



Precision Turbine Flow Meter - Type G2

Turbine Flow Meter without auxiliary power, for liquids



- Large measuring range
- Accuracy up to $\pm 0.75\%$ of reading
- Off-grid operation with long-life lithium battery
- Low operating costs

D-EN-G2-20190408



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A full line of G2 Series Precision Turbine Meters are available in a variety of housing materials. Rugged and dependable, the G2 Series offers:

- Stainless Steel for most chemicals and fuel products
- Aluminum for petroleum based products
- Brass for most water applications
- PVDF for aggressive chemicals

Applications

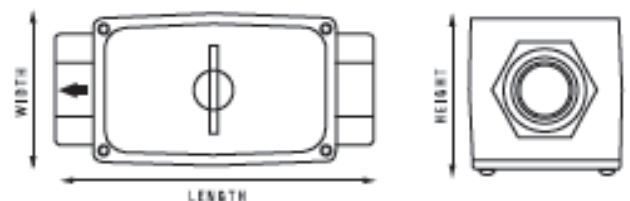
- Batching
- Blending
- Water
- Industrial fluids
- Plating solutions
- Ammonium
- Food & Beverage processing
- Fuel products
- Monitoring clean fluids
- Plant process water
- Chemical feed lines
- Harsh chemicals (sulfuric acid & bleach)

Function

In the turbine flow meter G2, the medium to be measured moves a turbine wheel whose velocity is proportional to the flow rate. The rotor blades contain ferrite cores that generate pulses that can be displayed electronically.

Features and Benefits

- Meter is designed for thin fluids < 100 cp
- Modular design allows for use with Output Modules, Sensors and Remote Transmitters
- 2 Totals (Batch = Resettable, Cumulative = Non-resettable);
- Rate of Flow, Factory calibrated in gallons and litres. Field calibratable. Includes non-volatile totals.
- High accuracy meter
- Internal parts are simple to replace for easy maintenance
- Lithium battery life: 5 years



Dimensions			
Meter size	Length mm (")	Height mm (")	Width mm (")
1/2"	107 (4,2)	46 (1,8)	51 (2,0)
3/4"	109 (4,3)	51 (2,0)	51 (2,0)
1"	114 (4,5)	56 (2,2)	51 (2,0)
1 1/2"	135 (5,3)	71 (2,8)	68 (2,7)
2"	160 (6,3)	81 (3,2)	84 (3,3)
PVDF 1/2"	185 (7,3)	81 (3,2)	53 (2,1)
PVDF 1"	206 (8,1)	84 (3,3)	71 (2,8)



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Technical data			
Fitting type	NPT or ISO (female) BSPT* (ISO 7 designation is RC)		
	150# ANSI (stainless steel only)		
	Tri-Clover® (stainless steel only) - Clamp size is one size bigger than meter size		
Housing material	316 stainless steel, Aluminum, Brass, PVDF		
Meter sizes available	½", ¾", 1", 1½", 2"		
Flow range	½" (05)	3.8 – 38 L/min	1 – 10 GPM
	½" (05) PVDF only	4.5 – 45 L/min	1.2 – 12 GPM
	¾" (07)	7.6 – 76 L/min	2 – 20 GPM
	1" (10)	19 – 190 L/min	5 – 50 GPM
	1½" (15)	38 – 380 L/min	10 – 100 GPM
	2" (20)	76 – 760 L/min	20 – 200 GPM
Accuracy (% of Reading)		Turbine only	Turbine with Computer
	½" (05)	±2.0%	±1.5%
	¾" (07)	±1.5%	±1.0%
	1" (10)	±1.5%	±1.0%
	1½" (15)	±1.0%	±0.75%
	2" (20)	±1.0%	±0.75%
Repeatability	±0.1% (PVDF ±0.3%)		
Pressure rating	316 stainless steel	1,500 psi (102 bar)	
	Aluminum	300 psi (21 bar)	
	Brass	300 psi (21 bar)	
	High pressure 316 stainless steel	3,000 psi (207 bar) (CE approval only)	
	ANSI Flange 316 stainless steel	Flange rule	
	Sanitary flange 316 stainless steel	Limited by fitting size, clamp size and temperature	
	PVDF	100 psi (6.9 bar)	

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Operating temperature range	-40°F to +250°F (-40°C to +121°C)
	PVDF -20°F to 180°F (-28°C to +82°C)
	With display: 14°F to 140°F (-10°C to 60°C)
Typical K-factor	½" (05) 2,500 PPG (660 Pulses/L)
	¾" (07) 1,100 PG (291 Pulses/L)
	1" (10) 565 PPG (149 Pulses/L)
	1½" (15) 215 PPG (57 Pulses/L)
	2" (20) 100 PPG (26 Pulses/L)
Wetted materials	Housing 316 stainless steel, aluminum or brass
	Bearings 96% alumina ceramic
	Shaft Tungsten carbide
	Rotor PVDF
	Rings 316 stainless steel
Wetted materials PVDF	Housing PVDF (15% carbon fiber filled)
	Bearings & shaft 98% alumina ceramic
	Rotor PVDF
	Rings Fluorocarbon (optional PTFE)
Frequency range	½" (05) 42-420 Hz @ 1-10 GPM (3.8-38 L/min) 48-480 Hz @ 5-50 GPM (4.5-45 L/min) (PVDF)
	¾" (07) 37-370 Hz @ 2-20 GPM (7.6-76 L/min)
	1" (10) 47-470 Hz @ 5-50 GPM (19-190 L/min) 450 Hz @ 5-50 GPM (19-190 L/min) (PVDF)
	1½" (15) 36-360 Hz @ 10-100 GPM (38-380 L/min)
	2" (20) 33-330 Hz @ 20-200 GPM (76-760 L/min)
Calibration report	Comes standard with G2 series meters.
	N.I.S.T certification available

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Ordering information

1. Turbine material

- S = stainless steel
- A = Aluminum
- P = PVDF (1/2" and 1" only)
- H = High pressure stainless steel version
- B = Brass

2. Turbine size

- 06 = 1/2"
- 07 = 3/4"
- 10 = 1"
- 15 = 1 1/2"
- 20 = 2"

3. Connection

- I = ISO (female thread) BSPT (ISO 7 designation is RC)
- N = NPT (female thread)
- F = 150# ANSI Flange (for S10, S15 and S20 only)
- T = Tri-Clover® connection (for S05-S20)
- X = Electronics only – für Metall-Turbinen only)
- Z = Electronics only – für Kunststoff-Turbinen

4. Electric

Turbine with local display

- 09 = Vertical 2-button computer, configurable on-site (total, subtotal & flow rate)
- 19 = 2-button computer, configurable on site (total, subtotal & flow rate)

No electricity, only turbine

- XX = no electricity, only turbine

5. Calibration

- LM = GPM & L/min (Liter, Standard)
- GM = GPM & L/min (Gallons, Standard)
- XX = no calibration (application with electrics 41, 71, 72 or only turbine)

6. Container

- A = Use only for turbine or 09 electronics (size 05-10)
- B = Use only for turbine or 09 electronics (size 15-20)
Use for 19 electronic (size 05-10)
- C = Use for 19 electronic (size 15-20)

Exemple: **G2**

S	15	N	09	LM	B
1	2	3	4	5	6



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Accessories / electronics	
ID-No.	Description
113435-1	Conditioned Signal Module
125060-1	Pulse Access Module
125070-1	External Power Module
125100-1	4-20 mA Module
120077-01	FM Approved Sensor
120077-02	ATEX Approved Sensor
125260-01	90 Degree Display Adaptor Kit
113275-1	FM Approved Remote Kit
145505-01	Kit, Adapter, G2-QSI1-Q09 Display
145505-02	Kit, Adapter, G2-QSI2-Q09 Display
145505-03	Kit, Adapter, G2-QSI3-Q09 Display
145505-04	Kit, Adapter, G2-QSI1-no Display
145505-05	Kit, Adapter, G2-QSI2-no Display
145505-06	Kit, Adapter, G2-QSI3-no Display
145505-07	Kit, Adapter, G2-QSI1-Display ready
145505-08	Kit, Adapter, G2-QSI2-Display ready
145505-09	Kit, Adapter, G2-QSI3-Display ready

Approvals



Important instructions!

Technical changes and errors reserved.

Pictures can be similar.

The operating instructions belonging to this device must be observed! Download at www.schmidt-messtechnik.com.

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