

**Qty. Description**

1 DDA 7.5-16



Note! Product picture may differ from actual product

Product No.: [97721977](#)

DDA 7.5-16 FC-PP/V/C-F-31I001F

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.
- Save and load customised settings as well as reload of factory settings.

Signal inputs/outputs:

| Qty. | Description  |
|------|--|
|      | <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>Installation set includes:</p> <ul style="list-style-type: none"> <li>- 2 pump connections (Hose 4/6 mm 3).</li> <li>- Foot valve (without level switch).</li> <li>- Injection unit.</li> <li>- 6 m PE discharge hose.</li> <li>- 2 m PVC suction hose.</li> <li>- 2 m PVC deaeration hose (4/6 mm).</li> </ul> <p><b>Technical:</b></p> <p>Type key: DDA 7.5-16 FC-PP/V/C-F-31I001F<br/>           Max. Flow: 7.5 l/h<br/>           Max. flow in slow mode 50%: 3.75 l/h<br/>           Max. flow in slow mode 25%: 1.88 l/h<br/>           Min flow: 2.5 ml/h<br/>           Turn-down ratio: 1:3000<br/>           Approvals on nameplate: CE,CSA-US,EAC,RCM<br/>           Valve type: Standard<br/>           Maximum viscosity at 100 %: 50 mPas<br/>           Maximum viscosity in slow mode 50 %: 1800 mPas<br/>           Maximum viscosity in slow mode 25 %: 2500 mPas<br/>           Accuracy of repeatability: 1 %</p> <p><b>Materials:</b></p> <p>Dosing head: PP (Polypropylene)<br/>           Valve ball: Ceramic<br/>           Gasket: FKM</p> <p><b>Installation:</b></p> <p>Range of ambient temperature: 0 .. 45 °C<br/>           Maximum operating pressure: 16 bar<br/>           Installation set: YES<br/>           Installation type: 4/6 mm up to 7,5 l/h,16 bar<br/>           Pump inlet: Hose 4/6 mm 3<br/>           Pump outlet: Hose 4/6 mm 3<br/>           Max. Suction lift during operation: 6 m<br/>           Max. Suction lift during priming: 2 m</p> <p><b>Liquid:</b></p> <p>Pumped liquid: Water<br/>           Liquid temperature range: -10 .. 45 °C<br/>           Selected liquid temperature: 20 °C<br/>           Density: 998.2 kg/m³</p> <p><b>Electrical data:</b></p> <p>Maximum power input - P1: 24 W<br/>           Mains frequency: 50 / 60 Hz<br/>           Rated voltage: 1 x 100-240 V<br/>           Enclosure class (IEC 34-5): IP65 / NEMA 4X<br/>           Length of cable: 1.5 m<br/>           Type of cable plug: EU<br/>           Inrush current: 25A at 230V for 2ms</p> |



Company name:

Created by:

Phone:

Date:

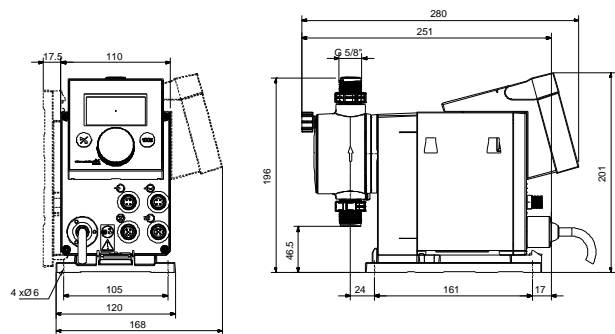
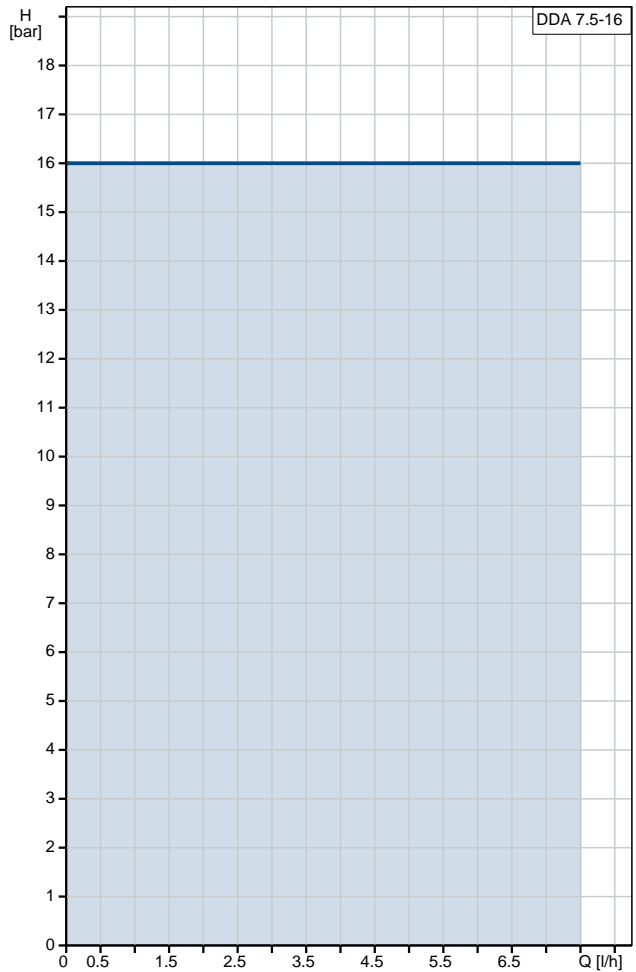
06/02/2020

| Qty.               | Description   |                  |    |                |     |               |           |                |     |                  |     |                |           |                |   |                    |     |             |      |               |      |        |     |                    |    |                    |          |
|--------------------|---|------------------|----|----------------|-----|---------------|-----------|----------------|-----|------------------|-----|----------------|-----------|----------------|---|--------------------|-----|-------------|------|---------------|------|--------|-----|--------------------|----|--------------------|----------|
|                    | <p data-bbox="199 331 316 365"><b>Controls:</b></p> <table data-bbox="199 365 686 604"><tr><td data-bbox="199 365 550 398">Control variant:</td><td data-bbox="550 365 686 398">FC</td></tr><tr><td data-bbox="199 398 550 432">Level control:</td><td data-bbox="550 398 686 432">YES</td></tr><tr><td data-bbox="199 432 550 465">Analog input:</td><td data-bbox="550 432 686 465">0/4-20 MA</td></tr><tr><td data-bbox="199 465 550 499">Pulse control:</td><td data-bbox="550 465 686 499">YES</td></tr><tr><td data-bbox="199 499 550 533">Ext. Stop input:</td><td data-bbox="550 499 686 533">YES</td></tr><tr><td data-bbox="199 533 550 566">Analog output:</td><td data-bbox="550 533 686 566">0/4-20 MA</td></tr><tr><td data-bbox="199 566 550 600">Output relays:</td><td data-bbox="550 566 686 600">2</td></tr><tr><td data-bbox="199 600 550 633">Bus communication:</td><td data-bbox="550 600 686 633">YES</td></tr></table> <p data-bbox="199 633 295 667"><b>Others:</b></p> <table data-bbox="199 667 686 817"><tr><td data-bbox="199 667 550 701">Net weight:</td><td data-bbox="550 667 686 701">2 kg</td></tr><tr><td data-bbox="199 701 550 734">Gross weight:</td><td data-bbox="550 701 686 734">3 kg</td></tr><tr><td data-bbox="199 734 550 768">Color:</td><td data-bbox="550 734 686 768">RED</td></tr><tr><td data-bbox="199 768 550 801">Country of origin:</td><td data-bbox="550 768 686 801">FR</td></tr><tr><td data-bbox="199 801 550 835">Custom tariff no.:</td><td data-bbox="550 801 686 835">84135040</td></tr></table> | Control variant: | FC | 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: | 2 kg | Gross weight: | 3 kg | Color: | RED | Country of origin: | FR | Custom tariff no.: | 84135040 |
| Control variant:   | FC  |                  |    |                |     |               |           |                |     |                  |     |                |           |                |   |                    |     |             |      |               |      |        |     |                    |    |                    |          |
| 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:        | 2 kg  |                  |    |                |     |               |           |                |     |                  |     |                |           |                |   |                    |     |             |      |               |      |        |     |                    |    |                    |          |
| Gross weight:      | 3 kg  |                  |    |                |     |               |           |                |     |                  |     |                |           |                |   |                    |     |             |      |               |      |        |     |                    |    |                    |          |
| Color:             | RED   |                  |    |                |     |               |           |                |     |                  |     |                |           |                |   |                    |     |             |      |               |      |        |     |                    |    |                    |          |
| Country of origin: | FR  |                  |    |                |     |               |           |                |     |                  |     |                |           |                |   |                    |     |             |      |               |      |        |     |                    |    |                    |          |
| Custom tariff no.: | 84135040  |                  |    |                |     |               |           |                |     |                  |     |                |           |                |   |                    |     |             |      |               |      |        |     |                    |    |                    |          |

## 97721977 DDA 7.5-16



| Description                          | Value                             |
|--------------------------------------|-----------------------------------|
| <b>General information:</b>          |                                   |
| Product name:                        | DDA 7.5-16                        |
| Product No:                          | <a href="#">97721977</a>          |
| EAN number:                          | 5710622721195                     |
|                                      | 5710622721195                     |
| Price:                               | 2.024,00 GBP                      |
| <b>Technical:</b>                    |                                   |
| Type key:                            | DDA 7.5-16<br>FC-PP/V/C-F-311001F |
| 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 on nameplate:              | 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:                     | 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>                       |                                   |





Company name:

Created by:

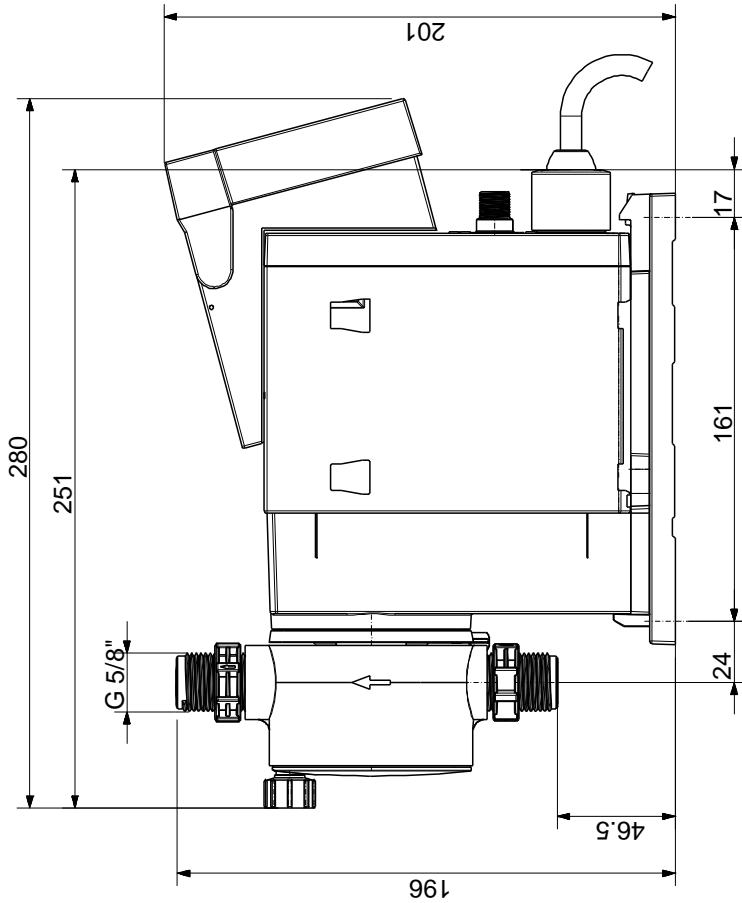
Phone:

Date:

06/02/2020

| Description        | Value    |
|--------------------|----------|
| Net weight:        | 2 kg     |
| Gross weight:      | 3 kg     |
| Color:             | RED      |
| Country of origin: | FR       |
| Custom tariff no.: | 84135040 |

## 97721977 DDA 7.5-16



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