

# Submittal Data

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

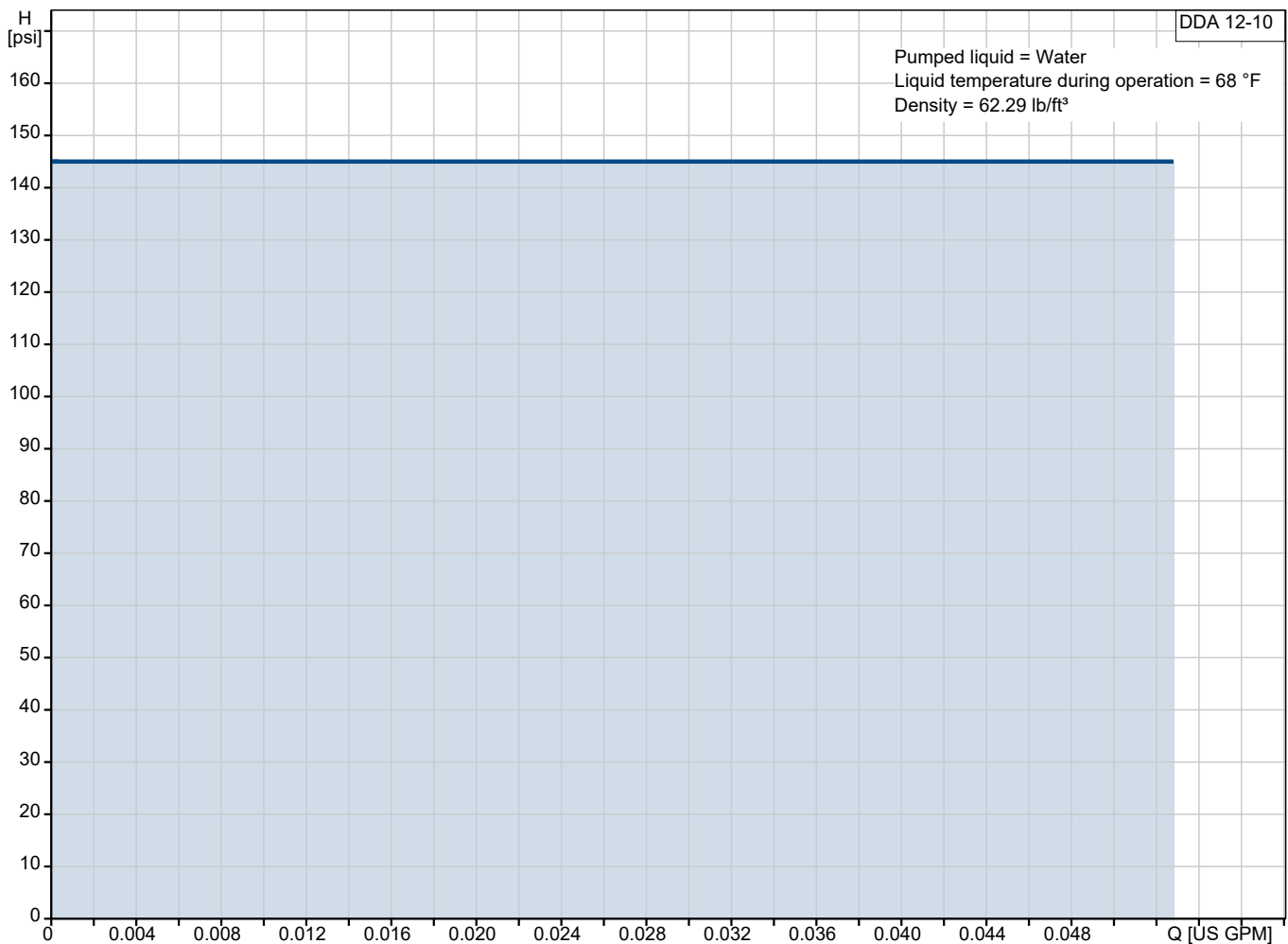


## DDA 12-10 FCM-C-PV/T/C-F-31U7U7BG

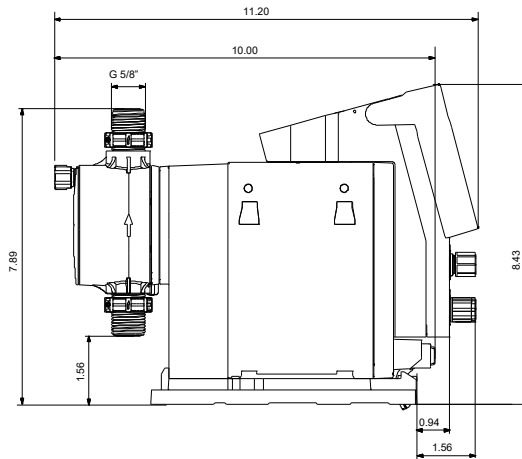
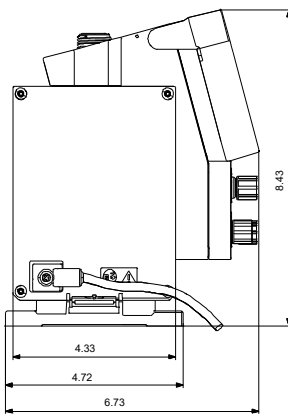
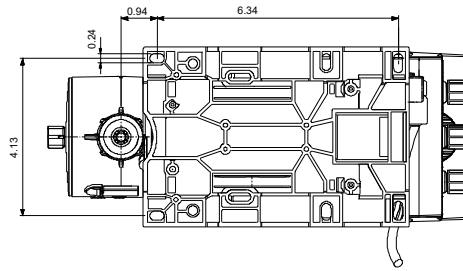
SMART Digital diaphragm dosing pump with internal brushless motor drive. High-end solution for complex and demanding applications (Digital Dosing Advanced).

Note! Product picture may differ from actual product

Conditions of Service	Pump Data	Motor Data
Liquid: Water	Maximum operating pressure: 145.04 psi	Rated voltage: 100-240 V
Temperature: 68 °F	Liquid temperature range: 32 .. 113 °F	Mains frequency: 50 / 60 Hz
Specific Gravity: 1.000	Maximum ambient temperature: 113 °F	Enclosure class: IP65 / TYPE 4X
	Product number: 93065013	



# Submittal Data



**Materials:**

Dosing head: PVDF (Polyvinylidene fluoride)

Valve ball: Ceramic

Gasket: PTFE

Qty. Description

1 DDA 12-10 FCM-C-PV/T/C-F-31U7U7BG



Note! Product picture may differ from actual product

Product No.: [93065013](#)

The SMART Digital DDA-C 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.

Depending on the set capacity, the duration of the discharge stroke varies, ensuring an optimal, uniform 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 easily turned to the front, left or right position.

The click wheel and the multi-coloured backlit graphic plain-text LC display enable intuitive commissioning and operation.

The control elements are protected by a transparent cover.

The DDA-C has built-in connectivity that allows easy setup and tracking via the Grundfos GO app as well as easy integration into a Modbus RTU or TCP bus system.

The sensor-based FlowControlMeasurement (FCM) system detects malfunctions such as air bubbles, line breaks or overpressure directly in the dosing head and displays them in plain text in the alarm menu.

FCM measures the actual pressure and flow rate and eliminates the need for additional monitoring and control devices (accuracy of  $\pm 1.5\%$  of the set value in a trouble-free process).

The measured pressure and flow are displayed and can be integrated into the process control system, e.g. SCADA.

In addition, the AutoFlowAdapt function automatically adjusts the pump speed to the process conditions to maintain the target flow even with fluctuating back pressure or air bubble formation (degassing drive strategy).

The dosing head includes the following parts:

- A durable and chemically resistant full PTFE diaphragm,
- Double ball valves for maximum dosing accuracy,
- A deaeration valve for easy start-up,
- A pressure sensor.

Operation modes and functions:

- 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 (integrated Modbus RTU and TCP; Profibus DP, Profinet and Ethernet IP via CIM/CIU models).
- Cloud control and monitoring (Smart Digital Chempairing Suite; Grundfos Connect).

Other features:

- The sensor-based FlowControlMeasurement (FCM) system detects malfunctions such as air bubbles, line breaks or overpressure directly in the dosing head.
- Measurement of actual pressure and flow.
- AutoFlowAdapt automatically adjusts the pump speed to the process conditions (what you set is what you get).

Qty.	Description
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- Degassing drive strategy in case of air bubbles detected in the dosing head and Auto Deaeration during pump standby avoids stand-still due to air-locking.
- ConditionCheck analyses the pump and the system where the pump is installed.
- Two SlowMode steps (anti-cavitation), 50 % and 25 % maximum flow, e.g. for high-viscosity or degassing liquids.
- Max. Capacity to limit the capacity of the pump to a set maximum.
- Service information display to show when service and which wear-part order numbers are required.
- Two-step key lock function to protect the pump against unauthorised access.
- Multi-parameter dashboard function to provide further information on up to 4 parameters.
- Counter for total dosed volume (resettable), operating hours, etc.
- Save, copy and load customised settings as well as reload 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 control (Integrated Modbus RTU and TCP; Profibus DP, Profinet and Ethernet IP via CIM/CIU models).
- Cloud control and monitoring (Smart Digital Chempairing Suite; Grundfos Connect).



Company name:

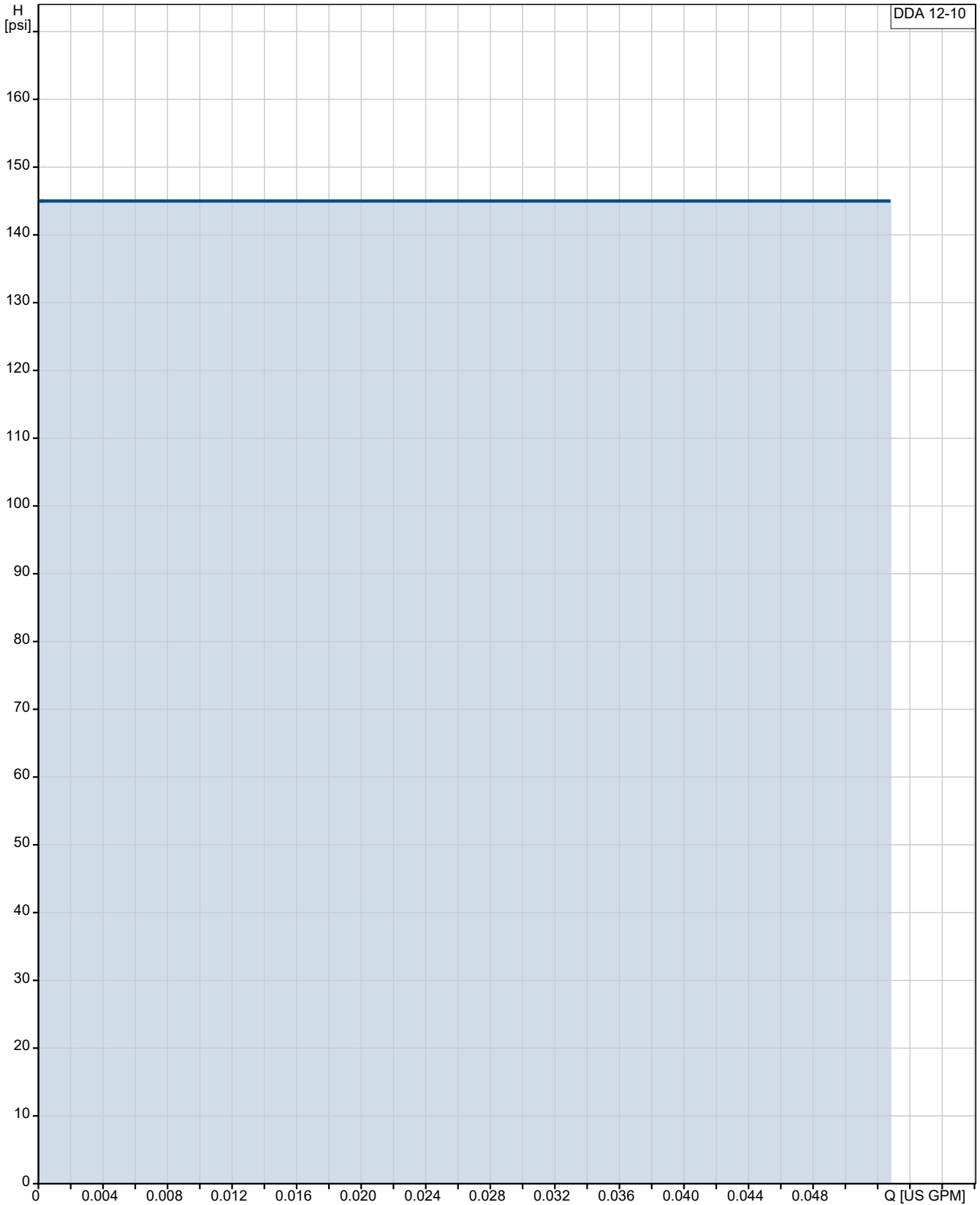
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Phone:

Date:

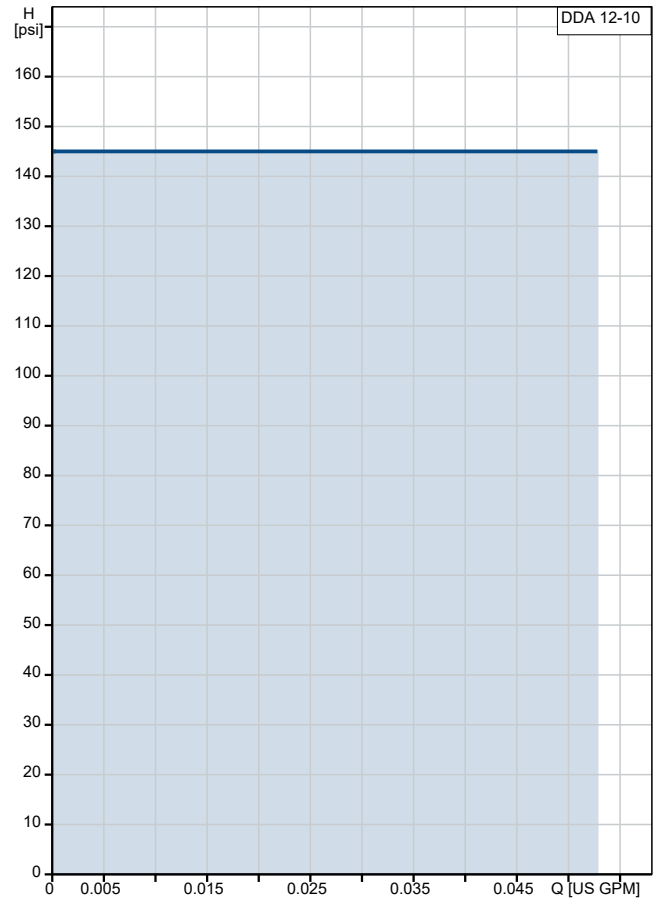
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### 93065013 DDA 12-10 FCM-C-PV/T/C-F-31U7U7BG

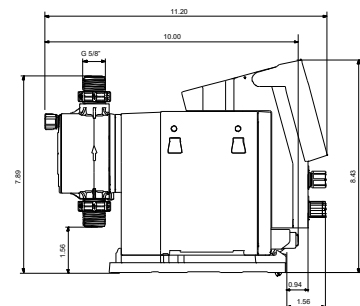
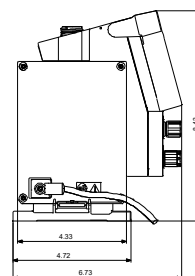
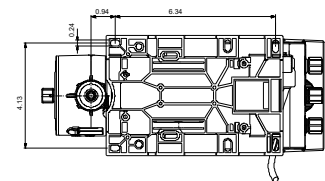


Pumped liquid = Water  
Liquid temperature during operation = 68 °F  
Density = 62.29 lb/ft<sup>3</sup>

Description	Value
<b>General information:</b>	
Product name:	DDA 12-10 FCM-C-PV/T/C-F-31U7U7BG
Product No:	93065013
EAN number:	5715467277821
<b>Technical:</b>	
Type key:	DDA 12-10 FCM-C-PV/T/C-F-31U7U
Max. Flow:	0.05283 US GPM
Max. flow in slow mode 50%:	0.02642 US GPM
Max. flow in slow mode 25%:	0.01321 US GPM
Min flow:	12.0 ml/h
Turn-down ratio:	1:1000
Approvals:	CE, CSA-US, NSF61, RCM
Valve type:	Standard
Maximum viscosity at 100 %:	300 mPas
Maximum viscosity in slow mode 50 %:	1300 mPas
Maximum viscosity in slow mode 25 %:	2500 mPas
Accuracy of repeatability:	1 %
<b>Materials:</b>	
Dosing head:	PVDF (Polyvinylidene fluoride)
Valve ball:	Ceramic
Gasket:	PTFE
<b>Installation:</b>	
Range of ambient temperature:	32 .. 113 °F
Maximum operating pressure:	145.04 psi
Installation set (Yes/No):	NO
Installation type:	No installation set
Pump inlet:	0.17x 1/4, 1/4x3/8, 3/8x1/2"
Pump outlet:	0.17x 1/4, 1/4x3/8, 3/8x1/2"
Max. Suction lift during operation:	19.7 ft
Max. Suction lift during priming:	9.84 ft
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	32 .. 113 °F
Selected liquid temperature:	68 °F
Density:	62.29 lb/ft <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 / TYPE 4X
Length of cable:	4.92 ft
Type of cable plug:	USA, Canada
Inrush current:	25A at 230V for 2ms
<b>Controls:</b>	
Control variant:	FCM-C
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>	



Pumped liquid = Water  
 Liquid temperature during operation = 68 °F  
 Density = 62.29 lb/ft<sup>3</sup>





Company name:

Created by:

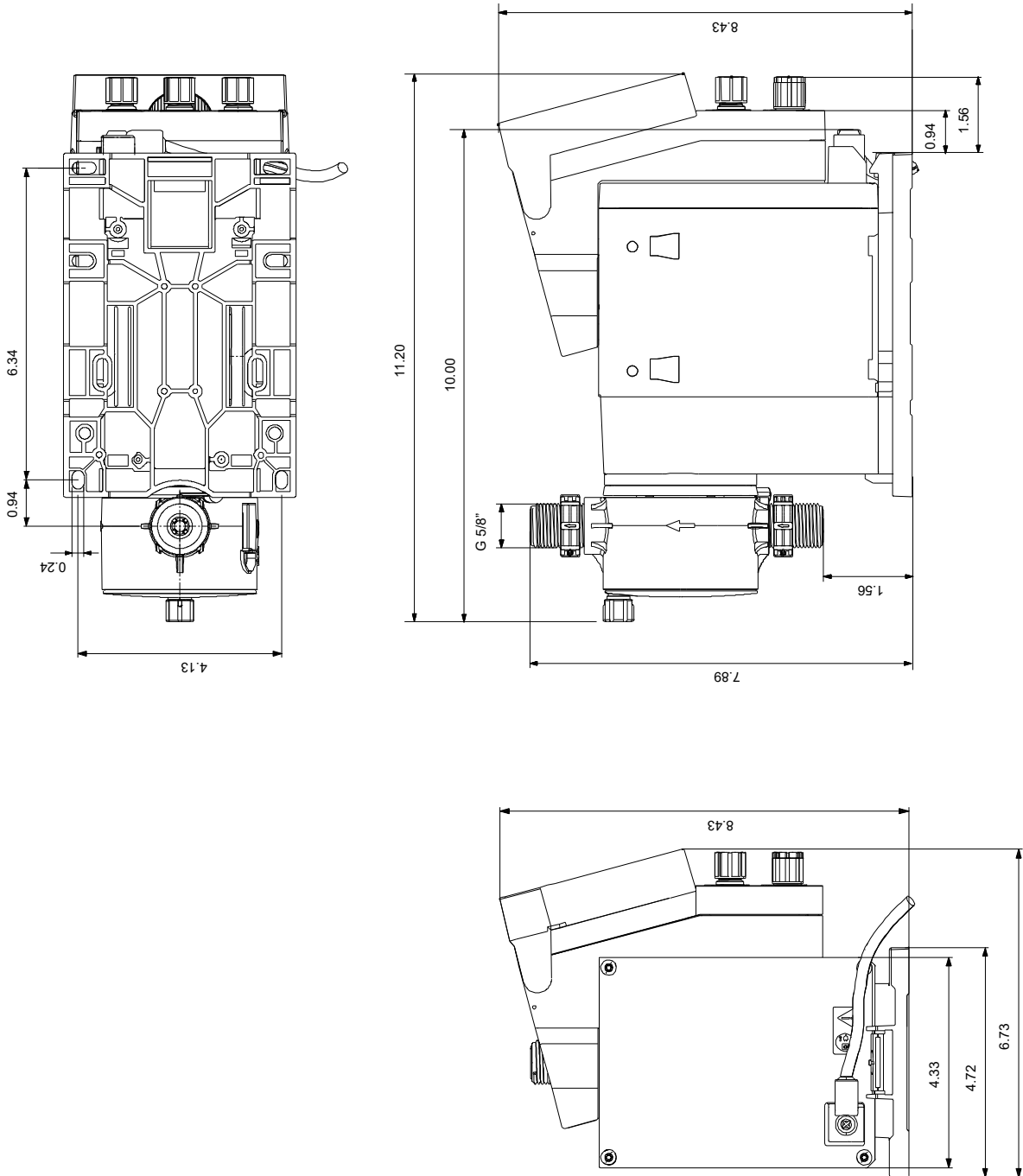
Phone:

Date:

06/02/2025

Description	Value
Net weight:	6.62 lb
Gross weight:	6.62 lb
Color:	RED
Country of origin:	US
Custom tariff no.:	8413.19.0000

## 93065013 DDA 12-10 FCM-C-PV/T/C-F-31U7U7BG



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