


Position	Count	Description
	1	<p data-bbox="341 338 469 365"><b>DDA 12-10</b></p> <div data-bbox="379 465 683 725" style="text-align: center;">  </div> <p data-bbox="735 723 1190 745" style="text-align: center;">Product photo could vary from the actual product</p> <p data-bbox="341 754 751 808">Product No.: <a href="#">97722509</a> DDA 12-10 FC-PVC/T/C-F-31U7U7B</p> <p data-bbox="341 844 1453 1084">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.</p> <p data-bbox="341 1128 1442 1323">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 <math>\pm 1,5\%</math> 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 1406">The dosing head is composed of:</p> <ul data-bbox="379 1413 1182 1525" style="list-style-type: none"> <li>- Long lifetime and universal, chemically resistant full-PTFE diaphragm.</li> <li>- Double ball valves for highest dosing accuracy.</li> <li>- Deaeration valve for easy start-up.</li> <li>- Pressure sensor.</li> </ul> <p data-bbox="341 1561 539 1588">Operation modes:</p> <ul data-bbox="379 1594 1062 1765" style="list-style-type: none"> <li>- Manual dosing in ml/h, l/h or gph.</li> <li>- Pulse control in ml/pulse (incl. memory function).</li> <li>- Analog control 0/4-20 mA (scalable).</li> <li>- Pulse-based batch function in ml, l or gal.</li> <li>- Timer-based batch function (Dosing timer, cycle or week).</li> <li>- Fieldbus control (Genibus prepared for ProfibusDP E-box).</li> </ul> <p data-bbox="341 1800 507 1827">Other features:</p> <ul data-bbox="379 1834 1410 2087" style="list-style-type: none"> <li>- Auto deaeration during pump standby to avoid breakdowns due to air-locking.</li> <li>- 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.</li> <li>- Service information display to show when service and which wear-part order number is required.</li> <li>- Two-step key lock function to protect the pump against unauthorised access.</li> <li>- Additional display function to provide further information, e.g. the actual mA input signal.</li> <li>- Counter for total dosed volume (resettable), operating hours, etc.</li> <li>- Save and load customised settings as well as reload of factory settings.</li> </ul>

Position	Count	Description
		<p>Signal inputs/outputs:</p> <ul style="list-style-type: none"> <li>- Input for pulse, analog 0/4-20mA, external stop.</li> <li>- Input for low-level and empty-tank signal.</li> <li>- Two potential-free output relays for max. 30 V AC/DC (configurable, e.g. alarm, stroke signal, pump dosing, timer etc.)</li> <li>- Output analog 0/4-20mA.</li> <li>- Fieldbus communication interface (GeniBus, also for additional Profibus DP E-box to retrofit).</li> </ul> <p><b>Technical:</b></p> <p>Type key: DDA 12-10 FC-PVC/T/C-F-31U7U7B</p> <p>Max. Flow: 3.17 US gal/hour</p> <p>Max. flow in slow mode 50%: 1.585 US gal/hour</p> <p>Max. flow in slow mode 25%: 0.7925 US gal/hour</p> <p>Min flow: 12.0 ml/h</p> <p>Turn-down ratio: 1:1000</p> <p>Approvals on nameplate: CE,CSA-US,NSF61,RCM</p> <p>Valve type: Standard</p> <p>Maximum viscosity at 100 %: 300 mPas</p> <p>Maximum viscosity in slow mode 50 %: 1300 mPas</p> <p>Maximum viscosity in slow mode 25 %: 2500 mPas</p> <p>Accuracy of repeatability: 1 %</p> <p><b>Materials:</b></p> <p>Dosing head: PVC (Polyvinyl chloride)</p> <p>Valve ball: Ceramic</p> <p>Gasket: PTFE</p> <p><b>Installation:</b></p> <p>Range of ambient temperature: 32 .. 113 °F</p> <p>Maximum operating pressure: 145 psi</p> <p>Installation set: NO</p> <p>Installation type: No installation set</p> <p>Pump inlet: 0.17x 1/4, 1/4x3/8, 3/8x1/2"</p> <p>Pump outlet: 0.17x 1/4, 1/4x3/8, 3/8x1/2"</p> <p>Max. Suction lift during operation: 19.69 ft</p> <p>Max. Suction lift during priming: 9.843 ft</p> <p><b>Liquid:</b></p> <p>Pumped liquid: Water</p> <p>Liquid temperature range: 14 .. 113 °F</p> <p>Liquid temperature during operation: 68 °F</p> <p>Density: 62.29 lb/ft<sup>3</sup></p> <p><b>Electrical data:</b></p> <p>Maximum power input - P1: 24 W</p> <p>Main frequency: 60 Hz</p> <p>Rated voltage: 1 x 100-240 V</p> <p>Enclosure class (IEC 34-5): IP65 / NEMA 4X</p> <p>Length of cable: 4.922 ft</p> <p>Type of cable plug: USA, Canada</p> <p>Inrush current: 25A at 230V for 2ms</p> <p><b>Controls:</b></p> <p>Control variant: FC</p> <p>Level control: YES</p> <p>Analog input: 0/4-20 mA</p> <p>Pulse control: YES</p> <p>Ext. Stop input: YES</p> <p>Analog output: 0/4-20 mA</p>



Company name:

Created by:

Phone:

Date:

11/20/2018

Position	Count	Description
		Output relays: 2 Bus communication: YES
		<b>Others:</b> Net weight: 4.41 lb Gross weight: 6.62 lb COLOR: RED Custom tariff no.: 8413.50.0050



Company name:

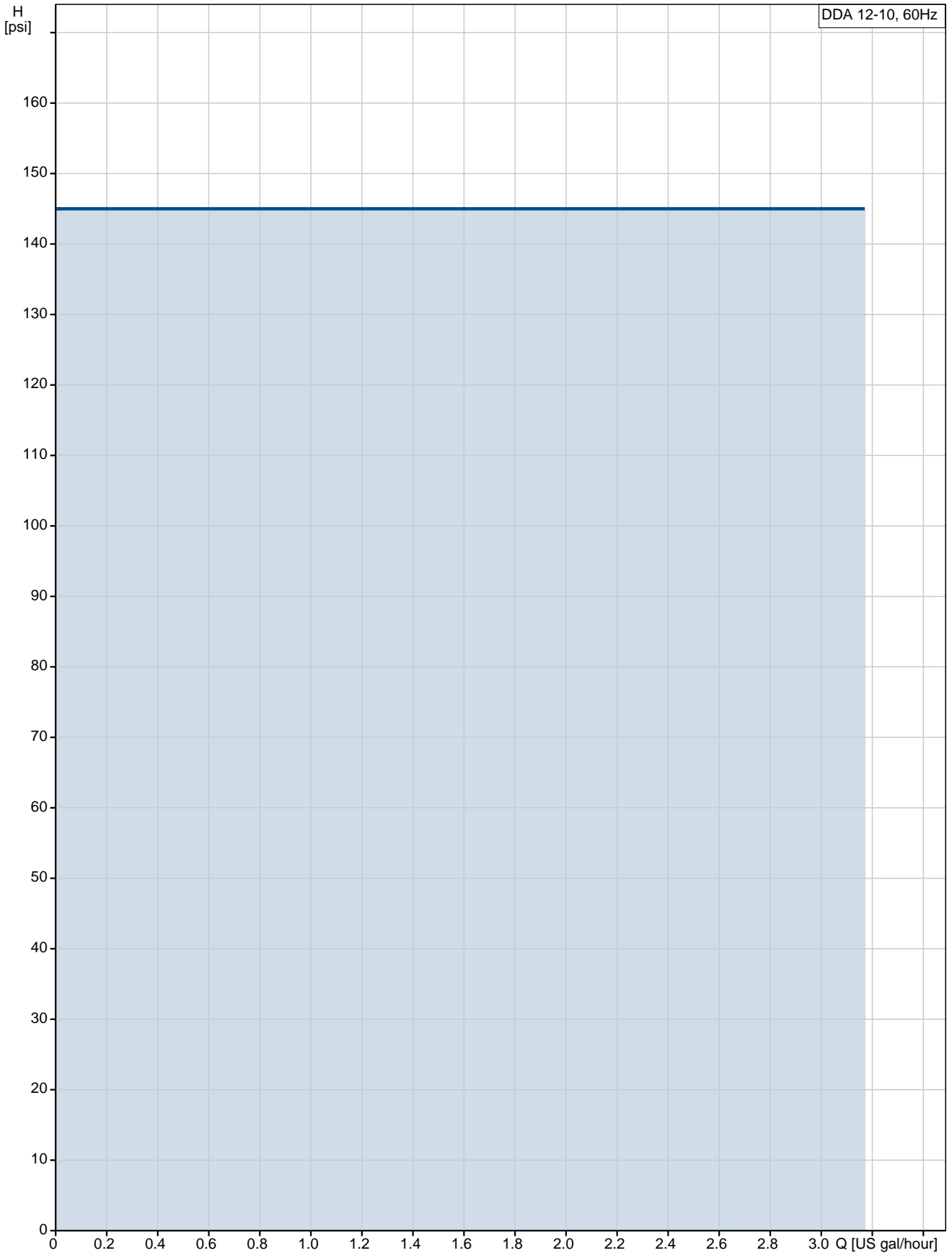
Created by:

Phone:

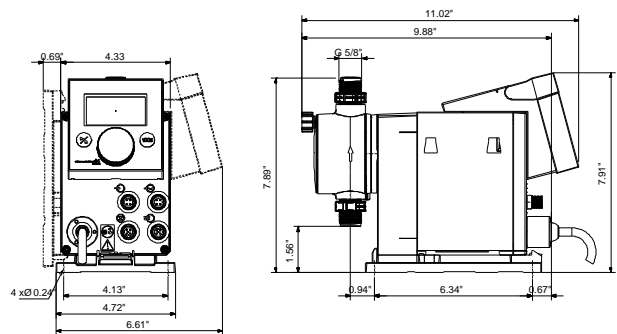
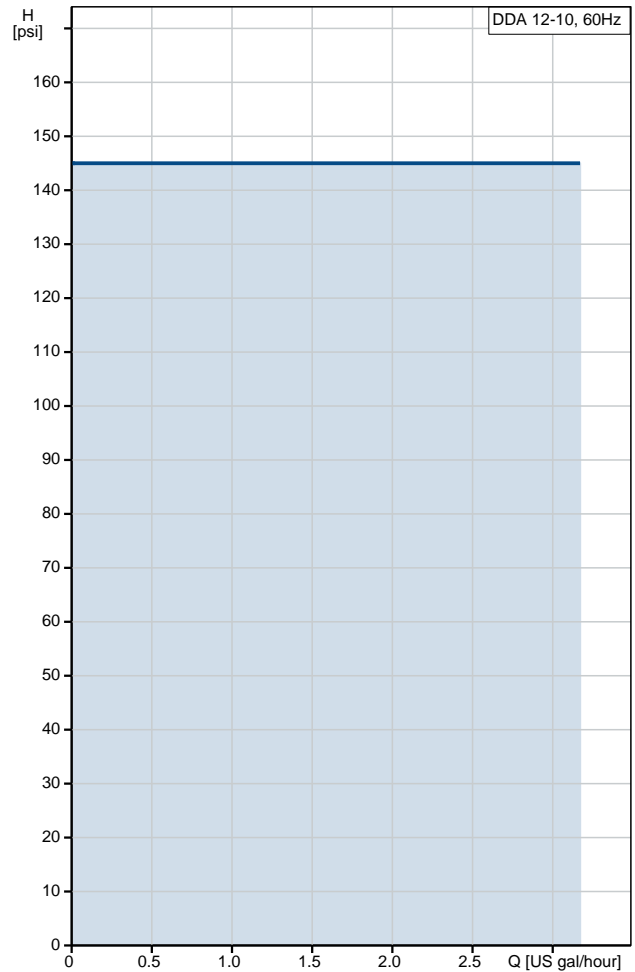
Date:

11/20/2018

## 97722509 DDA 12-10 60 Hz



Description	Value
<b>General information:</b>	
Product name:	DDA 12-10
Product No.:	97722509
EAN:	5710622726527
<b>Technical:</b>	
Type key:	DDA 12-10 FC-PVC/T/C-F-31U7U7B
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 %
<b>Materials:</b>	
Dosing head:	PVC (Polyvinyl chloride)
Valve ball:	Ceramic
Gasket:	PTFE
<b>Installation:</b>	
Range of ambient temperature:	32 .. 113 °F
Maximum operating pressure:	145 psi
Installation set:	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:	19.69 ft
Max. Suction lift during priming:	9.843 ft
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	14 .. 113 °F
Liquid temperature during operation:	68 °F
Density:	62.29 lb/ft <sup>3</sup>
<b>Electrical data:</b>	
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
<b>Controls:</b>	
Control variant:	FC
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:	4.41 lb
Gross weight:	6.62 lb





Company name:

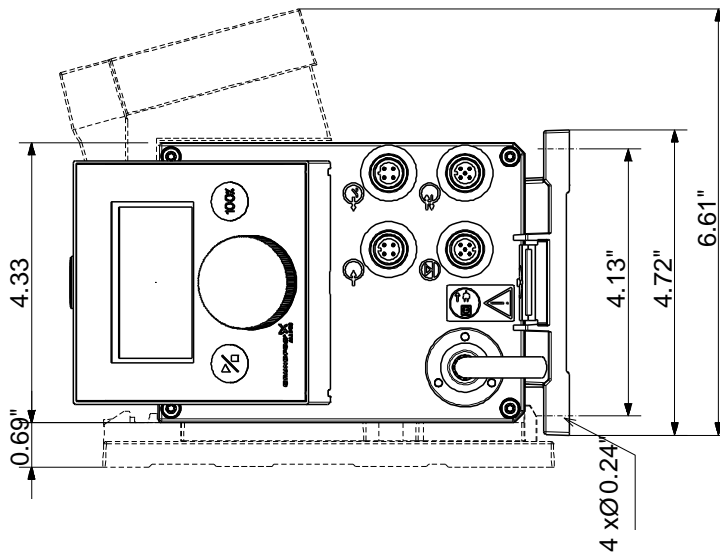
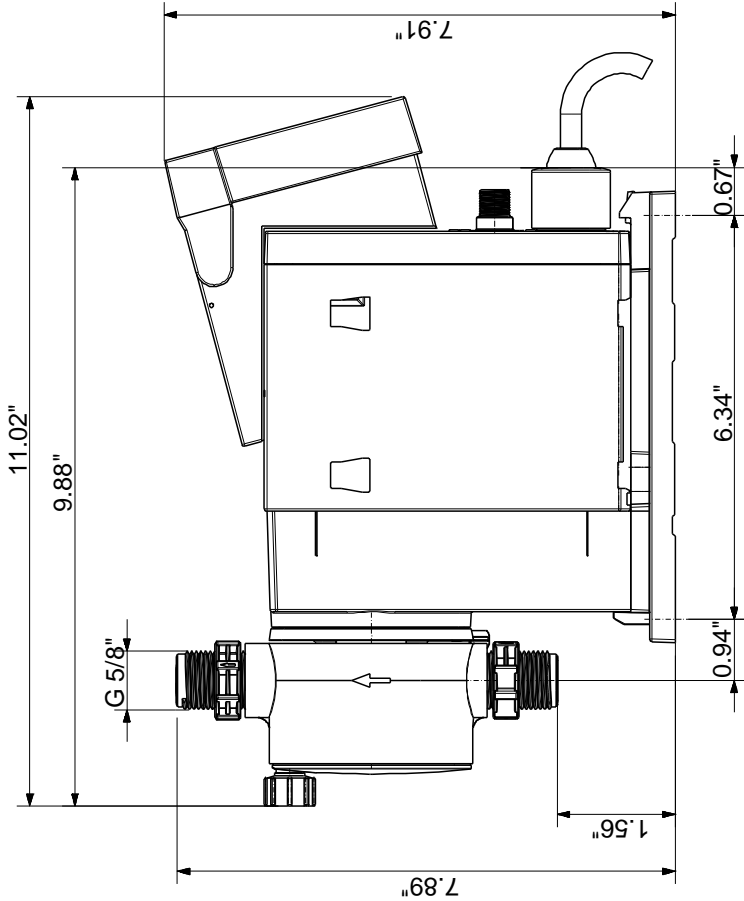
Created by:

Phone:

Date: 11/20/2018

Description	Value
COLOR:	RED
Custom tariff no.:	8413.50.0050

## 97722509 DDA 12-10 60 Hz



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