



PROPORTIONAL DOSING VALVE PDV04

DP-D-005-000005



APPLICATION

The PDV04 enables uninterrupted dosing with freely selectable volumes from a quantity of 0.004 cm³ using the dosing principle with endless pistons.

DESCRIPTION

The PDV04 proportional dosing valve is an endless dosing valve and consists of an electrically driven piston metering unit. The parameterization and control of the PDV04 is carried out via the control of the DS dosing system and thus enables continuous or clocked dosing. The standard interface to higher-level controls, e.g. for start or stop, is via digital I/Os. Further interfaces such as Profibus or Profinet are possible. The compact and space-saving PDV04 proportional dosing system is designed for stationary as well as mobile use, e.g. on robots, and is connected to the D+P DS dosing system via a cable set of up to 20 meters in length.

ADVANTAGES

The PDV04 is viscosity-, pressure- and temperature-independent and ensures extremely process-safe metering thanks to electronic monitoring of the valve piston by means of an encoder. In addition, the PDV04 operates electromechanically and does not require a pneumatic connection. The maintenance-friendly arrangement of the seal packs has also been implemented for the PDV04 in accordance with our new dosing valve series.

TECHNICAL DATA

Weight	3.8 kg 4.0 kg with spray attachment
Width x height x depth	137 x 210.1 x 110 mm 137 x 226.1 x 127.1 mm with spray attachment
Dosing data	
Max. pumpable viscosity	Oils and greases NLGI class 0-3
Dosing quantity (depending on application and medium)	from 0.004 cm ³
Tolerance (depending on application and medium)	>1 g ± -1 % <1 g ± -7 %
Volume flow	0.007-3.2 cm ³ /s
Inlet pressure	5-30 bar
Connection technology	
Hydraulic	G 1/4" material inlet external thread G 1/4" material outlet external thread
Electric	motor connection: M12 plug 5pin encoder connection: M12 plug 8pin / 5 V DC - 3 V; 424 A
Motor heating	max. 80 °C
Environmental conditions	
Air temperature operation	10-50 °C
Air temperature transport and storage	0-50 °C
Humidity	50- max. 70 %, no condensation
Protection class	IP54
Operation in closed rooms. Protect from direct sunlight, dust and moisture. Installation altitude, max. 2000 meters above sea level.	

PROPORTIONAL DOSING VALVE PDV04 ACCESSORIES



SPRAY ATTACHMENT FOR PDV04 WITH ACCESSORIES

DP-D-005-000050

APPLICATION

The spray attachment is mounted directly on the PDV04 and enables contactless, homogeneous and repeatable application of media with low to high viscosity.

DESCRIPTION

Volumetric dosing ensures reliable quantity application, regardless of the viscosity of the dosing medium. The web speed-controlled application, simple dosing quantity adjustment and the optional control of pre- and post-air offer maximum control over the application. The attachment is compatible with all standard nozzles, air caps and nozzle extensions of our spray valves.

The set consists of

- ▶ Spray attachment PDV04 DP-D-005-000051
- ▶ Atomizing air pressure control DP-D-005-000052
- ▶ Atomizing air solenoid valve DP-D-005-000053

ADVANTAGES

- ▶ Contactless, precise dosing for media with variable viscosity
- ▶ Reliable quantity application regardless of the viscosity of the dosing medium
- ▶ Simple adjustment of the dosing quantities via the control unit
- ▶ Path speed-controlled application for flexible use
- ▶ Compatibility with standard nozzles, air caps and nozzle extensions
- ▶ Versatile use for a wide range of applications



PDV04
with mounted
spray
attachment

TECHNICAL DATA

Weight	0.2 kg
Width x height x depth	84 x 56.5 x 48 mm
Connection atomizing air	0-6 bar (precision pressure regulator)
Material outlet	nozzles 0.3-2.5 mm
Connection material outlet	M21 x 0.75

PROPORTIONAL DOSING VALVE PDV04 ACCESSORIES



CONTROL AND CONNECTION CABLE FOR PDV04

DP-D-005-000012
DP-D-005-000017
DP-D-005-000018

The control and connection cable is used for signal exchange between the dosing system and the PDV04 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-005-000012	5 m (standard)	yes
DP-D-005-000017	7 m	yes
DP-D-005-000018	10 m	yes

SEALING PACKAGE

DP-D-010-000013

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

OUTLET CHECK VALVE (SPARE PART)

DP-D-011-000006

Spare part for PDV04. The outlet check valve prevents the medium from flowing back into the dosing system and thus ensures the one-way direction of the flow.

DOSING VALVE STATION

DP-K-005-000005 // 41965.00
DP-K-005-000006 // 41970.00
DP-K-005-000007 // 41975.00



The dosing valve station offers a simple and quick mounting option directly on the valve. A 5/2-way valve is to be provided for control. The dosing valve station is available in different metering quantity ranges. The repeat accuracy in the medium metering range is +/-2 %. The desired metering quantity is infinitely adjustable with a regulating sleeve. Application nozzles are customized and screwed directly to the dosing valve.

TECHNICAL DATA			
Type	41965.00	41970.00	41975.00
Dosing quantity	2.0–26 cm ³	5.0–54 cm ³	10–133 cm ³
Material input pressure	max. 200 bar	max. 200 bar	max. 200 bar
Material output pressure	80 bar	80 bar	80 bar
Connection thread	G 1/4"	G 1/4"	G 1/4"
Permissible material	oils and greases NLGI class 0–3	oils and greases NLGI class 0–3	oils and greases NLGI class 0–3
With back suction	X	X	X