









Small turbine, big possibilities.

# Turbine meters for low viscosity, non-aggressive liquids

#### The VISION series

The VISION turbine meters are ideal for the metering of small quantities of liquids. Instant and total flow can be displayed.

The VISION 1000 series is most suited for small flow rates up to 2,5 l/min. The VISION series 2000 can be used in applications from 0,5 to 35 l/min and the VISION 3000 series offers a wider flow range of 5 to 65 l/min. These meters are best suited for flow measurement of demineralized water, alkaline solutions, oils/salad oil, fuel oil,

beverages, water solutions or for fuel and fuel consumption. They are especially ideal for washing machines and dish washers, coffee machines, laser cooling systems, solar plants, bakery and steam cooking machines in large kitchen plants and also CD cleaning.

- Excellent price/performance ratio
- Compact construction
- Easy installation
- No maintenance
- High operating pressure
- Operates in any mounting position
- Quick response time



VISION 1000 with DIN connector



VISION 2000 with DIN connector



VISION 3000 with DIN connector



VISION 2000 with AMP Faston



VISION 2000 with cable connection



VISION 2000 with cable connection



Displays for the VISION series The ILR 700 series electronic register

#### The ILR 700 electronic display is available in three versions:

- For VISION 1000, 2000 and 3000 meters as a wireless, battery-powered (1 x CR123A battery) display, with 2.4 GHz radio frequency, for remote reading of instant and total flow rate over a 5 m range
- For the VISION 3000 as battery-powered, on meter mounted display providing instant and total flow rate
- For all VISION turbine meters as a cabled version for remote reading.

## **Applications**

• Fuel consumption measurement

• Common rail test equipments

• Fuel injection systems



#### Food & Beverage

- Coffee machines
- Dispensing systems
- Vending machines
- Bakery machines
- Steamers



#### Sanitary industry

- Instant electric water heaters
- Bathroom fittings
- Whirlpools
- Electric shower mixers



#### Industrial applications

- Cooling and heating systems
- Laser cooling

**Automotive** 

Compressors

- Water Treatment/leakage monitoring
- Osmosis systems
- Filter monitoring systems
- Solarplants
- Washing machines/dishwashers
- Oil burners



### Chemical, pharma & cosmetic industry

- Dosing systems
- Bottling plants
- Process industry
- Research or development



#### Medical applications

- Sterilizers
- Dental water jets
- Dialysis machines
- Disinfectors
- ENT treatment units
- Cleaning devices



Measurement of flow rate on hot water line to provide the liquid volume in the cup.



injector delivery flow, pump delivery flow or backflow.



Measuring and controlling low viscosity and non-aggressive liquids up to





Monitoring of coolants in laser and waterjet cutting.



Flow control has flow sensors on the inlet and outlet side of the dialyzer to allow control of

#### **Technical information: VISION turbine meters**

Туре	VISION 1000	VISION 2000	VISION 3000	
Body material	Trogamid	Grilamid / Trogamid / Brass	Trogamid	
Viscosity range	0,8 - 16 mm²/s	0,8 - 16 mm²/s	0,8 – 16 mm²/s	
Accuracy	±3% of value	±3% of value	±3% of value	
Repeatability	< 0,5 % of reading	< 0,5 % of reading	< 0,5 % of reading	
Temperature range	-20 °C to +100 °C	-20 °C to +100 °C	-20 °C to +100 °C	
Operating pressure	25 bar max.	25 bar max.	25 bar max.	
Electrical connection	Electrical connector EN 60529 or cable connection	Electrical connector EN 60529 / AMP Faston or cable connection	Electrical connector EN 60529 or cable connection	
Power supply	5 – 24 VDC	5 – 24 VDC	5 – 24 VDC	
Output signal	Open collector NPN pulse	Open collector NPN pulse	Open collector NPN pulse	
Process connections	G 1/4", NPT 1/4"	G 3/8", NPT 3/8", o-ring, hose nipples	G ¾", NPT ¾"	
Approvals	KTW, NSF 61, WRAS	KTW, NSF 61, WRAS	_	

#### **Specifications**

	VISION 1000	VISION 2000						
Туре	1005 2F 66	2006 4F 44	2006 2F 66	2008 4F 17	2008 4F 22	2008 4F 44	2008 2F 66	3012 4F 16
Measuring range I/min	0,1 - 2,5	1 – 10	0,5 - 5	2 - 35	1 – 25	1 – 15	0,5 - 7,5	5 - 65
K factor PPL*	22.000	3300	6900	750	1000	2200	4700	210
Size DN (mm)	5	6	6	8	8	8	8	12

<sup>\*</sup> PPL = pulses / litre



#### Badger Meter Europa

Badger Meter Europa GmbH Nürtinger Str. 76 72639 Neuffen Germany Tel. +49-70 25-92 08-0 Fax +49-70 25-92 08-15 badger@badgermeter.de www.badgermeter.de

For Switzerland
Badger Meter Swiss AG
Mittelholzerstr. 8
3006 Bern
Switzerland
Tel. +41 31 932 01 11
Fax +41 31 931 08 67
info@badgermeter.ch
www.badgermeter.ch

For the United Arab Emirates
Badger Meter Europe
Middle East Branch Office
Dubai Silicon Oasis
Head Quarter Building
Wing C, Office #C209
Dubai / UAE
Tel. +971-4-371 2503
Fax +971-4-371 2504
gramaswamy@
badgermeter.com

For the USA and Canada Badger Meter, Inc. P.O. Box 245036 Milwaukee, WI 53224-9536 USA Tel. +1-414-355-04 00 Fax +1-414-355-74 99 infocentral@badgermeter.com www.badgermeter.com

For Mexico
Badger Meter de las
Americas S. A. de C. V.
Pedro Luis Ogazon #32
Col. Guadalupe Inn
Mexico, D. F. 01020
Mexico
Tel. +52-55-56 62-08 82
Fax +52-55-56 62-75 81
bmdla@badgermeter.com

For Asia
Badger Meter Europa GmbH
Singapore Branch
80 Marine Parade Road
#21-06 Parkway Parade
Singapore 449269
Singapore
Tel. +65-63 46 48 36
Fax +65-63 46 48 37
awang@badgermeter.com

For China
Badger Meter, Inc.
Shanghai Representative
Office 7-1202
99 Hangzhong Road
Minhang District
Shanghai 201101
China
Tel +86-21-57 63-54 12

rjiang@badgermeter.com

For Slovakia

Badger Meter Slovakia s. r. o.
Racianska 109 / B
83102 Bratislava
Slovakia
Tel. +421-2-44 63 83 01
Fax +421-2-44 63 83 03
badgermeter@badgermeter.sk

Badger Meter Czech
Republic s. r. o.
Maríkova 2082/26
62100 Brno
Czech Republic
Tel. + 420-5-41 42 04 11
Fax + 420-5-41 22 97 24
obchod@badgermeter.cz
www.badgermeter.cz





