



# PROPORTIONAL DOSING VALVE PDV03

DP-D-005-000003



## APPLICATION

With the PDV03 proportional dosing valve, continuous as well as spot application of oils and greases up to a volume of 0.5 cm<sup>3</sup> is possible.

## DESCRIPTION

The PDV03 proportional dosing valve is a split system and has no integrated electronics. The resulting more compact size allows it to be mounted directly at the point of use. In addition, the PDV03 operates electromechanically and does not require a pneumatic connection. The separate electronic control can be mounted flexibly with a permissible cable length of 3–20 meters. The control takes place via the D+P dosing system DS.

## ADVANTAGES

The freely selectable metering volume can be infinitely adjusted and applied at variable speed with pinpoint accuracy or over a wide area. In the case of automated dispensing of several different positions on a workpiece, each position can be dispensed individually. This means that entire wetting profiles can be processed within one dispensing process. The PDV03 is viscosity-, pressure- and temperature-independent and ensures extremely process-reliable metering thanks to electronic monitoring of the valve piston by means of an encoder.

## TECHNICAL DATA

### Mechanical data

|                         |                                     |
|-------------------------|-------------------------------------|
| Weight                  | 2 kg                                |
| Width x height x depth  | 85 x 59.5 x 335 mm                  |
| Max. pumpable viscosity | oils and greases up to NLGI class 3 |
| Dosing quantity         | 0.01–0.5 cm <sup>3</sup>            |
| Medium inlet pressure   | 5–30 bar depending on application   |
| Compressed air          | 4–6 bar                             |
| Compressed air quality  | dried, filtered, oil-free           |

### Electrical data

|   |  |
|---|--|
| Supply voltage                              | 24 V DC  |
| Fuse protection of the supply line          | 10 A   |
| Max. power consumption                      | 100 W  |
| Quantity                                    | 1 inlet / 5 outlets  |
| Type  | outlets open collector with pull-up resistor to 24 V DC  |
| Load  | input 24 V DC/100 mA; outlets max. 10 mA to GND  |
| Usage                                       | inlets: switching of the control valve; outlets: motorready, motoractive, overtemperature  |
| Supply voltage +24 V DC                     | min. –10 %, max. +10 %   |
| Current consumption supply voltage +24 V DC | during dosing typically 3 A; at standstill 2 A; peak current 4 A   |
| EMC resistance                              | according to EN 61000-6-2:2001 (industrial area)   |
| Connection technology                       | 17W2 Sub-D connector (supply, digital I/O) with mixed contacts; 9-pin Sub-D connector (RS485); external thread M16x1.5 nipple material inlet; Male thread G1/4" nipple material outlet |

### Environmental conditions

|                       |                          |
|-----------------------|--------------------------|
| Storage temperature   | 10–50 °C                 |
| Operating temperature | 15–40 °C                 |
| Humidity              | 50–70 %, no condensation |

Operation in closed rooms. Protect from direct sunlight, dust and moisture. Installation altitude, maximum 2000 meters above sea level.



# PROPORTIONAL DOSING VALVE PDV03 ACCESSORIES



## CONTROL AND CONNECTION CABLE FOR PDV03

|                 |                 |
|-----------------|-----------------|
| DP-D-005-000011 | DP-D-005-000040 |
| DP-D-005-000015 | DP-D-005-000041 |
| DP-D-005-000016 | DP-D-005-000042 |

The control and connection cable is used for signal exchange between the dosing system and the PDV03 proportional dosing valve.  
 The standard length is 5 meters, but can also be customized on request (max. 20 meters).

### TECHNICAL DATA

| Type            | Cable length   | Suitable for drag chain |
|-----------------|----------------|-------------------------|
| DP-D-005-000011 | 5 m (standard) | no                      |
| DP-D-005-000015 | 7 m            | no                      |
| DP-D-005-000016 | 10 m           | no                      |
| DP-D-005-000040 | 5 m (standard) | yes                     |
| DP-D-005-000041 | 7 m            | yes                     |
| DP-D-005-000042 | 10 m           | yes                     |



## PRESSURE RELIEF VALVE UDV01 FOR PDV03

DP-D-005-000004

The pressure relief valve is an electrically interrogated safety element that switches off purely mechanically in the event of an improper increase in inlet pressure above 40 bar. It thus prevents both damage to the downstream components and the uncontrolled escape of the medium.

### TECHNICAL DATA

|                  |                          |
|------------------|--------------------------|
| Pressure range   | 15–40 bar                |
| Connection       | G 1/8"                   |
| Proximity switch | BES Q 05 AC-POC 15B-EP02 |
| Dimensions       | Ø 20 x 85 mm             |
| Pressure stable  | up to 300 bar            |

## SEALING PACKAGE

DP-D-005-000019

Complete package incl. sleeve with seal set and dosing needle.