

# Certificate of Compliance

Certificate Number **20091221-E330676**  
Report Reference **E330676, 18 December 2009**  
Issue Date **2009 December 21**

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*Issued to:* **Endress+Hauser Flowtec Ag**

Kaegenstr 7  
Reinach B11, Ch-4153  
Switzerland

*This is to certify that  
representative samples of*

**COMPONENT - PROCESS CONTROL EQUIPMENT FOR  
USE IN HAZARDOUS LOCATIONS**

See Addendum

*Have been investigated by Underwriters Laboratories in accordance with  
the Standard(s) indicated on this Certificate.*

*Standard(s) for Safety:* **ISA-12.12.01 and CSA-C22.2 No. 142**

*Additional Information:* See UL On-line Certification Directory at [WWW.UL.COM](http://WWW.UL.COM) for additional information.

Only those products bearing the UL Recognized Component Marks for the U.S. and Canada should be considered as being covered by UL's Recognition and Follow-Up Service and meeting the appropriate U.S. and Canadian requirements.

The UL Recognized Component Mark for the U.S. generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark: , may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual recognitions. The UL Recognized Component Mark for Canada consists of the UL Recognized Mark for Canada: , and the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory.

**William Carney**  
**Director, North American Certification Programs**

**Look for the UL Recognized Component Mark on the product**

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This is to verify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

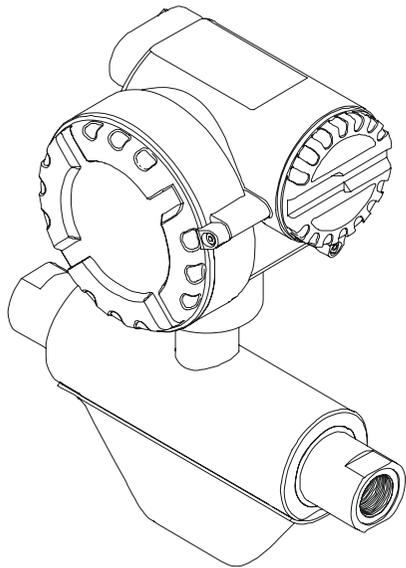
USR, CNR - Process Control Equipment for use in Class I, Division 2, Groups A,B,C and D Hazardous Locations.

Mass flow meter model CNGmass: 8, followed by any single number or letter, followed by F, followed by 08,15 or 25, followed by any single number or letter, followed by three digit number or letter, followed by any single number or letter, followed by any single number or letter, followed by S, followed by A, followed by any single number or letter, followed by any single number or letter, followed by any single number or letter, followed by any single number or letter.

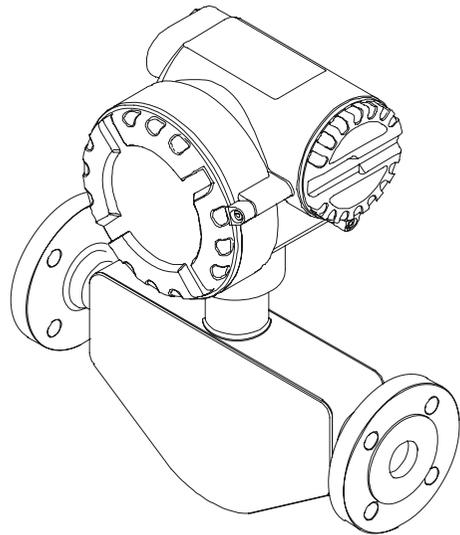
Mass flow meter model LPGmass: 8, followed by any single number or letter, followed by E, followed by 08, 15, 25, 40 or 50, followed by any single number or letter, followed by three digit number or letter, followed by any single number or letter, followed by any single number or letter, followed by S, followed by A, followed by any single number or letter, followed by any single number or letter, followed by any single number or letter, followed by any single number or letter.

**William Carney**  
**Director, North American Certification Programs**

**Hazardous Locations**  
Class I Division 2 Groups ABCD



CNGmass



LPGmass

Temperature table	max. fluid temperature [°C / °F]			
	T4	T3C	T2	T1
<b>Ta = 60°C:</b>				
CNGmass / LPGmass	115 / 239	125 / 257	125 / 257	125 / 257

LPGmass : Tm min. is -40°C / -40 °F Ta min. = -40°C / -40 °F  
 CNGmass: Tm min. = -50°C / -58 °F Ta min. = -40°C / -40 °F

**WARNING: SUBSTITUTION OF COMPONENTS  
MAY IMPAIR SUITABILITY FOR CLASS I, DIV.2.**

Installation Notes: see page 2

Aenderungen:	A		F		Alle gesetzlichen Urheberrechte vorbehalten. Diese Zeichnung darf ohne unsere Genehmigung weder vervielfältigt werden noch dritten Personen und Konkurrenzfirmen zugänglich gemacht werden.	<b>Material No. 71108784</b>  Ersteller: FES / <b>ID 1378</b> FILE: FES0157_091214.doc
	B		G			
	C		H			
	D		J			
	E		K			

UL Installation Drawing Class I, Div. 2  Compact Version CNGmass, LPGmass	Masstab	Gezeichnet	14.12.2009	UD
		Geprüft		
		Ex-geprüft	14.12.2009	UD
		Gesehen		



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

FES0157

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Notes:

1. Warning – Explosion Hazard – Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous.
2. Class I Division 2 Groups ABCD  
Flow meter (enclosed type with environmental Type 4X rating) with cable entry M20x1.5 thread or NPT1/2” thread:
  - Install all per NEC ANSI/NFPA 70 respectively CEC and use supply wires suitable for 10 °C / 18 °F above ambient temperature.
3. Class I Division 2 Groups ABCD  
Flow meter (enclosed type with environmental Type 4 or Type 4X rating) with UL listed receptacles/connectors for wiring according to NEC, Article 501, respectively CEC, Class I, Div.2.
  - Install per NEC ANSI/NFPA 70 , respectively CEC
  - Install tool secured guard on the connection to render the connection normally not arcing.
4. Class I Division 2 Groups ABCD  
Flow meter (enclosed type with environmental Type 4 or Type 4X rating) with UL listed cable glands suitable for wiring according to NEC, Article 501, respectively CEC Class I, Div. 2.
  - Install per NEC ANSI/NFPA 70, respectively CEC .
5. Class I Division 2 Groups ABCD  
Flow meter (open type enclosure without environmental Type rating) with pig tail or plug-in connector using listed installation components (cable gland or seal, cable/wire and connectors mechanically secured against unintended disconnection or withstanding a pull out force of 15 N)
  - Special condition of use:  
Shall be installed in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate application, including a tool removable cover.
  - The flow meter is installed as a fixed installation device that is intended to be mounted in an enclosure, meeting the requirements for general purpose, where the approved equipment will be installed. All unused openings should be closed off. Installation shall be with the manufacturer’s installation and operation manual.

**WARNING: SUBSTITUTION OF COMPONENTS  
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