


Position	Count	Description
	1	<p data-bbox="341 338 470 367">DDA 12-10</p> <div data-bbox="379 465 683 725" style="text-align: center;">  </div> <p data-bbox="735 723 1190 748" style="text-align: center;">Product photo could vary from the actual product</p> <p data-bbox="341 754 743 813">Product No.: 97722536 DDA 12-10 FCM-PVC/E/C-F-311004</p> <p data-bbox="341 844 1422 992">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.</p> <p data-bbox="341 987 1453 1086">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.</p> <p data-bbox="341 1128 1445 1328">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).</p> <p data-bbox="341 1379 711 1408">The dosing head is composed of:</p> <ul data-bbox="379 1413 1182 1525" style="list-style-type: none"> - Long lifetime and universal, chemically resistant full-PTFE diaphragm. - Double ball valves for highest dosing accuracy. - Deaeration valve for easy start-up. - Pressure sensor. <p data-bbox="341 1561 544 1590">Operation modes:</p> <ul data-bbox="379 1594 1062 1765" style="list-style-type: none"> - 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). <p data-bbox="341 1800 512 1830">Other features:</p> <ul data-bbox="379 1834 1410 2089" style="list-style-type: none"> - Auto deaeration during pump standby to avoid breakdowns due to air-locking. - Two SlowMode steps (anti-cavitation), 50 % (maximum flow: 1.585 US gal/hour) and 25 % (maximum flow: 0.7925 US gal/hour), 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.

Position	Count	Description
		<p>Signal inputs/outputs:</p> <ul style="list-style-type: none"> - 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). <p>Installation set includes:</p> <ul style="list-style-type: none"> - 2 pump connections (Hose 3/8x1/2" S). - 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). <p>Technical:</p> <p>Type key: DDA 12-10 FCM-PVC/E/C-F-31I004 Max. Flow: 3.17 US gal/hour Max. flow in slow mode 50%: 1.585 US gal/hour Max. flow in slow mode 25%: 0.7925 US gal/hour Min flow: 12.0 ml/h Turn-down ratio: 1:1000 Approvals on nameplate: 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 %</p> <p>Materials:</p> <p>Dosing head: PVC (Polyvinyl chloride) Valve ball: Ceramic Gasket: EPDM</p> <p>Installation:</p> <p>Range of ambient temperature: 32 .. 113 °F Maximum operating pressure: 145 psi Installation set: YES Installation type: 3/8"x1/2" up to 60 l/h,10bar Pump inlet: Hose 3/8x1/2" S Pump outlet: Hose 3/8x1/2" S Max. Suction lift during operation: 19.69 ft Max. Suction lift during priming: 9.843 ft</p> <p>Liquid:</p> <p>Pumped liquid: Water Liquid temperature range: 14 .. 113 °F Liquid temperature during operation: 68 °F Density: 62.29 lb/ft³</p> <p>Electrical data:</p> <p>Maximum power input - P1: 24 W Main frequency: 60 Hz Rated voltage: 1 x 100-240 V Enclosure class (IEC 34-5): IP65 / NEMA 4X Length of cable: 4.922 ft Type of cable plug: USA, Canada Inrush current: 25A at 230V for 2ms</p>



Company name:

Created by:

Phone:

Date:

11/21/2018

Position	Count	Description																								
		<p>Controls:</p> <table><tr><td>Control variant:</td><td>FCM</td></tr><tr><td>Level control:</td><td>YES</td></tr><tr><td>Analog input:</td><td>0/4-20 mA</td></tr><tr><td>Pulse control:</td><td>YES</td></tr><tr><td>Ext. Stop input:</td><td>YES</td></tr><tr><td>Analog output:</td><td>0/4-20 mA</td></tr><tr><td>Output relays:</td><td>2</td></tr><tr><td>Bus communication:</td><td>YES</td></tr></table> <p>Others:</p> <table><tr><td>Net weight:</td><td>4.41 lb</td></tr><tr><td>Gross weight:</td><td>6.62 lb</td></tr><tr><td>COLOR:</td><td>RED</td></tr><tr><td>Custom tariff no.:</td><td>8413.50.0050</td></tr></table>	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	Net weight:	4.41 lb	Gross weight:	6.62 lb	COLOR:	RED	Custom tariff no.:	8413.50.0050
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																									
Net weight:	4.41 lb																									
Gross weight:	6.62 lb																									
COLOR:	RED																									
Custom tariff no.:	8413.50.0050																									



Company name:

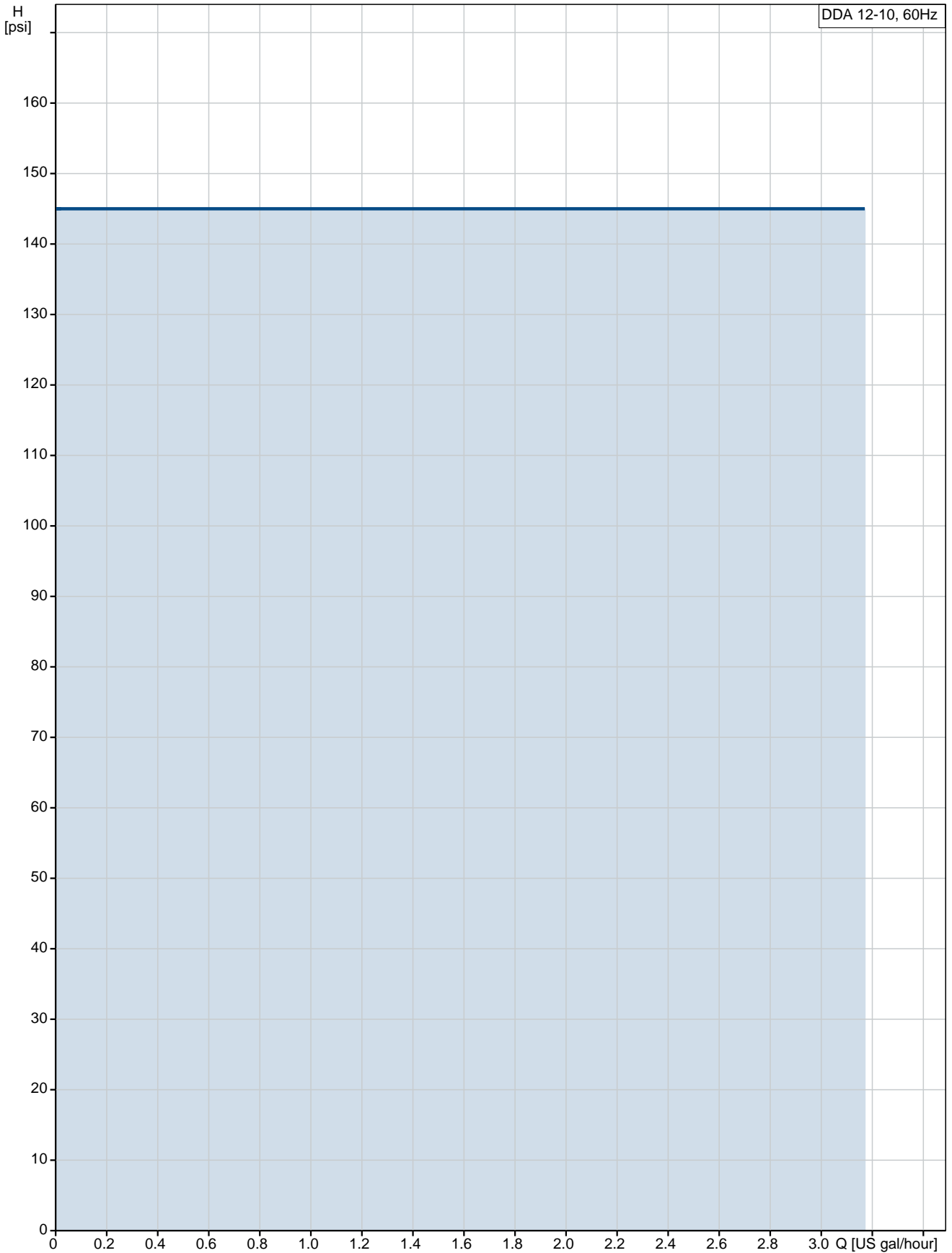
Created by:

Phone:

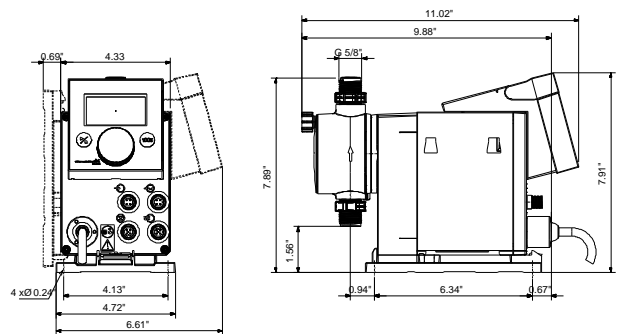
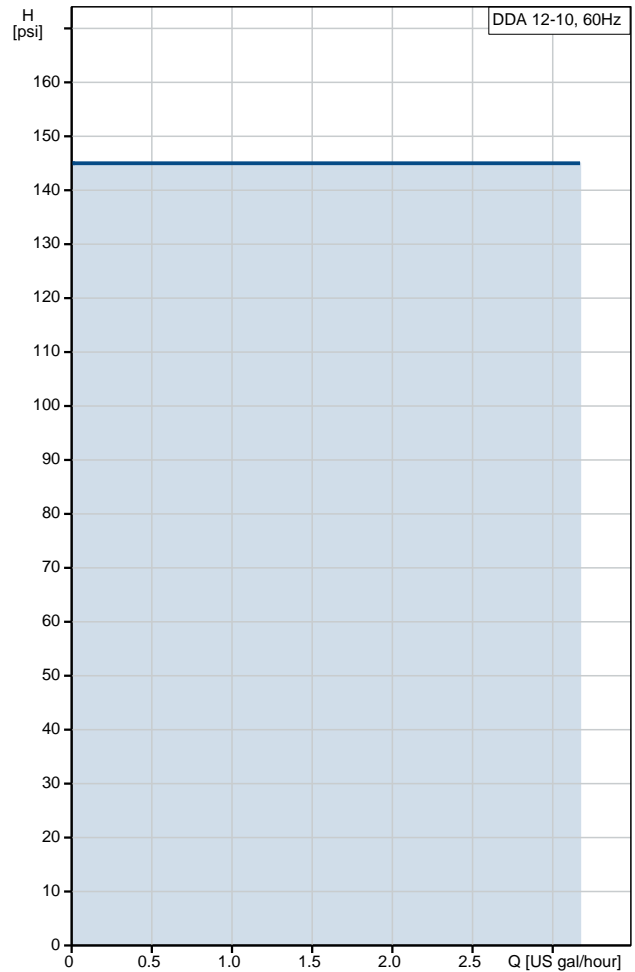
Date:

11/21/2018

97722536 DDA 12-10 60 Hz



Description	Value
General information:	
Product name:	DDA 12-10
Product No.:	97722536
EAN:	5710622726794
Technical:	
Type key:	DDA 12-10 FCM-PVC/E/C-F-311004
Max. Flow:	3.17 US gal/hour
Max. flow in slow mode 50%:	1.585 US gal/hour
Max. flow in slow mode 25%:	0.7925 US gal/hour
Min flow:	12.0 ml/h
Turn-down ratio:	1:1000
Approvals on nameplate:	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 %
Materials:	
Dosing head:	PVC (Polyvinyl chloride)
Valve ball:	Ceramic
Gasket:	EPDM
Installation:	
Range of ambient temperature:	32 .. 113 °F
Maximum operating pressure:	145 psi
Installation set:	YES
Installation type:	3/8"x1/2" up to 60 l/h,10bar
Pump inlet:	Hose 3/8x1/2" S
Pump outlet:	Hose 3/8x1/2" S
Max. Suction lift during operation:	19.69 ft
Max. Suction lift during priming:	9.843 ft
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	14 .. 113 °F
Liquid temperature during operation:	68 °F
Density:	62.29 lb/ft³
Electrical data:	
Maximum power input - P1:	24 W
Main frequency:	60 Hz
Rated voltage:	1 x 100-240 V
Enclosure class (IEC 34-5):	IP65 / NEMA 4X
Length of cable:	4.922 ft
Type of cable plug:	USA, Canada
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:	
Net weight:	4.41 lb
Gross weight:	6.62 lb
COLOR:	RED





Company name:

Created by:

Phone:

Date:

11/21/2018

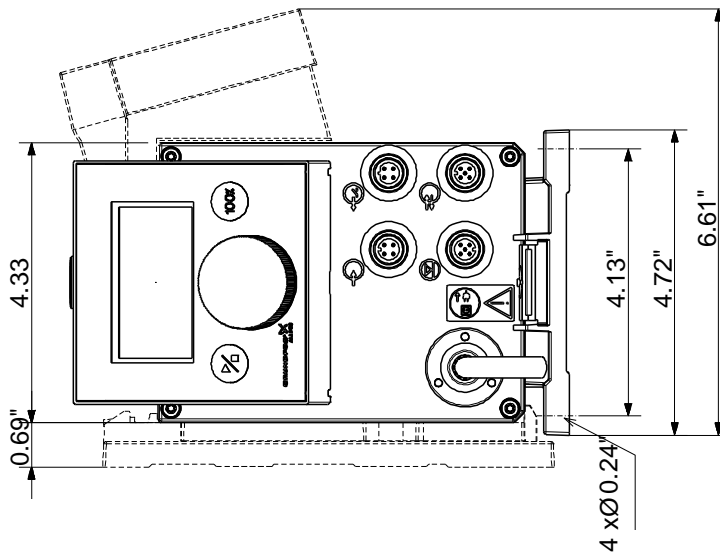
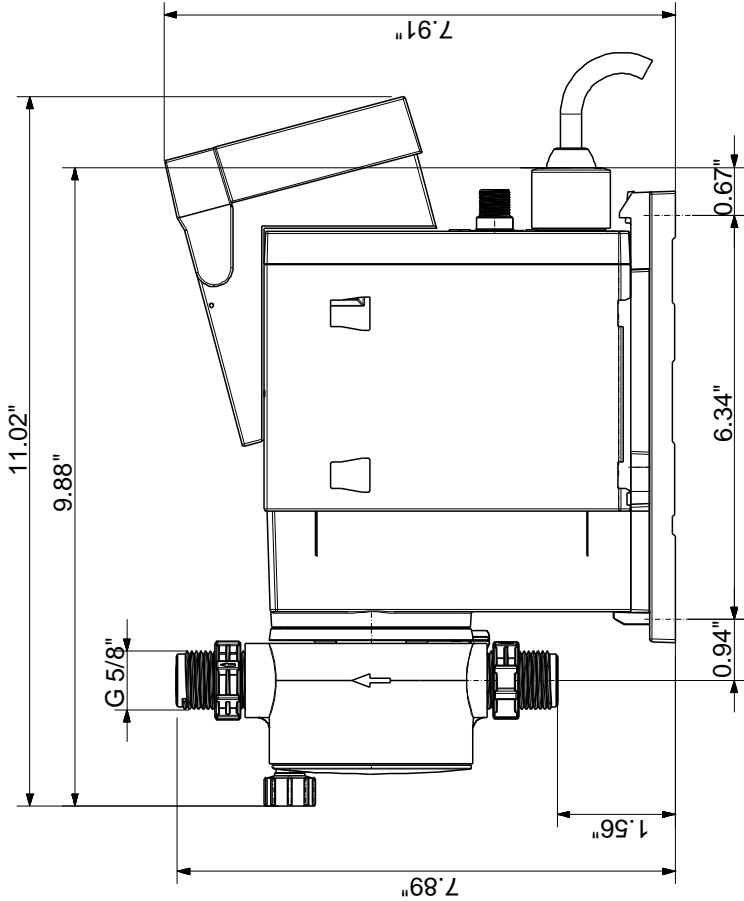
Description

Value

Custom tariff no.:

8413.50.0050

97722536 DDA 12-10 60 Hz



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