

# Oval wheel flow sensor OV 16



- For viscous liquids: 5 to 8,000 cSt
- Low pressure drop
- Accuracy  $\pm 1\%$
- BSP-F  $\frac{1}{4}$ "
- Up to 10 bar

## APPLICATIONS

These flow-sensors are designed for dosing and flow measurement of viscous liquids such as syrups, oils and more or less concentrated detergents.

## PRINCIPLE

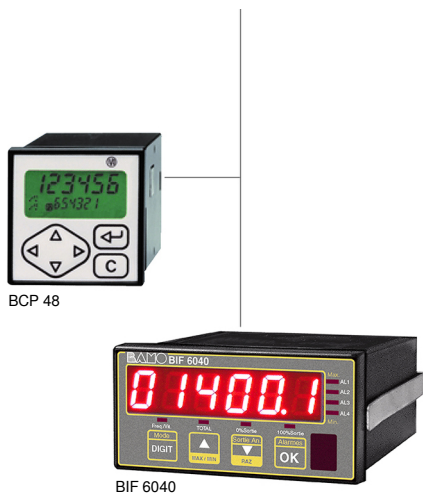
The instrument consists of two gear wheels driven by the fluid. Each rotation corresponds to a precise quantity of liquid. Each wheel with built-in magnet, delivers pulses (hall effect); The number pulses is proportional to the flow rate.

## PRECAUTIONS

The measuring ranges (min. to max.) may vary according the viscosity, temperature and pressure.  
According to this, refer to:

- Example with cola syrup**
- Viscosity 24 cSt at 20 °C
  - Pressure 5 bar
  - Min. 6 cm<sup>3</sup>/min
  - Linear output: Above 30 cm<sup>3</sup>/min
  - Max. 5,600 cm<sup>3</sup>/min

The liquid must be free of particles.



BCP 48

BIF 6040

**CAUTION:** These flow-sensors have been approved for use with BAMO electronics (BCP 48, BIF 6040).

We decline responsibility in case of damages by use of incompatible monitors.

## TECHNICAL FEATURES

Flow range	60 ... 5350 cm <sup>3</sup> /min (depending on viscosity)
Accuracy	$\pm 1\%$ (depending on viscosity)
Repeatability	$< \pm 0.25\%$
Operating temperature	-10 ... +65 °C
Pressure limit	10 bar at 20 °C
Mounting position	Horizontal (recommended)
Couplings	Inner diameter: 7 mm
Viscosity range	5 ... 8,000 cSt

Power supply	4.5 ... 24 V DC (12 V DC recommended)
Consumption	8 mA to 25 mA Max.
Output	NPN, open collector
Signal voltage	0V GND
Signal load	Max. 5 mA
Leak current	Max. 10 $\mu$ A
Connector	3-pin AMP 2.8 x 0.8 mm
Signal	Square pulse
Cycle	50 % / $\pm 3\%$

Housing	PEEK 150 GL 30
Axes	AISI 316 L
Sealing	FPM O-ring seal (EPDM on request)
Oval wheels	PEEK
Magnets	NdFeB (Neodym) without contact with the liquid

**EC Conformity:** The instrument meets the legal requirements of the current European Directives.

# BAMO INTERNATIONAL

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Oval wheel flow sensor  
OV 16

19-03-2021

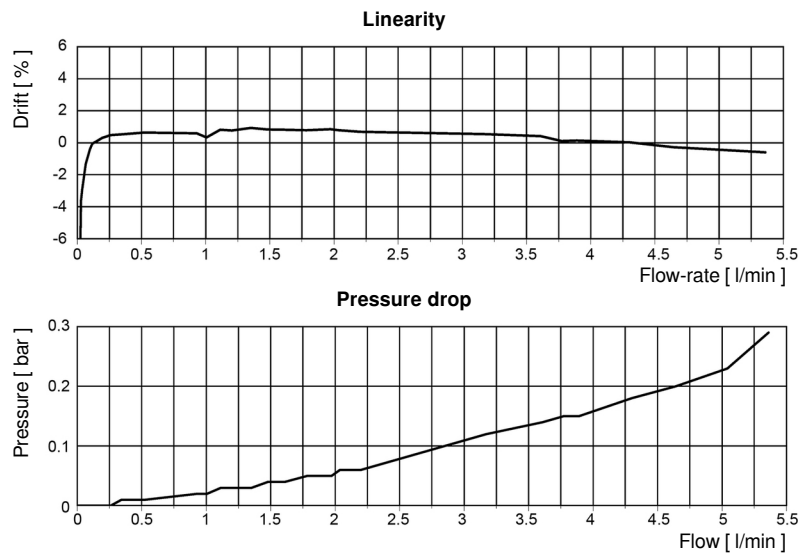
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## LINEARITY - PRESSURE

(Average values for cola syrup, around 24 cSt)



## CODE NUMBER AND FEATURES

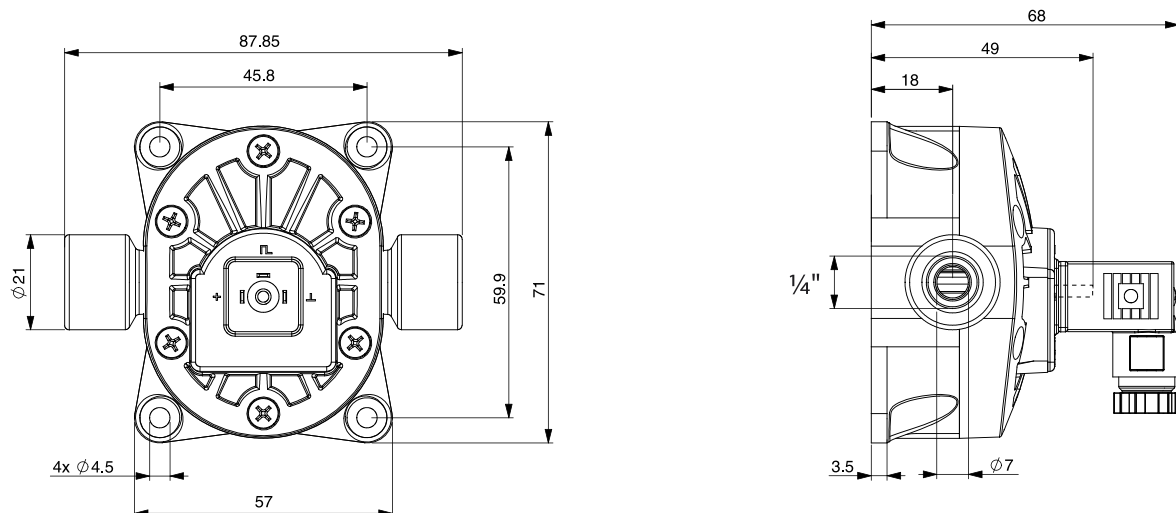
Code	Reference	Inner Ø	Pulses	Min. flow *	Max. flow	Fittings
782 505	OV 16	Ø 7,00 mm	462 per litre	0.0653 l/min	5.35 l/min	BSP-F ¼"

\*: Start of linear response

## ASSOCIATED ELECTRONICS

**BIF 6040** Flow indicator - Totalizer; Options: Thresholds and/ or analogue output, data-sheet da282-01.  
**BCP 48** Counter - Downcounter; 2 set points (dosing), data-sheet da289-03.

## DIMENSIONS [ mm ]



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