**Company name:**
**Created by:**
**Phone:**

**Date:** 4/11/2019

| Count | Description |
|---|---|
| 1 | **DDA 7.5-16** |

**Product photo could vary from the actual product**

Product No.: 97722407
DDA 7.5-16 FC-PVC/T/C-F-31U7U7

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 ± 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: 0.9906 US gal/hour) and 25 % (maximum flow: 0.4966 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.

Signal inputs/outputs:

| Count | Description |
|---|---|

- 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).

**Technical:**

| | |
|---|---|
| Type key: | DDA 7.5-16 FC-PVC/T/C-F-31U7U7 |
| Max. Flow: | 1.981 US gal/hour |
| Max. flow in slow mode 50%: | 0.9906 US gal/hour |
| Max. flow in slow mode 25%: | 0.4966 US gal/hour |
| Min flow: | 2.5 ml/h |
| Turn-down ratio: | 1:3000 |
| Approvals on nameplate: | CE,CSA-US,NSF61,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: | PVC (Polyvinyl chloride) |
| Valve ball: | Ceramic |
| Gasket: | PTFE |

**Installation:**

| | |
|---|---|
| Range of ambient temperature: | 32 .. 113 °F |
| Maximum operating pressure: | 145.04 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: | 19.7 ft |
| Max. Suction lift during priming: | 6.56 ft |

**Liquid:**

| | |
|---|---|
| Pumped liquid: | Water |
| Liquid temperature range: | 14 .. 113 °F |
| Selected liquid temperature: | 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: | 4.92 ft |
| Type of cable plug: | USA, Canada |
| Inrush current: | 25A at 230V for 2ms |

**Controls:**

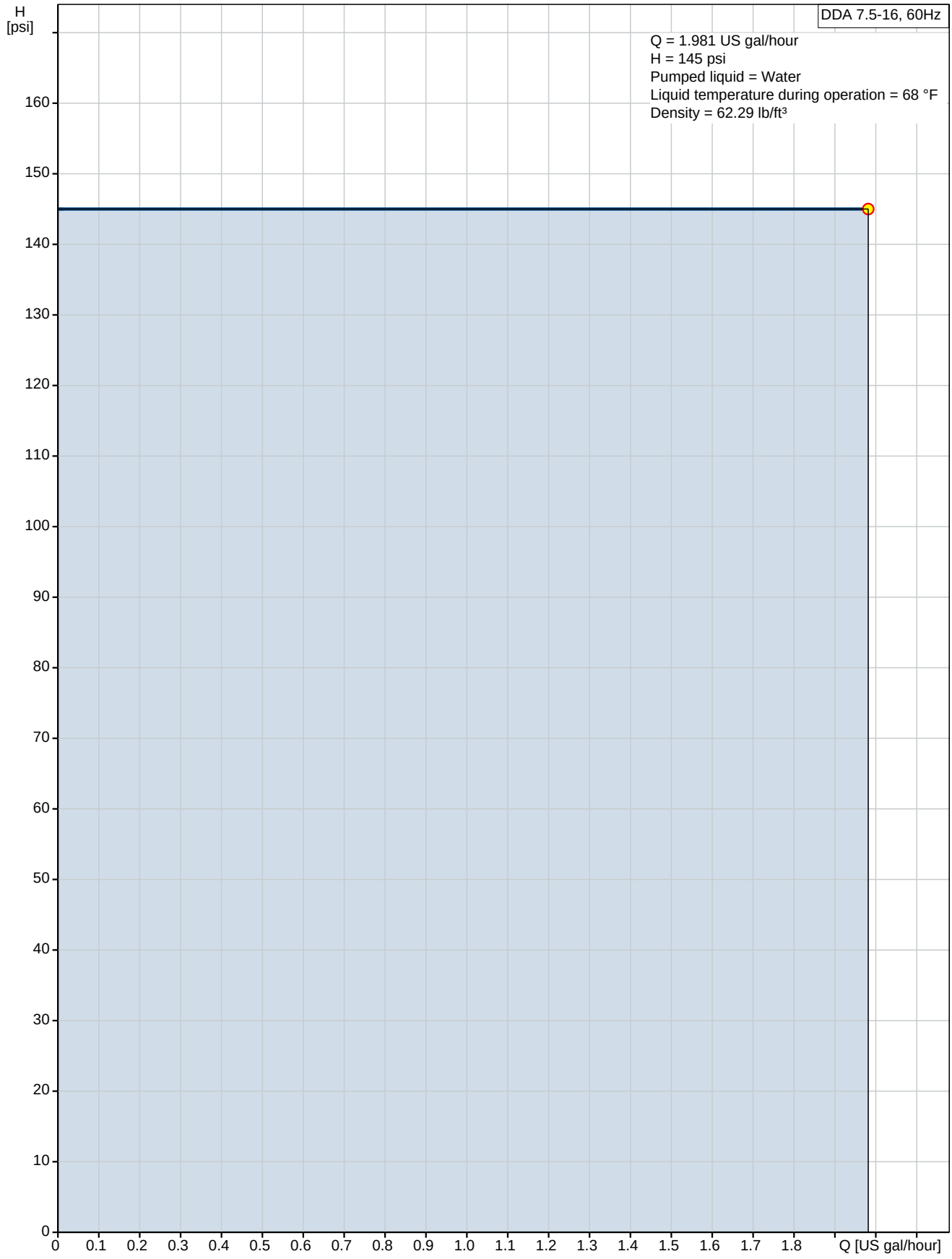
| | |
|---|---|
| Control variant: | FC |
| Level control: | YES |
| Analog input: | 0/4-20 mA |
| Pulse control: | YES |
| Ext. Stop input: | YES |
| Analog output: | 0/4-20 mA |
| Output relays: | 2 |

| Count | Description | |
|---|---|---|
| | Bus communication: | YES |
| | **Others:** | |
| | Net weight: | 4.41 lb |
| | Gross weight: | 6.62 lb |
| | COLOR: | RED |
| | Custom tariff no.: | 8413.50.0050 |

**Company name:**
**Created by:**
**Phone:**

**Date:** 4/11/2019

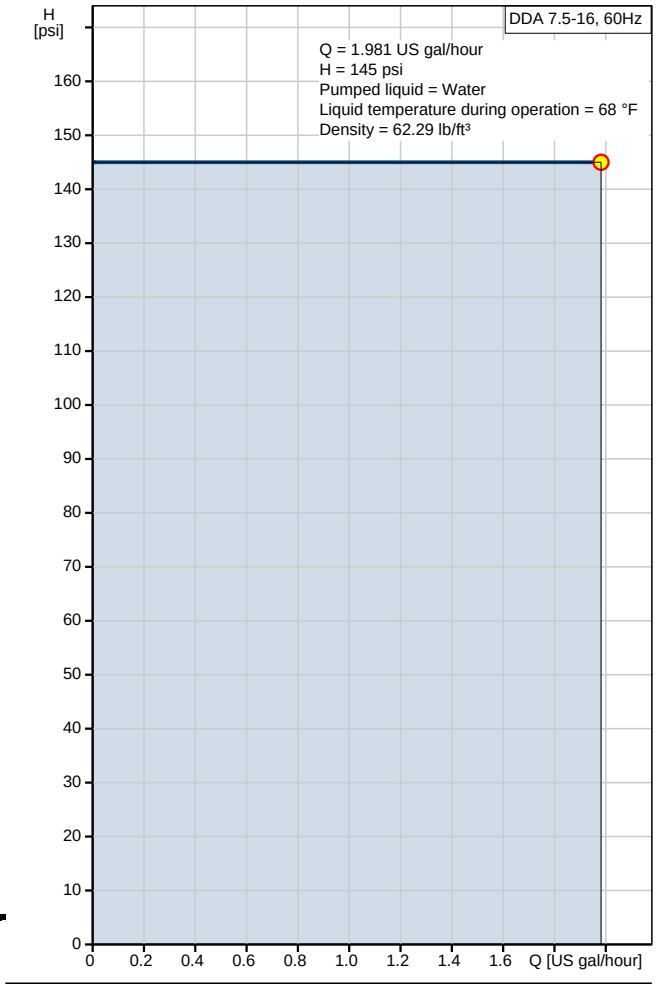
# 97722407 DDA 7.5-16 60 Hz

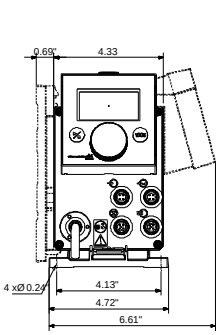


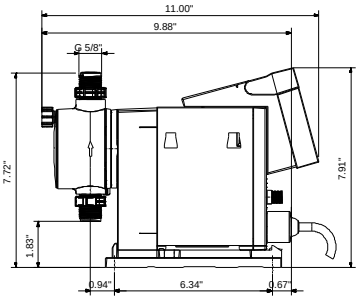
**Company name:**
**Created by:**
**Phone:**

**Date:** 4/11/2019

| Description | Value |
|---|---|
| **General information:** | |
| Product name: | DDA 7.5-16 |
| Product No.: | 97722407 |
| EAN: | 5710622725490 |
| **Technical:** | |
| Type key: | DDA 7.5-16 FC-PVC/T/C-F-31U7U7 |
| Max. Flow: | 1.981 US gal/hour |
| Max. flow in slow mode 50%: | 0.9906 US gal/hour |
| Max. flow in slow mode 25%: | 0.4966 US gal/hour |
| Min flow: | 2.5 ml/h |
| Turn-down ratio: | 1:3000 |
| Approvals on nameplate: | CE,CSA-US,NSF61,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: | PVC (Polyvinyl chloride) |
| Valve ball: | Ceramic |
| Gasket: | PTFE |
| **Installation:** | |
| Range of ambient temperature: | 32 .. 113 °F |
| Maximum operating pressure: | 145.04 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: | 19.7 ft |
| Max. Suction lift during priming: | 6.56 ft |
| **Liquid:** | |
| Pumped liquid: | Water |
| Liquid temperature range: | 14 .. 113 °F |
| Selected liquid temperature: | 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: | 4.92 ft |
| Type of cable plug: | USA, Canada |
| Inrush current: | 25A at 230V for 2ms |
| **Controls:** | |
| 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 |
| **Others:** | |
| Net weight: | 4.41 lb |
| Gross weight: | 6.62 lb |



GRUNDFOS

**Company name:**
**Created by:**
**Phone:**

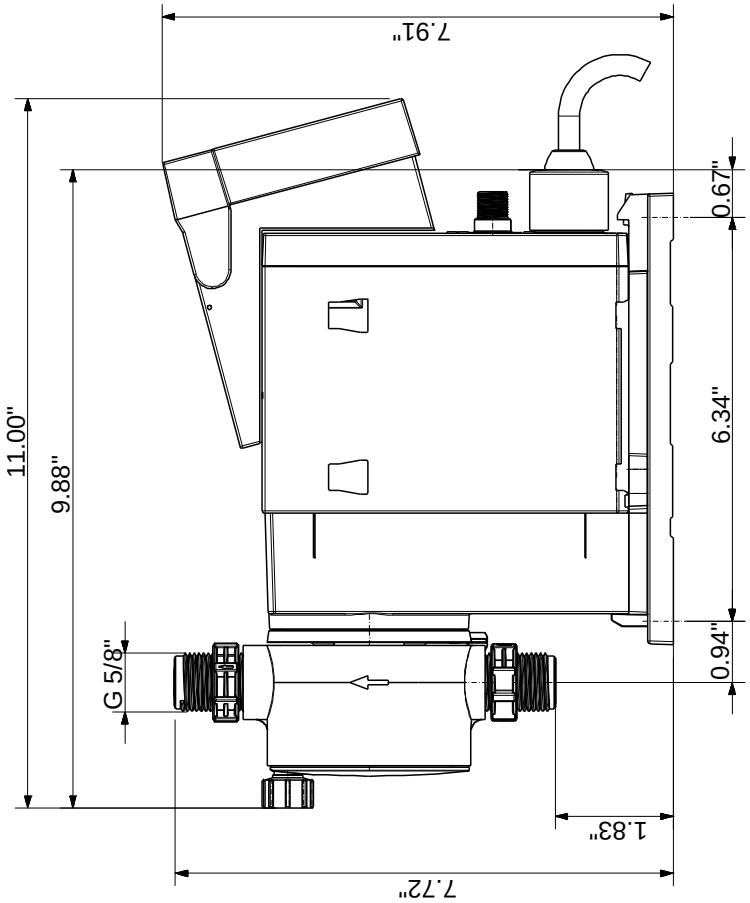
**Date:** 4/11/2019

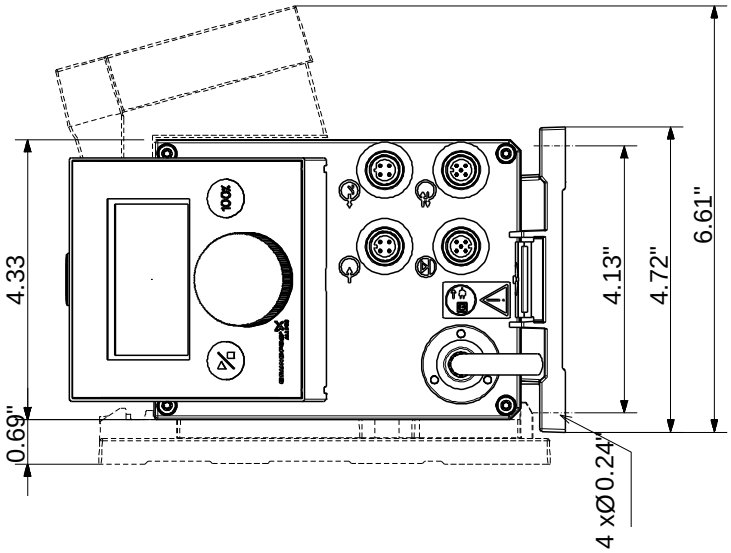
| Description | Value |
|---|---|
| COLOR: | RED |
| Custom tariff no.: | 8413.50.0050 |

**Company name:**
**Created by:**
**Phone:**

**Date:** 4/11/2019

# 97722407 DDA 7.5-16 60 Hz




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

**Company name:**
**Created by:**
**Phone:**

**Date:** 4/11/2019

## Order Data:

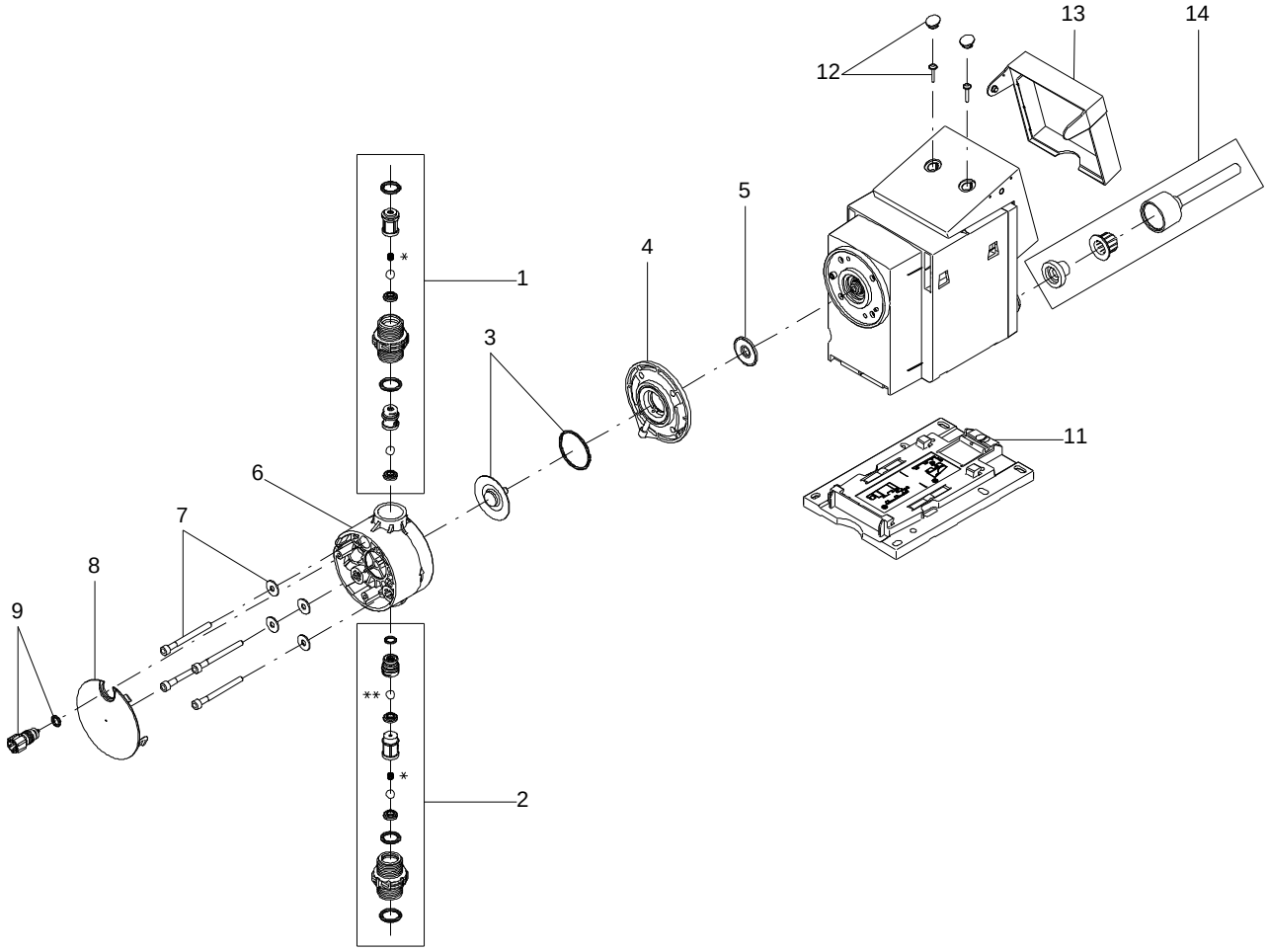
Product name: DDA 7.5-16
Amount: 1
Product No.: 97722407

Total: Price on request

**Company name:**
**Created by:**
**Phone:**

**Date:** 4/11/2019

## Exploded view




166x112

GRUNDFOS

**Company name:**
**Created by:**
**Phone:**

**Date:** 4/11/2019

# Parts list DDA 7.5-16, Prod number 97722407
# Produced After 1132 (production year and week number)

| | Position | Description | Annotation | Classification data | Part No. | Count | Unit |
|---|---|---|---|---|---|---|---|
| - | 1 | Discharge valve cpl. | | | | 1 | pcs |
| | | O-ring | | | | 1 | |
| | | O-ring | | | | 1 | |
| | | Valve seat | | | | 1 | |
| | | Ball | | | | 2 | |
| | | Valve housing | | | | 1 | |
| | | Ball cage | | | | 1 | |
| | | Ball cage | | | | 1 | |
| - | 2 | Suction valve cpl. | | | | 1 | pcs |
| | | O-ring | | | | 1 | |
| | | O-ring | | | | 1 | |
| | | O-ring | | | | 1 | |
| | | Valve seat | | | | 1 | |
| | | Valve seat | | | | 1 | |
| | | Ball | | | | 1 | |
| | | Ball | | | | 1 | |
| | | Valve housing | | | | 1 | |
| | | Ball cage | | | | 1 | |
| | | Ball cage | | | | 1 | |
| | 3 | O-ring | | Diameter: 35 | | 1 | pcs |
| | | | | Material type: EPDM | | | |
| | | | | Thickness: 2 | | | |
| | 3 | Diaphragm | | | | 1 | pcs |
| | 4 | Pump head flange | | | | 1 | pcs |
| | 5 | Diaphragm | | | | 1 | pcs |
| | 6 | Pump head | | | | 1 | pcs |
| | 7 | Washer | | | | 4 | pcs |
| | 7 | Hex socket head cap screw | | | | 4 | pcs |
| | 8 | Pump head cover | | | | 1 | pcs |
| - | 9 | Venting valve | | | | 1 | pcs |
| | | O-ring | | | | 1 | |
| | | Spindle | | | | 1 | |
| | 11 | Base plate | | | | 1 | pcs |
| | 12 | Cover for screw | | | | 2 | pcs |
| | 12 | Pan washer head screw | | | | 2 | pcs |
| | 13 | Cover for cube | | | | 1 | pcs |
| | 14 | Power cable | | | | 1 | pcs |