

04/02/2020

## Qty. Description

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DDA 30-4 Product No.: 97722314 DDA 30-4 FCM-PP/E/C-F-31I002FG

The SMART Digital DDA is a compact positive displacement, diaphragm dosing pump with variable-speed drive (stepper motor) and intelligent control electronics with minimum energy consumption. The SMART Digital Dosing series operates at full stroke length to ensure optimum accuracy, priming and suction, even for high-viscosity or degassing liquids. The duration of each discharge stroke varies according to the capacity set, resulting in optimum smooth and continuous discharge flow.

The click-stop mounting plate allows installation in three different positions without using any additional accessories. The control cube can be turned easily into front, left or right position. The click wheel and the multi-coloured backlit graphical, plain-text LC display make commissioning and operation intuitive. The control elements are protected by a transparent cover.

The sensor-based FlowControl (FC) system detects malfunctions directly in the dosing head and displays them in plain text in the alarm menu, e.g. air bubbles, line burst, overpressure. The integrated flow measurement function (only FCM) measures the actual flow and makes additional monitoring and control equipment redundant (accuracy of  $\pm$  1,5 % of set value in case of trouble-free process). The measured flow is displayed and can be integrated in the process control, e.g. SCADA. Furthermore, the AutoFlowAdapt function (only FCM) automatically adjusts the pump speed according to the process conditions to maintain target flow even at e.g. varying backpressure or air bubbles foaming (degassing drive strategy).

The dosing head is composed of:

- Long lifetime and universal, chemically resistant full-PTFE diaphragm.
- Double ball valves for highest dosing accuracy.
- Deaeration valve for easy start-up.
- Pressure sensor.

### Operation modes:

- Manual dosing in ml/h, l/h or gph.
- Pulse control in ml/pulse (incl. memory function).
- Analog control 0/4-20 mA (scalable).
- Pulse-based batch function in ml, l or gal.
- Timer-based batch function (Dosing timer, cycle or week).
- Fieldbus control (Genibus prepared for ProfibusDP E-box).

#### Other features:

- Auto deaeration during pump standby to avoid breakdowns due to air-locking.
- Two SlowMode steps (anti-cavitation), 50 % (maximum flow: 15 l/h) and 25 % (maximum flow: 7.5 l/h), e.g. for high-viscosity or degassing liquids.
- Service information display to show when service and which wear-part order number is required.
- Two-step key lock function to protect the pump against unauthorised access.
- Additional display function to provide further information, e.g. the actual mA input signal.
- Counter for total dosed volume (resettable), operating hours, etc.
- Save and load customised settings as well as reload of factory settings.

#### Signal inputs/outputs:

- Input for pulse, analog 0/4-20mA, external stop.
- Input for low-level and empty-tank signal.
- Two potential-free output relays for max. 30 V AC/DC (configurable, e.g. alarm, stroke signal, pump dosing, timer etc.)
- Output analog 0/4-20mA.
- Fieldbus communication interface (GeniBus, also for additional Profibus DP E-box to retrofit).

#### Installation set includes:

- 2 pump connections (Hose 9/12 mm 6).
- Foot valve (without level switch).
- Injection unit.
- 6 m PE discharge hose.
- 2 m PVC suction hose.



	Date:	04/02/2020		
Description				
- 2 m PVC deaeration hose (4/6 mm).				
Technical:				
Type key:	DDA 30-4 FCM-PP/E/C-F-31I002F0	G		
Max. Flow:	30 l/h			
Max. flow in slow mode 50%:	15 l/h			
Max. flow in slow mode 25%:	7.5 l/h			
Min flow:	30.0 ml/h			
Turn-down ratio:	1:1000			
Approvals on nameplate:	CE,CSA-US,EAC,RCM			
Valve type:	Standard			
Maximum viscosity at 100 %:	150 mPas			
Maximum viscosity in slow mode				
Maximum viscosity in slow mode				
Accuracy of repeatability:	1 %			
Materials:				
Dosing head:	PP (Polypropylene)			
Valve ball:	Ceramic			
Gasket:	EPDM			
Installation: Range of ambient temperature:	0 45 %			
Maximum operating pressure:	4 bar			
Installation set:	YES			
Installation type:	9/12 mm up to 60 l/h,13 bar			
Pump inlet: Pump outlet:	Hose 9/12 mm 6 Hose 9/12 mm 6			
Max. Suction lift during operation				
Max. Suction lift during priming:				
Liquid:				
Pumped liquid:	Water			
Liquid temperature range:	-10 45 °C			
Selected liquid temperature:	20 °C			
Density:	998.2 kg/m <sup>3</sup>			
Electrical data:				
Maximum power input - P1:	24 W			
Mains frequency:	50 / 60 Hz			
Rated voltage:	1 x 100-240 V			
Enclosure class (IEC 34-5):	IP65 / NEMA 4X			
Length of cable:	1.5 m			
Type of cable plug:	EU			
Inrush current:	25A at 230V for 2ms			
	20m al 2009 IUI 21115			
Controls:	5014			
Control variant:	FCM			
Level control:	YES			
Analog input:	0/4-20 MA			
	YES			
Pulse control:				
Ext. Stop input:	YES			
Ext. Stop input: Analog output:	0/4-20 MA			
Ext. Stop input: Analog output: Output relays:	0/4-20 MA 2			
Ext. Stop input: Analog output:	0/4-20 MA			
Ext. Stop input: Analog output: Output relays: Bus communication: <b>Others:</b>	0/4-20 MA 2 YES			
Ext. Stop input: Analog output: Output relays: Bus communication:	0/4-20 MA 2			



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			Date:	04/02/2020
ty.	Description			
	Color:	RED FR		
	Country of origin: Custom tariff no.:	84135040		



Company name: Created by:

Phone: Date: 04/02/2020 97722314 DDA 30-4 H [bar] DDA 30-4 4.6 4.4 4.2 4.0 3.8 3.6 3.4 3.2 3.0 2.8 2.6 2.4 2.2 2.0 1.8 1.6 1.4 1.2 1.0 0.8 0.6 0.4 0.2 0<del>|</del> 0 2 4 6 8 10 12 14 16 18 20 22 26 28 24 30 Q [İ/h]



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Description	Value	H [bar]			DDA 30-
General information:		- 1			
Product name:	DDA 30-4	4.4 -			
Product No:	97722314	4.2			
EAN number:	5710622724561				
	5710622724561	4.0			
Price:	2.748,00 GBP	3.8 -			
Technical:	2.740,00 001	3.6 -			
Technical.					
Type key:	DDA 30-4 FCM-PP/E/C-F-31I002FG	3.4 -			
Max. Flow:	30 l/h	3.2 -			
Max. flow in slow mode 50%:	15 l/h	3.0			
Max. flow in slow mode 25%:	7.5 l/h	_			
Min flow:	30.0 ml/h	2.8 -			
Turn-down ratio:	1:1000	2.6 -			
		2.4 -			
Approvals on nameplate:	CE,CSA-US,EAC,RCM				
Valve type:	Standard	2.2 -			
Maximum viscosity at 100 %:	150 mPas	2.0 -			
Maximum viscosity in slow mode 50 %:	600 mPas	1.8 -			
Maximum viscosity in slow mode 25 %:	1500 mPas	1.6 -			
Accuracy of repeatability:	1 %	1.4 -			
Materials:		1.2 -			
Dosing head:	PP (Polypropylene)	_			
Valve ball:	Ceramic	1.0 -			
Gasket:	EPDM	0.8 -			
Installation:	EPDM	0.6 -			
	0 45 90				
Range of ambient temperature:	0 45 °C	0.4 -			
Maximum operating pressure:	4 bar	0.2 -			
Installation set:	YES	0			
Installation type:	9/12 mm up to 60 l/h,13 bar	0	5 10	15 2	0 25 Q [l/l
Pump inlet:	Hose 9/12 mm 6				
Pump outlet:	Hose 9/12 mm 6			<u>+</u>	295
Max. Suction lift during operation:	6 m			G 5/8"	-
Max. Suction lift during priming:	2 m				
Liquid:					
Pumped liquid:	Water				
Liquid temperature range:	-10 45 °C			Ŷ  +-	
Selected liquid temperature:	20 °C		2045		×
Density:	998.2 kg/m³				
Electrical data:					
Maximum power input - P1:	24 W				161
Mains frequency:	50 / 60 Hz	4 <u>xØ6</u> 120		38.5	161 17
Rated voltage:	1 x 100-240 V	1	68		
Enclosure class (IEC 34-5):	IP65 / NEMA 4X				
Length of cable:	1.5 m				
Type of cable plug:	EU				
Inrush current:	25A at 230V for 2ms				
Controls:					
Control variant:	FCM				
Control panel:	FRONT-MOUNTED				
Level control:	YES				
Analog input:	0/4-20 MA				
Pulse control:	YES				
Ext. Stop input:	YES				
Analog output:	0/4-20 MA				
Output relays:	2				
Bus communication:	YES				
Others:	120				



		Date:	04/02/2020	
Description	Value			
Net weight:	3 kg			
Gross weight:	4 kg			
Color:	RED			
Country of origin:	FR			
Custom tariff no .:	84135040			



04/02/2020

# 97722314 DDA 30-4

