



## WADose LITE GEAR

## Gear pumps



**An intelligent, precise dosing pump for technical centres, laboratories, test benches and production facilities**

*'The all-rounder – the pump for many solutions'*

- Dosing range 15...8000 ml/min up to 17 bar
- Operated with keyboard or analogue signals
- Plug & work with mini CORI-FLOW™ flowmeter
- Low-pulsation dosing
- Easy operation and integration in control systems



# Gear pumps

**FLUSYS**

## WADose LITE GEAR pump

The WADose is an intelligent dosing pump for dosing tasks with fluids in technical centres, laboratories, test benches and production facilities. The low-pulsation gear pump is controlled by an intelligent BLDC motor control unit, which is highly precise even for very small dosing rates. The pump is hermetically sealed, so any leaks to the outside are impossible. A relief function is available as an option, providing protection from excess pressure or facilitating the dosing of small amounts in the g/h (ml/min) range (via bypass).

The pump also allows non-lubricating fluids to be transported or dosed. The low-maintenance and flexibly exchangeable pump heads are available in various materials, such as stainless steel, Hastelloy or titanium. Furthermore, the pump can be modified for different fluids or flow ranges simply by exchanging the pump head.

### Does my pump really do what it should?

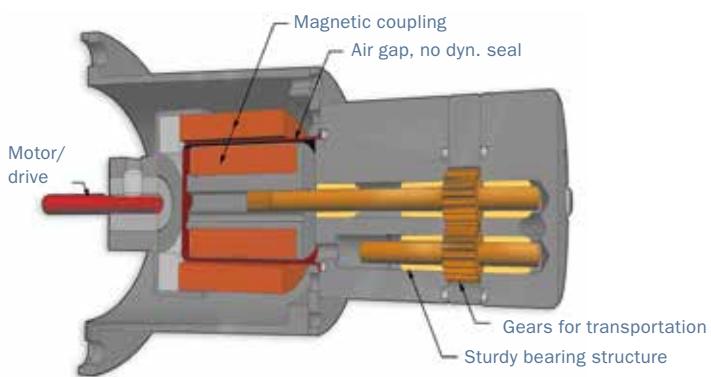
Concerns always remain, if there is no installed option to monitor the pump directly or if time-dependent gravimetric measurements are not used. Wear off effects or defects in pumps, sudden and excessive pressure changes, influence of compressibility factors, lack of dosing medium, leaks, air pockets and blockages may lead to situations in which the desired amount of fluid is not delivered.

With the intelligent mass flow interface for a mini CORIFLOW™ mass flowmeter, the actual flow rate is measured or indicated in-situ controlled, while being independent from viscosity or density.

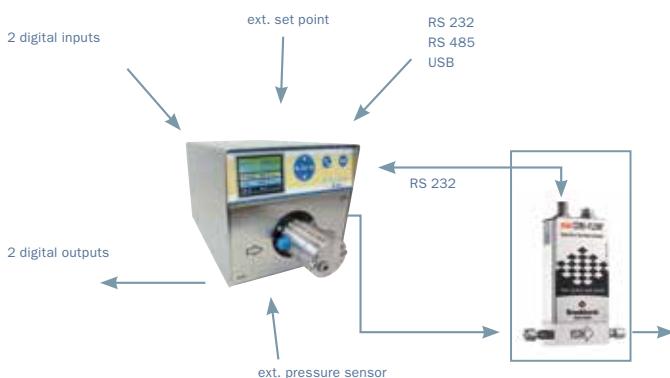
*Mass flowmeter configured pump ensures correct and precise dosing!*

## Pump operating principle

The WADose pump head is based on the principle of a magnetically coupled gear pump. Two gears are located on the inside of the pump. The drive gear is connected to a magnetic coupling and driven by the motor via a shaft. The shaft seizing up or any leaks to the outside are impossible due to the construction of the magnetic coupling. Because of the rotational movement of both gears, fluid is transported through both gears and into the connected process. This results in a transport volume of 15...8000 ml/min for defined speeds.



The transport volume depends on the speed and the size of the pump head, as well as on the density and the viscosity of the fluid. The maximum differential pressure is 17 bar.



Mass-flow measurement with integrated pump control system for the WADose LITE GEAR model



Rear of WADose LITE GEAR

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## Specifications

**Dosing ranges:** 15...8000 ml/min  
**Pressure range:** atm...17 barg  
**Temperature range:** fluid -20 °C to 60 °C  
                          ambient 5 °C to 50 °C  
**Viscosity:** 0.3 mPa.s...10.000 mPa.s  
**External set point:** 0...10 V / 4...20 mA  
**External actual value:** 0...10 V / 4...20 mA for flow  
                          (with mini CORI-FLOW™)  
**Massflow interface:** digital RS 232 for mini CORI-FLOW™,  
                          LIQUI-FLOW™ from Bronkhorst High-Tech B. V.

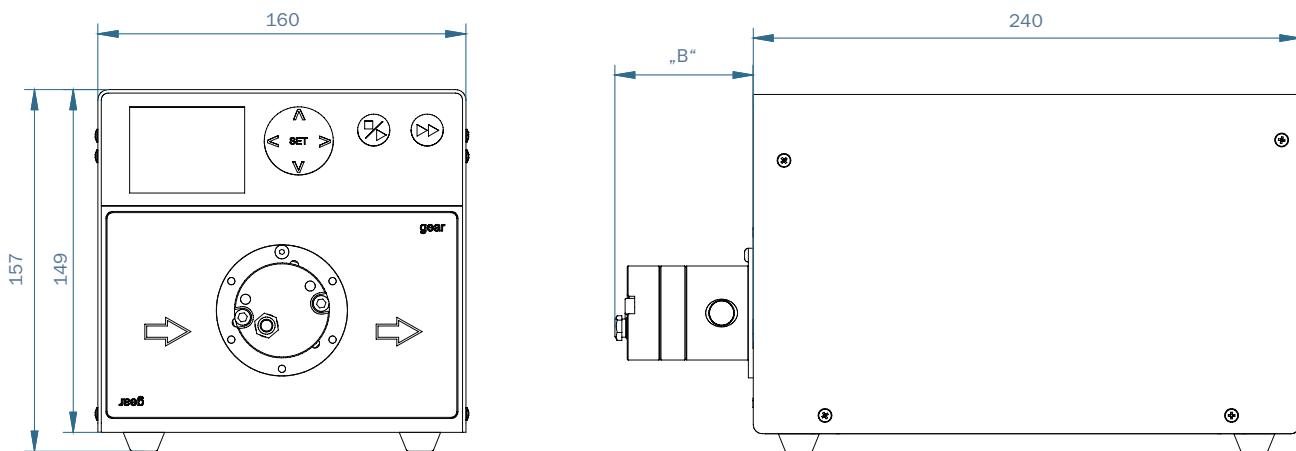
**Graphs with**  
**mini CORI-FLOW™:** volumetric flow rate, density, temperature,  
mass flow rate

**Interface:** analogue signal, RS 232, RS 485, USB  
**Mechanical connections:** 1/4" NPT female thread  
**Controls:** keypad  
**Weight:** approx. 4.5 kg (depending on pump head)  
**Operating modes:** volumetric transport, mass dosing, rpm  
**Materials:** stainless steel, Hastelloy or titanium  
**Housing:** stainless steel, brushed  
**Power supply:** via external mains adapter (included)  
100...240 Vac/240 Watt

## Pump heads

Pump head	P max	Basis, water with P=atm.		Value „B“
type	bar	Flow rate in l/h at 2900 min <sup>-1</sup>	Flow rate in l/h at 3500 min <sup>-1</sup>	mm
D.11	17,2	18	22	48,4
D.19	17,2	31	38	48,4
D.23	17,2	38	46	51,5
D.38	17,2	63	76	51,5
D.57	15	94	113	54,7
D.68	13	112	135	56,7
D.80	11	132	160	56,7
D.99	9	164	196	61,9
D1.2	7	198	237	61,9
D1.3	6	215	259	64,3
D1.6	5	264	315	68,0
D2.0	4	331	395	68,0
D2.3	3	380	456	70,6

## Dimensions (mm)



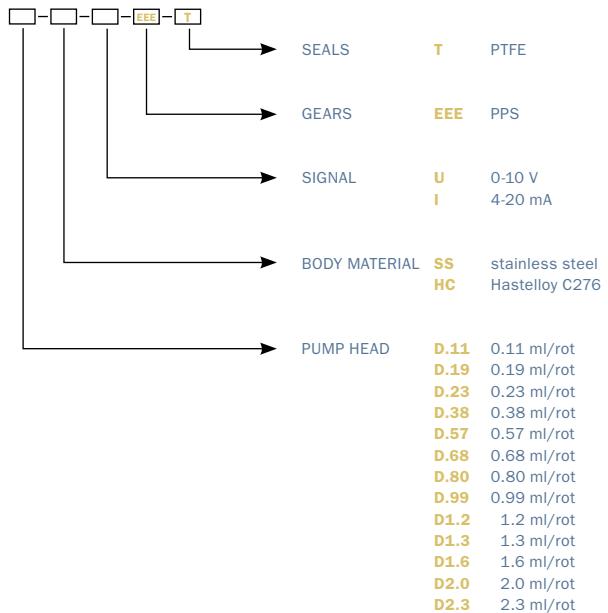
The indicated dimensions are approximate dimensions and may be changed without prior notice.

# Gear pumps

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## Model number key:

### WADose-LITE-GEAR-



e. g. **WADose-LITE-GEAR-D.11-SS-U-EEE-T**

Distributed by:

**FLUSYS**

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