



Certificate of Compliance

Certificate: 1355901 (LR 82598)

Master Contract: 160686

Project: 2567316

Date Issued: November 1, 2012

Issued to: Endress + Hauser Flowtec AG

Kagenstrasse 7
Reinach, Basel Land 4153
Switzerland
Attention: Utz Dette

The products listed below are eligible to bear the CSA Mark shown



Aisha Sreenath

Issued by: Aisha Sreenath

PRODUCTS

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

Class I, Zone 0, Group IIC:

Class I, Division 1, Groups A, B, C and D; Class II, Division 1, Groups E, F and G; Class III; Type 4X:

- PROWIRL 72/73F/W/X**_*****N***** Flowmeters, supply rated 30Vdc, 50mA (total). Intrinsically Safe with integral or remote sensor, having Entity Parameters, Temperature Codes and Maximum Ambient Temperatures per Control Drawing No. FES0067. Dual Seal Device, MWP 250 bar / 3625 psi max.

Note: “*” in the Model Number may be any number or letter representing specific options.

CLASS 2258 03 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations

Class I, Zone 2, Group IIC:

Class I, Division 2, Groups A, B, C and D; Class II, Division 1, Groups E, F and G; Class III; Type 4X:

- PROWIRL 72/73F/W/X**_*****N***** Flowmeters, supply rated 30Vdc, 50mA (total). Remote Sensor (where applicable) is Non-Incendive for Division 2 / Zone 2 when connected to the Non-Incendive field



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circuit of the transmitter. Temperature Codes and Maximum Ambient Temperatures per Control Drawing No. FES0067. Dual Seal Device, MWP 250 bar / 3625 psi max .

Note: “*” in the Model Number may be any number or letter representing specific options.

Class I, Zone 1, Group IIC:

Class I, Division 1, Groups A, B, C and D; Class II, Division 1, Groups E, F and G; Class III; Type 4X:

- PROWIRL 72/73F/W/X**-*****P***** Flowmeters, supply rated 36Vdc, 1.5W. Explosion-Proof with integral or remote Intrinsically Safe sensor. The measuring tube of the compact sensor and the entire remote sensor are suitable for Zone 0 locations. Temperature Codes and Maximum Ambient Temperatures per Control Drawing No. FES0076. Seal Not Required. Dual Seal Device, MWP 250 bar / 3625 psi max.

Note: “*” in the Model Number may be any number or letter representing specific options.

APPLICABLE REQUIREMENTS

CAN/CSA C22.2 No. 0-M91 (R2001) - General Requirements - Canadian Electrical Code, Part II

CSA Std. C22.2 No. 142-M1987 (R2004) - Process Control Equipment

ANSI/ISA-12.27.01-2003 - Requirements for Process Sealing Between Electrical Systems and Flammable or Combustible Process Fluids

CSA Std. C22.2 No. 25-1966 - Enclosures for Use in Class II, Groups E, F and G Hazardous Locations

CSA-C22.2 No. 30-M1986 - Explosion-Proof Enclosures for Use in Class I Hazardous Locations

CAN/CSA-C22.2 No. 94-M91 - Special Purpose Enclosures

CAN/CSA-C22.2 No. 1010.1-92 - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements

CAN/CSA-C22.2 No. 157-92 - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations

CSA Std. C22.2 No. 213-M1987 - Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations



Supplement to Certificate of Compliance

Certificate: 1355901

Master Contract: 160686

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
2567316	November 1, 2012	Update to cover minor revision on Control Drawing.
2310054	July 30, 2010	Update to include alternative display Module SD01, minor report and drawing revisions; and deletion of Class No. 2252 03.
1968417	December 5, 2007	Update to cover Dual Seal markings
1531525	April 13, 2004	Update of Report 160686-1355901 to cover revised Drawings, Legacy File LR 82598

History

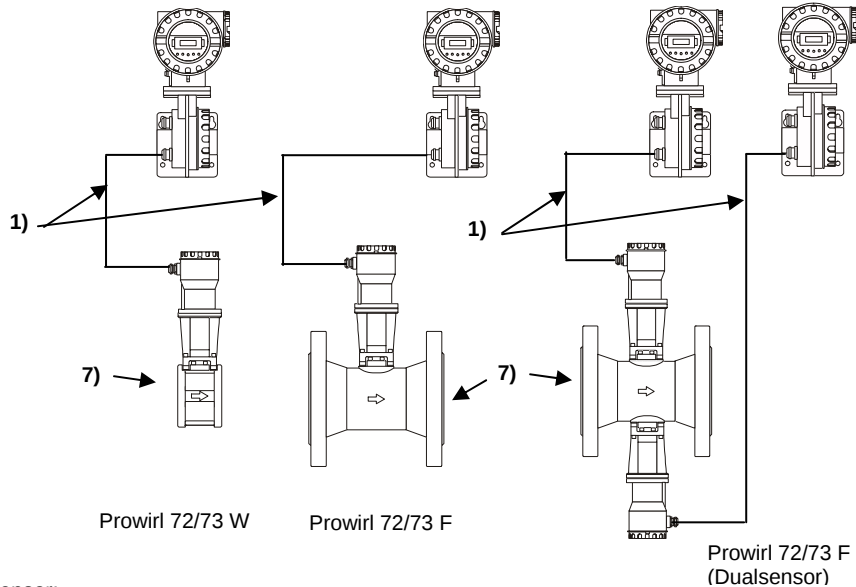
1403955 Oct 10, 2003 Update to cover: 1) New explosion-proof version including addition of Commodul 330413 and 330415; 2) New model codes; 3) New sensor for high pressure version Prowirl F; 4) Revised drawings; 5) Connection of FXA193 Service Interface.

1355901 Oct 3, 2002 Original Certification.

Hazardous Locations

Class I Division 1 Groups ABCD or Class I Zone 1 Group IIC
Class II Division 1 Groups EFG
Class III

Remote version



Sensor:

PROWIRL 7** **_1***N****, PROWIRL 7** **_2***N****, PROWIRL 7** **_3***N****,
PROWIRL 7** **_4***N****, PROWIRL 7** **_6***N****, PROWIRL 7** **_7***N****,
PROWIRL 7** **_C***N****, PROWIRL 7** **_F***N****, PROWIRL 7** **_H***N****.

Max. medium temperature						
	T6 2)	T5 2)	T4	T3	T2	T1
Ta = 40°C	80°C	95°C	130°C	190°C	290°C	440°C
Ta = 60°C	---	95°C	130°C	190°C	290°C	440°C
Ta = 85°C	---	---	130°C	190°C	290°C	440°C

PROWIRL 7** **_0***N****, PROWIRL 7** **_5***N****,
PROWIRL 7** **_B***N****, PROWIRL 7** **_G***N****.

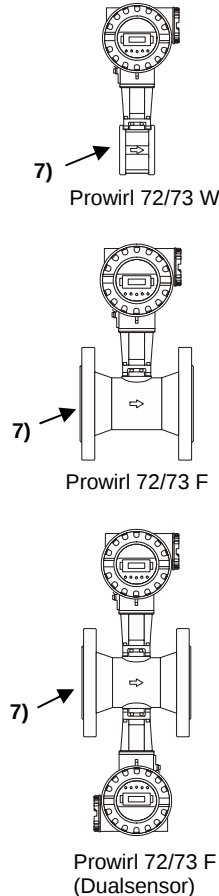
Max. medium temperature						
	T6 2)	T5 2)	T4	T3	T2 - T1	
Ta = 40°C	80°C	95°C	130°C	190°C	280°C	
Ta = 60°C	---	95°C	130°C	190°C	280°C	
Ta = 85°C	---	---	130°C	190°C	280°C	

Transmitter:

PROWIRL 7** **_*****P****.

	T6 2)	T5 2)	T4 - T1
Ta =	40°C	60°C	60°C

Compact version



PROWIRL 7** **_1***N****, PROWIRL 7** **_2***N****, PROWIRL 7** **_3***N****,
PROWIRL 7** **_4***N****, PROWIRL 7** **_6***N****, PROWIRL 7** **_7***N****,
PROWIRL 7** **_C***N****, PROWIRL 7** **_F***N****, PROWIRL 7** **_H***N****.

Max. medium temperature						
	T6 2)	T5 2)	T4	T3	T2	T1
Ta = 40°C	80°C	95°C	130°C	190°C	290°C	440°C
Ta = 60°C	---	95°C	130°C	190°C	290°C	440°C

PROWIRL 7** **_0***N****, PROWIRL 7** **_5***N****, PROWIRL 7** **_B***N****,
PROWIRL 7** **_G***N****.

Max. medium temperature					
	T6 2)	T5 2)	T4	T3	T2 - T1
Ta = 40°C	80°C	95°C	130°C	190°C	280°C
Ta = 60°C	---	95°C	130°C	190°C	280°C

Notes:

1. Applicable Control Drawings

Drawing-No.	Model Codes:
FES0076 B	Prowirl 7** **_*****P****
FES0076-0001 B	Prowirl 7** **_*****P****A, Prowirl 7** **_*****P****W, Prowirl 7** **_*****P****H, Prowirl 7** **_*****P****K

- 2) Max. cable length for intrinsically safe installation of remote sensor is 100m for using cable parameters $L_{\text{Cable}} = 1\text{mH/km}$ and $C_{\text{Cable}} = 1\mu\text{F/km}$
- 3) Temperature class T6 and T5 is not allowed for versions of Profibus PA and Fieldbus Foundation (not for PROWIRL 7** **_*****P****H and PROWIRL 7** **_*****P****K)
- 4) Caution: Use supply wires suitable for 10°C above maximum ambient temperature
- 5) Caution: Surface temperature of transmitter enclosure can exceed 70°C depending on ambient temperature or medium temperature
- 6) Dust tight seals must be used at conduit entries for Class II and III installation
- 7) The Prowirl 72/73 is Factory Sealed. This means that a conduit seal is not required within 18 inches (450mm) of the enclosure.
- 8) Prowirl 72/73 is a Dual Seal device in accordance with ANSI/ISA-12.27.01-2003
- 9) Prowirl 72 and Prowirl 73 transmitter is intended for installation to Service Interface FXA 193 when using the PROLINE EX-ZWEIFLEITER-KABEL (blue cable)
- 10) Sensor of remote version and interior of measuring tube of remote and compact version are permissible for use in Zone 0

Aenderungen:

A	10.12.03 / Bn	F
B	03.09.07 / BDA	G
C		H
D		J
E		K

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zugänglich gemacht werden.

Mat. Nr.: 71069250

Ersatz für:

Ersteller: FES/Bn

ID 1113

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CSA CONTROL DRAWING PROWIRL 72, PROWIRL 73 (XP-version) Compact Version, Remote version

Masstab

Gezeichnet	18.6.03	Bn
Geprüft		
Ex-geprüft	03.09.07	BDA
Gesehen		



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

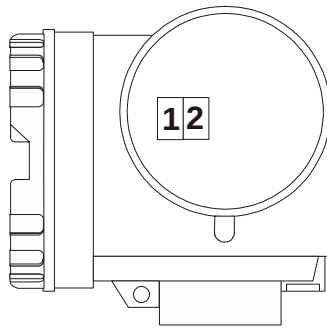
FES0076 B

Hazardous Locations

Class I Division 1 Groups ABCD or Class I Zone 1 Group IIC

Class II Division 1 Groups EFG

Class III



Prowirl 7* **_*****P****A

Division 1 and Division 2 installation

1) Terminal 1 and 2

Supply voltage: $U \leq 36 \text{ Vdc}$

$U_{\max} = 250 \text{ Vdc}$

Signal current: $4 \dots 20 \text{ mA}$ (max. 25 mA)

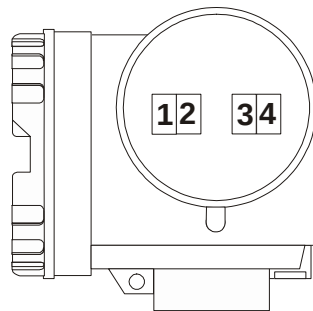
Prowirl 7* **_*****P****H and Prowirl 7* **_*****P****K

Division 1 and Division 2 installation

2) Terminal 1 and 2

Supply voltage: $U \leq 36 \text{ Vdc}$

$U_{\max} = 250 \text{ Vdc}$



Prowirl 7* **_*****P****W

Division 1 and Division 2 installation

3) Terminal 1 and 2

Supply voltage: $U \leq 36 \text{ Vdc}$

$U_{\max} = 250 \text{ Vdc}$

Signal current: $4 \dots 20 \text{ mA}$ (max. 25 mA)

4) Terminal 3 and 4

Pulse Output: $U \leq 30 \text{ V}$

$U_{\max} = 250 \text{ Vdc}$

Signal current: $\leq 30 \text{ mA}$

Class II, III installation

5) Transmitter circuit wiring in conduit in accordance with the Canadian Electrical Code.

Notes:

- 6) Installation of transmitter circuit wiring according to Canadian Electrical Code using threaded conduit.
- 7) **WARNING** Terminal compartment:
KEEP COVER TIGHT WHEN CIRCUITS ARE ALIVE
OR THE AREA IS KNOWN TO BE HAZARDOUS
- 8) Control room equipment may not use or generate over 250Vrms.
- 9) **WARNING:** SUBSTITUTION OF COMPONENTS MAY IMPAIR
INTRINSIC SAFETY.

Aenderungen:	A	10.12.03 / Bn	F		Alle gesetzlichen Urheberrechte vorbehalten. Diese Zeichnung darf ohne unsere Genehmigung weder vervielfältigt werden noch dritten Personen und Konkurrenzfirmen zugänglich gemacht werden.	Mat. Nr.: 71069250 Ersatz für: Ersteller: FES/Bn File: M:\ZEICHNUNG\...FES0076_B_070903.doc		
	B	03.09.07 / BDA	G				ID 1113 File: M:\ZEICHNUNG\...FES0076_B_070903.doc	
	C		H					
	D		J					
	E		K					
CSA CONTROL DRAWING PROWIRL 72, PROWIRL 73 (XP-version)					Massstab	Gezeichnet	18.6.03	Bn
						Geprüft		
						Ex-geprüft	03.09.07	BDA
						Gesehen		
 Flowtec AG, Kaegenstrasse 7, CH-4153 Reinach BL1, Postfach					FES0076-0001 B			