



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 cm³ 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	85 mm
Height	60 mm
Depth	335 mm
Max. pumpable viscosity	oils and greases up to NLGI class 3
Dosing quantity	0.01–0.5 cm ³
Medium inlet pressure	25–30 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-010-000019

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