i \leq 30V_{dc}$, $I_i \leq 130mA$, $P_i \leq 1W$, $L_i = 0$, $C_i \leq 10nF$

Binary Input

$U_i \leq 30V_{dc}$, $I_i \leq 130mA$, $P_i \leq 1W$, $L_i = 0$, $C_i \leq 10nF$

a = Sensor series: V or S
b = Nominal size: 1,2,3,4 or 5
c = Configuration: 4 or 9
d = Process connection: 1,2,3,4,5,6,7,8,A,B,C,D,E,F,G,H,K,L,M,N,P,R,S,T,U,V,W,X,Y or Z
e = Pressure rating: 0,1,2,3,4,7,8,A,B,C,D,G,H,K, L,M,N,P,R,S or V
f = Flange facing: 0,1,3,5,6,7,8,A,C,D,E,F,G,H,L,M,N,P,R,S,U or V
g = Cone: 1,2,3,4,5,6,7,8,A,G,H,K,L,M,N,P or R
h = Float: 1,2,3,4,5,6,7,8,A,B,C,D,E,F,G,H,K,L,M,N,P,R,S,T,U,V,W,X,Y or Z
i = Heating jacket: 0,1,2,3,4 or 5
j = Indication: E,F,G,H,K or L
k = Limit switch: 0
l = Output: 0,8,C or D
m = Approval: A

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n = Options Indication: 0,2,3,A,B or C
o = Identification: 0,1,2,A,B,C,L,M,N or P
p = Certificate of compliance: 0 or 1
q = Confirmation of accuracy: 0,1,2,3,4,5,6 or 7
r = Pressure- / leakage test: 0,5,6,7,A,B,F,G or H
s = Material test / -certification: 0,1,2,5,6,F,G,H,L,N or P
t = Dye penetration test: 0,1 or A
u = Radiographic examination: 0,1 or A
v = Hardness test: 0 or 1
w = Cleaning: 0,1,3,7,A,E,G,K,L,N or P
x = Design: 0 or B
y = Flow direction: 0,1,2,3,4 or 5
z = Manual: 0,1,3 or 4

Listing - 6

H250/M40 aG20bcdefghijklmnopqrstuvwx, Flowmeter

Entity Parameters:

Current Loop

$U_i \leq 30\text{Vdc}$, $I_i \leq 130\text{mA}$, $P_i \leq 1\text{W}$, $L_i \leq 0.01\text{mH}$, $C_i = 0$

Binary Output 1 and/or 2

$U_i \leq 30\text{Vdc}$, $I_i \leq 130\text{mA}$, $P_i \leq 1\text{W}$, $L_i = 0$, $C_i \leq 10\text{nF}$

Binary Input

$U_i \leq 30\text{Vdc}$, $I_i \leq 130\text{mA}$, $P_i \leq 1\text{W}$, $L_i = 0$, $C_i \leq 10\text{nF}$

a = Sensor series: V or S
b = Configuration: 4 or 9
c = Material of liner and float: 2,4,A or C
d = Nominal size / process connection: 1,2,4,5,6,7,A,C,E,F,H or K
e = Pressure rating: 1,2,B or C
f = Flange facing: 1 or A
g = Float: 2,3,4,5,6,7,8,A,B,C,D,E,G,H,K,L,N,P or S
h = 0
i = Indication: E,F,G,H,K or L
j = Limit switch: 0
k = Output: 0,8,C or D
l = Approvals: A
m = Options Indication: 0, 2, 3, A, B or C
n = Identification: 0, 1, 2, A, B, C, L, M, N or P
o = Certificate of compliance: 0 or 1
p = Confirmation of accuracy: 0,1,2,3,4,5,6 or 7
q = Pressure- / leakage test: 0,5, A or F
r = Material test / -certification: 0,1,2,5, 6, F, G or H
s = Dye penetration test (PT): 0
t = Radiographic examination (RT): 0
u = Hardness test: 0 or 1
v = Cleaning acc. manufacturer standard: 0
w = Design: 0 or B
x = Manual: 0,1,3 or 4

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FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA

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SCHEDULE



US Certificate Of Conformity No: FM19US0092

Listing - 7

H250/M40 a25bcdefghijklmnopqrstuvwxyz, Flowmeter

Entity Parameters:

$U_i \leq 24\text{Vdc}$, $I_i \leq 380\text{mA}$, $P_i \leq 5.32\text{W}$, $L_i = 0$, $C_i = 0$

a = Sensor series: V or S

b = Nominal size: 1,2,3,4 or 5

c = Configuration: 4 or 9

d = Process connection: 1,2,3,4,5,6,7,8,A,B,C,D,E,F,G,H,K,L,M,N,P,R,S,T,U,V,W,X,Y or Z

e = Pressure rating: 0,1,2,3,4,7,8,A,B,C,D,G,H,K, L,M,N,P,R,S or V

f = Flange facing: 0,1,3,5,6,7,8,A,C,D,E,F,G,H,L,M,N,P,R,S,U or V

g = Cone: 1,2,3,4,5,6,7,8,A,G,H,K,L,M,N,P or R

h = Float: 1,2,3,4,5,6,7,8,A,B,C,D,E,F,G,H,K,L,M,N,P,R,S,T,U,V,W,X,Y or Z

i = Heating jacket: 0,1,2,3,4 or 5

j = Indication: E,F,G,H,K or L

k = Limit switch: 0

l = Output: E or F

m = Approval: A

n = Options Indication: 0,2,3,A,B or C

o = Identification: 0,1,2,A,B,C,L,M,N or P

p = Certificate of compliance: 0 or 1

q = Confirmation of accuracy: 0,1,2,3,4,5,6 or 7

r = Pressure- / leakage test: 0,5,6,7,A,B,F,G or H

s = Material test / -certification: 0,1,2,5,6,F,G,H,L,N or P

t = Dye penetration test: 0,1 or A

u = Radiographic examination: 0,1 or A

v = Hardness test: 0 or 1

w = Cleaning: 0,1,3,7,A,E,G,K,L,N or P

x = Design: 0 or B

y = Flow direction: 0,1,2,3,4 or 5

z = Manual: 0,1,3 or 4

Listing - 8

H250/M40 aG20bcdefghijklmnopqrstuvwx, Flowmeter

Entity Parameters:

$U_i \leq 24\text{Vdc}$, $I_i \leq 380\text{mA}$, $P_i \leq 5.32\text{W}$, $L_i = 0$, $C_i = 0$

a = Sensor series: V or S

b = Configuration: 4 or 9

c = Material of liner and float: 2,4,A or C

d = Nominal size / process connection: 1,2,4,5,6,7,A,C,E,F,H or K

e = Pressure rating: 1,2,B or C

f = Flange facing: 1 or A

g = Float: 2,3,4,5,6,7,8,A,B,C,D,E,G,H,K,L,N,P or S

h = 0

i = Indication: E,F,G,H,K or L

j = Limit switch: 0

k = Output: E or F

l = Approval: A

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US Certificate Of Conformity No: FM19US0092

m = Options Indication: 0, 2, 3, A, B or C
n Identification: 0, 1, 2, A, B, C, L, M, N or P
o = Certificate of compliance: 0 or 1
p = Confirmation of accuracy: 0,1,2,3,4,5,6 or 7
q = Pressure- / leakage test: 0,5, A or F
r = Material test / -certification: 0,1,2,5, 6, F, G or H
s = Dye penetration test (PT): 0
t = Radiographic examination (RT): 0
u = Hardness test: 0 or 1
v = Cleaning acc. manufacturer standard: 0
w = Design: 0 or B
x = Manual: 0, 1, 3 or 4

Listing - 9

H250/M40 a25bcdefghijklmnopqrstuvwxyz, Flowmeter

a = Sensor series: V or S
b = Nominal size: 1,2,3,4 or 5
c = Configuration: 4 or 9
d = Process connection: 1,2,3,4,5,6,7,8,A,B,C,D,E,F,G,H,K,L,M,N,P,R,S,T,U,V,W,X,Y or Z
e = Pressure rating: 0,1,2,3,4,7,8,A,B,C,D,G,H,K, L,M,N,P,R,S or V
f = Flange facing: 0,1,3,5,6,7,8,A,C,D,E,F,G,H,L,M,N,P,R,S,U or V
g = Cone: 1,2,3,4,5,6,7,8,A,G,H,K,L,M,N,P or R
h = Float: 1,2,3,4,5,6,7,8,A,B,C,D,E,F,G,H,K,L,M,N,P,R,S,T,U,V,W,X,Y or Z
i = Heating jacket: 0,1,2,3,4 or 5
j = Indication: E,F,G,H,K or L
k = Limit switch: 0,1,2,3,5,6,7,A,B,C,E,F,S,T or U
l = Output: 0,8,C,D,E or F
m = Approval: E
n=Options Indication: 0,2,3,A,B or C
o = Identification: 0,1,2,A,B,C,L,M,N or P
p = Certificate of compliance: 0 or 1
q = Confirmation of accuracy: 0,1,2,3,4,5,6 or 7
r = Pressure- / leakage test: 0,5,6,7,A,B,F,G or H
s = Material test / -certification: 0,1,2,5,6,F,G,H,L,N or P
t = Dye penetration test: 0,1 or A
u = Radiographic examination: 0,1 or A
v = Hardness test: 0 or 1
w = Cleaning: 0,1,3,7,A,E,G,K,L,N or P
x = Design: 0 or B
y = Flow direction: 0,1,2,3,4 or 5
z = Manual: 0,1,3 or 4

Listing - 10

H250/M40 aG20bcdefghijklmnopqrstuvwx, Flowmeter

a = Sensor series: V or S
b = Configuration: 4 or 9
c = Material of liner and float: 2,4,A or C
d = Nominal size / process connection: 1,2,4,5,6,7,A,C,E,F,H or K
e = Pressure rating: 1,2,B or C
f = Flange facing: 1 or A

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SCHEDULE



US Certificate Of Conformity No: FM19US0092

g = Float: 2,3,4,5,6,7,8,A,B,C,D,E,G,H,K,L,N,P or S
h = 0
i = Indication: E,F,G,H,K or L
j = Limit switch: 0, 1, 2, 3, 5, 6, 7, A, B, C, E, F, S, T or U
k = Output: 0,8,C,D,E or F
l = A
m = Options Indication: 0, 2, 3, A, B or C
n = Identification: 0, 1, 2, A, B, C, L, M, N or P
o = Certificate of compliance: 0 or 1
p = Confirmation of accuracy: 0,1,2,3,4,5,6 or 7 q = Pressure- / leakage test: 0,5, A or F
r = Material test / -certification: 0,1,2,5, 6, F, G or H
s = Dye penetration test (PT): 0
t = Radiographic examination (RT): 0
u = Hardness test: 0 or 1
v = Cleaning acc. manufacturer standard: 0
w = Design: 0 or B
x = Manual: 0, 1, 3 or 4

13. Specific Conditions of Use:

None

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
23 rd September 2013	Original Issue.
8 th July 2019	<u>Supplement 3:</u> Report Reference: – RR217675 dated 8 th July 2019. Description of the Change: Convereted to new certificate format. Update to measurement cone, label and alternative glass manufacture for window cover.
8 th December 2020	<u>Supplement 4:</u> Report Reference: - PR456398 dated 8 th December 2020. Description of the Change: Addition of high pressure options for Models K15, K25, K55, K85 and K105 measuring cones bused in the construction of the H250/M40 Variable Area Flowmeter.

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