





Document ID: 39378







WARNING EXPLOSION HAZARD
SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2
DO NOT REPLACE UNLESS POWER HAS BEEN SWITCHED OFF



# 1 Certificate



# **Certificate of Compliance**

Certificate: 2327401 (LR 23257) Master Contract: 15385

Project: 2687607 Date Issued: January 3, 2014

Issued to: VEGA Americas, Inc.

4241 Allendorf Dr Cincinnati, OH 45209 USA

Attention: Nick Ilchovski

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Jelena Dzeletovíc

Issued by: Jelena Dzeletovic

**PRODUCTS** 

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations
CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For

Hazardous Locations

CLASS 2258-02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations

CLASS 2258-82 - PROCESS CONTROL EQUIPMENT – For Hazardous Locations - Certified to US Standards

Class I Division 2 Groups A, B, C, and D; Class II Division 2 Groups F and G; Class III, T6, Encl. Type 4X

Protrac Series Nuclear Scintilation Detectors, nuclear gauge instruments used for process measurement and control applications for use in hazardous locations; Ambient Temperature -50°C to +60°C.

Suitable for installation in Class I, II, III, Division 2, Groups A, B, C, D, E, F and G; T6; Ta = 60°C; with intrinsically safe outputs when installed per drawing GE2779 and used with the following entity parameters:

HART Electronics Option (Electronics B or L):

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IS current loop output with the parameters (terminals 1[+], 2 [-] in the lateral chamber):

Uo=22.16V, Io=111.9mA, Po=620.03mW, Ci negligible, Li negligible

Profibus PA (Electronics G) or Foundation Fieldbus (Electronics D) Electronic Option:

Intrinsically safe communication interface for connection to an intrinsically safe H1 voltage supply (terminals 1, 2 [Signal+Power] in the lateral chamber):

Ignition protection type intrinsic safety Ex ia IIC

Maximum values: Ui = 17.5 V, Ii = 500 mA, Pi = 5.5 W, Ci negligible, Li  $< 5\mu H$ 

The instrument is suitable for connection to a Fieldbus system according to the FISCO model (IEC 60079-11:2011,

or

Ui = 24 V, Ii = 250 mA, Pi = 1.2 W, Ci negligible,  $Li < 5\mu\text{H}$ 

Display- and adjustment output (terminals 5,6,7,8 in the lateral chamber):

Uo = 6,0V, Io = 209.7mA, Po= 314.6mW, Ci negligible, Li negligible

Model FIBERTRAC FT31 xy a b c d e f g

Where:

xy = Approval: KX

a = Version / Ambient Temperature:

1 Standard / -20 ... +50°C

b = Electronics:

B 4-wire 4 20 mA/HART (intrinsically safe output)

A 4-wire 4 20 mA/HART (non-intrinsically safe output)

L 4-wire 4 20 mA/HART (intrinsically safe output) with SIL qualification

I 4-wire 4 20 mA/HART (non-intrinsically safe output) with SIL qualification

C 4-wire Foundation Fieldbus (non-intrinsically safe output)

D 4-wire Foundation Fieldbus (intrinsically safe output)

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E 4-wire Profibus PA (non-intrinsically safe output)

G 4-wire Profibus PA (intrinsically safe output)

c = Housing / Protection:

D Aluminum / IP66/IP67

A Aluminum with 316L conduit mount / IP66/IP67

S Aluminum / IP66/IP67 (Special Color)

R Aluminum with conduit mount / IP66/IP67 (Special Color)

W Type 316 Stainless Steel

V Type Stainless Steel with 316L Conduit Mount / IP 66/67

d = Cable Entry / Plug Connection:

N 1/2 NPT / without

M M20x15 / without

e = Indicating/adjustment module (PLICSCOM):

X Without

B Side mounted with backlight

C Side mounted without backlight

f = Additional Equipment: (1 digit representing accessories)

X Without

g = Length (3 Digit Code Representing Detector Length)

Model FIBERTRAC FT32 xy a b c d e f g

Where:

xy = Approval: KX

a = Version/Ambient Temperature:

1 Standard/-20 ... +50°C

b = Electronics:

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B 4-wire 4 20 mA/HART (intrinsically safe output)

- A 4-wire 4 20 mA/HART (non-intrinsically safe output)
- L 4-wire 4 20 mA/HART (intrinsically safe output) with SIL qualification
- I 4-wire 4 20 mA/HART (non-intrinsically safe output) with SIL qualification
- C 4-wire Foundation Fieldbus (non-intrinsically safe output)
- D 4-wire Foundation Fieldbus (intrinsically safe output)
- E 4-wire Profibus PA (non-intrinsically safe output)
- G 4-wire Profibus PA (intrinsically safe output)

# c = Housing/Protection:

- D Aluminum /IP66/IP67
- A Aluminum with 316L conduit mount /IP66/IP67
- S Aluminum /IP66/IP67 (Special Color)
- R Aluminum with conduit mount /IP66/IP67 (Special Color)
- W Type 316 Stainless Steel
- V Type Stainless Steel with 316L Conduit Mount / IP 66/67
- d = Cable Entry/Plug Connection:
  - N 1/22 NPT/without
  - M M20x1.5/without
- e = Indicating/adjustment module (PLICSCOM):
  - X Without
  - B Side mounted with backlight
  - C Side mounted without backlight
- f = Additional Equipment: (1 digit representing accessories)
  - X Without
- g = Length (3 Digit Code Representing Detector Length)

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# Model SOLITRAC ST31 xy a b c d e f g

Where:

xy = Approval: KX

a = Version / Ambient Temperature:

1 Standard / -40 ... +60°C

2 Low temperature range / -50 ... +60°C

b = Electronics:

B 4-wire 4 20 mA/HART (intrinsically safe output)

A 4-wire 4 20 mA/HART (non-intrinsically safe output)

L 4-wire 4 20 mA/HART (intrinsically safe output) with SIL qualification

I 4-wire 4 20 mA/HART (non-intrinsically safe output) with SIL qualification

C 4-wire Foundation Fieldbus (non-intrinsically safe output)

D 4-wire Foundation Fieldbus (intrinsically safe output)

E 4-wire Profibus PA (non-intrinsically safe output)

G 4-wire Profibus PA (intrinsically safe output)

c = Housing / Protection:

D Aluminum / IP66/IP67

S Aluminum / IP66/IP67 (Special Color)

W Type 316 Stainless Steel

d = Cable Entry / Plug Connection:

N 1/2 NPT / without

M M20x15 / without

e = Indicating/adjustment module (PLICSCOM):

X Without

B Side mounted with backlight

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C Side mounted without backlight

f = Additional Equipment: (1 digit representing accessories)

X Without

g = Length (3 Digit Code Representing Detector Length)

Model MINITRAC MT31 xy a b c d e f

Where:

xy = Approval: KX

a = Version / Ambient Temperature:

1 Standard / -40 ... +60°C

2 Low temperature range / -50 ... +60°C

b = Electronics:

B 4-wire 4 20 mA/HART (intrinsically safe output)

A 4-wire 4 20 mA/HART (non-intrinsically safe output)

L 4-wire 4 20 mA/HART (intrinsically safe output) with SIL qualification

I 4-wire 4 20 mA/HART (non-intrinsically safe output) with SIL qualification

C 4-wire Foundation Fieldbus (non-intrinsically safe output)

D 4-wire Foundation Fieldbus (intrinsically safe output)

E 4-wire Profibus PA (non-intrinsically safe output)

G 4-wire Profibus PA (intrinsically safe output)

c = Housing / Protection:

D Aluminum / IP66/IP67

S Aluminum / IP66/IP67 (Special Color)

W Type 316 Stainless Steel

d = Cable Entry / Plug Connection:

N 1/2 NPT / without

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M M20x15 / without

e = Indicating/adjustment module (PLICSCOM):

- X Without
- B Side mounted with backlight
- C Side mounted without backlight
- f = Additional Equipment: (1 digit representing accessories)
  - X Without
  - S Internal Lead Shielding

# Model MINITRAC MT32 xy a b c d e f

Where:

xy = Approval: KX

a = Version / Ambient Temperature:

- 1 Standard / -40 ... +60°C
- 2 Low temperature range / -50 ... +60°C
- b = Electronics:
  - B 4-wire 4 20 mA/HART (intrinsically safe output)
  - A 4-wire 4 20 mA/HART (non-intrinsically safe output)
  - L 4-wire 4 20 mA/HART (intrinsically safe output) with SIL qualification
  - I 4-wire 4 20 mA/HART (non-intrinsically safe output) with SIL qualification
  - C 4-wire Foundation Fieldbus (non-intrinsically safe output)
  - D 4-wire Foundation Fieldbus (intrinsically safe output)
  - E 4-wire Profibus PA (non-intrinsically safe output)
  - G 4-wire Profibus PA (intrinsically safe output)
- c = Housing / Protection:
  - D Aluminum / IPSS/IP67

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S Aluminum / IPSS/IPS7 (Special Color)

W Type 316 Stainless Steel

d = Cable Entry / Plug Connection:

N 1/2 NPT/ without

M M20x1.5/ without

e = Indicating/adjustment module (PLICSCOM):

X Without

B Side mounted with backlight

C Side mounted without backlight

f = Additional Equipment: (1 digit representing accessories)

X Without

# Model WEIGHTRAC WT31 xyabedefghij

Where:

xy = Approval: KX

a = Version / Ambient Temperature:

1 Standard / -40...+60°C

2 Low temperature range / -50...+60°C

b = Electronics:

B 4-wire 4 20 mA/HART (intrinsically safe output)

A 4-wire 4 20 mA/HART (non-intrinsically safe output)

C 4-wire Foundation Fieldbus (non-intrinsically safe output)

D 4-wire Foundation Fieldbus (intrinsically safe output)

E 4-wire Profibus PA (non-intrinsically safe output)

G 4-wire Profibus PA (intrinsically safe output)

c = Housing / Protection:

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- D Aluminum / IP66/IP67
- S Aluminum / IP66/IP67 (Special Color)
- W Type 316 Stainless Steel
- d = Cable Entry / Plug Connection:
  - N 1/2 NPT / without
  - M M20x1.5 / without
- e = Indicating/adjustment module (PLICSCOM):
  - X Without
  - B Side mounted with backlight
  - C Side mounted without backlight
- f = Source Holder Configuration (1digit code gamma source holder type)
  - X No Source Holder Required Plain Cross Beam
- g = Isotope / activity selection (1 digit code representing isotope and activity)
  - X Without
- h = Additional Equipment (1 digit representing accessories)
  - X Without
- i = Frame Construction (1 digit code representing frame material)
- j = Conveyor Width / Frame Upright Height (2 digit code representing frame size)

# Model WEIGHTRAC WT32 xyabcdefghij

#### Where:

- xy = Approval: KX
- a = Version/Ambient Temperature:
  - 1 Standard/-40...+50°C
  - 2 Low temperature range/-50... +50°C
- b = Electronics:

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- B 4-wire 4 20 mA/HART (intrinsically safe output)
- A 4-wire 4 20 mA/HART (non-intrinsically safe output)
- C 4-wire Foundation Fieldbus (non-intrinsically safe output)
- D 4-wire Foundation Fieldbus (intrinsically safe output)
- E 4-wire Profibus PA (non-intrinsically safe output)
- G 4-wire Profibus PA (intrinsically safe output)
- c = Housing/Protection:
  - D Aluminum/IP66/IP67
  - S Aluminum/IP66/IP67 (Special Color)
  - W Type 316 Stainless Steel
- d = Cable Entry/Plug Connection:
  - N 1/2NPT/without
  - M M20x1.5/without
- e = Indicating/adjustment module (PLICSCOM):
  - X Without
  - B Side mounted with backlight
  - C Side mounted without backlight
- f = Source Holder Configuration (1 digit code gamma source holder type)
  - X No Source Holder Required Plain Cross Beam
- g = Isotope/activity selection (1 digit code representing isotope and activity)
  - X Without
- h = Additional Equipment: (1 digit code representing accessories)
  - X Without
- i= Frame Construction (1 digit code representing frame material)
- j = Conveyor Width / Frame Upright Height (2 digit code representing frame size)

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#### Model POINTRAC PT31 xybcdefg

Where:

xy = Approval: KX

a = Version / Ambient Temperature:

1 Standard / -40 ... +60°C

2 Low temperature range / -50 ... +60°C

b = Electronics:

A 4-wire 4 16 mA/HART (non-intrinsically safe output)

B 4-wire 4 16 mA/HART (intrinsically safe output)

L 4-wire 4 20 mA/HART (intrinsically safe output) with SIL qualification

I 4-wire 4 20 mA/HART (non-intrinsically safe output) with SIL qualification

C 4-wire Foundation Fieldbus (non-intrinsically safe output)

D 4-wire Foundation Fieldbus (intrinsically safe output)

E 4-wire Profibus PA (non-intrinsically safe output)

G 4-wire Profibus PA (intrinsically safe output)

c = Housing / Protection:

D Aluminum / IP66/IP67

S Aluminum / IP66/IP67 (Special Color)

W Type 316 Stainless Steel

d = Cable Entry / Plug Connection:

N 1/2 NPT

e = Indicating/adjustment module (PLICSCOM):

X Without

B Side mounted with backlight

C Side mounted without backlight

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f = Additional Equipment: (1 digit representing accessories)

X Without

g = Length (3 Digit Code Representing Detector Length)

CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations

CLASS 2258 84 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity - For Hazardous Locations Certified to US Standards

#### Class I, Div 1 Groups A, B, C, D; Class II, Div 1, Groups E, F, G; Class III, T6. Encl. Type 4X

#### Class I, Zone 0, Group IIC

Protrac Series Nuclear Scintilation Detectors, nuclear gauge instruments used for process measurement and control applications for use in hazardous locations; Ambient Temperature -50°C to +60°C.

Explosion proof for Class I, Division 1, Groups A, B, C and D; with intrinsically safe outputs for Class I, II, III, Division 1, Groups A, B, C, D, E, F when installed per drawing GE2779 and used with the following entity parameters:

HART Electronics Option (Electronics B or L):

IS current loop output with the parameters (terminals 1[+], 2 [-] in the lateral chamber):

Uo=22.16V, Io=111.9mA, Po=620.03mW, Ci negligible, Li negligible

Profibus PA (Electronics G) or Foundation Fieldbus (Electronics D) Electronic Option:

Intrinsically safe communication interface for connection to an intrinsically safe H1 voltage supply (terminals 1, 2 [Signal+Power] in the lateral chamber):

Ignition protection type intrinsic safety Ex ia IIC

Maximum values: Ui = 17.5 V, Ii = 500 mA, Pi = 5.5 W, Ci negligible, Li <  $5\mu H$ 

The instrument is suitable for connection to a Fieldbus system according to the FISCO model (IEC 60079-11:2011,

or

Ui = 24 V, Ii = 250 mA, Pi = 1.2 W, Ci negligible,  $Li < 5\mu\text{H}$ 

Display- and adjustment output (terminals 5,6,7,8 in the lateral chamber):

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Uo = 6,0V, Io = 209.7mA, Po= 314.6mW, Ci negligible, Li negligible

Entity Parameters; Uo (Voc) = 17.5 V, Io (Isc) = 221.2 mA, Po = 0.415 W, For Display only

Class I, Zone 0, Group IIC

Co (Ca) = 11.1  $\mu$ F

Lo (La) = 0.7 mH

Class I, Division 1, Groups A & B

Class I, Zone 0, Group liB

Co (Ca) =  $174 \mu F$ 

Lo (La) = 3.0 mH

Class I & II, Division 1, Groups C & E

Class I, Zone 0, Group IIA

Co (Ca) =  $1000 \mu F$ 

Lo (La) = 5.7 mH

Class I, II, III Division 1, Groups D, F, & G

\*Entity Parameters; Uo (Voc) = 22.2 V, Io (Isc) = 112 mA, Po = 620 mW, 4-20mA Loop

HART Electronics Option (Electronics B or L):

IS current loop output with the parameters (terminals 1[+], 2 [-] in the lateral chamber):

Uo=22.16V, Io=111.9mA, Po=620.03mW, Ci negligible, Li negligible

Class I, Zone 0, Group IIC

Co (Ca) =  $0.16 \mu F$ 

Lo (La) = 2.8 mH

Class I, Division 1, Groups A & B

Class I, Zone 0, Group lIB

Co (Ca) =  $1.11 \mu F$ 

Lo (La) = 12 mH

Class I & II, Division 1, Groups C & E

Class I, Zone 0, Group IIA

Co (Ca) =  $4.08 \mu F$ 

Lo(La) = 23 mH

Electrical data for the optional Profibus PA and Foundation Fieldbus interface circuit (ia)

Terminals 1 and 2

Ui = 17.5 V; Ii = 500 mA; Pi = 5.5 W; Ci negligible;  $Li \le 5 \text{ mH}$ 

The instrument (FISCO FIELD DEVICE) is suitable for connection to a Fieldbus system according to the FISCO model (EN 60079-11 :2012), e.g. Profibus PA or Foundation Fieldbus.

or

Ui = 24 V; Ii = 250 mA; Pi = 1,2W; Ci negligible; Effective internal inductance:  $Li \le 5 \text{ mH}$ 

Model FIBERTRAC FT31 xyabcdefg

Where:

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xy = Approval: KG

a = Version / Ambient Temperature:

1 Standard / -20 ... +50°C

b = Electronics:

B 4-wire 4...20 mA/HART (intrinsically safe output)

A 4-wire 4...20 mA/HART (non-intrinsically safe output)

L 4-wire 4 20 mA/HART (intrinsically safe output) with SIL qualification

I 4-wire 4 20 mA/HART (non-intrinsically safe output) with SIL qualification

C 4-wire Foundation Fieldbus (non-intrinsically safe output)

D 4-wire Foundation Fieldbus (intrinsically safe output)

E 4-wire Profibus PA (non-intrinsically safe output)

G 4-wire Profibus PA (intrinsically safe output)

c = Housing / Protection:

D Aluminum / IP66/IP67

A Aluminum with 316L conduit mount / IP66/IP67

S Aluminum / IP66/IP67 (Special Color)

R Aluminum with conduit mount / IP66/IP67 (Special Color)

W Type 316 Stainless Steel

d = Cable Entry / Plug Connection:

N 1/2 NPT / without

M M20x15 / without

e = Indicating/adjustment module (PLICSCOM):

X Without

B Side mounted with backlight

C Side mounted without backlight

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f = Additional Equipment: (1 digit representing accessories)

X Without

g = Length (3 Digit Code Representing Detector Length)

#### Model FIBERTRAC FT32 xyabcdefg

Where:

xy = Approval: KG

a = Version/Ambient Temperature:

1 Standard/-20 ... +50°C

b = Electronics:

- B 4-wire 4...20 mA/HART (intrinsically safe output)
- A 4-wire 4...20 mA/HART (non-intrinsically safe output)
- L 4-wire 4 20 mA/HART (intrinsically safe output) with SIL qualification
- I 4-wire 4 20 mA/HART (non-intrinsically safe output) with SIL qualification
- C 4-wire Foundation Fieldbus (non-intrinsically safe output)
- D 4-wire Foundation Fieldbus (intrinsically safe output)
- E 4-wire Profibus PA (non-intrinsically safe output)
- G 4-wire Profibus PA (intrinsically safe output)
- c = Housing/Protection:
  - D Aluminum /IP66/IP67
  - A Aluminum with 316L conduit mount /IP66/IP67
  - S Aluminum /IP66/IP67 (Special Color)
  - R Aluminum with conduit mount /IP66/IP67 (Special Color)
  - W Type 316 Stainless Steel
- d = Cable Entry/Plug Connection:
  - N 1/22 NPT/without

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M M20x1.5/without

e = Indicating/adjustment module (PLICSCOM):

- X Without
- B Side mounted with backlight
- C Side mounted without backlight
- f = Additional Equipment: (1 digit representing accessories)
  - X Without
- g = Length (3 Digit Code Representing Detector Length)

# Model SOLITRAC ST31 xybcdefg

Where:

xy = Approval: KG

a = Version / Ambient Temperature:

- 1 Standard / -40 ... +60°C
- 2 Low temperature range / -50 ... +60°C
- b = Electronics:
  - B 4-wire 4...20 mA/HART (intrinsically safe output)
  - A 4-wire 4...20 mA/HART (non-intrinsically safe output)
  - L 4-wire 4 20 mA/HART (intrinsically safe output) with SIL qualification
  - I 4-wire 4 20 mA/HART (non-intrinsically safe output) with SIL qualification
  - C 4-wire Foundation Fieldbus (non-intrinsically safe output)
  - D 4-wire Foundation Fieldbus (intrinsically safe output)
  - E 4-wire Profibus PA (non-intrinsically safe output)
  - G 4-wire Profibus PA (intrinsically safe output)
- c = Housing / Protection:
  - D Aluminum / IP66/IP67

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S Aluminum / IP66/IP67 (Special Color)

W Type 316 Stainless Steel

d = Cable Entry / Plug Connection:

N 1/2 NPT / without

M M20x15 / without

e = Indicating/adjustment module (PLICSCOM):

X Without

B Side mounted with backlight

C Side mounted without backlight

f = Additional Equipment: (1 digit representing accessories)

X Without

g = Length (3 Digit Code Representing Detector Length)

# Model MINITRAC MT31 xyabcdef

Where:

xy = Approval: KG

a = Version / Ambient Temperature:

1 Standard / -40 ... +60°C

2 Low temperature range / -50 ... +60°C

b = Electronics:

B 4-wire 4...20 mA/HART (intrinsically safe output)

A 4-wire 4...20 mA/HART (non-intrinsically safe output)

L 4-wire 4 20 mA/HART (intrinsically safe output) with SIL qualification

I 4-wire 4 20 mA/HART (non-intrinsically safe output) with SIL qualification

C 4-wire Foundation Fieldbus (non-intrinsically safe output)

D 4-wire Foundation Fieldbus (intrinsically safe output)

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E 4-wire Profibus PA (non-intrinsically safe output)

G 4-wire Profibus PA (intrinsically safe output)

c = Housing / Protection:

D Aluminum / IP66/IP67

S Aluminum / IP66/IP67 (Special Color)

W Type 316 Stainless Steel

d = Cable Entry / Plug Connection:

N 1/2 NPT / without

M M20x15 / without

e = Indicating/adjustment module (PLICSCOM):

X Without

B Side mounted with backlight

C Side mounted without backlight

f = Additional Equipment: (1 digit representing accessories)

X Without

S Internal Lead Shielding

# Model MINITRAC MT32 xyabcdef

Where:

xy = Approval: KG

a = Version / Ambient Temperature:

1 Standard / -40 ... +60°C

2 Low temperature range / -50 ... +60°C

b = Electronics:

B 4-wire 4...20 mA/HART (intrinsically safe output)

A 4-wire 4...20 mA/HART (non-intrinsically safe output)

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- L 4-wire 4 20 mA/HART (intrinsically safe output) with SIL qualification
- I 4-wire 4 20 mA/HART (non-intrinsically safe output) with SIL qualification
- C 4-wire Foundation Fieldbus (non-intrinsically safe output)
- D 4-wire Foundation Fieldbus (intrinsically safe output)
- E 4-wire Profibus PA (non-intrinsically safe output)
- G 4-wire Profibus PA (intrinsically safe output)
- c = Housing / Protection:
  - D Aluminum / IPSS/IP67
  - S Aluminum / IPSS/IPS7 (Special Color)
  - W Type 316 Stainless Steel
- d = Cable Entry / Plug Connection:
  - N 1/2 NPT/ without
  - M M20x1.5/ without
- e = Indicating/adjustment module (PLICSCOM):
  - X Without
  - B Side mounted with backlight
  - C Side mounted without backlight
- f = Additional Equipment: (1 digit representing accessories)
  - X Without

#### Model WEIGHTRAC WT31 xyabedefghij

Where:

- xy = Approval: KG
- a = Version / Ambient Temperature:
  - 1 Standard / -40...+60°C
  - 2 Low temperature range / -50...+60°C

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#### b = Electronics:

- B 4-wire 4...20 mA/HART (intrinsically safe output)
- A 4-wire 4...20 mA/HART (non-intrinsically safe output)
- C 4-wire Foundation Fieldbus (non-intrinsically safe output)
- D 4-wire Foundation Fieldbus (intrinsically safe output)
- E 4-wire Profibus PA (non-intrinsically safe output)
- G 4-wire Profibus PA (intrinsically safe output)
- c = Housing / Protection:
  - D Aluminum / IP66/IP67
  - S Aluminum / IP66/IP67 (Special Color)
  - W Type 316 Stainless Steel
- d = Cable Entry / Plug Connection:
  - N 1/2 NPT / without
  - M M20x1.5 / without
- e = Indicating/adjustment module (PLICSCOM):
  - X Without
  - B Side mounted with backlight
  - C Side mounted without backlight
- f = Source Holder Configuration (1digit code gamma source holder type)
  - X No Source Holder Required Plain Cross Beam
- g = Isotope / activity selection (1 digit code representing isotope and activity)
  - X Without
- h = Additional Equipment (1 digit representing accessories)
  - X Without
- i = Frame Construction (1 digit code representing frame material)

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j = Conveyor Width / Frame Upright Height (2 digit code representing frame size)

# Model WEIGHTRAC WT32 xyabcdefghij

Where:

xy = Approval: KG

a = Version/Ambient Temperature:

1 Standard/-40..+50°C

2 Low temperature range/-50... +50°C

b = Electronics:

B 4-wire 4...20 mA/HART (intrinsically safe output)

A 4-wire 4...20 mA/HART (non-intrinsically safe output)

C 4-wire Foundation Fieldbus (non-intrinsically safe output)

D 4-wire Foundation Fieldbus (intrinsically safe output)

E 4-wire Profibus PA (non-intrinsically safe output)

G 4-wire Profibus PA (intrinsically safe output)

c = Housing/Protection:

D Aluminum/IP66/IP67

S Aluminum/IP66/IP67 (Special Color)

W Type 316 Stainless Steel

d = Cable Entry/Plug Connection:

N 1/2NPT/without

M M20x1.5/without

e = Indicating/adjustment module (PLICSCOM):

X Without

B Side mounted with backlight

C Side mounted without backlight

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f = Source Holder Configuration (1 digit code gamma source holder type)

X No Source Holder Required - Plain Cross Beam

g = Isotope/activity selection (1 digit code representing isotope and activity)

X Without

h = Additional Equipment: (1 digit code representing accessories)

X Without

i= Frame Construction (1 digit code representing frame material)

j = Conveyor Width / Frame Upright Height (2 digit code representing frame size)

#### Model POINTRAC PT31 xybcdefg

Where:

xy = Approval: KG

a = Version / Ambient Temperature:

1 Standard / -40 ... +60°C

2 Low temperature range / -50 ... +60°C

b = Electronics:

b = Electronics:

A 4-wire 4 16 mA/HART (non-intrinsically safe output)

B 4-wire 4 16 mA/HART (intrinsically safe output)

L 4-wire 4 20 mA/HART (intrinsically safe output) with SIL qualification

I 4-wire 4 20 mA/HART (non-intrinsically safe output) with SIL qualification

C 4-wire Foundation Fieldbus (non-intrinsically safe output)

D 4-wire Foundation Fieldbus (intrinsically safe output)

E 4-wire Profibus PA (non-intrinsically safe output)

G 4-wire Profibus PA (intrinsically safe output)

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c = Housing / Protection:

D Aluminum / IP66/IP67

S Aluminum / IP66/IP67 (Special Color)

W Type 316 Stainless Steel

d = Cable Entry / Plug Connection:

N 1/2 NPT

e = Indicating/adjustment module (PLICSCOM):

X Without

B Side mounted with backlight

C Side mounted without backlight

f = Additional Equipment: (1 digit representing accessories)

X Without

g = Length (3 Digit Code Representing Detector Length)

#### APPLICABLE REQUIREMENTS

CSA Std C22.2 No. 0 -M91 (R 2006) - General Requirements - Canadian Electrical Code - Part II

CSA- C22.2 No 0.4-M1982 (R 2006) - Bonding and Grounding of Electrical Equipment

CSA-C22.2 No. 0.5-M1982 (R 2006) - Threaded Conduit Entries

CSA-C22.2 No. 25-1966 (R 2004) - Enclosures for Use in Class II Groups E, F, and G Hazardous

Locations

CSA Std C22.2 No. 30-M1986 (R 2003) - Explosion-Proof Enclosures for Use in Class I Hazardous

Locations

CAN/CSA-C22.2 No. 94-M91 (R 2006) - Special Purpose Enclosures

CSA Std C22.2 No. 213-M1987 (R 2004) - Non-Incendive Electrical Equipment for Use in Class I, Division

2 Hazardous Locations

CSA Std C22.2 No. 142-M1987 (R 2004) - Process Control Equipment

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Certificate: Master Contract: 153855 2327401 (LR 23257)

Project: 2687607 Date Issued: January 3, 2014

CSA C22.2 No. 157-M1992 - Intrinsically Safe and Non-Incendive Equipment for Use in

Hazardous Locations

CSA Std C22.2 No. 60079-0: 2002 - Electrical Apparatus for Explosive Gas Atmospheres -Part 0:

General Requirements

CSA-C22.2 No. 60529: 2005 - Degrees of protection provided by enclosures (IP Code)

CSA Std C22.2 No. 60079-11: 2002 Electrical apparatus for explosive by enclosures Part 11: Intrinsic safety "i"

FM Class 3600: 1998 - Electrical Equipment for Use in Hazardous (Classified)

Locations, General Requirements

Intrinsically Safe Apparatus and Apparatus for Use in Class I, II, and III Division 1 and Zone 0 & 1 Hazardous (Classified) FM Class 3610: 2007

Locations

FM Class 3611: 2004 - Nonincendive Electrical Equipment for Use in Class I, and Class

II, Division 2 and Class III, Division 1 and 2 Hazardous

(classified) locations

FM Class 3810: 2005 - Electrical and Electronic Test, Measuring and Process Control

Equipment

ANSI/NEMA 250: 2003 - Enclosures for Electrical Equipment

ANSI/IEC 60529: 2004 - Degrees of protection provided by enclosures (IP Code)

#### MARKINGS

- CSA monogram.
- Submittor's identification;
- Model designation or equivalent;
- Complete electrical rating;
- Temperature code T4:
- Maximum Working Pressure
- Maximum ambient temperature 60°C
- Entity parameters (For Class I, Division 1 product);
- Applicable hazardous locations designation;
- Date code or equivalent;

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Cautions, warnings and additional markings as may be required;
 "WARNING - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2 AND INTRINSIC SAFETY"

• "WARNING - OPEN CIRCUIT BEFORE REMOVING COVER or KEEP COVERS TIGHT WHILE CIRCUITS ARE ALIVE."

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# Supplement to Certificate of Compliance

Certificate: 2327401 Master Contract: 153855

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

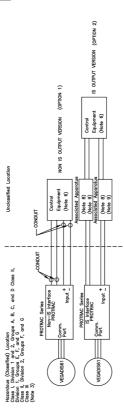
# **Product Certification History**

Project	Date	Description
2687607	Jan 3, 2014	Update to include new certified potting material Sylgard 184 Silicone Elastomer.
2633555	Jun 6, 2013	Update to include previous drawing revision in the report.
2600373	Mar 20, 2013	Update to Report 2327401 to add new Profibus/Foundation Fieldbus type electronics.
2562413	Jan 4, 2013	Update to report 2327401 to include testing of 4 new types of plastic material t be used in Protrac feedtroughs.
2488633	Sep 25, 2012	Replacing the plastic filling of the Protrac feedtrough with some new materials
2467204	Oct 27, 2011	Update of report 2327401 to include model code revision to replace the drawing, to add Internal Lead Shielding and Stainless Steel material.
2443426	Aug 10, 2011	Update of Report 2327401 to include updated drawings and model code revision.
2401661	Mar 10, 2011	Update of repor 2327401 to add 4-20mA intrinsically safe output.
2385320	Jan 19, 2011	Update of Report 2327401 to update housing, feedthrough, ground and model addition.
2327401	Sep 13, 2010	Original Certification.
History		
2620442	April 17, 2013	Update to include revised control and label drawing and correction of model
		code.
2616959	April 15, 2013	Transfer of CSA certificate 2327401 for PROTRAC Series from Vega America
		(153855) to Vega Germany (153857) and issuing of new certificate under Vega
		Germany.

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Comm.	Comm. Port: Voc=7.5V, Isc=221.2mA, Po=0.415W	Po=0.415W	4-20mA Output	4-20mA Output Vo (Voc)= 22.2V, lo (Isc) = 112mA, Po = 620mW	112mA, Po = 620mW	ď
Groups	Capacitance Ca (uF)	Inductance La (mH)	Groups	Capacitance Ca (uF)	Inductance La (mH)	Ś
IIC/A,B	11.1	0.7	A,B	0.16	2.8	£
IIB/C,E	174	3.0	C,E	1.11	12	8 2
IIA/D,F,G	1000	5.7	D,F,G	4.08	23	Ď
Notes:						

The instrument is suitable for connection to a Fieldbus system coording to the FISCO model (IEC 60079--11:2011) with the following accordings: Ui=24V | Ii=250mA Pi=1.2W Ci negligable | Li≤5µH

Profibus PA or Foundation Fieldbus Interface

LIS5µH

Ci negligable

Pi=5.5W

li=500mA

Ui=17.5V

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4. For Pholino 2 installations, the Associated Approxima is not required to be PM Approxed/SSA Certified under Entity Concept or Nethinorander Field Wing Concept of the PROXIMATE AND 16 or Givinion 2 wiring methods Concept or Horizonta and Proximate Andrea Concept or Horizonta and 16 or Sea or Sea

NOTE ALLOW CE2779

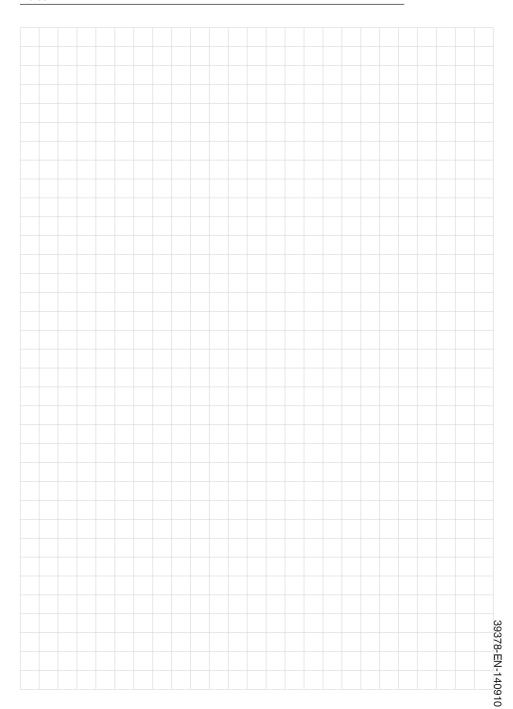
WASTER CE2779

WASTER CE2779

WASTER CE3779

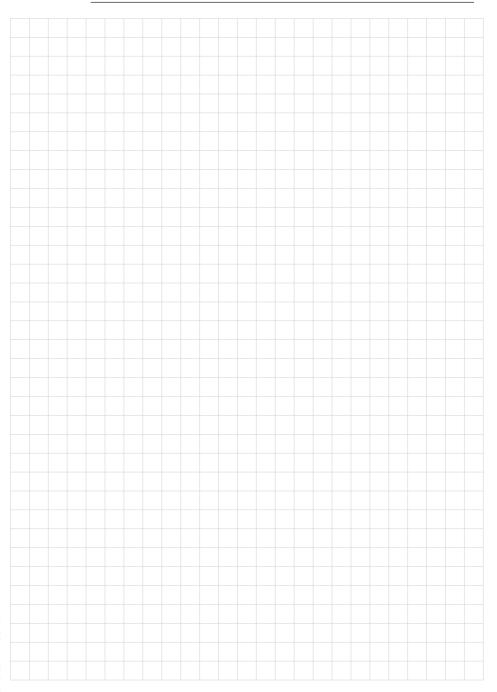
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# Printing date:



All statements concerning scope of delivery, application, practical use and operating conditions of the sensors and processing systems correspond to the information available at the time of printing.

Subject to change without prior notice

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