



# DDI 222 DIGITAL DOSING PUMPS

## 60 to 150 l/h

### General

The DDI series is firmly established on the dosing pump market with its combination of innovative drive technology and integrated microelectronics. Users appreciate how they can simply enter the required dosing rate in litres per hour and let the DDI handle the rest.

### Double diaphragm for optimum process reliability

Some processes must never be interrupted - not even in the event of a diaphragm rupture. The DDI is equipped with a double diaphragm system. If the diaphragm fails, the DDI will continue dosing thanks to the protective diaphragm.

### Turndown ratio of 1:800

The DDI 222 has a turndown ratio ten times better than that of conventional equipment. This allows us to create a complete pump series with just one motor, one gearing system, and two pump head sizes. You get the precision you want every time - and need only a minimum of spare parts and storage capacity.

### Compact design

DDI pumps are smaller and quieter than conventional pumps in their class, making them easy to install anywhere. Order your DDI with the control and display interface on the side or front as you wish.

### Full stroke length every time

The DDI series use a full stroke length every time - a feature unique to Grundfos digital dosing pumps. Each stroke is carefully timed to bring you even concentrations in the system and optimum priming throughout the entire operating range.

### Brushless DC motor

The drive solution used in the DDI series ensures very smooth, continuous dosing even as it keeps energy consumption at a record low.

### Anti-cavitation function

The SlowMode settings systematically reduce the suction stroke so that difficult, viscous media are dosed with smooth precision. When set at 60 % of the maximum dosing rate, the DDI can dose media with a viscosity of up to 1000 mPas. At 40 %, it will handle extremely viscous media up to 3000 mPas. You no longer need external dilution or treatment systems, but can dose chemicals directly and with no waste.

### Fieldbus communication (optional)

The DDI is also available with a Profibus DP interface. Switch-mode power supply DDI pumps can be used world-wide within the range of 110-240 VAC, 50/60 Hz.

### Flow monitor (optional)

The unique flow monitor detects any dosing errors on both the suction and pressure sides and immediately emits an error message if anything is wrong. It can also check for excess pressure: Just enter the maximum counter pressure allowed (in bar) and leave everything to the DDI. If the pressure is exceeded, the pump stops.

### Diaphragm leakage detection (optional)

If the pump is supplied with diaphragm leakage detection, a differential pressure sensor will send an error signal as notification to replace the diaphragm.

### Applications

- Industrial and municipal water treatment
- Industrial cleaning
- Polymer feed
- Paper production/paper finishing
- Optical technology and chip production
- Chemical industry
- Cleaning-In-Place (CIP) and disinfection
- Galvanic surface treatment
- Air conditioning/water treatment in cooling towers
- Reverse-osmosis systems
- Semi-conductor industry

## Technical data

Pump type	DDI 60-10	DDI 150-4
Max. capacity (normal operation)	60 l/h	150 l/h
Max. suction lift		
• Normal operation	6.0 m	3.0 m
• Startup	1.0 m	1.0 m
Max. permissible viscosity (normal operation)	100 mPas	100 mPas
Max. permissible viscosity		
• Spring-loaded valves and Slow-Mode 2	3000 mPas	1800 mPas
Max. pressure (normal operation)	2.0 bar	
Max. permissible temperature of dosing medium ( p < 10 bar )		
Dosing head material:	PVC, PP: 0 to 40 °C Stainless steel: -10 to 70 °C PVDF: -10 to 60 °C	
Power supply	110-240 VAC, 50/60 Hz	
Power consumption	70 W	
Input signal	External stop, pulse, analog 0/4-20 mA, low-level/empty-tank, Optional: Flow Monitor, Profibus, Diaphragm leakage detection	
Output signal	Analog 0/4-20 mA, 2 relay outputs, with selectable signal	
Enclosure class	IP 65	
Permissible ambient temperature	0 to 40 °C	
Permissible storage temperature	-10 to 50 °C	
Max. relative humidity	92 %	
Weight		
• Dosing head: PVC, PVDF, PP	5.0 kg	6.5 kg
• Dosing head: stainless steel	7.0 kg	12.0 kg

## Performance range DDI 222

