CERTIFICATE OF CONFORMITY

1. **HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS**
2. **Certificate No:** **FM16CA0218X**
3. **Equipment:** **Model Type 3793 TROVIS HART Positioner**
   (Type Reference and Name)
4. **Name of Listing Company:** **Samson AG**
5. **Address of Listing Company:** **Weismuellerstrasse 3**
   Postfach 101901
   Frankfurt D60314
   Germany
6. The examination and test results are recorded in confidential report number:

   3059331 dated 28th August 2017
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

   CAN/CSA-C22.2 No. 157-92:2016, CAN/CSA-C22.2 No. 213-16:2016, CAN/CSA-C22.2 No. 60079-0:2015, CAN/CSA-C22.2 No. 60079-11:2014, CAN/CSA-C22.2 No. 60529:2016, CAN/CSA-C22.2 No. 61010-1:2012
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.

Certificate issued by:

J. E. Marquedant
Manager, Electrical Systems

16 January 2018
Date

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

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

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10. Equipment Ratings:

Intrinsically Safe for Class I, II, III Division 1, Groups A, B, C, D, E, F, and G hazardous (classified) locations in accordance with drawing EB 8493 EN , Intrinsically Safe for Class I, Zone 1, Group IIC hazardous (classified) locations; in Section **Error! Reference source not found.** as Intrinsically Safe for Class I, II, III Division 1, Groups A, B, C, D, E, F, and G hazardous locations, Intrinsically Safe for Class I, Zone 1, Group IIC hazardous locations in accordance with drawing EB 8493 EN hazardous (classified) locations, indoors and outdoors (Type 4X) with an ambient temperature rating of -40°C to +80°C.

11. The marking of the equipment shall include:

IS Class I, II, III, Division 1, Groups A, B, C, D, E, F, G; T6 Ta = -40°C to +55°C, T4 Ta = -40°C to +80°C; Type 4X
NI Class I,II, III Division 2, Groups A, B, C, D, E, F, G; T6 Ta = -40°C to +55°C, T4 Ta = -40°C to +80°C; Type 4X
Class I, Zone 1, AEx ia IIC, T6 Ta = -40°C to +55°C, T4 Ta = -40°C to +80°C; Type 4X

12. **Description of Equipment:**

General - The Type 3793 HART Transmitter is a two wire loop powered position transmitter. The transmitter outputs a HART digital signal and a 4-20 mA analog signal..

Construction - The 3793 HART Transmitter Positioner consists of a two piece single compartment electronics housing of painted aluminum.

Ratings - The Type 3793 HART Transmitter operates 28 Vdc. The transmitter is rated for use in an ambient temperature range of -40°C to +80C.

Type 3793 – 130 a b c d e f g h i j. HART® Positioner

where

a = Function (not safety relevant)
b = Pneumatics (not safety relevant)
c = Option module 1:
- 0 0 = without
- 1 0 = with Software Limit Switches, Binary Input and Output (Code N)
- 4 0 = with Position Transmitter Binary Input and Output (Code T)
- 8 0 = with Forced Venting, Binary Input and Output (Code V)

d = Option module 2
- 0 0 = without
- 1 0 = with Software Limit Switches, Binary Input and Output (Code N)
- 1 5 = with Inductive Limit Switches (NC) and Binary Output (Code P)
- 1 6 = with Inductive Limit Switches (NO) and Binary Output (Code P)
- 3 0 = Mechanical Limit Switches (NO/NC) (Code M)
- 4 0 = with Position Transmitter, Binary Input and Output (Code T)
- 8 0 = with Forced Venting, Binary Input and Output (Code V)

e = Pressure sensor
- 0 = without
- 1 = with Pressure Sensors for p_zul, Y1 and Y2

f = Electrical connections
- 0 = 4 blanking plugs

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g = Housing material
0 = Standard aluminum die cast
1 = Stainless steel
h = Special applications (not safety relevant)
i = Additional approvals (not safety relevant)
j = Ambient temperature (not safety relevant)

HART® Positioner Signal Circuit Terminals +11 / -12

Entity Input Parameters: Ui = 28 V, Ii = 115 mA, Pi = 1 W, Ci = 16.3 nF, Li = 0 µH

Option module 1 0, Software Limit Switches, Binary Input and Output (Code N)

Binary Output (NAMUR) Terminals +45 / -46
Entity Input Parameters: Ui = 16 V, Ii = 52 mA, Pi = 169 mW, Ci = 0 nF, Li = 0 µH

Binary Output (NAMUR) Terminals +55 / -56
Entity Input Parameters: Ui = 16 V, Ii = 52 mA, Pi = 169 mW, Ci = 0 nF, Li = 0 µH

Binary Output (NAMUR) Terminals +83 / -84
Entity Input Parameters: Ui = 16 V, Ii = 52 mA, Pi = 169 mW, Ci = 0 nF, Li = 0 µH

Option module 1 5, Inductive Limit Switches (NC) and Binary Output (Code P)

Binary Output (NAMUR) Terminals +83 / -84
Entity Input Parameters: Ui = 16 V, Ii = 52 mA, Pi = 169 mW, Ci = 0 nF, Li = 0 µH

Inductive Limit Switches Type 1 Terminals +41 / -42 and +51 / -52
Entity Input Parameters: Ui = 16 V, Ii = 25 mA, Pi = 34 mW, Ci = 60 nF, Li = 100 µH

Inductive Limit Switches Type 2 Terminals +41 / -42 and +51 / -52
Entity Input Parameters: Ui = 16 V, Ii = 25 mA, Pi = 64 mW, Ci = 60 nF, Li = 100 µH

Inductive Limit Switches Type 3 Terminals +41 / -42 and +51 / -52
Entity Input Parameters: Ui = 16 V, Ii = 25 mA, Pi = 169 mW, Ci = 60 nF, Li = 100 µH

Option module 1 6, with Inductive Limit Switches (NO) and Binary Output (Code P)

Binary Output (NAMUR) Terminals +83 / -84
Entity Input Parameters: Ui = 16 V, Ii = 52 mA, Pi = 169 mW, Ci = 0 nF, Li = 0 µH

Inductive Limit Switches Type 1 Terminals +41 / -42 and +51 / -52
Entity Input Parameters: Ui = 16 V, Ii = 25 mA, Pi = 34 mW, Ci = 60 nF, Li = 100 µH

Inductive Limit Switches Type 2 Terminals +41 / -42 and +51 / -52
Entity Input Parameters: Ui = 16 V, Ii = 25 mA, Pi = 64 mW, Ci = 60 nF, Li = 100 µH

Inductive Limit Switches Type 3 Terminals +41 / -42 and +51 / -52
Entity Input Parameters: Ui = 16 V, Ii = 25 mA, Pi = 169 mW, Ci = 60 nF, Li = 100 µH

Option module 3 0, Mechanical Limit Switch (Code M)

Mechanical Limit Switch Circuit NO/NC 1 @ terminals 47 / 48 / 49
Mechanical Limit Switch Circuit NO/NC 2 @ terminals 57 / 58 / 59

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Option module 4 0, Position Transmitter, Binary Input and Output (Code T)

Position Transmitter Terminals +31 / -32
Entity Input Parameters: Ui = 28 V, Ii = 115 mA, Pi = 1 W, Ci = 8.3 nF, Li = 0 µH

Binary Input (24 V DC) Terminals +87 / -88
Entity Input Parameters: Ui = 28 V, Ii = 115 mA, Pi = 1 W, Ci = 0 nF, Li = 0 µH

Binary Output (NAMUR) Terminals +83 / -84
Entity Input Parameters: Ui = 16 V, Ii = 52 mA, Pi = 169 mW, Ci = 0 nF, Li = 0 µH

Option module 8 0, Forced Venting, Binary Input and Output (Code V)

Forced Venting Terminals +81 / -82
Entity Input Parameters: Ui = 28 V, Ii = 115 mA, Pi = 1 W, Ci = 8.3 nF, Li = 0 µH

Binary Input (24 V DC) Terminals +87 / -88
Entity Input Parameters: Ui = 28 V, Ii = 115 mA, Pi = 1 W, Ci = 0 nF, Li = 0 µH

Binary Output (NAMUR) Terminals +83 / -84
Entity Input Parameters: Ui = 16 V, Ii = 52 mA, Pi = 169 mW, Ci = 0 nF, Li = 0 µH

13. **Specific Conditions of Use:**

1. Warning: Avoid an ignition hazard due to impact or friction of the aluminum enclosure.

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

This Certificate has been issued in accordance with FM Approvals Canadian Certification Scheme.

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**
28th August 2017	Original Issue.
16th January 2018	Supplement 1: Report Reference: – RR212529 dated 16th January 2018 Description of the Change: Added extended temperature range