

# Submittal Data

PROJECT: _____	UNIT TAG: _____	QUANTITY: _____
REPRESENTATIVE: _____	TYPE OF SERVICE: _____	DATE: _____
ENGINEER: _____	SUBMITTED BY: _____	DATE: _____
CONTRACTOR: _____	APPROVED BY: _____	DATE: _____
	ORDER NO.: _____	DATE: _____

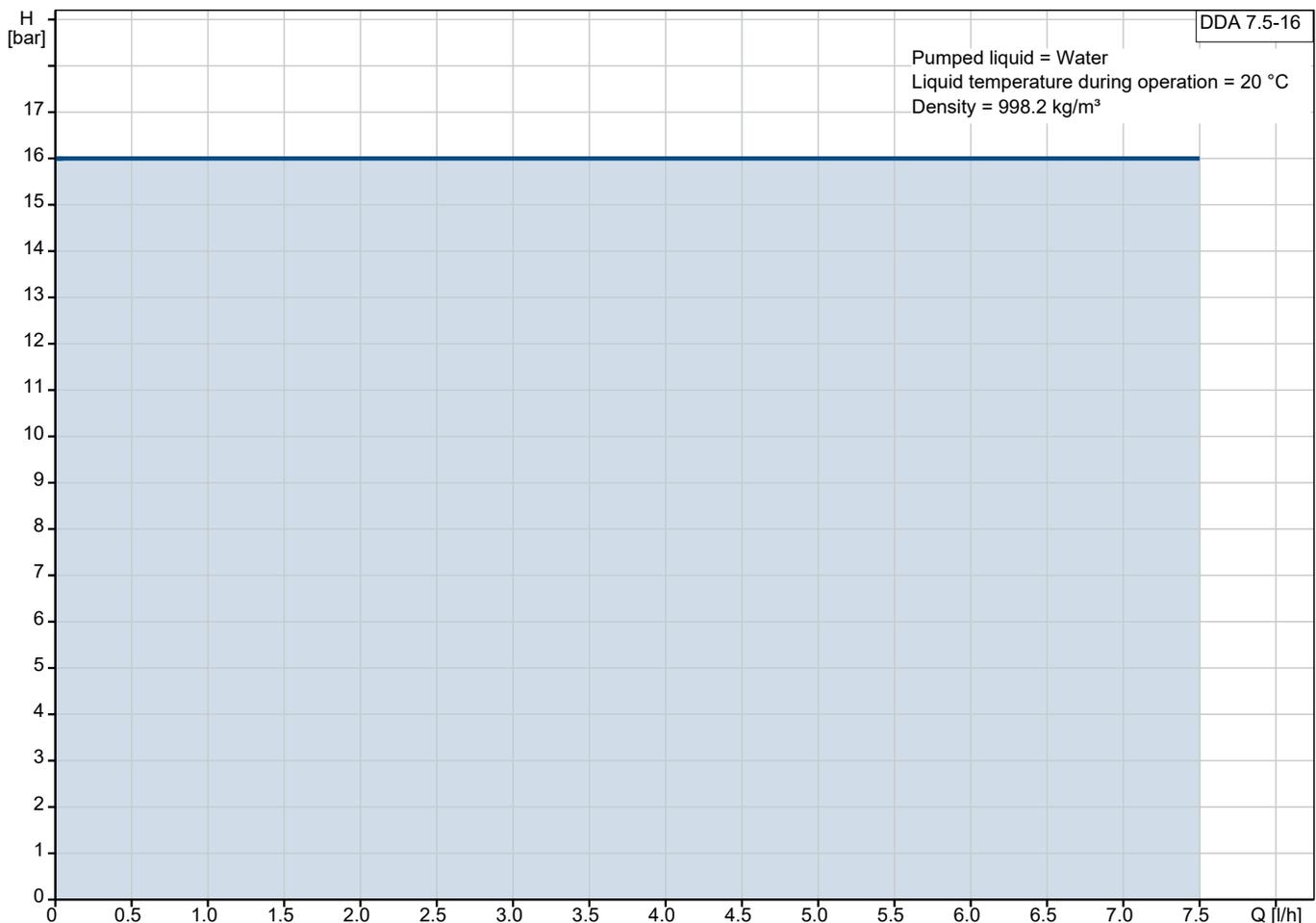
## DDA 7.5-16 FCM-PP/V/C-F-31I001FG



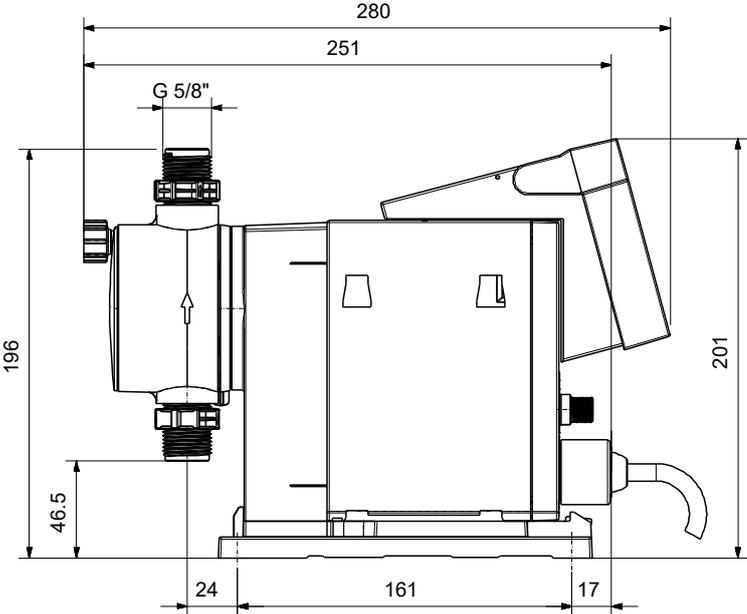
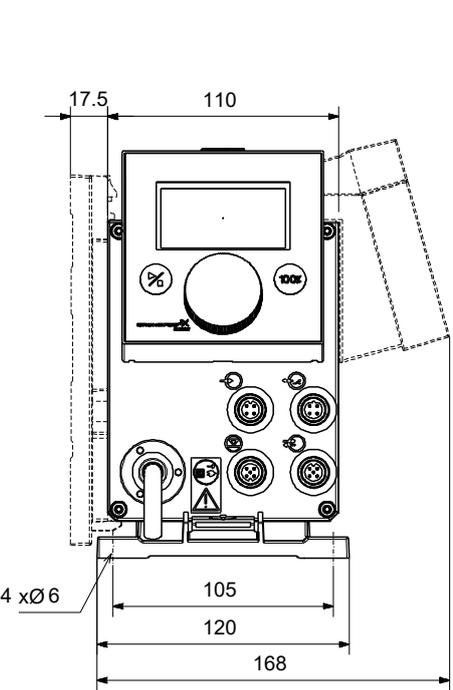
SMART Digital diaphragm dosing pump with internal brushless motor drive. High-end solution for complex and demanding applications (Digital Dosing Advanced).

Note! Product picture may differ from actual product

Conditions of Service		Pump Data		Motor Data	
Liquid:	Water	Maximum operating pressure:	16 bar	Rated voltage:	100-240 V
Temperature:	20 °C	Liquid temperature range:	-10 .. 45 °C	Mains frequency:	50 / 60 Hz
Specific Gravity:	1.000	Maximum ambient temperature:	45 °C	Enclosure class:	IP65 / NEMA 4X
		Approvals:	CE, CSA-US, EAC, RCM		
		Product number:	On request		



# Submittal Data



- Materials:**
- Dosing head: PP (Polypropylene)
  - Valve ball: Ceramic
  - Gasket: FKM

Qty.	Description
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1	DDA 7.5-16 FCM-PP/V/C-F-31I001FG
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**Note! Product picture may differ from actual product**

Product No.: On request  
DDA 7.5-16 FCM-PP/V/C-F-31I001

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= 3.75 l/h) and 25 % (maximum flow= 1.88 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.

**Qty. Description**

1 - 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 4/6 mm 3).
- Foot valve (without level switch).
- Injection unit.
- 6 m PE discharge hose.
- 2 m PVC suction hose.
- 2 m PVC deaeration hose (4/6 mm).

Technical:

Type key: DDA 7.5-16 FCM-PP/V/C-F-31I001  
 Max. Flow: 7.5 l/h  
 Max. flow in slow mode 50%: 3.75 l/h  
 Max. flow in slow mode 25%: 1.88 l/h  
 Min flow: 2.5 ml/h  
 Turn-down ratio: 1:3000  
 Approvals: CE, CSA-US, EAC, RCM  
 Valve type: Standard  
 Maximum viscosity at 100 %: 50 mPas  
 Maximum viscosity in slow mode 50 %: 1800 mPas  
 Maximum viscosity in slow mode 25 %: 2500 mPas  
 Accuracy of repeatability: 1 %

Materials:

Dosing head: PP (Polypropylene)  
 Valve ball: Ceramic  
 Gasket: FKM

Installation:

Range of ambient temperature: 0 .. 45 °C  
 Maximum operating pressure: 16 bar  
 Installation set: YES  
 Installation type: 4/6 mm up to 7,5 l/h, 16 bar  
 Pump inlet: Hose 4/6 mm 3  
 Pump outlet: Hose 4/6 mm 3  
 Max. Suction lift during operation: 6 m  
 Max. Suction lift during priming: 2 m

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:

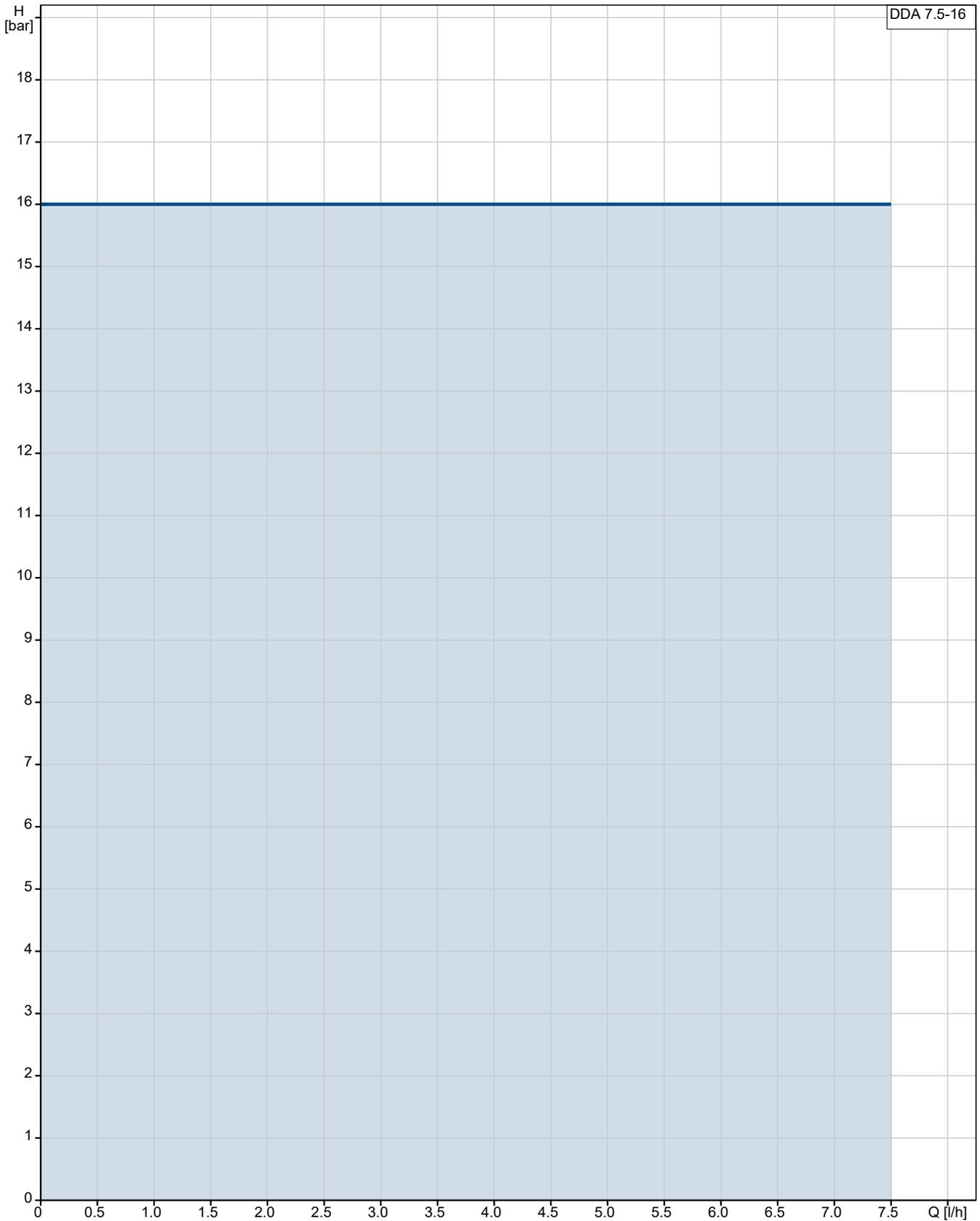
Maximum power input - P1: 24 W  
 Mains frequency: 50 / 60 Hz  
 Rated voltage: 1 x 100-240 V  
 Enclosure class (IEC 34-5): IP65 / NEMA 4X  
 Length of cable: 1.5 m



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**Date:** 08/10/2023

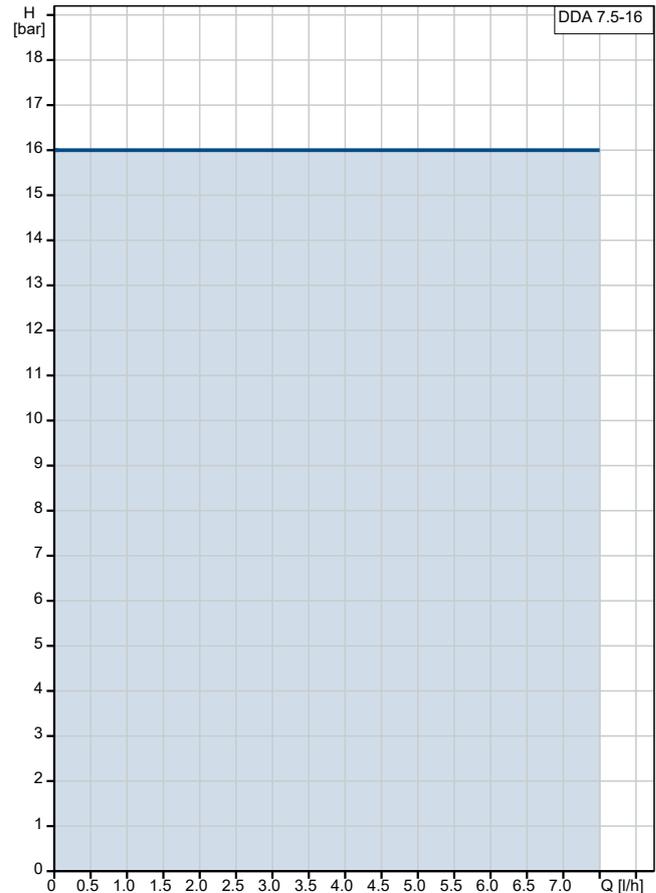
Qty.	Description
1	Type of cable plug: EU Inrush current: 25A at 230V for 2ms  Controls: Control variant: FCM Level control: YES Analog input: 0/4-20 MA Pulse control: YES Ext. Stop input: YES Analog output: 0/4-20 MA Output relays: 2 Bus communication: YES  Others: Net weight: 2 kg Gross weight: 3 kg Color: RED

## On request DDA 7.5-16 FCM-PP/V/C-F-31I001FG

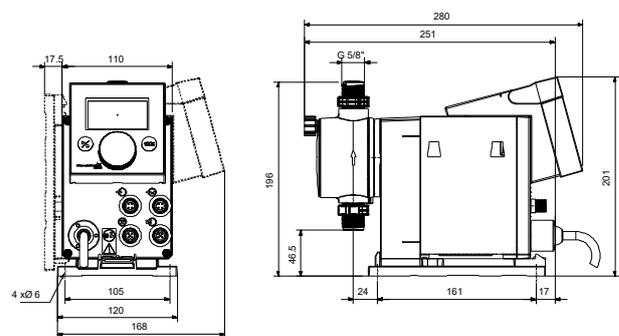


Pumped liquid = Water  
Liquid temperature during operation = 20 °C  
Density = 998.2 kg/m<sup>3</sup>

Description	Value
<b>General information:</b>	
Product name:	DDA 7.5-16 FCM-PP/V/C-F-31I001FG
Product No:	On request
EAN number:	On request
<b>Technical:</b>	
Type key:	DDA 7.5-16 FCM-PP/V/C-F-31I001
Max. Flow:	7.5 l/h
Max. flow in slow mode 50%:	3.75 l/h
Max. flow in slow mode 25%:	1.88 l/h
Min flow:	2.5 ml/h
Turn-down ratio:	1:3000
Approvals:	CE, CSA-US, EAC, RCM
Valve type:	Standard
Maximum viscosity at 100 %:	50 mPas
Maximum viscosity in slow mode 50 %:	1800 mPas
Maximum viscosity in slow mode 25 %:	2500 mPas
Accuracy of repeatability:	1 %
<b>Materials:</b>	
Dosing head:	PP (Polypropylene)
Valve ball:	Ceramic
Gasket:	FKM
<b>Installation:</b>	
Range of ambient temperature:	0 .. 45 °C
Maximum operating pressure:	16 bar
Installation set:	YES
Installation type:	4/6 mm up to 7,5 l/h, 16 bar
Pump inlet:	Hose 4/6 mm 3
Pump outlet:	Hose 4/6 mm 3
Max. Suction lift during operation:	6 m
Max. Suction lift during priming:	2 m
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	-10 .. 45 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m <sup>3</sup>
<b>Electrical data:</b>	
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
<b>Controls:</b>	
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
<b>Others:</b>	
Net weight:	2 kg



Pumped liquid = Water  
 Liquid temperature during operation = 20 °C  
 Density = 998.2 kg/m<sup>3</sup>

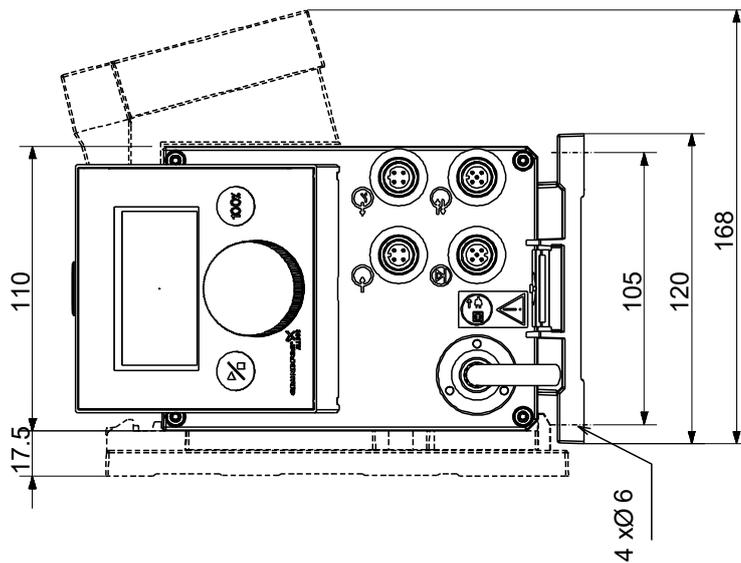
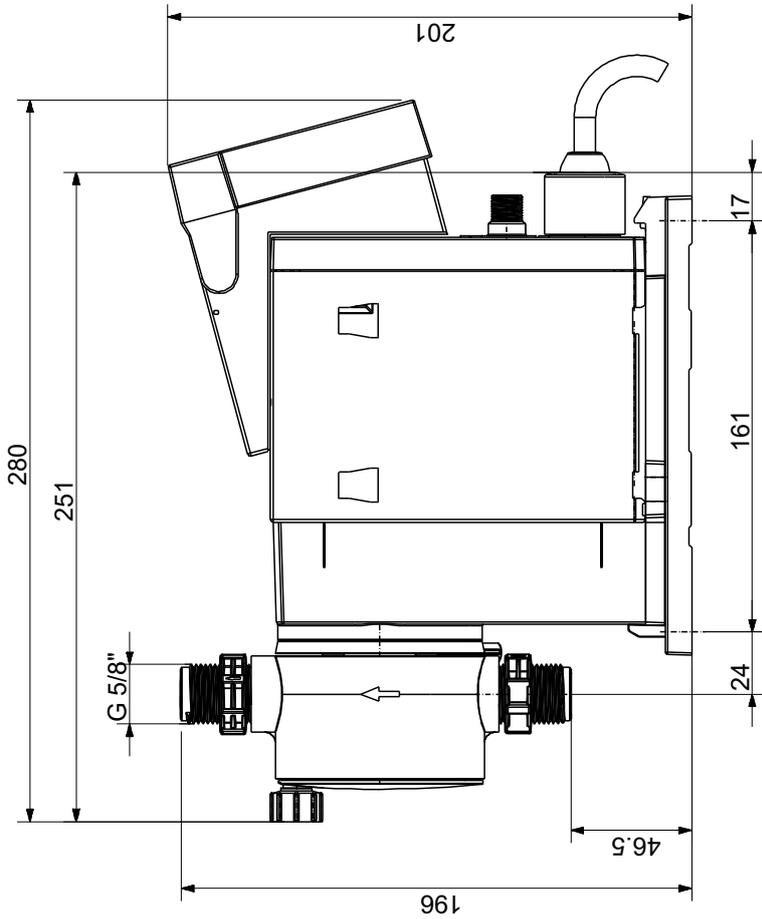




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**Date:** 08/10/2023

Description	Value
Gross weight:	3 kg
Color:	RED

**On request DDA 7.5-16 FCM-PP/V/C-F-31I001FG**



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

