## linear drive DFPI-100- -ND2P-C1V-NB3P-A

Part number: 2184841

**FESTO** 

with integrated electropneumatic positioner, double-acting, piston diameter 100 mm, mounting interfaces to ISO 15552 on bearing and end caps, electric/pneumatic connection via metallic female socket and connecting cable NHSB (accessories), 4-wire, 24 VDC power supply, setpoint input 4...20 mA, position feedback signal 4...20 mA, advancing piston rod safety position.





## **Data sheet**

Feature	Value
Size of actuator	100
Stroke	40 990 mm
Piston diameter	100 mm
Based on the standard	ISO 15552
Cushioning	No cushioning
Assembly position	Any
Mode of operation	double-acting
Design structure	Piston
	Piston rod
	Tie rod
	Cylinder barrel
Position detection	With integrated displacement encoder
Measuring method: displacement encoder	Potentiometer
Polarity protected	for operating voltage
	for setpoint value
	Initialisation connection
Operating pressure MPa	0.3 0.8 MPa
Operating pressure	3 8 bar
	43.5 116 psi
Nominal operating pressure	0.6 MPa
	6 bar
Nominal operating pressure (psi)	87 psi
Analogue output	4 - 20 mA
Operating voltage range DC	21.6 26.4 V
Max. current consumption	220 mA
Nominal operating voltage DC	24 V
Setpoint input	4 20 mA
Authorisation	RCM Mark
KC mark	KC-EMV
CE mark (see declaration of conformity)	to EU directive for EMC
	to EU directive explosion protection (ATEX)
	in accordance with EU RoHS directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC
	To UK EX instructions
	To UK RoHS instructions
Explosion protection certification outside the EU	EPL Dc (GB)
	EPL Gc (GB)
ATEX category Gas	II 3G
ATEX category Dust	II 3D
Explosion ignition protection type Gas	Ex ec IIC T4 X Gc



Feature	Value
Explosion ignition protection type Dust	Ex tc IIIC T120°C X Dc
Explosion-proof ambient temperature	-5°C <= Ta <= +50°C
Operating medium	Compressed air in accordance with ISO8573-1:2010 [7:4:4]
Note on operating and pilot medium	Lubricated operation possible (subsequently required for further
	operation)
Continuous shock resistance per DIN/IEC 68, parts 2 - 82	Tested in accordance with severity level 2
PWIS conformity	VDMA24364 zone III
Storage temperature	-5 50 °C
Medium temperature	-5 40 °C
Relative air humidity	5 - 100 %
	Condensing
Protection class	IP65
	IP67
	IP69K
	NEMA 4
Vibration resistance per DIN/IEC 68, parts 2 - 6	Tested in accordance with severity level 2
Ambient temperature	-5 50 °C
Theoretical force at 0.6 MPa (6 bar, 87 psi), retracting	4,417 N
Theoretical force at 0.6 MPa (6 bar, 87 psi), advance	4,712 N
Air consumption returning per 10 mm stroke	0.515 l
Air consumption advancing per 10 mm stroke	0.549 l
Moving mass with 0 mm stroke	1,060 g
Additional mass factor per 10 mm of stroke	28 g
Basic weight for 0 mm stroke	5,280 g
Additional weight per 10 mm stroke	90 g
Accuracy of analogue output	1 %FS
Size of the dead zone	1 %FS
Hysteresis FS	1 %FS
Positioning accuracy	1.0% FS
Repetition accuracy in ± %FS	1 %FS
Electrical connection	5-pin
	Straight plug / screw terminal
	With specific accessories
Pneumatic connection	For tubing outside diameter 8 mm
	For tubing outside diameter 10 mm
	With specific accessories
Materials note	Conforms to RoHS
Material of end caps	Coated wrought aluminium alloy
Material underneath cover	Die-cast aluminium, coated
Material piston rod	High alloy steel, non-corrosive
Material piston rod wiper seal	TPE-U(PU)
Material screws	Coated steel
	High alloy steel, non-corrosive
Material static seals	NBR
Material tie rod	High alloy steel, non-corrosive
Material cylinder barrel	Smooth-anodised wrought aluminium alloy