Company name:
Created by:
Phone:

Date: 06/02/2020

Qty.	Description
1	**DDA 120-7**

Note! Product picture may differ from actual product

Product No.: 99164221
DDA 120-7 FCM-SS/T/SS-F-32A1A1

The SMART Digital DDA is a compact positive displacement, diaphragm dosing pump with variable-speed drive (PMS 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 mounting plate allows quick installation and service. 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 (FCM) 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 measures the actual flow and makes additional monitoring and control equipment redundant (accuracy of ± 1 % 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 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 double PTFE diaphragm.
- Ball valves for highest dosing accuracy.
- Deaeration valve for easy startup.
- Pressure sensor.

Operating 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 Grundfos CIU fieldbus modules).

Other features:
- Auto deaeration during pump standby to avoid breakdowns due to air-locking.
- Two SlowMode steps (anti-cavitation), 50 % (maximum flow: 60 l/h) and 25 % (maximum flow: 30 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 and external stop.

Qty.	Description

- Input for low-level and empty-tank signal.
- Two potential-free output relays for maximum 30 V AC/DC (configurable, e.g. alarm, stroke signal, pump dosing, timer etc.)
- Output analog 0/4-20mA.
- Fieldbus communication interface (GENIbus, for connecetion of the Grundfos CIU fieldbus converter).

Controls:

Control variant:	FCM
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

Liquid:

Pumped liquid:	Water
Liquid temperature range:	0 .. 50 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m³

Technical:

Type key:	DDA 120-7 FCM-SS/T/SS-F-32A1A1
Max. Flow:	120 l/h
Max. flow in slow mode 50%:	60 l/h
Max. flow in slow mode 25%:	30 l/h
Min flow:	150 ml/h
Turn-down ratio:	1:800
Approvals on nameplate:	CE,CSA-US,NSF61,EAC,RCM
Valve type:	Spring-Loaded (HV-version)
Maximum viscosity at 100 %:	1000 mPas
Maximum viscosity in slow mode 50 %:	1500 mPas
Maximum viscosity in slow mode 25 %:	3000 mPas
Accuracy of repeatability:	1.5 %

Materials:

Dosing head:	Stainless Steel 1.4435
Valve ball:	Stainless steel
Gasket:	PTFE

Installation:

Range of ambient temperature:	0 .. 45 °C
Maximum operating pressure:	7 bar
Installation set:	NO
Installation type:	No installation set
Pump inlet:	Conn. threaded Rp 3/4# Code A1
Pump outlet:	Conn. threaded Rp 3/4# Code A1
Max. Suction lift during operation:	3 m
Max. Suction lift during priming:	1.5 m

Electrical data:

Maximum power input - P1:	62 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

Qty.	Description	
	Inrush current:	70A at 240V (35A/100V) for 2ms
	Others:	
	Net weight:	7 kg
	Gross weight:	8 kg
	Color:	RED
	Country of origin:	FR
	Custom tariff no.:	84135040

Company name:
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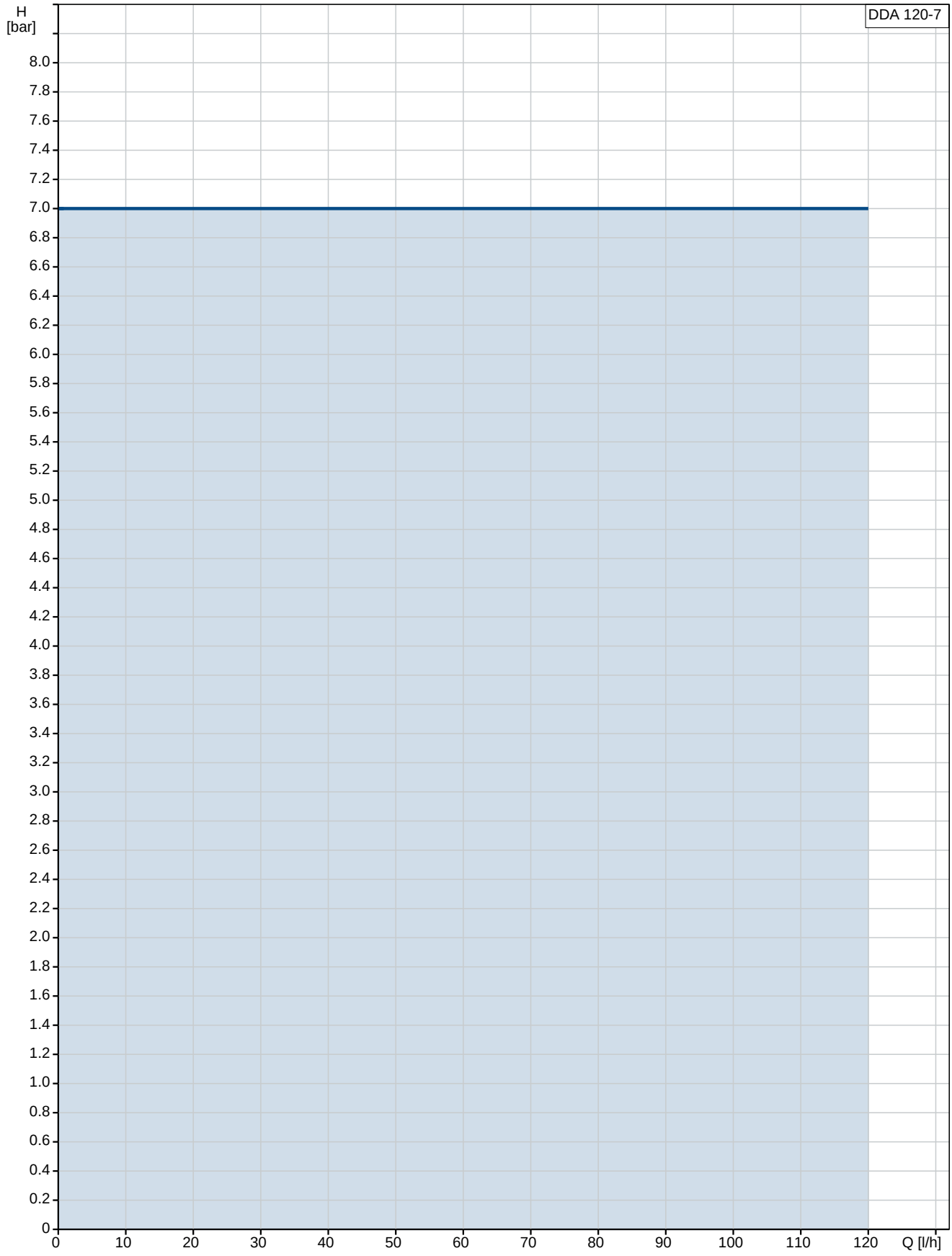
Phone:

Date: 06/02/2020

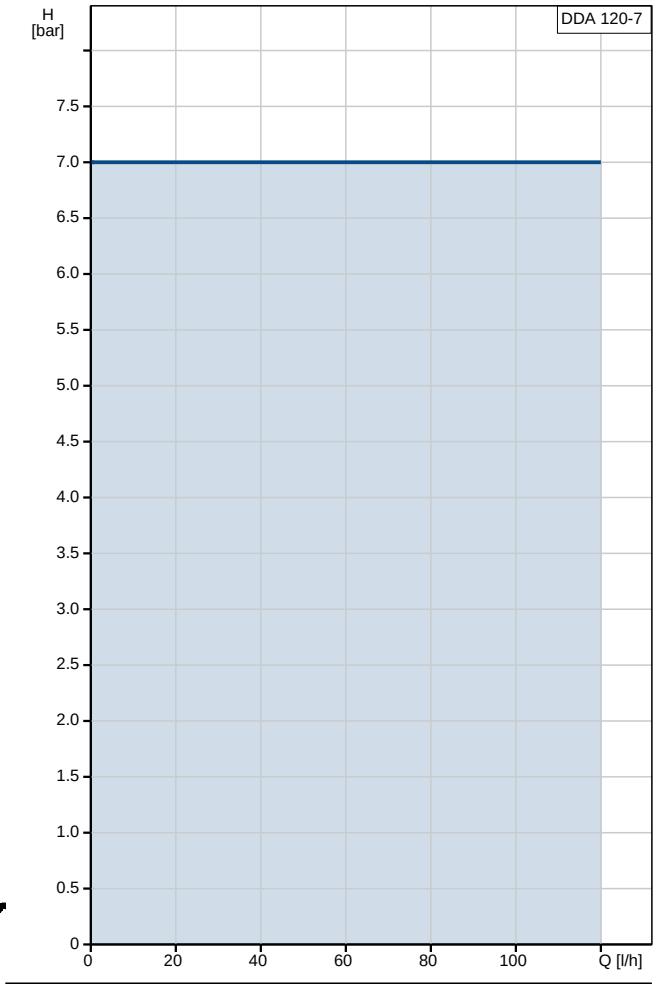
99164221 DDA 120-7

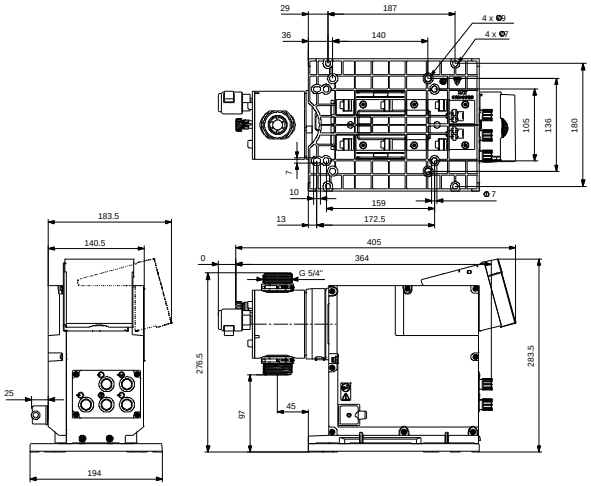


Company name:
Created by:
Phone:

Date: 06/02/2020

Description	Value
General information:	
Product name:	DDA 120-7
Product No:	99164221
EAN number:	5712607923471
	5712607923471
Price:	4.317,00 GBP
Technical:	
Type key:	DDA 120-7 FCM-SS/T/SS-F-32A1A1
Max. Flow:	120 l/h
Max. flow in slow mode 50%:	60 l/h
Max. flow in slow mode 25%:	30 l/h
Min flow:	150 ml/h
Turn-down ratio:	1:800
Approvals on nameplate:	CE,CSA-US,NSF61,EAC,RCM
Valve type:	Spring-Loaded (HV-version)
Maximum viscosity at 100 %:	1000 mPas
Maximum viscosity in slow mode 50 %:	1500 mPas
Maximum viscosity in slow mode 25 %:	3000 mPas
Accuracy of repeatability:	1.5 %
Materials:	
Dosing head:	Stainless Steel 1.4435
Valve ball:	Stainless steel
Gasket:	PTFE
Installation:	
Range of ambient temperature:	0 .. 45 °C
Maximum operating pressure:	7 bar
Installation set:	NO
Installation type:	No installation set
Pump inlet:	Conn. threaded Rp 3/4# Code A1
Pump outlet:	Conn. threaded Rp 3/4# Code A1
Max. Suction lift during operation:	3 m
Max. Suction lift during priming:	1.5 m
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	0 .. 50 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Maximum power input - P1:	62 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:	70A at 240V (35A/100V) 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





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Company name:
Created by:
Phone:

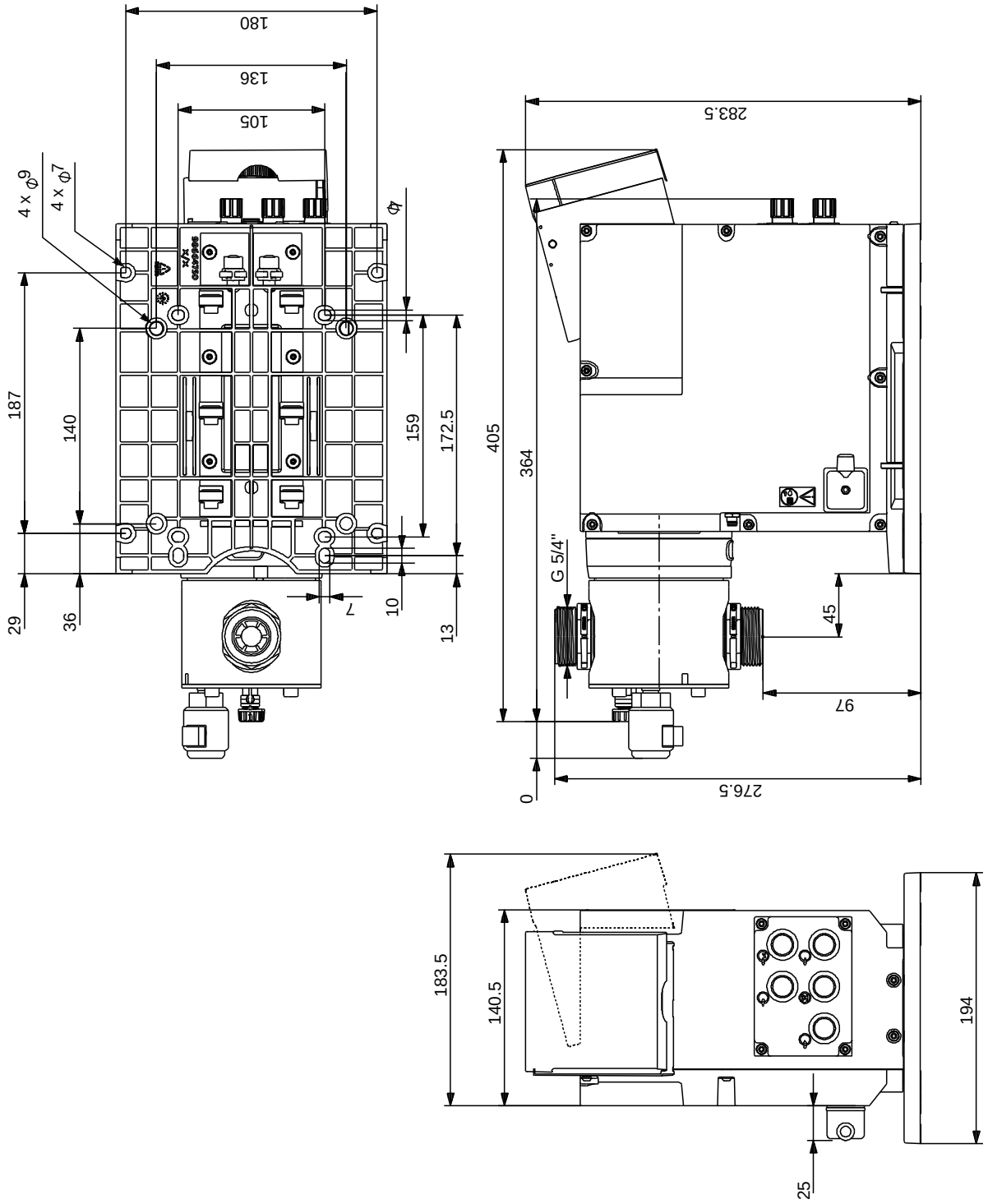
Date: 06/02/2020

Description	Value
Analog output:	0/4-20 MA
Output relays:	2
Bus communication:	YES
Others:	
Net weight:	7 kg
Gross weight:	8 kg
Color:	RED
Country of origin:	FR
Custom tariff no.:	84135040

Company name:
Created by:
Phone:

Date: 06/02/2020

99164221 DDA 120-7



Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.