



# EC-Type Examination Certificate

## Measuring Instrument Directive

**Certificate number: DK-0200-MI002-008**

Issued by FORCE Certification, Denmark  
EC-notified body number 0200

In accordance with The Danish Safety Technology Authority's statutory order no. 436 of 16<sup>th</sup> May 2006 which implements the Directive 2004/22/EC of the European Parliament and Council of March 31<sup>st</sup>, 2004 on measuring instruments (MID).

**Issued to:**            **Flonidan DC A/S**  
                                 **Islandsvej 29**  
                                 **DK-8700 Horsens**

Reference No.:        80.976-020/07  
Type of instrument:    Diaphragm Gas Meter  
Type designation:     Uniflo G10, Uniflo G16  
Valid until:            May 22, 2018  
Number of pages:     5, including appendix  
Date of issue:         May 22, 2008

Approved by

Hans Falster  
Director

Processed by

Kurt Rasmussen  
Certification Manager

The conformity markings may only be affixed to the above type approved equipment. The manufacturer's Declaration of Conformity may only be issued and the notified body identification number may only be affixed on the instrument when the production/product assessment module (D or F) of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.

This EC-type examination certificate may not be reproduced except in full, without written permission by FORCE Certification.

# Appendix to EC-Type Examination Certificate Measuring Instrument Directive

## Certificate no.: DK-0200-MI002-008

Issued by FORCE Certification, Denmark  
EC-notified body number 0200

### Applied standards and documents:

EN 1359:1998/A1:2006. Pressure absorption with integrated valve exceeds the initial permissible values in table 3.

The instrument shall correspond to the following specifications:

### Type designation

Uniflo G10, Uniflo G16

### Description

Uniflo G6 is a diaphragm gas meter with mechanical index. The mechanical measuring unit is mounted in steel plate housing with either two-pipe or co-axial connections. The measuring unit's movements are transmitted via a shaft through a bushing to the index. The index registers the measured volume at the actual conditions.

The measuring unit includes a mechanical blockage which prevents registering of more than 50 cyclic volumes in case of reverse flow through the meter.

The meter is available with the following options:

Pulse transmitter

Integrated valve





## Technical documentation

FORCE Certification File no. 80.976-020/07

### Technical data

Instrument type:	Diaphragm gas meter		
Accuracy class:	1,5		
Environment class:	M1		
Climatic class:	G10	G16	
	-25 °C to +55 °C	-10 °C to +55 °C	
	Condensing closed outdoor location.		
Volume indication:	m <sup>3</sup> at actual conditions		
Flow rates:	G10	G16	
Maximum flow rate:	Q <sub>max</sub> 16	25	m <sup>3</sup> /h
Minimum flow rate:	Q <sub>min</sub> 0,1	0,16	m <sup>3</sup> /h
Transitional flow rate:	Q <sub>t</sub> 1,6	2,5	m <sup>3</sup> /h
Overload flow rate:	Q <sub>r</sub> 19,2	30	m <sup>3</sup> /h
Cyclic volume	V <sub>c</sub> 5	5	dm <sup>3</sup>
Gas family:	Fuel gasses of 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> family (EN 437:2003)		
Maximum pressure:	p <sub>max</sub> 0,5 barg		
Gas temperature range:	G10	G16	
	t <sub>m</sub> -25 °C to +55 °C	-10 °C to +55 °C	
Volume:	V <sub>b</sub> 0 – 999999,99 m <sup>3</sup>		
Pulse values:	1 imp/m <sup>3</sup> ; 0,1 imp/m <sup>3</sup>		

The meter is supplied with different connections:

Two-pipe, with centre distance 152,4 to 300 mm, threads from 5/4" to 2"

Mono-pipe (coaxial) 2 3/4"

### Verification

#### Errors

Maximum permissible errors (MPE) according to Directive 2004/22/EC of the European Parliament and Council of March 31<sup>st</sup>, 2004 on measuring instruments (MID), Annex MI-002.

Maximum permissible errors

$$\begin{aligned} &\pm 3 \% \text{ for } Q_{\min} \leq Q < Q_t \\ &\pm 1,5 \% \text{ for } Q_t \leq Q < Q_{\max} \end{aligned}$$

When the errors between  $Q_t$  and  $Q_{\max}$  all have the same sign, they shall all not exceed 1 %.

#### Procedure

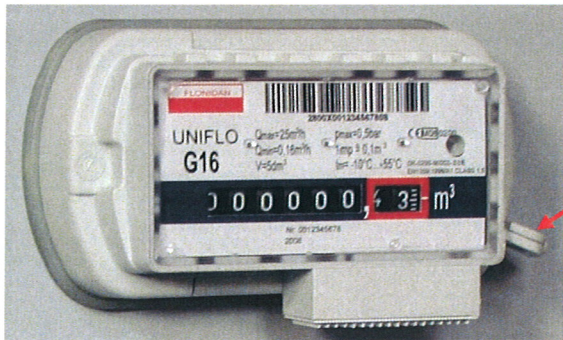
Verification is carried out at laboratory conditions. It is permitted to use air as verification gas.

The verification is valid only for the display reading.

## Sealing

### Security sealing

Security seal consist of either a metal seal stamped as shown or an internal plastic seal which locks when the index counter is put in place and breaks when the index counter is removed.



Security seal  
Metal

## Labelling and inscriptions



Conformity marking (CE + M + Year of affixing + NB no.)

EC-type examination certificate number

Manufacturer designation or logo

Type, production year and serial number

Applied European Standard : EN 1359:1998/A1:2006

Class : 1,5

G10 G16

Maximum flow rate:  $Q_{max}$  : 16 25  $m^3/h$

Minimum flow rate:  $Q_{min}$  : 0,1 0,16  $m^3/h$

Ambient and gas temperature:  $t_m$  : -25 °C ... +55 °C -10 °C ... +55 °C

Maximum working pressure:  $p_{max}$  : 0,5 barg

Volume:  $V$  :  $m^3$

Cyclic volume:  $V_c$  : 5  $dm^3$

High ambient temperature resistant : T

Pulse values (optional) : 1 imp  $\pm$  1  $m^3$ ; 1 imp  $\pm$  0,1  $m^3$



### Accompanying information

Rated operating conditions not included on the label:

- Transition flow rate,  $Q_t$ : G10,  $Q_t = 1,6 \text{ m}^3/\text{h}$ . G16,  $Q_t = 2,5 \text{ m}^3/\text{h}$ .
- Overload flow rate,  $Q_r$ : G10,  $Q_r = 19,2 \text{ m}^3/\text{h}$ . G16,  $Q_r = 30 \text{ m}^3/\text{h}$ .
- Climatic class: condensing, closed outdoor location
- Mechanical environment classes: M1
- Gas family: Fuel gasses of 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> family (EN 437:2003)

Instructions for installation, maintenance, repairs, permissible adjustments

Instructions for correct operation and any special conditions of use