







Modular, simple, intelligent

SMART Digital S dosing pumps from 0.0025 to 30 l/h

Digital Dosing

The SMART Digital S generation DDA, DDC and DDE with powerful variable-speed stepper motor brings state-of-the-art technology to perfection. Combined expert knowledge and the new patented solutions set future standards. Traditional technologies such as stroke length / stroke frequency adjustment Ewith synchronous motor or solenoid drive become a thing of the past.

Unique flexibility with only a few variants

The included click-stop mounting plate makes the pump more flexible. Three different positions are possible without using any additional accessories. Service and pump exchange can now be done easily and fast by just clicking the pump in and out of the mounting plate. The control cube on the DDA and DDC pump can be easily turned into three different positions.

A turn-down ratio of up to 1:3000, a wide supply voltage range (100-240 V; 50/60 Hz), combined connection sets and other features reduce the models and variants to a minimum.

Precise and easy setting

The operator can easily install the pump and set it to discharge exactly the quantity of dosing liquid required for the application. In the display, the setting of the pump is read out directly, the flow is shown in ml/h, l/h, or gph.

The click wheel and the graphical LC display with plain-text menu in more than 25 languages make commissioning and operation intuitive. As the LCD is backlit in different colours, the pump status can be seen from a distance.

Thanks to a variety of operation modes, signal inputs and outputs, the pump can easily be integrated into every process.

Advanced process reliability

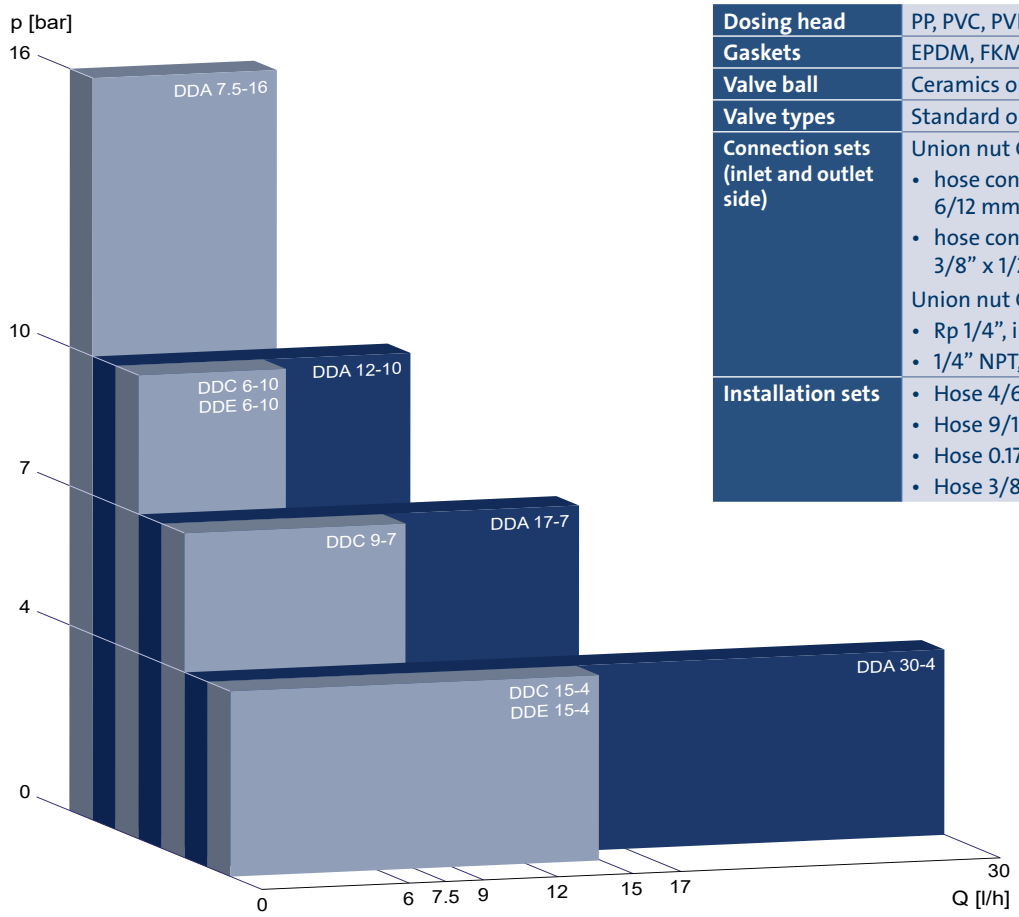
An intelligent drive and microprocessor control ensure that dosing is performed precisely and with low pulsation, even if the pump is dosing high-viscosity or degassing liquids. Malfunctions are detected quickly by the maintenance-free FlowControl system and then displayed in the alarm menu. The AutoFlowAdapt function automatically adjusts the pump according to the process conditions, e.g. varying backpressure. The integrated flow measurement makes additional monitoring and control equipment redundant.

Designed to save costs

In general, the investment for a dosing pump installation is low compared to its life cycle costs, including the cost of the chemicals. The following features make the SMART Digital S DDA, DDC and DDE pumps contribute to low life cycle costs:

- No underdosing or overdosing due to high dosing accuracy and FlowControl
- Longer maintenance intervals thanks to the universal chemical resistance of the full-PTFE diaphragm
- Reduced energy consumption thanks to state-of the-art drive technology.

Performance range



Variants

Dosing head	PP, PVC, PVDF or stainless steel 1.4401
Gaskets	EPDM, FKM or PTFE
Valve ball	Ceramics or stainless steel 1.4401
Valve types	Standard or spring-loaded
Connection sets (inlet and outlet side)	Union nut G 5/8" with parts for • hose connection 4/6 mm, 6/9 mm, 6/12 mm, 9/12 mm • hose connection 0.17" x 1/4", 1/4" x 3/8", 3/8" x 1/2" Union nut G 5/8" with threaded connection • Rp 1/4", internal thread • 1/4" NPT, internal thread
Installation sets	• Hose 4/6 mm (up to 7.5 l/h, 13 bar) • Hose 9/12 mm (up to 60 l/h, 9 bar) • Hose 0.17" x 1/4" (up to 7.5 l/h, 13 bar) • Hose 3/8" x 1/2" (up to 60 l/h, 10 bar)

Technical data

Pump type	DDA			DDC		DDE		
Control variant	FCM	FC	AR	AR	A	PR	P	B
Operation modes								
Manual speed control	•	•	•	•	•	•	•	•
Pulse control in ml/pulse	•	•	•	•	•			
Pulse control (1:n)						•	•	
Analog control 0/4-20 mA	•	•	•	•				
Batch control (pulse-based)	•	•	•					
Dosing timer cycle	•	•	•					
Dosing timer week	•	•	•					
Fieldbus control	•	•	•					
Functions								
Auto deaeration also during pump standby	•	•	•					
FlowControl system with selective fault diagnosis	•	•						
Pressure monitoring (min / max)	•	•						
Flow measurement	•							
AutoFlowAdapt	•							
SlowMode (anti-cavitation)	•	•	•	•	•			
Output relay (2 relays)	•	•	•	•		•		

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GRUNDFOS Holding A/S
Poul Due Jensens Vej 7
DK-8850 Bjerringbro
Tel: +45 87 50 14 00
www.grundfos.com

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