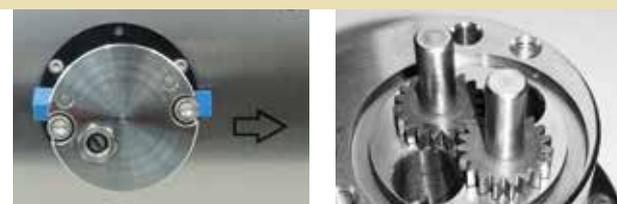


## WADose LITE GEAR

## Gear pumps

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



*'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



## WADose LITE GEAR pump

The WADose is an intelligent dosing pump for dosing tasks with fluids in technical centres, laboratories, for test benches and production. The low-pulsation gear pump is controlled by an intelligent BLDC motor control unit, which is highly accurate, also 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 a bypass).

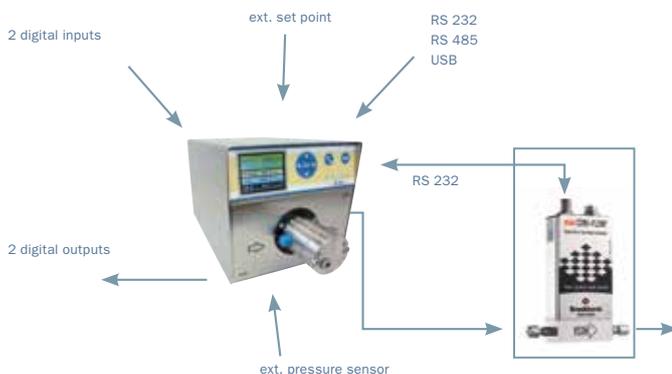
The pumps also allows non-lubricating fluids to be transported or dosed. The low-maintenance and flexibly exchangeable pump heads are available in various materials, such as stainless steel, Hastelloy or titanium. Furthermore, the pump can be modified for different fluids or flow ranges simply by exchanging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

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

This uncertainty exists if there is no option to monitor the pump directly, personally or using time-dependent gravimetric measurements. Wear and tear or defects in pumps, unexpectedly high counterpressures, lack of dosing fluid, leaks, air pockets, compressibility factors, blockages – all of these may lead to a situation in which the desired amount of fluid is not actually transported.

With the intelligent mass flow interface for a mini CORI-FLOW™ mass flowmeter, the actual flow rate is controlled independent of viscosity or density, and measured or indicated in-situ.

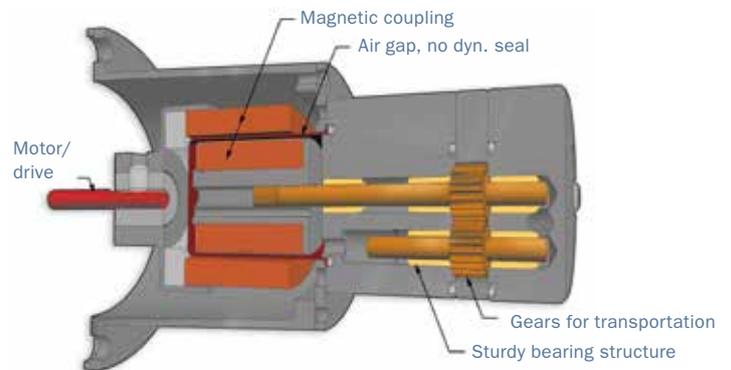
*This makes it absolutely certain that the pump also actually does what it should!*



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

## 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 that occurs, the 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 size of the pump head, as well as the viscosity and density of the fluid. The maximum pressure difference is 17 bar.



Rear of WADose LITE GEAR

## Specifications

<b>Dosing ranges:</b>	15...8000 ml/min	<b>Interface:</b>	analogue signal, RS 232, RS 485, USB
<b>Pressure range:</b>	atm...17 barg	<b>Mechanical connections:</b>	¼" NPT female thread
<b>Temperature range:</b>	fluid -20 °C to 60 °C ambient 5 °C to 50 °C	<b>Controls:</b>	keypad
<b>Viscosity:</b>	0.3 mPa.s...10.000 mPa.s	<b>Weight:</b>	approx. 4.5 kg (depending on pump head)
<b>External set point:</b>	0...10 V / 4...20 mA	<b>Operating modes:</b>	volumetric transport, mass dosing, rpm
<b>External actual value:</b>	0...10 V / 4...20 mA for flow (with mini CORI-FLOW™)	<b>Materials:</b>	stainless steel, Hastelloy or titanium
<b>Massflow interface:</b>	digital RS 232 for mini CORI-FLOW™, LIQUI-FLOW™ from Bronkhorst High-Tech B. V.	<b>Housing:</b>	stainless steel, brushed
		<b>Power supply:</b>	via external mains adapter (included) 100...240 Vac/240 Watt

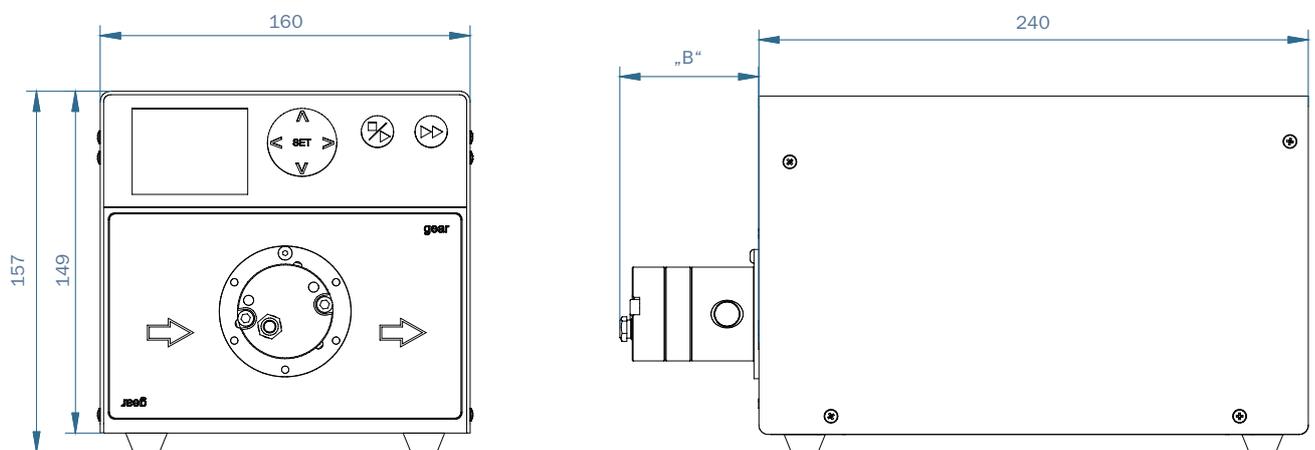
## Graphs with

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

## Pump heads

Pump head type	P max bar	Basis, water with P=atm.		Value „B“ mm
		Flow rate in l/h at 2900 min <sup>-1</sup>	Flow rate in l/h at 3500 min <sup>-1</sup>	
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

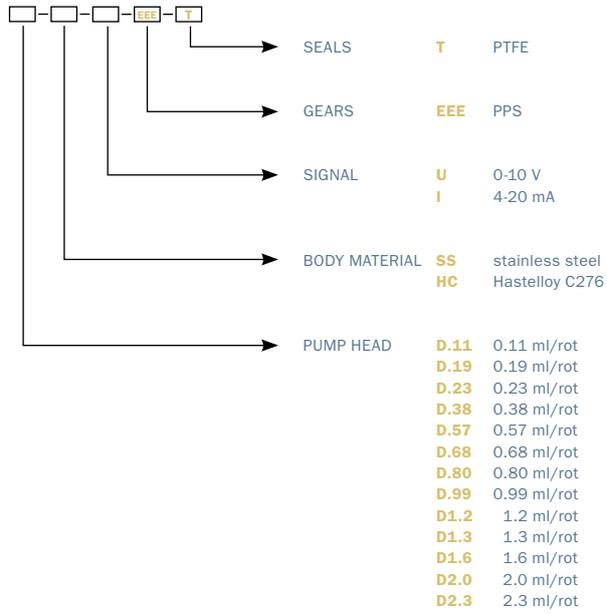
## Dimensions (mm)



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

## Model number key:

### WADose-LITE-GEAR-



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

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