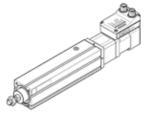
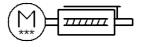
# electric cylinder unit EPCS-BS-60-350-5P-A-ST-M-H1-PLK-AA Part number: 8118293

#### **FESTO**



## **Data sheet**

Feature	Value
Size	60
Stroke	350 mm
Stroke reserve	0 mm
Piston rod thread	M12x1,25
Reversing backlash	100 µm
Spindle diameter	12 mm
Spindle pitch	5 mm/U
Max. angular deflection of piston rod +/-	1 deg
Assembly position	Any
Piston-rod end	Male thread
Motor type	Stepper motor Electric cylinder
Design structure	
	With ball screw
	With integrated drive
Spindle type	Ball screw
Protection against torque/guide	with plain-bearing guide
Referencing	Fixed stop block positive
	Fixed stop block negative
	Reference switch
Rotor position sensor	Absolute single turn encoder
Rotary position encoder measuring principle	Magnetic
Temperature monitoring	Shutdown at over-temperature
	Integrated precise CMOS temperature sensor with analogue output
Additional functions	User interface
	Integrated end-position sensing
Display	LED
Ready status display	LED
Max. acceleration	1.5 m/s2
Max. speed	0.09 m/s
Speed "Speed press"	0.01 m/s
Repetition accuracy	±0,02 mm
Digital logic output characteristics	configurable
	Not electrically isolated
Duty cycle	100 %
Insulation protection class	В
Max. current, digital logic outputs	100 mA
Max. current consumption	5.3 A
Max. current consumption, logic	0.3 A
Nominal voltage DC	24 V
Nominal current	5.3 A
	IO-Link
Parameters configuring interface	
	User interface
Rotor position encoder resolution	16 Bit
Permissible voltage fluctuation	+/- 15 %
Power supply, type of connection	Plug
Power supply, connection technology	M12x1, T-coded to EN 61076-2-111



## FESTO

CL mark       KC-EW         Et mark (see declaration of conformity)       ID EU directive for EMC         In accordance with EU RoHS directive       IXCA marking (see declaration of conformity)         To UK RoHS instructions       To UK RoHS instructions         fibration resistance       Transport application test with severity level 1 as per FN 942017.4 and PM 60062.2.2         corrosion resistance classification CRC       0. No corrosion stress         WS conformity       VDMA2364 concell         Corrosion resistance classification CRC       0. No corrosion stress         WS conformity       VDMA2364 concell         US controls       2.060 °C         Storage temperature       2.060 °C         VE controls       1000 °C         Storage temperature       050 °C         Volterion class       IPA0         starty class       III         Inhibent temperature       050 °C         Volte on ambient temperature of 30 °C, the power must be reduced by 2% per K.         Asta. torque M       0 Hm         Asta. torque M       6.4 Nm         Asta. Torque	Feature	Value
Nutber         RCM Mark           Crank         KC EW           IT mark (see declaration of conformity)         to EU directive for EMC           To UK Rest functions for EMC         To UK Rest functions for EMC           To UK Rest functions         To UK Rest functions for EMC           Theration resistance         Transport application test with severity level 1 as per FN 942017-4 and EM           Shock test with severity level 1 in accordance with FN 942017-5 and EM         Shock test with severity level 1 in accordance with FN 942017-5 and EM           Shock test with severity level 1 in accordance with FN 942017-5 and EM         Shock test with severity level 1 in accordance with FN 942017-5 and EM           Shock test with severity level 1 in accordance with FN 942017-5 and EM         Shock test with severity level 1 in accordance with FN 942017-5 and EM           Shock test with severity level 1 in accordance with FN 942017-5 and EM         Shock test with severity level 1 in accordance with FN 942017-5 and EM           Shock test with severity level 1 in accordance with FN 942017-5 and EM         Shock test with severity level 1 in accordance with FN 942017-5 and EM           Shock test with severity level 1 in accordance with FN 942017-5 and EM         Shock test with severity level 1           Shock test with severity level 1 in accordance with FN 942017-5 and EM         Shock test with severity level 1           Shock test with severity level 1         Shock test with severity level 1           S	Power supply, number of pins/wires	4
CL mark     KC-EW       E mark (we declaration of conformity)     to Ulinetruk for FMC inaccordance with EU RoHS directive inaccordance with EU RoHS directive inaccordance with EU RoHS directive instructions for EMC To UK RoHS instructions       I/RAT marking (see declaration of conformity)     To UK RoHS instructions       i/Instruction resistance     Fine 6068-0-26       Sinok resistance     Sinok cites Vith Isserity level 1 in accordance with IN 942017-4 and EN 6008-0-26       Sinok resistance     Sinok cites Vith severity level 1 in accordance with IN 942017-5 and EN 6008-0-27       Sinok resistance     Sinok resistance       Sinok resistance     Sinok resistance <td>Authorisation</td> <td>RCM Mark</td>	Authorisation	RCM Mark
in accordance with EU RoSS directive in CAC marking (see declaration of conformity) in CU Kinstructions for FMC in UK instructions for FMC in UK instructions for FMC in UK instructions for FMC instructinstructions for F	KC mark	
in accordance with EU RoSS directive in CAC marking (see declaration of conformity) in CU Kinstructions for FMC in UK instructions for FMC in UK instructions for FMC in UK instructions for FMC instructinstructions for F	CE mark (see declaration of conformity)	to EU directive for EMC
ID UK ROHS Instructions           Diration resistance         Transport application text with severity level 1 as per FN 942017-4 and EN 60068-2-6           Shock resistance         Shock test with severity level 1 in accordance with FN 942017-5 and EN 60068-2-72           Sornston resistance classification CRC         0 - No corrason stress           WDMA24364 zone III         Constraint Severity level 1 in accordance with FN 942017-5 and EN 60068-2-72           Sornston resistance classification CRC         0 - No corrason stress           WDMA24364 zone III         Constraint Severity level 1 in accordance with FN 942017-5 and EN 60068-2-72           Sornstorm Enterparture         20 - 60 °C           Constraint Enterparture         20 - 60 °C           Votection class         III           Note on ambient temperature         0 - 50 °C           Vote on ambient temperature of 30 °C, the power must be reduced by 2% per K.         DNm           Abs. torque fNx         0 Mm           Abs. torque fNx         0 Mm           Abs. torque fNx         6.4 Nm           Abs. action for working load, horizontal         120 kg           Externer value for working load, working for Got working load, horizontal         120 kg           Externer value for working load, working robad, wertical         46 kg           Abs. forque fNx         30 S           Acc		in accordance with EU RoHS directive
ID UK ROHS Instructions           Diration resistance         Transport application text with severity level 1 as per FN 942017-4 and EN 60068-2-6           Shock resistance         Shock test with severity level 1 in accordance with FN 942017-5 and EN 60068-2-72           Sornston resistance classification CRC         0 - No corrason stress           WDMA24364 zone III         Constraint Severity level 1 in accordance with FN 942017-5 and EN 60068-2-72           Sornston resistance classification CRC         0 - No corrason stress           WDMA24364 zone III         Constraint Severity level 1 in accordance with FN 942017-5 and EN 60068-2-72           Sornstorm Enterparture         20 - 60 °C           Constraint Enterparture         20 - 60 °C           Votection class         III           Note on ambient temperature         0 - 50 °C           Vote on ambient temperature of 30 °C, the power must be reduced by 2% per K.         DNm           Abs. torque fNx         0 Mm           Abs. torque fNx         0 Mm           Abs. torque fNx         6.4 Nm           Abs. action for working load, horizontal         120 kg           Externer value for working load, working for Got working load, horizontal         120 kg           Externer value for working load, working robad, wertical         46 kg           Abs. forque fNx         30 S           Acc	UKCA marking (see declaration of conformity)	
EN 60068-3-6           Shock resistance classification CRC         0. No consolon stress           Consolon resistance classification CRC         0. No consolon stress           WIS conformity         VDMA2364 zone III           Leannoon class         ISO class 9           Storage temperature         2060 °C           Relative air humidity         0.90 %           non condensing         0.00 °C           Storage temperature         0.50 °C           Storage temperature         0.50 °C           Storage temperature         0.50 °C           Store on ambient temperature         0.50 °C           Max. forque My         6.4 Mm           Asta. forque for work		To UK RoHS instructions
EN 60068-3-6           Shock resistance classification CRC         0. No consolon stress           Consolon resistance classification CRC         0. No consolon stress           WIS conformity         VDMA2364 zone III           Leannoon class         ISO class 9           Storage temperature         2060 °C           Relative air humidity         0.90 %           non condensing         0.00 °C           Storage temperature         0.50 °C           Storage temperature         0.50 °C           Storage temperature         0.50 °C           Store on ambient temperature         0.50 °C           Max. forque My         6.4 Mm           Asta. forque for work	Vibration resistance	Transport application test with severity level 1 as per FN 942017-4 and
00068 2.27           Orsolon resistance classification CRC         0. No convoion stress           VMIS conformity         VDMA24364 zone III           Leanroom class         150 class 9           Storage temperature         2-060 °C           Storage temperature         2-060 °C           Votection class         IPA0           storage temperature         090 °C           Votection class         III           Number temperature         090 °C           Votection class         III           Anal. torque Mx         0.40 °C           Alax. torque Mx         0.40 °C <t< td=""><td></td><td></td></t<>		
00068 2.27           Orsolon resistance classification CRC         0. No convoion stress           VMIS conformity         VDMA24364 zone III           Leanroom class         150 class 9           Storage temperature         2-060 °C           Storage temperature         2-060 °C           Votection class         IPA0           storage temperature         090 °C           Votection class         III           Number temperature         090 °C           Votection class         III           Anal. torque Mx         0.40 °C           Alax. torque Mx         0.40 °C <t< td=""><td>Shock resistance</td><td>Shock test with severity level 1 in accordance with FN 942017-5 and EN</td></t<>	Shock resistance	Shock test with severity level 1 in accordance with FN 942017-5 and EN
WWS conformity         VDMA2364 zone III           Leanzoom class         ISO class 9           Storage temperature         20 60 °C           Velative air humidity         0.90 %           ion-condensing         ion-condensing           Velative air humidity         0.90 %           ion-condensing         ion-condensing           Velative air humidity         0.90 %           mbient temperature         0.90 °C           Asc. torque Ma         Above an ambient temperature of 30 °C, the power must be reduced by 2% per K.           Asc. torque MA         0 Hm           Max. corque MA         6.4 Nm           Asc. torque MA         6.4 Nm           Asc. radial force at drive shaft         230 N           Asc. radia force at drive shaft         200 N           Reference value for working load, vertical         46 kg           Aditional mass factor per 10 mm of stroke         58           Mationance intereval         Ufer-time tubrcation           Moutry mass with 0 mm stroke         69 g           Additional weight for 0 mm stroke         69 g           Additional weight per 10 mm stroke         69 g           Aumber of glatal logic loputs         2           Specification, logic input         Based on IEC 61131-2, type 1 <td></td> <td></td>		
Identional class     ISO class 9       Storage temperature     -2060°C       Relative air humdity     090%       non-condensing     non-condensing       Protection class     III       Mubient temperature     050°C       Ask storage temperature     050°C       Ask torque Mx     0 Nm       Ask, torque Mx     0 Nm       Ask, torque Mx     6.4 Nm       Ask, fed force Fx     900 N       Peference value for working load, vertical     40 kg       Abreance Interval     Life-time lubrication       Adving mass with 0 mm stroke     305 g       Additional mass factor per 10 mm of stroke     232 kg       Vadditional mass factor per 10 mm of stroke     63 g       Value of digital logic inputs     2       Value of digital logic inputs     2       Opic input working range     24 V       Outing, toronalication mode     COM3 (230.4 kbd)	Corrosion resistance classification CRC	0 - No corrosion stress
Storage temperature       2060 °C         Relative air humidity       090 %         rotection class       IPA0         Safety class       III         Ambient temperature       0	PWIS conformity	VDMA24364 zone III
Relative air humidity     0 - 90 %       non condensing       rotection class     III       Safety class     III       whe on ambient temperature     0 50 °C       Aax. torque Mx     0 Nm       Baster on torke     200 N       Steference value for working load, horizontal     110 b kg       Veference value for working load, vertical     40 kg       Moving mass with 0 mm stroke     305 g       Stack torger F A     2.294 g       Valditional mass factor per 10 nm of stroke     6.5 g       Origic input	Cleanroom class	ISO class 9
non-condensing           Protection class         IP40           Safety class         III           Nublent temperature         050 °C           Safety class         III           Nublent temperature         Above an ambient temperature of 30 °C, the power must be reduced by 2% per K.           Aax. torque Mx         0 Nm           Aax. torque Mx         6.4 Nm           Aax. roque My         6.4 Nm           Aax. rodue force at rive shaft         200 N           Basic dorce Fx         900 N           Eeference value for working load, horizontal         100 kg           Iffer time lubrication         100 kg           Additional mass factor per 10 mm of stroke         6.5 g           Volduct weight on 0 m stroke         209 g           Validitional weight per 10 mm stroke         209 g           Varise of digital logic inputs         2           Varise of digital logic inputs         2           Varise of digital logic input         Based on IEC 6131-2; type 1           Opic input characteristics         configurable	Storage temperature	-20 60 °C
Protection class         IP40           Safety class         III           Safety class         III           Note on ambient temperature         0 50 °C           Asx. torque Mx         0 Nm           Asx. torque Mx         0 Nm           Asx. torque Mx         6.4 Nm           Asx. torque Mz         6.4 Nm           Asx. torque Mz         6.4 Nm           Asx. ford for ext drive shaft         230 N           Asx. feed force Fx         900 N           Reference value for working load, horizontal         120 kg           Reference value for working load, horizontal         120 kg           Adar. fead force Fx         900 N           Yodd Wilditonal mass factor per 10 mm of stroke         35 g           Vidditional mass factor per 10 mm of stroke         6.5 g           Yodd Weight P 10 mm stroke         6.9 g           Vumber of digital logic input         2.294 g           Specification, logic input         Based on IEC 61131-2, type 1           Ogic input Amsting range         24 V           Optic input Amsting range         24 V           Optic input Amsting range         24 V           Optic input Amsting range         24 V           Optink, protecol         Derive Y 1.1 <td>Relative air humidity</td> <td>0 - 90 %</td>	Relative air humidity	0 - 90 %
Safety class     III       mibient temperature     0 50 °C       Oxie on ambient temperature of 30 °C, the power must be reduced by 2% per K.       Max. torque Mx     0 Nm       Max. torque My     6.4 Nm       Max. radial force at drive shaft     230 N       Max. radial force at drive shaft     20 S       Maintenace interval     Ulfe-time lubrication       Moving mass with 0 mm stroke     305 g       Max torque weight     4,700 g       Saic weight for 0 mm stroke     69 g       Momber 04 24 V C digital logic input     Based on IEC 61131-2, type 1       Opic (input Attring range     24 V		non-condensing
ambient temperature         050 °C           Vote on ambient temperature         Above an ambient temperature of 30 °C, the power must be reduced by 28 per K.           Max. torque Mx         0 Nm           Max. torque MX         0 Nm           Max. torque MX         6.4 Nm           Max. torque MZ         6.4 Nm           Max. torque MZ         6.4 Nm           Max. torque MZ         6.4 Nm           Max. torque MX         6.4 Nm           Max. torque MX         6.4 Nm           Max. torque MX         6.4 Nm           Max. torque for working load, horizontal         120 kg           Veterence value for working load, vertical         46 kg           Maintenance interval         Ufe-time lubrication           Woldtiloant mass factor per 10 nm of stroke         6.5 g           Yodut weight         4.709 g           Sasic weight for 0 nm stroke         69 g           Mumber of digital logic input         Based on IEC 6131-2, type 1           Specification, logic input         Based on IEC 6131-2, type 1           Solic input Arange         24 V           Solic input Arange         24 V           O-Link, proteol         Device Y 1.1           O-Link, proteol         Device Y 1.1           O-Link, pro	Protection class	IP40
Note on ambient temperature       Above an ambient temperature of 30 °C, the power must be reduced         by 2% per K.       O Nm         Max. torque My       6.4 Nm         Max. actual force at drive shaft       230 N         Max. actual force at drive shaft       230 N         Max. factal force T K       900 N         Reference value for working load, horizontal       110 kg.         Reference value for working load, vertical       46 kg         Maintenance interval       Life-time lubrication         Working mass with 0 mm stroke       6.5 g         Yoduct weight       4,709 g         Basic weight for 0 mm stroke       6.9 g         Umber of zly D digital logic toputs       2         Aumber of digital logic input       2         O digital logic input       Based on IEC 61131-2, type 1         origic input working range       24 V         O-Link, SIO mode support       Yes         O-Link, port type       A         O-Link, port port       2         O-Link, port port       2 byte         O-Link, process data width IN       2 byte         O-Link, process data content IN       State In 1 bit         Move in 1 bit       State In 1 bit         O-Link, process data content IN       Stat	Safety class	
by 2% per K.Max. torque Mx0 NmMax. torque My6.4 NmMax. tradial force at drive shaft230 NMax. Kradial force at drive shaft200 NMax. feed force Fx900 NSeference value for working load, horizontal120 kgReference value for working load, vertical46 kgMaintenance intervalLife-time lubricationWolving mass with 0 mm stroke6.5 gYoduct weight4.709 gYoduct weight for 0 mm stroke6.9 gValiditional mass factor per 10 mm of stroke69 gValiditional mass pictor per 10 mm stroke69 gValiditional weight for 0 mm stroke69 gValiditional weight per 10 mm stroke69 gVaumber of 24 V DC digital logic outputs2Sepecification, logic inputBased on IEC 61131-2, type 1.ogic input working range2A V.ogic input characteristicsconfigurableNot electrically isolated0-Link, processO-Link, process data width OUT2 ByteO-Link, process data content IN2 ByteO-Link, process da	Ambient temperature	0 50 °C
Max. torque My       6.4 Nm         Max. torque My       6.4 Nm         Max. torque My       6.4 Nm         Max. tred force FX       230 N         Max. feed force FX       900 N         Reference value for working load, horizontal       120 kg         Reference value for working load, vertical       46 kg         Maintenance interval       Uffe-time lubrication         Moving mass with 0 mm stroke       305 g         Additional mass factor per 10 mm of stroke       6.5 g         Yoduct weight for 0 mm stroke       2.924 g         Validitional weight per 10 mm stroke       69 g         Jumber of Z4 V DC digital logic outputs       2         Specification, logic input       Based on IEC 61131-2, type 1         .ogic input working range       24 V         .ogic input tharacteristics       configurable         Not electrically isolated       0         O-Link, portocol       Device V 1.1         O-Link, portose data width OUT       2 Byte         O-Link, process data width IN       2 Byte         O-Link, process data content UN       State Out 1 bit         Move in 1 bit       Move in 1 bit         Move in 1 bit       State Out 1 bit         O-Link, process data content IN       State In	Note on ambient temperature	Above an ambient temperature of 30 °C, the power must be reduced
Max. torque My     6.4 Nm       Max. torque Mz     6.4 Nm       Max. torque Mz     6.4 Nm       Max. redial force at drive shaft     230 N       Max. feed force Fx     900 N       Reference value for working load, horizontal     120 kg       Reference value for working load, vertical     46 kg       Maintenance interval     Life-time lubrication       Moving mass with 0 mm stroke     305 g       Maxicht of 0 mm stroke     6.5 g       Voldtional mass factor per 10 mm of stroke     6.5 g       Saic weight for 0 mm stroke     2.294 g       Validitional weight per 10 mm stroke     69 g       Jumber of Jigtila logic outputs     2       Specification, logic input     Based on IEC 61131-2, type 1       Logic input characteristics     configurable       Optic hink, protocol     Device V 1.1       O-Link, sommunication mode     COM3 (230.4 kbd)       O-Link, protocol     Device V 1.1       O-Link, process data width OUT     2 Byte       O-Link, process data content IN     State Out 1 bit       Move In 1 bit     Move In 1 bit       Move In thi     State Out 1 bit       O-Link, process data content IN     State Intermediate 1 bit       O-Link, process data content IN     State Intermediate 1 bit       O-Link, process data content IN <td< td=""><td></td><td>by 2% per K.</td></td<>		by 2% per K.
Max. torque Mz     6.4 Nm       Max. Idal force at drive shaft     230 N       Max. feed force Fx     900 N       Reference value for working load, horizontal     120 kg       Reference value for working load, vertical     46 kg       Maintenance interval     Life-time lubrication       Moving mass with 0 mm stroke     305 g       Maditional mass factor per 10 mm of stroke     6.5 g       Yoduct weight     4.709 g       Basic weight for 0 mm stroke     2.294 g       Max linearce interval     2       Jumber of 2V CD digital logic outputs     2       Vumber of 2V CD digital logic inputs     2       Specification, logic input     Based on IEC 61131-2, type 1       Ocigic input working range     24 V       Ocigic input working range     24 V       Ocigic input working range     24 V       Ocilink, protocol     Device V 1.1       O-Link, sito mode support     Yes       O-Link, process data width OUT     2 Byte       O-Link, process data content UN     State Out 1 bit       Move out 1 bit     Move lnt bit       Move 1 bit     State Out 1 bit       State Out 1 bit     State Out 1 bit       O-Link, process data content IN     State Intervidiate 1 bit       O-Link, process data content IN     State Intervidiate 1 bit <t< td=""><td>Max. torque Mx</td><td>0 Nm</td></t<>	Max. torque Mx	0 Nm
Max. radial force at drive shaft J20 N Jax. Keed force FX J20 N Jax. Keed force FX J20 N J20 Kg J2	Max. torque My	6.4 Nm
Max. Feed force Fx     900 N       Reference value for working load, horizontal     120 kg       Reference value for working load, vertical     46 kg       Maintenance interval     Life-time lubrication       Moving mass with 0 mm stroke     305 g       Vaditional mass factor per 10 mm of stroke     6.5 g       Product weight     4,709 g       Jasic weight for 0 mm stroke     69 g       Vaditional mass factor per 10 mm of stroke     69 g       Vaditional mass factor per 10 mm of stroke     69 g       Vaditional mass factor per 10 mm stroke     69 g       Value of 24 V DC digital logic outputs     2       Specification, logic input     Based on IEC 61131-2, type 1       Specification, logic input     Based on IEC 61131-2, type 1       Sogic input working range     24 V       O-Link, s10 mode support     Yes       O-Link, protocol     Device V 1.1       O-Link, normunication mode     COM3 (230.4 kbd)       O-Link, protocol     Device V 1.1       O-Link, process data width OUT     2 Byte       O-Link, process data width IN     2 Byte       O-Link, process data content IN     State In thit       State Out 1 bit     State Out 1 bit       State Out 1 bit     State Out 1 bit       State Out 1 bit     State Device 1 bit       State Out 1 bit<	Max. torque Mz	6.4 Nm
keference value for working load, horizontal       120 kg         keference value for working load, vertical       46 kg         Maintenance interval       Uife-time lubrication         Moving mass with 0 mm stroke       305 g         Value system       4,709 g         Jasic weight for 0 mm stroke       65 g         Value weight       4,709 g         Jasic weight for 0 mm stroke       69 g         Value weight per 10 mm stroke       69 g         Value of 24 V DC digital logic outputs       2         Jumber of digital logic input       2         Specification, logic input       Based on IEC 61131-2, type 1         .ogic input working range       24 V         .ogic input characteristics       configurable         Not electrically isolated       0-Link, protocol         O-Link, protocol       Device V 1.1         O-Link, protocol       Device V 1.1         O-Link, protocs data width OUT       2 Byte         O-Link, process data content OUT       Move in 1 bit         Move ult bit       Quit Error 1 bit         Move ult bit       State In 1 bit         State Move 1 bit       State Move 1 bit         O-Link, process data content IN       State In 1 bit         State Move 1 bit       Stat	Max. radial force at drive shaft	230 N
keference value for working load, vertical       46 kg         Maintenance interval       Life-time lubrication         Moving mass with 0 mm stroke       305 g         vaditional mass factor per 10 mm of stroke       6.5 g         Yoduct weight       4,709 g         asie weight for 0 mm stroke       2,294 g         vaditional weight per 10 mm stroke       69 g         Valumber of 24 V DC digital logic outputs       2         specification, logic input       Based on IEC 61131-2, type 1         origic input working range       24 V         origic input working range       24 V         ocific input to mode support       Yes         O-Link, portocol       Device V 1.1         O-Link, portype       A         O-Link, portype       A         O-Link, process data width OUT       2 Byte         O-Link, process data width IN       2 Byte         O-Link, process data content IN       State In 1 bit         State Move 1 bit       State Move 1 bit         State Nore 1 bit       State Nore 1 bit         O-Link, process data content IN       32 bit Force         32 bit Force       32 bit Force         32 bit Force       32 bit Force         32 bit Postion       32 bit Postion </td <td>Max. feed force Fx</td> <td>900 N</td>	Max. feed force Fx	900 N
Maintenance interval       Life-time lubrication         Moving mass with 0 mm stroke       305 g         Vaditional mass factor pr 10 mm of stroke       6.5 g         Product weight       4,709 g         Jasic weight for 0 mm stroke       2.994 g         Vaditional mass factor pr 10 mm stroke       69 g         Vumber of 24 V DC digital logic outputs       2         Jumber of 24 V DC digital logic outputs       2         Specification, logic input oxiking range       24 V         ogic input working range       24 V         ogic input working range       24 V         O-Link, SIO mode support       Yes         O-Link, communication mode       COM3 (230.4 kbd)         O-Link, protocol       Device V 1.1         O-Link, protess data width OUT       2 Byte         O-Link, process data width OUT       2 Byte         O-Link, process data width IN       2 Byte         O-Link, process data width IN       State In 1 bit         State Out 1 bit       State In 1 bit         Move In 1 bit       State In 1 bit         State In 1 bit       State In 1 bit <td>Reference value for working load, horizontal</td> <td>120 kg</td>	Reference value for working load, horizontal	120 kg
Moving mass with 0 mm stroke     305 g       Vidditional mass factor per 10 mm of stroke     6.5 g       Product weight     4,709 g       Basic weight for 0 mm stroke     2,294 g       Vidditional weight per 10 mm stroke     69 g       Mumber of 24 V DC digital logic outputs     2       Specification, logic input     Based on IEC 61131-2, type 1       .orgic input working range     24 V       .orgic input tharacteristics     configurable       Not electrically isolated     0-Link, s10 mode support       O-Link, protocol     Device V 1.1       O-Link, process data width OUT     2 Byte       O-Link, process data content OUT     Move in 1 bit       Move in 1 bit     Quit Error 1 bit       Move Intermediate 1 bit     State Move 1 bit       O-Link, process data content IN     State In 1 bit       State Move 1 bit     State Move 1 bit       State Move 1 bit     State Move 1 bit       State Intermediate 1 bit     State Intermediate 1 bit	Reference value for working load, vertical	46 kg
Additional mass factor per 10 mm of stroke       6.5 g         Product weight       4,709 g         asic weight for 0 mm stroke       2,294 g         Additional weight per 10 mm stroke       66 g         Mumber of 24 V DC digital logic outputs       2         Yumber of digital logic inputs       2         Specification, logic input       Based on IEC 61131-2, type 1         .ogic input working range       24 V         .ogic input strateristics       configurable         Not electrically isolated       0         0-Link, SIO mode support       Yes         0-Link, communication mode       COM3 (230.4 kbd)         0-Link, protocol       Device V 1.1         0-Link, protocol       Device V 1.1         0-Link, protecos data width OUT       2 Byte         0-Link, process data width OUT       2 Byte         0-Link, process data width IN       2 Byte         0-Link, process data content IN       State In 1 bit         State Duit I bit       State Out 1 bit         Move 1 bit       State Out 1 bit         0-Link, process data content IN       State In 1 bit         0-Link, process data content IN       State In 1 bit         State Out 1 bit       State Out 1 bit         State Out 1 bit	Maintenance interval	Life-time lubrication
Product weight       4,709 g         Basic weight for 0 mm stroke       2,294 g         Additional weight per 10 mm stroke       69 g         Number of 24 VD C digital logic outputs       2         Number of 24 VD C digital logic outputs       2         Specification, logic input       Based on IEC 61131-2, type 1         .ogic input working range       24 V         .ogic input characteristics       configurable Not electrically isolated         O-Link, SIO mode support       Yes         O-Link, protocol       Device V 1.1         O-Link, port type       A         O-Link, port type       A         O-Link, port soft and th OUT       2 Byte         O-Link, process data width OUT       2 Byte         O-Link, process data content OUT       Move in 1 bit Move out 1 bit Move out 1 bit Move out 1 bit         O-Link, process data content IN       State In 1 bit State Move 1 bit State Out 1 bit State Out 1 bit         O-Link, process data content IN       State In 1 bit State Device 1 bit         O-Link, Service data contents IN       32 bit Forec         32 bit Foscition       32 bit Foscition         32 bit Speed       State Intermediate 1 bit	Moving mass with 0 mm stroke	305 g
Basic weight for 0 mm stroke       2,294 g         Additional weight per 10 mm stroke       69 g         Number of 24 V DC digital logic outputs       2         Specification, logic input       Based on IEC 61131-2, type 1         orgic input working range       24 V         orgic input tharacteristics       configurable Not electrically isolated         0-Link, SIO mode support       Yes         0-Link, protocol       Device V 1.1         0-Link, port type       A         0-Link, port type       A         0-Link, protocs       1         0-Link, protocs data width OUT       2 Byte         0-Link, process data content OUT       Move in 1 bit Move unt 1 bit Quit Error 1 bit Move unt 1 bit         0-Link, process data content IN       State In 1 bit State Out 1 bit State Out 1 bit State Out 1 bit         0-Link, Service data content IN       32 bit Force 32 bit Position 32 bit Speed	Additional mass factor per 10 mm of stroke	6.5 g
Additional weight per 10 mm stroke       69 g         Number of 24 V DC digital logic outputs       2         Number of digital logic inputs       2         Specification, logic input       Based on IEC 61131-2, type 1         Logic input working range       24 V         Logic input characteristics       configurable         Not electrically isolated       Not electrically isolated         O-Link, SIO mode support       Yes         O-Link, protocol       Device V 1.1         O-Link, port type       A         O-Link, port type       A         O-Link, port type       1         O-Link, port so       1         O-Link, process data width OUT       2 Byte         O-Link, process data width IN       2 Byte         O-Link, process data content IN       State In 1 bit         State Out 1 bit       State Out 1 bit         State In 1 bit       State Out 1 bit         State Out 1 bit       State Out 1 bit         State In 1 bit       State Nove 1 bit         State Intermediate 1 bit       State Intermediate 1 bit         O-Link, Service data contents IN       32 bit Position         32 bit Position       32 bit Position	Product weight	4,709 g
Number of 24 V DC digital logic outputs         2           Number of digital logic inputs         2           Specification, logic input         Based on IEC 61131-2, type 1           .ogic input working range         24 V           .ogic input characteristics         configurable           Not electrically isolated         0           0-Link, SIO mode support         Yes           0-Link, protocol         Device V 1.1           0-Link, communication mode         COM3 (230.4 kbd)           0-Link, prot type         A           0-Link, process data width OUT         2 Byte           0-Link, process data content OUT         Move in 1 bit           Move out 1 bit         Quit Error 1 bit           Move Intermediate 1 bit         State 0ut 1 bit           0-Link, process data content IN         State 0ut 1 bit           0-Link, process data content IN         State 1 bit           0-Link, process data content IN         State 0ut 1 bit           State Out 1 bit         State Out 1 bit           State Device 1 bit         State Out 1 bit           State Out 1 bit         State Out 1 bit           State Nove 1 bit         State Out 1 bit           State Out 1 bit         State Out 1 bit           State Out 1 bit         State Out	Basic weight for 0 mm stroke	2,294 g
Number of digital logic input       2         Specification, logic input       Based on IEC 61131-2, type 1         .ogic input working range       24 V         .ogic input characteristics       configurable Not electrically isolated         O-Link, SIO mode support       Yes         O-Link, protocol       Device V 1.1         O-Link, port type       A         O-Link, port type       A         O-Link, process data width OUT       2 Byte         O-Link, process data content OUT       Move in 1 bit Move out 1 bit Quit Error 1 bit Move lntermediate 1 bit         O-Link, process data content IN       State In thit State In bit State Out 1 bit State Out 1 bit State Int bit State Intermediate 1 bit         O-Link, Service data contents IN       32 bit Force 32 bit Force         O-Link, Service data contents IN       32 bit Force 32 bit Force		69 g
Specification, logic input       Based on IEC 61131-2, type 1         .ogic input working range       24 V         .ogic input characteristics       configurable         .out characteristics       Not electrically isolated         0-Link, SIO mode support       Yes         0-Link, protocol       Device V 1.1         0-Link, communication mode       COM3 (230.4 kbd)         0-Link, port type       A         0-Link, port type       A         0-Link, number of ports       1         0-Link, process data width OUT       2 Byte         0-Link, process data content OUT       Move in 1 bit         Move out 1 bit       Quit Error 1 bit         Move Intermediate 1 bit       State In 1 bit         0-Link, process data content IN       State In 1 bit         State Out 1 bit       State Nove 1 bit         State Nove 1 bit       State Out 1 bit         State Nove 1 bit       State Nove 1 bit         State Nove 1 bit       State Nove 1 bit         State In 1 bit       State Nove 1 bit         State Nove 1 bit       State Nove 1 bit         State Device 1 bit       State Nove 1 bit         State Intermediate 1 bit       State Device 1 bit         O-Link, Service data contents IN       32 bit Force<		2
ogic input working range       24 V         orgic input characteristics       configurable Not electrically isolated         O-Link, SIO mode support       Yes         O-Link, protocol       Device V 1.1         O-Link, communication mode       COM3 (23.4 kbd)         O-Link, number of ports       A         O-Link, process data width OUT       2 Byte         O-Link, process data content OUT       Move in 1 bit Move out 1 bit Quit Error 1 bit         O-Link, process data content IN       2 Byte         O-Link, Service data contents IN       32 bit Force 32 bit Position 32 bit Speed		2
Logic input characteristics       configurable Not electrically isolated         O-Link, SIO mode support       Yes         O-Link, protocol       Device V 1.1         O-Link, communication mode       COM3 (230.4 kbd)         O-Link, port type       A         O-Link, port op op of s       1         O-Link, process data width OUT       2 Byte         O-Link, process data content OUT       Move in 1 bit Move out 1 bit Quit Error 1 bit Move later of 1 bit         O-Link, process data width IN       2 Byte         O-Link, process data content IN       State In 1 bit State Out 1 bit State Device 1 bit         O-Link, process data content IN       State In 1 bit State Device 1 bit         O-Link, Service data contents IN       32 bit Force 32 bit Position 32 bit Speed		
Not electrically isolated         O-Link, SIO mode support       Yes         O-Link, protocol       Device V 1.1         O-Link, communication mode       COM3 (230.4 kbd)         O-Link, port type       A         O-Link, number of ports       1         O-Link, process data width OUT       2 Byte         O-Link, process data content OUT       Move in 1 bit         Move out 1 bit       Quit Error 1 bit         Move Intermediate 1 bit       O-Link, process data content IN         O-Link, process data content IN       State In 1 bit         State Move 1 bit       State Move 1 bit         Move 1 bit       State Move 1 bit         O-Link, process data content IN       State In 1 bit         State Move 1 bit       State Move 1 bit         O-Link, process data content IN       State In 2 bit         State Move 1 bit       State Move 1 bit         State Move 1 bit       State Move 1 bit         State Intermediate 1 bit       State Device 1 bit         State Intermediate 1 bit       State Device 1 bit         State Intermediate 1 bit       State Intermediate 1 bit         O-Link, Service data contents IN       32 bit Force         32 bit Position       32 bit Speed		
O-Link, SIO mode support       Yes         O-Link, protocol       Device V 1.1         O-Link, communication mode       COM3 (230.4 kbd)         O-Link, prot type       A         O-Link, number of ports       1         O-Link, process data width OUT       2 Byte         O-Link, process data content OUT       Move in 1 bit         Move out 1 bit       Quit Error 1 bit         Move Intermediate 1 bit       2 Byte         O-Link, process data content IN       2 Byte         O-Link, process data content IN       2 byte         O-Link, process data content IN       State In 1 bit         State Out 1 bit       State Out 1 bit         Move Intermediate 1 bit       State Out 1 bit         O-Link, process data content IN       2 Byte         O-Link, process data content IN       State In 1 bit         State Out 1 bit       State Out 1 bit         State Out 1 bit       State Move 1 bit         State Move 1 bit       State Out 2 bit         State Intermediate 1 bit       State Intermediate 1 bit         O-Link, Service data contents IN       32 bit Force         32 bit Force       32 bit Force         32 bit Speed       State Out 1 bit	Logic input characteristics	
O-Link, protocol       Device V 1.1         O-Link, communication mode       COM3 (230.4 kbd)         O-Link, prot type       A         O-Link, number of ports       1         O-Link, process data width OUT       2 Byte         O-Link, process data content OUT       Move in 1 bit         Move out 1 bit       Quit Error 1 bit         Move Intermediate 1 bit       2 Byte         O-Link, process data width IN       2 Byte         O-Link, process data content IN       State In 1 bit         State In 1 bit       State Intermediate 1 bit         O-Link, Service data contents IN       32 bit Force         32 bit Speed       32 bit Speed		· · · · · · · · · · · · · · · · · · ·
O-Link, communication mode       COM3 (230.4 kbd)         O-Link, port type       A         O-Link, number of ports       1         O-Link, process data width OUT       2 Byte         O-Link, process data content OUT       Move in 1 bit         Move out 1 bit       Quit Error 1 bit         Move Intermediate 1 bit       Move Intermediate 1 bit         O-Link, process data width IN       2 Byte         O-Link, process data content IN       State In 1 bit         State Out 1 bit       State Out 1 bit         State Intermediate 1 bit       State Intermediate 1 bit         O-Link, Service data contents IN       32 bit Force         32 bit Position       32 bit Speed		
O-Link, port type       A         O-Link, number of ports       1         O-Link, process data width OUT       2 Byte         O-Link, process data content OUT       Move in 1 bit         Move out 1 bit       Quit Error 1 bit         Move Intermediate 1 bit       Move Intermediate 1 bit         O-Link, process data width IN       2 Byte         O-Link, process data content IN       State In 1 bit         State Out 1 bit       State Out 1 bit         State Out 1 bit       State Move 1 bit         State In 1 bit       State In 1 bit         State Out 1 bit       State Out 1 bit         State Out 1 bit       State In 1 bit         State In 1 bit       State In 1 bit         State Out 1 bit       State Intermediate 1 bit         O-Link, Service data contents IN       32 bit Force         32 bit Force       32 bit Position         32 bit Speed       State Speed		
O-Link, number of ports       1         O-Link, process data width OUT       2 Byte         O-Link, process data content OUT       Move in 1 bit         Move out 1 bit       Quit Error 1 bit         Move Intermediate 1 bit       Move Intermediate 1 bit         O-Link, process data width IN       2 Byte         O-Link, process data content IN       State In 1 bit         State Out 1 bit       State Out 1 bit         O-Link, process data content IN       State Out 1 bit         State In 1 bit       State Out 1 bit         State In 1 bit       State Out 1 bit         State Out 1 bit       State Out 1 bit         State Intermediate 1 bit       State Intermediate 1 bit         O-Link, Service data contents IN       32 bit Force         32 bit Position       32 bit Speed		
O-Link, process data width OUT       2 Byte         O-Link, process data content OUT       Move in 1 bit         Move out 1 bit       Quit Error 1 bit         Q-Link, process data width IN       2 Byte         O-Link, process data width IN       2 Byte         O-Link, process data content IN       State In 1 bit         State Out 1 bit       State Out 1 bit         State Out 1 bit       State Out 1 bit         State Out 1 bit       State Out 1 bit         State Device 1 bit       State Intermediate 1 bit         O-Link, Service data contents IN       32 bit Force         32 bit Position       32 bit Speed		
O-Link, process data content OUT Move in 1 bit Move out 1 bit Quit Error 1 bit Move Intermediate 1 bit O-Link, process data width IN O-Link, process data content IN State In 1 bit State Out 1 bit State Move 1 bit State Device 1 bit State Intermediate 1 bit O-Link, Service data contents IN O-Link,		
Move out 1 bit         Quit Error 1 bit         Move Intermediate 1 bit         O-Link, process data width IN       2 Byte         O-Link, process data content IN       State In 1 bit         State Out 1 bit       State Out 1 bit         State Move 1 bit       State Move 1 bit         State Device 1 bit       State Intermediate 1 bit         O-Link, Service data contents IN       32 bit Force         32 bit Force       32 bit Speed		
Quit Error 1 bit         Move Intermediate 1 bit         O-Link, process data width IN       2 Byte         O-Link, process data content IN       State In 1 bit         State Out 1 bit       State Out 1 bit         State Move 1 bit       State Device 1 bit         State Intermediate 1 bit       State Intermediate 1 bit         O-Link, Service data contents IN       32 bit Force         32 bit Position       32 bit Speed	IO-Link, process data content OUT	
O-Link, process data width IN       2 Byte         O-Link, process data content IN       State In 1 bit         State Out 1 bit       State Out 1 bit         State Device 1 bit       State Intermediate 1 bit         O-Link, Service data contents IN       32 bit Force         32 bit Speed       32 bit Speed		
O-Link, process data width IN 2 Byte O-Link, process data content IN State In 1 bit State Out 1 bit State Move 1 bit State Device 1 bit State Intermediate 1 bit O-Link, Service data contents IN 32 bit Force 32 bit Position 32 bit Speed		
O-Link, process data content IN State In 1 bit State Out 1 bit State Move 1 bit State Device 1 bit State Intermediate 1 bit O-Link, Service data contents IN 32 bit Force 32 bit Position 32 bit Speed		
State Out 1 bit State Move 1 bit State Device 1 bit State Intermediate 1 bit O-Link, Service data contents IN 32 bit Force 32 bit Position 32 bit Speed	IO-Link, process data width IN	
State Move 1 bit       State Device 1 bit       State Intermediate 1 bit       O-Link, Service data contents IN     32 bit Force       32 bit Position       32 bit Speed	IO-Link, process data content IN IO-Link, Service data contents IN	
State Device 1 bit       State Intermediate 1 bit       O-Link, Service data contents IN     32 bit Force       32 bit Position     32 bit Speed		
State Intermediate 1 bit       O-Link, Service data contents IN     32 bit Force       32 bit Position     32 bit Speed		
O-Link, Service data contents IN 32 bit Force 32 bit Position 32 bit Speed		
32 bit Position 32 bit Speed		
32 bit Speed		
O-Link, minimum cycle time  1 ms		
	IO-Link, minimum cycle time	1 ms

## FESTO

Feature	Value
IO-Link, data memory required	0.5 Kilobyte
Max. line length	15 m outputs
	15 m inputs
	20 m with IO-Link operation
Switching logic, outputs	NPN (negative switching)
	PNP (positive-switching)
Input circuit logic	NPN (negative switching)
	PNP (positive-switching)
Logic interface, connection type	Plug
Logic interface, connection technology	M12x1, A-coded in accordance with EN 61076-2-101
Logic interface, number of poles/wires	8
Logic interface, connection pattern	00992264
Mounting type	with internal (female) thread
	with accessories
Materials note	Conforms to RoHS
Material housing	Smooth-anodised wrought aluminium alloy
Material piston rod	High alloy steel, non-corrosive
Material spindle nut	Steel
Material spindle	Roller bearing steel