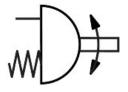
Semi-rotary drive DFPD-40-RP-90-RS55-F04 Part number: 8071605

FESTO





Data sheet

Flange hole pattern Swivel angle Ford-position adjusting range at 0° Ford-position adjusting range at nominal swivel angle Ford-position position adjusting range at nominal swivel angle Ford-position adjusting range at nominal swivel angle Ford-position position Ford-position position Ford-position position Ford-position position Ford-position position position position sensor conforms to adjust process type according to VDMA 66413 Ford-position position position position position position when the compressed air is switched off and the spring chamber is exhausted. This switching movement is achieved by the spring force of the spring assembly. Ford-position position position position position when the compressed air is switched off and the spring chamber is exhausted. This switching movement is achieved by the spring force of the spring assembly. Ford-position position	Feature	Value
Swivel angle End-position adjusting range at 0° End-position adjusting range at nominal swivel angle End-position adjusting range at nominal swivel angle Depth shaft connection 12 mm Standard connection for valve ISO 5211 Mounting position Any Mode of operation Single-acting Gear rack/pinion Closing direction Clockwise closing Valve connection conforms to standard VDI/VDE 3845 (NAMUR) Connection point for positioner and position sensor conforms to standard Devices type according to VDMA 66413 Safety function Safety function Safety function consists of the drive switching to the defined safety switching position when the compressed air is switched off and the spring chamber is exhausted. This switching movement is achieved by the spring force of the spring assembly. Safety integrity level (SIL) Up to SIL 3 in a redundant architecture up to SIL 1 high demand mode Certified for safety function to ISO 13849 and IEC 61508 (SIL) Product can be used in safety-related parts of control systems up to SIL 1, high demand mode Up to SIL 3 in a redundant architecture	Size of valve actuator	
End-position adjusting range at 0° End-position adjusting range at nominal swivel angle Depth shaft connection 12 mm Standard connection for valve Standard connection for valve Mounting position Mouting position Structural design Closing direction Closkwise closing Voll/VDE 3845 (NAMUR) Connection point for positioner and position sensor conforms to standard Devices type according to VDMA 66413 Safety function Safety function Safety function Safety function Safety function Safety function conforms to standard Devices type according to VDMA 66413 Safety function Safety function Safety function Safety function Safety function Safety function consists of the drive switching to the defined safety switching position when the compressed air is switched off and the spring chamber is exhausted. This switched off and the spring force of the spring assembly. Safety integrity level (SIL) Up to SIL 2 low demand mode up to SIL 2 low demand mode Certified for safety function to ISO 13849 and IEC 61508 (SIL) Product can be used in safety-related parts of control systems up to SIL 1, high demand up to SIL 3 in a redundant architecture Up to SIL 3 in a redundant ar	Flange hole pattern	F04
End-position adjusting range at nominal swivel angle Depth shaft connection 12 mm 150 5211 Mounting position Mode of operation Structural design Closing direction Clockwise closing Valve connection point for positioner and position sensor conforms to standard Devices type according to VDMA 66413 Safety function Safety function Safety function Safety integrity level (SIL) Up to SIL 2 low demand pup to SIL 1 high demand mode up to SIL 1 high demand mode Up to SIL 3 in a redundant architecture Up to SIL 3 in a redundant arc	Swivel angle	90 deg
End-position adjusting range at nominal swivel angle Depth shaft connection 12 mm 150 5211 Mounting position Mode of operation Structural design Closing direction Clockwise closing Valve connection point for positioner and position sensor conforms to standard Devices type according to VDMA 66413 Safety function Safety function Safety function Safety integrity level (SIL) Up to SIL 2 low demand pup to SIL 1 high demand mode up to SIL 1 high demand mode Up to SIL 3 in a redundant architecture Up to SIL 3 in a redundant arc	End-position adjusting range at 0°	-5 deg5 deg
Depth shaft connection Standard connection for valve Standard connection for valve Standard connection for valve Single-acting Single-acting Structural design Closing direction Clockwise closing VDI/VDE 3845 (NAMUR) Connection point for positioner and position sensor conforms to standard Devices type according to VDMA 66413 Safety device Stafety function Structural design Clockwise closing VDI/VDE 3845 (NAMUR) VDI/VDE 3845 size AA 1 Standard Devices type according to VDMA 66413 Safety device The safety function consists of the drive switching to the defined safety switching position when the compressed air is switched off and the spring chamber is exhausted. This switching movement is achieved by the spring force of the spring assembly. Up to SIL 3 in a redundant architecture up to SIL 1 high demand mode Up to SIL 1 high demand mode Up to SIL 1 high demand mode Up to SIL 3 in a redundant architecture up to SIL 1, high demand Up to SIL 3 in a redundant architecture Up to SIL 3 in a redundant	End-position adjusting range at nominal swivel angle	
Mounting position Any Mode of operation Single-acting Gear rack/pinion Closking direction Clockwise closing VDI/VDE 3845 (NAMUR) Connection conforms to standard VDI/VDE 3845 (NAMUR) VDI/VDE 3845 size AA 1 Safety device The safety function consists of the drive switching to the defined safety switching position when the compressed air is switched off and the spring chamber is exhausted. This switching movement is achieved by the spring force of the spring assembly. Up to SIL 2 low demand mode up to SIL 3 in a redundant architecture up to SIL 1 high demand mode Certified for safety function to ISO 13849 and IEC 61508 (SIL) Product can be used in safety-related parts of control systems up to SIL 1, high demand up to SIL 3 in a redundant architecture Surst pressure Oz MPa0.8 MPa 2 bar8 bar 29 psi116 psi Nominal operating pressure O.55 MPa	Depth shaft connection	12 mm
Mode of operation Single-acting Gear rack/pinion Closkwise closing VDI/VDE 3845 (NAMUR) Connection conforms to standard VDI/VDE 3845 (NAMUR) Connection point for positioner and position sensor conforms to standard Devices type according to VDMA 66413 Safety device The safety function consists of the drive switching to the defined safety switching position when the compressed air is switched off and the spring chamber is exhausted. This switching movement is achieved by the spring force of the spring assembly. Up to SIL 2 low demand mode up to SIL 3 in a redundant architecture up to SIL 1 high demand mode Certified for safety function to ISO 13849 and IEC 61508 (SIL) Product can be used in safety-related parts of control systems up to SIL 1, high demand up to SIL 3 in a redundant architecture Departing pressure O.2 MPa0.8 MPa 2 bar8 bar 29 psi116 psi Nominal operating pressure O.55 MPa	Standard connection for valve	ISO 5211
Gear rack/pinion Closing direction Clockwise closing VDI/VDE 3845 (NAMUR) Connection point for positioner and position sensor conforms to standard Devices type according to VDMA 66413 Safety function The safety function consists of the drive switching to the defined safety switching position when the compressed air is switched off and the spring chamber is exhausted. This switching movement is achieved by the spring force of the spring assembly. Gafety integrity level (SIL) Up to SIL 2 low demand mode up to SIL 3 in a redundant architecture up to SIL 1 high demand mode Product can be used in safety-related parts of control systems up to SIL 1, high demand up to SIL 3 in a redundant architecture Gurst pressure Departing pressure O.2 MPa0.8 MPa 2 bar8 MPa 2 2 bar8 Bar 29 psi116 psi Nominal operating pressure 0.55 MPa	Mounting position	Any
Clockwise closing Valve connection conforms to standard VDI/VDE 3845 (NAMUR) VDI/VDE 3845 size AA 1 Connection point for positioner and position sensor conforms to standard Devices type according to VDMA 66413 Safety device The safety function consists of the drive switching to the defined safety switching position when the compressed air is switched off and the spring chamber is exhausted. This switching movement is achieved by the spring force of the spring assembly. Up to SIL 2 low demand mode up to SIL 3 in a redundant architecture up to SIL 1 high demand mode Certified for safety function to ISO 13849 and IEC 61508 (SIL) Product can be used in safety-related parts of control systems up to SIL 1, high demand up to SIL 3 in a redundant architecture 24 bar Operating pressure 24 bar Operating pressure 0.2 MPa0.8 MPa 2 bar116 psi Nominal operating pressure 0.55 MPa	Mode of operation	Single-acting
Valve connection conforms to standard VDI/VDE 3845 (NAMUR) Connection point for positioner and position sensor conforms to standard VDI/VDE 3845 size AA 1 Safety device The safety function consists of the drive switching to the defined safety switching position when the compressed air is switched off and the spring chamber is exhausted. This switching movement is achieved by the spring force of the spring assembly. Up to SIL 2 low demand mode up to SIL 3 in a redundant architecture up to SIL 1 high demand mode Certified for safety function to ISO 13849 and IEC 61508 (SIL) Product can be used in safety-related parts of control systems up to SIL 1, high demand up to SIL 3 in a redundant architecture 24 bar Operating pressure One MPa0.8 MPa 2 bar8 bar 29 psi116 psi Nominal operating pressure One MPa0.8 MPa	Structural design	Gear rack/pinion
Valve connection conforms to standard VDI/VDE 3845 (NAMUR) Connection point for positioner and position sensor conforms to standard VDI/VDE 3845 size AA 1 Safety device The safety function consists of the drive switching to the defined safety switching position when the compressed air is switched off and the spring chamber is exhausted. This switching movement is achieved by the spring force of the spring assembly. Up to SIL 2 low demand mode up to SIL 3 in a redundant architecture up to SIL 1 high demand mode Certified for safety function to ISO 13849 and IEC 61508 (SIL) Product can be used in safety-related parts of control systems up to SIL 1, high demand up to SIL 3 in a redundant architecture 24 bar Operating pressure One MPa0.8 MPa 2 bar8 bar 29 psi116 psi Nominal operating pressure One MPa0.8 MPa	Closing direction	Clockwise closing
Safety function The safety function consists of the drive switching to the defined safety switching position when the compressed air is switched off and the spring chamber is exhausted. This switching movement is achieved by the spring force of the spring assembly. Safety integrity level (SIL) Up to SIL 2 low demand mode up to SIL 3 in a redundant architecture up to SIL 1 high demand mode Certified for safety function to ISO 13849 and IEC 61508 (SIL) Product can be used in safety-related parts of control systems up to SIL 1, high demand up to SIL 3 in a redundant architecture 24 bar Operating pressure 24 bar Operating pressure 0.2 MPa0.8 MPa 2 bar8 bar 29 psi116 psi Nominal operating pressure 0.55 MPa	Valve connection conforms to standard	VDI/VDE 3845 (NAMUR)
The safety function are safety function consists of the drive switching to the defined safety switching position when the compressed air is switched off and the spring chamber is exhausted. This switching movement is achieved by the spring force of the spring assembly. Up to SIL 2 low demand mode up to SIL 3 in a redundant architecture up to SIL 1 high demand mode Product can be used in safety-related parts of control systems up to SIL 2, low demand Product can be used in safety-related parts of control systems up to SIL 1, high demand up to SIL 3 in a redundant architecture Burst pressure Operating pressure OLY MPAO.8 MPa 2 bar8 bar 29 psi116 psi Nominal operating pressure O.55 MPa	Connection point for positioner and position sensor conforms to standard	VDI/VDE 3845 size AA 1
switching position when the compressed air is switched off and the spring chamber is exhausted. This switching movement is achieved by the spring force of the spring assembly. Safety integrity level (SIL) Up to SIL 2 low demand mode up to SIL 3 in a redundant architecture up to SIL 1 high demand mode Certified for safety function to ISO 13849 and IEC 61508 (SIL) Product can be used in safety-related parts of control systems up to SIL 2, low demand Product can be used in safety-related parts of control systems up to SIL 1, high demand up to SIL 3 in a redundant architecture Burst pressure 24 bar Operating pressure 0.2 MPa0.8 MPa 2 bar8 bar 29 psi116 psi Nominal operating pressure 0.55 MPa	Devices type according to VDMA 66413	Safety device
up to SIL 3 in a redundant architecture up to SIL 1 high demand mode Product can be used in safety-related parts of control systems up to SIL 2, low demand Product can be used in safety-related parts of control systems up to SIL 1, high demand up to SIL 3 in a redundant architecture Burst pressure 24 bar Operating pressure 0.2 MPa0.8 MPa 2 bar8 bar 29 psi116 psi Nominal operating pressure 0.55 MPa	Safety function	spring chamber is exhausted. This switching movement is achieved by
2, low demand Product can be used in safety-related parts of control systems up to SIL 1, high demand up to SIL 3 in a redundant architecture Burst pressure 24 bar Operating pressure 0.2 MPa0.8 MPa 2 bar8 bar 29 psi116 psi Nominal operating pressure 0.55 MPa	Safety integrity level (SIL)	up to SIL 3 in a redundant architecture
Operating pressure 0.2 MPa0.8 MPa 2 bar8 bar 29 psi116 psi Nominal operating pressure 0.55 MPa	Certified for safety function to ISO 13849 and IEC 61508 (SIL)	Product can be used in safety-related parts of control systems up to SIL 1, high demand
2 bar8 bar 29 psi116 psi Nominal operating pressure 0.55 MPa	Burst pressure	24 bar
	Operating pressure	2 bar8 bar
79.75 psi	Nominal operating pressure	5.5 bar
Maritime classification See certificate	Maritime classification	See certificate

Feature	Value
CE marking (see declaration of conformity)	as per EU explosion protection directive (ATEX)
UKCA marking (see declaration of conformity)	acc. to UK EX instructions
Explosion protection certification outside the EU	EPL Db (GB) EPL Gb (GB)
Explosion prevention and protection	Zone 1 (ATEX) Zone 1 (UKEX) Zone 2 (ATEX) Zone 21 (ATEX) Zone 21 (UKEX) Zone 22 (ATEX)
Certificate issuing authority	DNV TAP00001CE German Technical Control Board (TÜV) Rheinland 968/V 1106.01/2023
ATEX category gas	II 2G
ATEX category for dust	II 2D
Type of ignition protection for gas	Ex h IIC T4 Gb X
Type of (ignition) protection for dust	Ex h IIIC T105°C Db X
Explosive ambient temperature	-20°C <= Ta <= +80°C
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
Information on operating and pilot media	Dew point min. 10 °C below the ambient temperature and temperature of medium Operation with oil lubrication possible (required for further use)
LABS (PWIS) conformity	VDMA24364-B1/B2-L
Storage temperature	-20 °C60 °C
Ambient temperature	-20 °C80 °C
Torque at nominal operating pressure and 0° swivel angle	25.7 Nm
Torque at nominal operating pressure and 90° swivel angle	13.3 Nm
Note about the torque	The actuator's operating torque must not be higher than the maximum permissible torque listed in ISO 5211, based on the size of the mounting flange and the coupling.
Spring return torque at 0° swivel angle	12.7 Nm
Spring return torque with 90° swivel angle	25 Nm
MTTFd	1126 years
PFH	1.01E-07
PFD	0.00078
Air consumption at 6 bar per cycle 0°-nominal swivel angle-0°	1.5 l
Product weight	2165 g
Shaft connection	T11
Pneumatic connection	G1/8
Note on materials	RoHS-compliant
Material of sub-base	Wrought aluminum alloy, anodized
Cover material	Die-cast aluminum, coated
Seals material	NBR
Material of spring	Spring steel
Housing material	Wrought aluminum alloy, anodized
Material of piston	Die-cast aluminum
Material of bearing	РОМ
Cam material	High-alloy stainless steel
Material of screws	High-alloy stainless steel
Shaft material	Steel, nickel-plated