

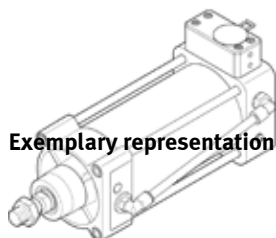
# linear drive

## DFPI-100- -ND2P-E-NB3P

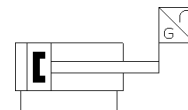
Part number: 2185733

FESTO

with integrated potentiometric displacement encoder, 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).



Exemplary representation



## 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
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
Operating voltage range DC	0 ... 15 V
Recommended wiper current	< 0.1 $\mu$ A
Max. intermittent wiper current	10 mA
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 EX instructions
ATEX category Gas	II 2G
ATEX category Dust	II 2D
Explosion ignition protection type Gas	Ex h IIC T4 Gb
Explosion ignition protection type Dust	Ex h IIIC T120°C Db
Explosion-proof ambient temperature	-20°C $\leq$ Ta $\leq$ +60°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	-20 ... 80 °C
Relative air humidity	5 - 100 % Condensing
Protection class	IP65 IP67 IP69K NEMA 4

<b>Feature</b>	<b>Value</b>
Vibration resistance per DIN/IEC 68, parts 2 - 6	Tested in accordance with severity level 2
Ambient temperature	-20 ... 80 °C
Impact energy in end positions	1.3 J
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	4,900 g
Additional weight per 10 mm stroke	90 g
Hysteresis	0.33 mm
Independent linearity	±0,04 %
Repetition accuracy in ± mm	0.12 mm
Electrical connection	3-pin Straight plug / screw terminal With specific accessories
Pneumatic connection	For tubing outside diameter 8 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 electrical connection	Nickel-plated brass
Material piston rod	High alloy steel, non-corrosive
Material piston rod wiper seal	TPE-U(PU)
Material tubing	PE
Material screws	Coated steel High alloy steel, non-corrosive
Material static seals	NBR
Material fitting	Nickel-plated brass
Material tie rod	High alloy steel, non-corrosive
Material cylinder barrel	Smooth-anodised wrought aluminium alloy