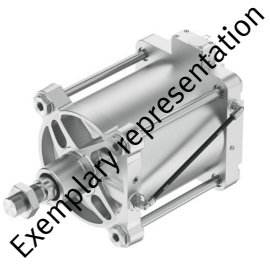
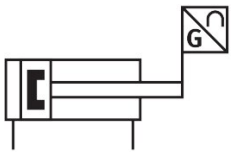
Linear actuator
DFPI-250- -ND2P-E-NB3P

Part number: 2210666





General operating condition

Data sheet

Overall data sheet – Individual values depend upon your configuration.

Feature	Value
Size of valve actuator	250
Stroke	40 mm ... 990 mm
Piston diameter	250 mm
Based on norm	ISO 15552
Cushioning	No cushioning
Mounting position	Any
Mode of operation	Double-acting
Structural design	Piston Piston rod Tie rod Cylinder barrel
Position sensing	With integrated linear potentiometer
Symbol	00992807
Measuring principle of linear potentiometer	Potentiometer
Operating pressure	0.3 MPa ... 0.8 MPa
Operating pressure	3 bar ... 8 bar
Operating pressure	43.5 psi ... 116 psi
Nominal operating pressure	0.6 MPa
Nominal operating pressure	6 bar
DC operating voltage range	0 V ... 15 V
Recommended contact current	‹0.1 µA
Max. short-time slider current	10000 µA
CE marking (see declaration of conformity)	As per EU EMC directive as per EU explosion protection directive (ATEX) As per EU RoHS directive
UKCA marking (see declaration of conformity)	acc. to UK EX instructions
Explosion prevention and protection	Zone 1 (ATEX) Zone 2 (ATEX) Zone 21 (ATEX) Zone 22 (ATEX)
ATEX category gas	II 2G
ATEX category for dust	II 2D
Type of ignition protection for gas	Ex h IIC T4 Gb
Type of (ignition) protection for dust	Ex h IIIC T120°C Db
Explosive ambient temperature	-20°C <= Ta <= +60°C
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]

Feature	Value
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)
Continuous shock resistance to DIN/IEC 68 Part 2-82	Tested as per severity level 2
LABS (PWIS) conformity	VDMA24364 zone III
Storage temperature	-20 °C ... 80 °C
Relative air humidity	5 - 100 % Condensing
Degree of protection	IP65 IP67 IP69K NEMA 4
Vibration resistance to DIN/IEC 68 Part 2-6	Tested as per severity level 2
Ambient temperature	-20 °C ... 80 °C
Impact energy in the end positions	1.9 J
Theoretical force at 6 bar, retracting	28274 N
Theoretical force at 6 bar, advancing	29452 N
Air consumption, retracting, per 10 mm stroke	3.299 l
Air consumption advancing per 10 mm stroke	3.436 l
Moving mass at 0 mm stroke	9300 g
Additional moving mass per 10 mm stroke	134 g
Basic weight with 0 mm stroke	31100 g
Additional weight per 10 mm stroke	358 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 pneumatic tubing outside diameter 8 mm with specific accessories
Note on materials	RoHS-compliant
Material of end caps	Wrought aluminum alloy, coated
Lower cover material	Coated die-cast aluminum
Electrical connection material	Brass, nickel-plated
Piston rod material	High-alloy stainless steel
Piston rod wiper material	NBR
Material of pneumatic tubing	PE
Material of screws	Steel, coated High-alloy stainless steel
Static seal material	NBR
Material of pneumatic fitting	Brass, nickel-plated
Tie rod material	High-alloy stainless steel
Material of cylinder barrel	Wrought aluminum alloy, smooth-anodized