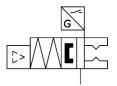
Parallel gripper HPPH-16-16-NC-P-R12 Part number: 8171874

FESTO





Data sheet

Feature	Value
Size	16
Total stroke	16 mm
Stroke per gripper jaws	8 mm
Max. angular gripper jaw backlash ax, ay	0 deg
Max. gripper jaw backlash Sz	0 mm
Repetition accuracy, gripper	0.06 mm
Number of gripper jaws	2
Drive system	Pneumatic
Mounting position	optional
Mode of operation	Double-acting Double-acting
Cushioning	On one side Not adjustable
Gripper function	Parallel
Gripper force back-up	During closing
Design	Connection direction at side Twin piston Flat mounting method for gripper fingers Guidance Rack and pinion With gripper finger Pneumatic gripper Force pilot operated motion sequence
Guide	Ball guide
Position detection	With integrated displacement encoder
Switching status indication	Blue LED, switching status via signal input
Operating pressure	0.25 MPa0.7 MPa 2.5 bar7 bar 36.25 psi101.5 psi
Operating pressure HRC	0.25 MPa0.5 MPa 2.5 bar5 bar 36.25 psi72.5 psi
Max. operating frequency of gripper	1 Hz
Min. opening time at 0.6 MPa (6 bar, 87 psi)	180 ms
Min. closing time at 0.6 MPa (6 bar, 87 psi)	90 ms
Max. mass per external gripper finger	100 g

Nominal operating voltage DC 24 V Switching input PNP	Feature	Value
Switching output Switching joutput PNP PNP RCM trademark Approval RCM trademark TUV SUM M70132770518.01 TUV SUM M70132770518.01 Questing medium Compressed air to 150 8873-112010 [7:4:4] Unbricated operation possible (in which case lubricated operation will always be required) Shock resistance Shock test with severity level 2 to RN 942017-5 and EN 60068-2-27 Consolin resistance dass CRC 1-Low corosion stees LABS (PWIS) conformity Vibration resistance Shock test with severity level 2 to RN 942017-4 and EN 60068-2-6 Relative air humidity O-90%, Non-condensing Sound pressure level 75 d8(A) Degree of protection RPA0 Ambient temperature 5°C-50 °C Total gripping force, closing, 0.6MPa (6bur, 87 psi) Total gripping force, closing, 0.6MPa (6bur, 87 psi) Total gripping force, closing, 0.6MPa (6bur, 87 psi) Total gripping force per gripper jaw RC, closing 116 N128 N Non-condensing 123 N256 N Gripping force per gripper jaw closing 223 N256 N Gripping force per gripper jaw, closing 223 N34 N Nasa moment of inertia Mass. Insenset of inertia Mass. Insenset My Mass. moment My Ma	Max. current consumption	0.1 A
Switching input PMP Permissible voltage fluctuations Approval CE mark (see declaration of conformity) RCM trademark CE mark (see declaration of conformity) RCM marking (see declaration of conformity) RCM MARCH (SM SINIS instructions) Certificate issuing authority RCM SM MARCH (SM SINIS instructions) Certificate issuing authority RCM SM MARCH (SM SINIS instructions) Certificate issuing authority RCM SM MARCH (SM SINIS instructions) Certificate issuing authority RCM SM MARCH (SM SINIS instructions) Certificate issuing authority RCM SM MARCH (SM SINIS instructions) Certificate issuing authority RCM SM MARCH (SM SINIS Instructions) Certificate issuing authority RCM AMACH (SM SINIS Instructions) Compressed air to ISO 8573-12010 [7:4:4] RCM AMACH (SM SINIS Instructions) Compressed air to ISO 8573-12010 [7:4:4] RCM AMACH (SM SINIS Instructions) Compressed air to ISO 8573-12010 [7:4:4] RCM AMACH (SM MARCH (SM SINIS INSTRUCTION IN INS	Nominal operating voltage DC	24 V
Permissible voltage fluctuations // 10 % Approval RCM trademark CE mark (see declaration of conformity) To LUENC Directive In accordance with EU RoHS Directive UKCA marking (see declaration of conformity) To UK Shark instructions Certificate issuing authority TUS you Marvia 227025.01 Operating medium Compressed air to 150 8573-1;2010 [7:4:4] Note on operating and pilot medium Uuricated operation possible for which case lubricated operation will abways be required) Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27 Corosion resistance dass CRC 1-Low corosion stress LABS PWIS conformity Vibration resistance Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 Relative air humidity Operation resistance Personal operation of the stress of the severity level 2 to FN 942017-4 and EN 60068-2-6 Relative air humidity Operation resistance Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 Relative air humidity Operation resistance Total gripping force, closing, 0.6 MPa (6 bar, 87 pa) Total gripping force, closing, 0.6 MPa (6 bar, 87 pa) Total gripping force, closing, 0.6 MPa (6 bar, 87 pa) Total gripping force, closing, 0.6 MPa (6 bar, 87 pa) Total gripping force HRC, closing Total gripping force with the stroke With integrated compression spring Theoretical spring force with HRC, closing Theoretical spring force per gripper jaw, closing Auss. moment of merita Auss. force on gripper jaw Pt static Tof N Auss. moment Mp Auss.	Switching output	PNP
Approval CE mark Gee declaration of conformity) To EU EAN Directive In accordance with EU RoHS Directive In Control Conformity To UK instructions for EMC To UK instructions Certificate issuing authority TUV sud MY0132770575.01 TUV sud	Switching input	PNP
To EU EUR D'Incethe In accordance with EU ROHS Directive In accordance with EU ROHS Directive In accordance with EU ROHS Directive IN Instructions for EMC To UK RoHS instructions Certificate issuing authority TUS 30d M7013277952.5.01 Operating medium Compressed air to ISO 8573-1.2010 [7.4-4] Note on operating and pilot medium Ubricated operation possible (in which case lubricated operation will always be required) Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27 Shock test with severity level 2 to FN 942017-5 and EN 60068-2-28 LABS (PWIS) conformity Vibration resistance To Corrosion resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-26 Relative air humidity Vibration resistance	Permissible voltage fluctuations	+/- 10 %
In accordance with EU Roth's Directive URCA marking (see declaration of conformity) To Us (instructions for EMC To UR Roth'S Instructions Certificate issuing authority Operating medium Compressed air to 150 8573-12010 [7:4:4] Note on operating and pilot medium Always be required Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27 Corrosion resistance class CRC 1-Low corrosion stress Labs (PWIS) conformity Vibration resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27 Corrosion resistance Fransport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 Relative air humidity Non-condensing Sound pressure level Posses of protection PRO Relative air humidity Operating protection (PRO Degree of protection (PRO Total gripping force, closing, 0.6MPa (6bar, 87 psi) (278 N302 N303 N315 N303 N315 N303 N315 N303 N315 N303 N315 N303 N315 N304 N	Approval	RCM trademark
To UK Robis Instructions Certificate Issuing authority TUV Süd M70132770525.01 Operating medium Compressed air to ISO 8573-1:2010 [7:4:4] Note on operating and pilot medium Lubricated operation possible (in which case lubricated operation will always be required) Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27 Corrosion resistance class CRC 1 Low corrosion stress LABS (PWIS) Card III Vibration resistance Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-26 Relative air humidity Operating application test with severity level 2 to FN 942017-4 and EN 60068-2-26 Relative air humidity Operating application test with severity level 2 to FN 942017-4 and EN 60068-2-26 Relative air humidity Operating proper displays (in the severity level 2 to FN 942017-4 and EN 60068-2-26 Relative air humidity Operating application test with severity level 2 to FN 942017-4 and EN 60068-2-26 Relative air humidity Operating application test with severity level 2 to FN 942017-4 and EN 60068-2-26 Relative air humidity Operating application test with severity level 2 to FN 942017-4 and EN 60068-2-27 Relative air humidity Operating application test with severity level 2 to FN 942017-4 and EN 60068-2-27 Relative air humidity Operating application test with severity level 2 to FN 942017-4 and EN 60068-2-27 Relative air humidity Operation application test with severity level 2 to FN 942017-4 and EN 60068-2-27 Relative air humidity Operation application test with severity level 2 to FN 942017-5 and EN 60068-2-27 Relative air humidity Operation application test with severity level 2 to FN 942017-5 and EN 60068-2-27 Relative air humidity Operation application test with severity level 2 to FN 942017-5 and EN 60068-2-27 Relative air humidity Operation application test with severity level 2 to FN 942017-5 and EN 60068-2-27 Relative air humidity Operation 1 10 00068-2-20 Operation Application test with severity level 2 to FN 942017-5 and EN 60068-2-20 Operation 1 10 00068-2-20 Operation 1	CE mark (see declaration of conformity)	
Operating medium Octoor operating and pilot medium Lubricated operation possible (in which case lubricated operation will always be required) Shock resistance Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27 Corrosion resistance class CRC 1-Low corrosion stress Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-00 Conformity Vibration resistance Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-00 Conformity Vibration resistance Relative air humidity 0-99% Non-condensing Sound pressure level 2-5 dB(A) Degree of protection (Pa0 Degree of protection (Pa0 Total gripping force, closing, 0.6MPa (6bar, 87 psi) Gripper force per gripper paw, closing, 0.6MPa (6bar, 87 psi) Gripping force per gripper paw, closing, 0.6MPa (6bar, 87 psi) Gripping force per gripper paw, closing Gripping force per gripper paw, closing Theoretical spring force per gripper jaw, closing Theoretical spring force per gripper jaw, closing 3-23 N128 N Note on gripping force pripper jaw, closing 3-3 N34-9 N Max. moment Ma Max. moment Ma Max. moment Ma Max. moment Ma Bending radius, fixed cable 5-2 mm Maintenance interval Life-time lubrication Field device side Electrical connection 1, function Field device side Electrical connection 1, connector system Max.1, 4-coded, to EN 51076-2-104 Electrical connection 1, connector system Max.1, 4-coded, to EN 51076-2-104 Electrical connection 1, used connections/cores Bell Electrical connection 1, used connecti	UKCA marking (see declaration of conformity)	
Note on operating and pilot medium Shock resistance Shock resistance Shock resistance Shock resistance class CRC 1 - Low corrosion stress LABS (PWIS) conformity VDM-2364 zone III Vibration resistance Transport application test with severity level 2 to FN 942017-5 and EN 60068-2-27 LABS (PWIS) conformity VDM-2364 zone III Vibration resistance Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 Relative air humidity 0 - 90% Non-condensing Sound pressure level 75 dB(A) Degree of protection IP40 Ambient temperature 15 °C50 °C Total gripping force, closing, 0.6MPa (6bar, 87 psi) Total gripping force, closing, 0.6MPa (6bar, 87 psi) Total gripping force per gripper jaw HCC, closing 232 N256 N Gripping force per gripper jaw HCC, closing 116 N128 N Mass moment for force per gripper jaw, closing Aus. Force on gripper jaw Fz static 176 N Max. moment Mx Aux. moment Mx Aux. moment Mx Aux. moment Mx Aux. moment Mx Bending radius, moving cable 232 m 144 Nm Bending radius, moving cable 252 mm Maintenance interval Main	Certificate issuing authority	TÜV Süd M70132770525.01
alaways be requiredy) Shock resistance Shock resistance Shock resistance Shock rest with severity level 2 to FN 942017-5 and EN 60068-2-27 Corrosion resistance class CRC 1 - Low corrosion stress LABS (PWIS) conformity VDMA20364 zone III Vibration resistance Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 Relative air humidity 0 - 90% Relative air humidity 0 - 90% Non-condensing 75 dB(A) O - 90% Non-condensing PAO O - 90% Non-condensing	Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Corrosion resistance class CRC LABS (PWIS) conformity VDMA24364 zone III Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 Relative air humidity 0.90% Non-condensing Sound pressure level Degree of protection IP40 Berein of protection PP40 Total gripping force, closing, 0.6MPa (6bar, 87 psi) Cridge frorce per gripper jaw, closing, 0.6MPa (6bar, 87 psi) Cridge force per gripper jaw, closing, 0.6MPa (6 bar, 87 psi) Total gripping force HBC, closing Gripping force per gripper jaw, closing Gripping force per gripper jaw, closing Rote on gripping force per gripper jaw, closing Theoretical spring force per gripper jaw, closing Aux. force on gripper jaw Fz static 176 N Max. moment Mx 2.8 Nm Max. moment Mx 2.8 Nm Max. moment My 1.4 Nm Max. moment My 1.5 Vm Max. moment My 1.6 Vm Max. moment My 1.7 Vm Max. moment My 1.8 Vm Max. moment My 1.9 Vm Max. moment My Max. moment My 1.9 Vm Max. moment My Max. moment	Note on operating and pilot medium	
LABS (PWIS) conformity VDMA24364 zone III Transport application test with severity level 2 to FN 942017-4 and EN 60068-2 e. 60068-	Shock resistance	Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27
Vibration resistance Relative air humidity 0 - 90% Non-condensing Sound pressure level 7 5 dB(A) Degree of protection Ambient temperature 1 5 °C50 °C Total gripping force, closing, 0.6MPa (6bar, 87 ps) Total gripping force, closing, 0.6MPa (6bar, 87 ps) Total gripping force per gripper jaw, closing, 0.6 MPa (6 bar, 87 ps) Total gripping force per gripper jaw, closing, 0.6 MPa (6 bar, 87 ps) Total gripping force per gripper jaw, closing 232 N256 N Gripping force per gripper jaw, closing 232 N256 N Rote on gripping force per gripper jaw, closing 233 N34,9 N Note on gripping force per gripper jaw, closing 23.3 N34,9 N Nass moment of inertia 0.6 kg cm² Max. force on gripper jaw Fz static 176 N Max. moment Mx 1.4 Nm Max. moment Mx 1.4 Nm Max. moment My 1.4 Nm Bending radius, fixed cable Bending radius, fixed cable Bending radius, moving cable 1.6 So g Recommended workplece weight for MRK 1 kg Electrical connection 1, function Electrical connection 1, cable outlet Electrical connection 1, connection type Electrical connection 1, connection type Electrical connection 1, connection type Electrical connection 1, connector system Max.1, A-coded, to EN 61076-2-104 Electrical connection 1, tightening torque 7 yee of mounting kit 7 to 10.9 9409 Pheumatic connection Product onection Note on materials Material cover Pa-reinforced	Corrosion resistance class CRC	1 - Low corrosion stress
Relative air humidity 0-90% Non-condensing Sound pressure level 75 dB(A) Degree of protection IP40 Ambient temperature -5°50°.C Total gripping force, closing, 0.6MPa (6bar, 87 psi) 278 N302 N Gripper force per gripper jaw, closing, 0.6 MPa (6 bar, 87 psi) 139 N151 N Total gripping force HRC, closing 23 N256 N Gripping force per gripper jaw, closing 23 N351 N Total gripping force per gripper jaw, closing 23 N354 N Note on gripping force Dependent on the stroke With integrated compression spring Theoretical spring force per gripper jaw, closing 23.3 N34.9 N Max. force on gripper jaw Fz static 176 N Max. force on gripper jaw Fz static 176 N Max. moment Mx 2.8 Nm Max. moment My 1.4 Nm Max. moment My 1.4 Nm Max. moment My 1.4 Nm Max. moment Mz Bending radius, fixed cable 2c mm Bending radius, fixed cable 2c mm Maintenance interval Life-time lubrication Product weight 680 g Recommended workpiece weight for MRK 1 kg Electrical connection 1, connection type Cable with plug Electrical connection 1, design Recommended workpiece weight for MRK 1 kg Electrical connection 1, design Recommended to the stroke side Electrical connection 1, used connections/cores 8 Electrical connection 1, used connections/cores 8 Electrical connection 1, tused connections/cores 6 Electrical connection 1, tightening torque 0.2 Nm Type of mounting Via mounting kit 10 150 9409 Pheumatic connection 1, Electrical connection 1, tightening torque Via mounting kit 10 150 9409 Pheumatic connection 5 PA reinforced	LABS (PWIS) conformity	VDMA24364 zone III
Non-condensing Non-condensing	Vibration resistance	
Degree of protection P40 Ambient temperature -5°C50°C Total gripping force, closing, 0.6MPa (6bar, 87 psi) 278 N302 N Gripper force per gripper jaw, closing, 0.6 MPa (6 bar, 87 psi) 139 N151 N Total gripping force HRC, closing 232 N256 N Gripping force per gripper jaw, RRC, closing 116 N128 N Note on gripping force berg gripper jaw HRC, closing 116 N128 N Dependent on the stroke With integrated compression spring Theoretical spring force per gripper jaw, closing 23.3 N34.9 N Mass moment of inertia 0.6 kgcm² Max. force on gripper jaw F2 static 176 N Max. moment Mx 2.8 Nm Max. moment My 1.4 Nm Max. moment My 1.4 Nm Max. moment My 1.4 Nm Max. moment Mz 1.4 Nm Bending radius, fixed cable 26 mm Bending radius, moving cable 52 mm Maintenance interval Life-time lubrication Product weight 680 g Recommended workpiece weight for MRK 1 kg Electrical connection 1, function Field device side Electrical connection 1, connection type Cable with plug Electrical connection 1, connection type Electrical connection 1, connector system M8x1, A-coded, to EN 61076-2-104 Electrical connection 1, number of connections/cores 8 Electrical connection 1, number of connections/cores 8 Electrical connection 1, tiphtening torque 0.2 Nm Type of mounting Via mounting kit 7 to 150 9409 Pneumatic connection 1, Fiprentials RoH5-compliant Material cover PA-reinforced	Relative air humidity	
Ambient temperature 5 ° ° C50 ° C Total gripping force, closing, 0.6MPa (6bar, 87 ps) 278 N302 N Gripper force per gripper jaw, closing, 0.6 MPa (6 bar, 87 psi) 139 N151 N Total gripping force HBC, closing 232 N256 N Gripping force per gripper jaw HRC, closing 116 N128 N Note on gripping force Upendent on the stroke With integrated compression spring Theoretical spring force per gripper jaw, closing 23.3 N34,9 N Mass moment of inertia 0.6 kgcm² Max. force on gripper jaw Fz static 176 N Max. moment MX 2.8 Nm Max. moment MY 1.4 Nm Max. moment MY 1.4 Nm Bending radius, fixed cable 26 mm Bending radius, moving cable 152 mm Maintenance interval Life-time lubrication Product weight 680 g Recommended workpiece weight for MRK 1 kg Electrical connection 1, function Field device side Electrical connection 1, connection type Cable with plug Electrical connection 1, cable outlet Angled Electrical connection 1, connector system M8x1, A-coded, to EN 61076-2-104 Electrical connection 1, used connections/cores 8 Electrical connection 1, used connections/cores 6 Electrical connection 1, tightening torque 0,2 Nm Type of mounting Via mounting kit To 150 9 A099 Pneumatic connection 5 For push-in connector O.D. 4 mm Note on materials Material cover	Sound pressure level	75 dB(A)
Total gripping force, closing, 0.6MPa (6bar, 87 psi) Gripper force per gripper jaw, closing, 0.6 MPa (6 bar, 87 psi) Total gripping force PRC, closing 232 N256 N Gripping force per gripper jaw HRC, closing 116 N128 N Note on gripping force Dependent on the stroke With integrated compression spring Theoretical spring force per gripper jaw, closing 23.3 N34,9 N Mass moment of inertia 0.6 kgcm² Max. moment MX 2.8 Nm Max. moment MY 1.4 Nm Max. moment MY 1.4 Nm Bending radius, fixed cable Bending radius, moving cable Maintenance interval Life-time lubrication Product weight Recommended workpiece weight for MRK 1 kg Electrical connection 1, function Field device side Electrical connection 1, connection type Electrical connection 1, connection system Max1, A-coded, to EN 61076-2-104 Electrical connection 1, used connections/cores Electrical connection 1, tightening torque O.2 Nm Type of mounting Via mounting kit To 150 9409 Preumatic connection Note on materials RoHS-compliant Material cover	Degree of protection	IP40
Gripper force per gripper jaw, closing, 0.6 MPa (6 bar, 87 psi) Total gripping force HRC, closing Gripping force per gripper jaw HRC, closing 116 N128 N Note on gripping force Dependent on the stroke With integrated compression spring Theoretical spring force per gripper jaw, closing 23.3 N34.9 N Mass moment of inertia 0.6 kgcm² Max. force on gripper jaw Fz static 176 N Max. moment Mx 2.8 Nm Max. moment My 1.4 Nm Max. moment My 1.4 Nm Max. moment My 1.5 mm Max. moment Mz Bending radius, fixed cable Bending radius, moving cable Maintenance interval Life-time lubrication Product weight Recommended workpiece weight for MRK 1 kg Electrical connection 1, function Electrical connection 1, connection type Cable with plug Electrical connection 1, connector type Electrical connection 1, connector system Max1, A-coded, to EN 61076-2-104 Electrical connection 1, used connections/cores Electrical connection 1, tightening torque O.2 Nm Type of mounting Via mounting kit To ISO 9409 Pneumatic connector D.D. 4 mm Note on materials Material cover	Ambient temperature	-5 °C50 °C
Total gripping force HRC, closing 232 N256 N Gripping force per gripper jaw HRC, closing 116 N128 N Note on gripping force Department of the stroke with integrated compression spring Theoretical spring force per gripper jaw, closing 23.3 N34.9 N Mass moment of inertia 0.6 kgcm² Max. force on gripper jaw Fz static 176 N Max. moment MX 2.8 Nm Max. moment MY 1.4 Nm Max. moment MY 1.4 Nm Bending radius, fixed cable 26 mm Bending radius, moving cable 12 cm Maintenance interval 12 cife-time lubrication Product weight 680 g Recommended workpiece weight for MRK 1 kg Electrical connection 1, function Field device side Electrical connection 1, connection type Cable with plug Electrical connection 1, design Round Electrical connection 1, design Round Electrical connection 1, unwher of connections/cores 8 Electrical connection 1, unwher of connections/cores 6 Electrical connection 1, tightening torque 0.2 Nm Type of mounting Via mounting kit To ISO 9409 Pneumatic connection 1 Note on materials Roll-Forced PA-reinforced	Total gripping force, closing, 0.6MPa (6bar, 87 psi)	278 N302 N
Gripping force per gripper jaw HRC, closing Note on gripping force Dependent on the stroke With integrated compression spring Theoretical spring force per gripper jaw, closing 23.3 N34.9 N Mass moment of inertia 0.6 kgcm² Max. force on gripper jaw Fz static 176 N Max. moment MX 2.8 Nm Max. moment My 1.4 Nm Max. moment My 1.4 Nm Bending radius, fixed cable Bending radius, moving cable Maintenance interval Life-time lubrication Product weight 680 g Recommended workpiece weight for MRK 1 kg Electrical connection 1, function Field device side Electrical connection 1, connector type Cable with plug Electrical connection 1, connector system Max. J. A. Coded, to EN 61076-2-104 Electrical connection 1, unmber of connections/cores 8 Electrical connection 1, unmber of connections/cores 6 Electrical connection 1, tightening torque 7 ye of mounting Via mounting kit To ISO 9409 Pneumatic connection Note on materials Material cover PA-reinforced	Gripper force per gripper jaw, closing, 0.6 MPa (6 bar, 87 psi)	139 N151 N
Note on gripping force Dependent on the stroke With integrated compression spring Theoretical spring force per gripper jaw, closing 23.3 N34.9 N Maxs moment of inertia 0.6 kgcm² Max. force on gripper jaw Fz static 176 N Max. moment Mx 2.8 Nm Max. moment My 1.4 Nm Max. moment Mz Bending radius, fixed cable 26 mm Bending radius, moving cable 52 mm Maintenance interval Life-time lubrication Product weight 680 g Recommended workpiece weight for MRK 1 kg Electrical connection 1, function Field device side Electrical connection 1, connector type Cable with plug Electrical connection 1, cable outlet Angled Electrical connection 1, connector system Max1, A-coded, to EN 61076-2-104 Electrical connection 1, umber of connections/cores 8 Electrical connection 1, used connections/cores 6 Electrical connection 1, tightening torque 7 to SO 9409 Pneumatic connection Note on materials Material cover Dependent on the stroke With integrated compression spring 23.3 N34.9 N 24.8 Nm 25.8 Nm And 14.8 Nm 14.8 Nm 15.6 Nm 15.6 Nm 16.6	Total gripping force HRC, closing	232 N256 N
Theoretical spring force per gripper jaw, closing 23.3 k34.9 N Mass moment of inertia 0.6 kgcm² Max. force on gripper jaw Fz static 176 N Max. moment MX 2.8 Nm Max. moment My 1.4 Nm Max. moment Mz 1.4 Nm Max. moment Mz 1.4 Nm Bending radius, fixed cable 26 mm Bending radius, moving cable 52 mm Maintenance interval Life-time lubrication Product weight 680 g Recommended workpiece weight for MRK 1 kg Electrical connection 1, function Field device side Electrical connection 1, connector system Round Electrical connection 1, cable outlet Angled Electrical connection 1, number of connections/cores 8 Electrical connection 1, used connections/cores 6 Electrical connection 1, tightening torque 0.2 Nm Type of mounting Valence of the Mexical School of the Max o	Gripping force per gripper jaw HRC, closing	116 N128 N
Mass moment of inertia 0.6 kgcm² Max. force on gripper jaw Fz static 176 N Max. moment Mx 2.8 Nm Max. moment My 1.4 Nm Max. moment Mz 1.4 Nm Bending radius, fixed cable Bending radius, moving cable Bendin	Note on gripping force	
Max. force on gripper jaw Fz static Max. moment Mx 2.8 Nm Max. moment My 1.4 Nm Max. moment Mz 1.4 Nm Bending radius, fixed cable Bending radius, moving cable Bending radius, moving cable Maintenance interval Uife-time lubrication Product weight 680 g Recommended workpiece weight for MRK 1 kg Electrical connection 1, function Electrical connection 1, connection type Cable with plug Electrical connection 1, design Round Electrical connection 1, connector system Max1, A-coded, to EN 61076-2-104 Electrical connection 1, used connections/cores Belectrical connection 1, used connections/cores Electrical connection 1, tightening torque 7 ye of mounting Via mounting kit To ISO 9409 Pneumatic connection Note on materials Material cover PA-reinforced	Theoretical spring force per gripper jaw, closing	23.3 N34.9 N
Max. moment Mx 2.8 Nm Max. moment My 1.4 Nm Bending radius, fixed cable Bending radius, fixed cable Bending radius, moving cable Bending radius, moving cable Maintenance interval Life-time lubrication Product weight 680 g Recommended workpiece weight for MRK 1 kg Electrical connection 1, function Field device side Electrical connection 1, connection type Cable with plug Electrical connection 1, cable outlet Angled Electrical connection 1, connector system Max1, A-coded, to EN 61076-2-104 Electrical connection 1, used connections/cores 8 Electrical connection 1, used connections/cores Belectrical connection 1, tightening torque O.2 Nm Type of mounting Via mounting kit To ISO 9409 Pneumatic connection For push-in connector O.D. 4 mm Note on materials Material cover	Mass moment of inertia	0.6 kgcm ²
Max. moment My Max. moment Mz Bending radius, fixed cable Bending radius, moving cable Bending radius, moving cable Bending radius, moving cable Life-time lubrication Product weight 680 g Recommended workpiece weight for MRK 1 kg Electrical connection 1, function Electrical connection 1, connection type Cable with plug Electrical connection 1, cable outlet Angled Electrical connection 1, connector system Max1, A-coded, to EN 61076-2-104 Electrical connection 1, number of connections/cores Belectrical connection 1, used connections/cores Belectrical connection 1, tightening torque 7 ye of mounting Via mounting kit To ISO 9409 Pneumatic connection Note on materials Material cover PA-reinforced	Max. force on gripper jaw Fz static	176 N
Max. moment Mz Bending radius, fixed cable Bending radius, moving cable Bending radius, moving cable Maintenance interval Product weight Recommended workpiece weight for MRK I kg Electrical connection 1, function Electrical connection 1, connection type Cable with plug Electrical connection 1, cable outlet Angled Electrical connection 1, connector system Max1, A-coded, to EN 61076-2-104 Electrical connection 1, number of connections/cores Electrical connection 1, used connections/cores Electrical connection 1, tightening torque O.2 Nm Type of mounting Via mounting kit To ISO 9409 Pneumatic connection Note on materials Material cover PA-reinforced	Max. moment Mx	2.8 Nm
Bending radius, fixed cable Bending radius, moving cable Sed mm Maintenance interval Life-time lubrication Froduct weight Recommended workpiece weight for MRK 1 kg Electrical connection 1, function Electrical connection 1, connection type Cable with plug Electrical connection 1, cable outlet Angled Electrical connection 1, design Round Electrical connection 1, connector system Max1, A-coded, to EN 61076-2-104 Electrical connection 1, umber of connections/cores B Electrical connection 1, used connections/cores 6 Electrical connection 1, tightening torque 7 ye of mounting Via mounting kit To ISO 9409 Pneumatic connection For push-in connector O.D. 4 mm Note on materials Material cover PA-reinforced	Max. moment My	1.4 Nm
Bending radius, moving cable Maintenance interval Life-time lubrication 680 g Recommended workpiece weight for MRK 1 kg Electrical connection 1, function Electrical connection 1, connection type Cable with plug Electrical connection 1, cable outlet Angled Electrical connection 1, design Round Electrical connection 1, connector system M8x1, A-coded, to EN 61076-2-104 Electrical connection 1, umber of connections/cores Belectrical connection 1, used connections/cores Electrical connection 1, tightening torque 7ype of mounting Via mounting kit To ISO 9409 Pneumatic connection Note on materials RoHS-compliant Material cover	Max. moment Mz	1.4 Nm
Maintenance interval Product weight Recommended workpiece weight for MRK 1 kg Electrical connection 1, function Electrical connection 1, connection type Cable with plug Electrical connection 1, cable outlet Electrical connection 1, design Round Electrical connection 1, connector system Max1, A-coded, to EN 61076-2-104 Electrical connection 1, number of connections/cores Electrical connection 1, used connections/cores Electrical connection 1, tightening torque 7 ya mounting Pro push-in connector 0.D. 4 mm Note on materials Material cover Life-time lubrication 680 g 8 6 6 6 6 6 6 7 7 8 8 8 8 8 8 8 8 8 8 8	Bending radius, fixed cable	26 mm
Product weight Recommended workpiece weight for MRK 1 kg Electrical connection 1, function Electrical connection 1, connection type Cable with plug Electrical connection 1, cable outlet Angled Electrical connection 1, design Round Electrical connection 1, connector system M8x1, A-coded, to EN 61076-2-104 Electrical connection 1, number of connections/cores Electrical connection 1, used connections/cores Electrical connection 1, tightening torque 7 ye of mounting Pneumatic connection For push-in connector 0.D. 4 mm Note on materials Material cover PA-reinforced	Bending radius, moving cable	52 mm
Recommended workpiece weight for MRK Electrical connection 1, function Electrical connection 1, connection type Cable with plug Electrical connection 1, cable outlet Angled Electrical connection 1, design Round Electrical connection 1, connector system M8x1, A-coded, to EN 61076-2-104 Electrical connection 1, number of connections/cores 8 Electrical connection 1, used connections/cores 6 Electrical connection 1, tightening torque O.2 Nm Type of mounting Via mounting kit To ISO 9409 Pneumatic connection For push-in connector O.D. 4 mm Note on materials Material cover PA-reinforced	Maintenance interval	Life-time lubrication
Electrical connection 1, function Electrical connection 1, connection type Cable with plug Electrical connection 1, cable outlet Angled Electrical connection 1, design Round Electrical connection 1, connector system M8x1, A-coded, to EN 61076-2-104 Electrical connection 1, number of connections/cores 8 Electrical connection 1, used connections/cores 6 Electrical connection 1, tightening torque O.2 Nm Type of mounting Via mounting kit To ISO 9409 Pneumatic connection For push-in connector O.D. 4 mm Note on materials Material cover PA-reinforced	Product weight	680 g
Electrical connection 1, connection type Electrical connection 1, cable outlet Electrical connection 1, design Round Electrical connection 1, connector system M8x1, A-coded, to EN 61076-2-104 Electrical connection 1, number of connections/cores Electrical connection 1, used connections/cores Electrical connection 1, tightening torque O.2 Nm Type of mounting Via mounting kit To ISO 9409 Pneumatic connection For push-in connector O.D. 4 mm Note on materials RoHS-compliant Material cover PA-reinforced	Recommended workpiece weight for MRK	1 kg
Electrical connection 1, connection type Electrical connection 1, cable outlet Electrical connection 1, design Round Electrical connection 1, connector system M8x1, A-coded, to EN 61076-2-104 Electrical connection 1, number of connections/cores Electrical connection 1, used connections/cores Electrical connection 1, tightening torque O.2 Nm Type of mounting Via mounting kit To ISO 9409 Pneumatic connection For push-in connector O.D. 4 mm Note on materials RoHS-compliant Material cover PA-reinforced	Electrical connection 1, function	Field device side
Electrical connection 1, cable outlet Electrical connection 1, design Round Electrical connection 1, connector system M8x1, A-coded, to EN 61076-2-104 Electrical connection 1, number of connections/cores Electrical connection 1, used connections/cores Electrical connection 1, tightening torque O.2 Nm Type of mounting Via mounting kit To ISO 9409 Pneumatic connection For push-in connector O.D. 4 mm Note on materials Material cover PA-reinforced		Cable with plug
Electrical connection 1, design Electrical connection 1, connector system M8x1, A-coded, to EN 61076-2-104 Electrical connection 1, number of connections/cores Electrical connection 1, used connections/cores Electrical connection 1, tightening torque O.2 Nm Type of mounting Via mounting kit To ISO 9409 Pneumatic connection For push-in connector O.D. 4 mm Note on materials Material cover PA-reinforced		
Electrical connection 1, number of connections/cores Electrical connection 1, used connections/cores 6 Electrical connection 1, tightening torque 7 Usia mounting kit To ISO 9409 Pneumatic connection For push-in connector O.D. 4 mm Note on materials RoHS-compliant Material cover PA-reinforced	Electrical connection 1, design	
Electrical connection 1, number of connections/cores Electrical connection 1, used connections/cores 6 Electrical connection 1, tightening torque 7 Usia mounting kit To ISO 9409 Pneumatic connection For push-in connector O.D. 4 mm Note on materials RoHS-compliant Material cover PA-reinforced	Electrical connection 1, connector system	M8x1, A-coded, to EN 61076-2-104
Electrical connection 1, tightening torque O.2 Nm Type of mounting Via mounting kit To ISO 9409 Pneumatic connection For push-in connector O.D. 4 mm Note on materials RoHS-compliant Material cover PA-reinforced		8
Electrical connection 1, tightening torque 7 ype of mounting Via mounting kit To ISO 9409 Pneumatic connection For push-in connector O.D. 4 mm Note on materials RoHS-compliant Material cover PA-reinforced	Electrical connection 1, used connections/cores	6
Type of mounting Via mounting kit To ISO 9409 Pneumatic connection For push-in connector O.D. 4 mm Note on materials RoHS-compliant Material cover PA-reinforced	Electrical connection 1, tightening torque	0.2 Nm
Note on materials RoHS-compliant Material cover PA-reinforced	Type of mounting	
Note on materials RoHS-compliant Material cover PA-reinforced	Pneumatic connection	For push-in connector O.D. 4 mm
Material cover PA-reinforced	Note on materials	RoHS-compliant
Material spring High-alloy stainless steel	Material cover	
	Material spring	High-alloy stainless steel

Feature	Value
Material housing	Anodised wrought aluminium alloy
Material gripper jaws	High-alloy steel
Material piston	Wrought aluminium alloy, anodised
Material piston seal	TPE-U(PU)
Material o-ring	HNBR NBR
Material screws	Galvanised steel High-alloy steel
Gear wheel material	High-alloy steel
Gripper finger material	Wrought aluminium alloy, anodised