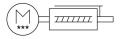
## Electric cylinder unit EPCS-BS-45-300-3P-A-ST-M-H1-PLK-AA

**FESTO** 

Part number: 8118280





General operating condition

## **Data sheet**

Feature	Value
Size	45
Stroke	300 mm
Stroke reserve	0 mm
Piston rod thread	M10x1.25
Reversing backlash	100 μm
Screw diameter	10 mm
Spindle pitch	3 mm/U
Max. angle of rotation of the piston rod +/-	1 deg
Mounting position	Any
Piston rod end	External thread
Motor type	Stepper motor
Structural design	Electric actuator with ball screw drive With integrated drive
Spindle type	Ball screw drive
Symbol	00997294
Protection against torsion/guide	With plain-bearing guide
Homing	Fixed stop block positive Fixed stop block, negative Reference switch
Rotor position sensor	Absolute encoder, single-turn
Rotor position sensor measuring principle	Magnetic
Temperature monitoring	Shutdown in the event of over temperature Integrated precise CMOS temperature sensor with analogue output
Additional functions	User interface Integrated end-position sensing
Display	LED
Ready status indication	LED
Max. acceleration	1.5 m/s <sup>2</sup>
Max. speed	0.074 m/s
Speed "Speed Press"	0.01 m/s
Repetition accuracy	±0.02 mm
Characteristics of digital logic outputs	Configurable Not galvanically isolated
Duty cycle	100%
Insulation protection class	В
Max. current of digital logic outputs	100 mA
Max. current consumption	3000 mA

Logic mas. Jurrent consumption	Feature	Value
Nominal current Parametrization interface Stotor position sensor resolution   16 bit	Logic max. current consumption	0.3 A
Parameterization interface  Notor position sensor resolution  To bit  Permissible voltage fluctuations  Power supply por Connection  Power supply, power of pinis vives  Oppose supply, connection technology  M12x1.1 coded as per EN 61076 2.111  Rower supply, connection pattern  Oppose declaration of conformity)  Not Rost Sinstructions  Vibration resistance  Oppose declaration of conformity)  Vibration resistance  Oppose declaration of conformity  Vibration resistance class (CRC)  Oppose declaration of conformity  Oppose declaration of conformity  Vibration resistance class (CRC)  Oppose declaration pattern patter	DC nominal voltage	24 V
User interface   Rotor position sensor resolution   16 bit   Permissible voltage fluctuations   1/-15 %   Power supply, commedion technology   Plug   Power supply, commedion pattern   00995989   Certification   RCM compliance mark   KC characters   KC EMC   CE marking (see declaration of conformity)   Reper EU LINIC directive   As per	Nominal current	3 A
Retor position sensor resolution	Parameterization interface	IO-Link®
Permissible voltage fluctuations //-15 % Power supply, tope of connection Ping Power supply, connection pattern Power supply, number of pins/wires //- Power supply, number of pins //- Power supply, number of pins pins //- Power supply, number of pins pins //- Power supply, number of pins pins for pins //- Power supply, number of pins pins //- Power supply, number of pin		User interface
Power supply, type of connection Plug Power supply, connection technology M12x1, T-coded as per EN 61076-2-111 Power supply, number of plans/wires 4 Power supply, number of plans/wires 4 Power supply, connection pattern Certification RCM compliance mank KC tharacters RC Emarking (see declaration of conformity) As per EU EMC directive As per EU EMC directive UKCA marking (see declaration of conformity) To LUK marking (see declaration of conformity) To LUK Romits instructions for EMC UK Romits instructions UK Romits instructions UK Romits instructions Transport application test with severity level 1 as per FN 942017-4 and EN 60068-2-6 EN 60068-2-6 Shock resistance Shock resistance Shock resistance class (CRC) O- No cornosion stress LABS (PWIS) conformity Vibration resistance class (CRC) O- No cornosion stress Class 9 according to 150 14644-1  Cleamoun class Class 9 according to 150 14644-1  Cleamoun class UII Albas (PWIS) conformity Power of protection Pipa Portection class UII Ambient temperature O- "C	Rotor position sensor resolution	16 bit
Power supply, connection technology  M32x1, T-coded as per EN 61076-2-111  Power supply, number of pins/wires  A 00999999  Certification  KC characters  KC EMC  CE marking (see declaration of conformity)  As per EU ENG directive As EU ENG	Permissible voltage fluctuations	+/- 15 %
Power supply, number of pins/wires  Power supply, connection pattern  Coerflication  RC characters  KC Emarking (see declaration of conformity)  KC characters  KC Emarking (see declaration of conformity)  To UK instructions for EMC  To UK Ront's instructions  Vibration resistance  Transport application test with severity level 1 as per FN 942017-4 and EMS 60068-2-6  Shock resistance  Shock test with severity level 1 as per FN 942017-5 and EN 60068-2-7  Corrosion resistance class (CRC)  O - No corrosion stress  Llass (PWIS) conformity  UMA23648 zone III  Cleanroom class  Class 9 according to ISO 14644-1  Storage temperature  20°C 60°C  Relative air humidity  O - 90 % Non-condensing  Degree of protection  Protection class  III  Ambient temperature  O *C 50°C  Note on ambient temperature  Above an ambient temperature  O *C 50°C  Max. torque Mx  Max. torque Mx  Max. torque Mx  Max. torque My	Power supply, type of connection	Plug
Fower supply, connection pattern  Certification  RCM compliance mark  KC Characters  KC EMC  CE marking (see declaration of conformity)  As per ELL BMC directive  As per ELL BMC directive  INCA marking (see declaration of conformity)  As per ELL BMC directive  INCA marking (see declaration of conformity)  INCA seed of the Shock test with severity level 1 as per FN 942017-5 and EN 60068-2-727  INCA 60068-2-6  Shock resistance  Shock resist	Power supply, connection technology	M12x1, T-coded as per EN 61076-2-111
Certification         RCM compliance mark           KC Characters         KC EMC           CE marking (see declaration of conformity)         As per EU RMC directive           UKCA marking (see declaration of conformity)         To UK instructions for EMC           UKCA marking (see declaration of conformity)         To UK instructions for EMC           Vibration resistance         Transport application test with severity level 1 as per FN 942017-4 and EN 60068-2-27           Shock resistance         Shock test with severity level 1 as per FN 942017-5 and EN 60068-2-27           Corrosion resistance class (CRC)         0 - No corrosion stress           LaBS (PWIS) conformity         VDMA2364 zone III           Clean room class         Class of Conformity           Clean room class         Class of Conformity           Clean room class         Class of Conformity           Degree of protection         IPAQ           Protection class         III           Ambient temperature         0 °C · . 50 °C           Note on ambient temperature         0 °C · . 50 °C           Note on ambient temperature         0 °C · . 50 °C           Max. torque Mx         0 °N           Max. torque Mx         2.9 Nm           Max. roque Mx         2.9 Nm           Max. roque Mx         2.9 S	Power supply, number of pins/wires	4
KC characters KC Emarking (see declaration of conformity) As per EU EMC directive CWCA marking (see declaration of conformity) To UK instructions for EMC To UK RoHS instructions Vibration resistance Vibration resistance Shock resistance Shock resistance Shock resistance Shock resistance Corrosion resistance class (CRC) O - No corrosion stress CLABS (PMIS) conformity VDMA2-364 zone III CLABATOR (CLABATOR) CL	Power supply, connection pattern	00995989
EE marking (see declaration of conformity)  As per EU RMC directive As per EU RMS directive IUKCA marking (see declaration of conformity)  To UK instructions for FMC To UK RoHS instructions  To UK RoHS instructions  To UK RoHS instructions  Transport a pipulication test with severity level 1 as per FN 942017-4 and EN 60068-2-6  Shock resistance  Shock resistance  Shock test with severity level 1 as per FN 942017-5 and EN 60068-2-27  Corrosion resistance class (CRQ)  0 - No corrosion stress  Class (PWIS) conformity  VDMA24364 zone III  Cleanroom class  Class 9 according to ISO 14644-1  Storage temperature  - 2-0 °C 60 °C  Relative air humidity  0 - 90 % Non condensing  Degree of protection  PAD  Protection class  III  Ambient temperature  0 °C 50 °C  Note on ambient temperature  Above an ambient temperature of 30°C, the power must be reduced by 78% per K.  Max. torque Mx  Max. torque Mx  Max. torque Mx  Max. and inforce on actuator shaft  Max. radial force on actuator shaft  Max. radial force on actuator shaft  Max. refed force Fx  450 N  Guide value for payload, horizontal  Guide value for payload, horizontal  Guide value for payload, portical  Moving mass at 0 mm stroke  179 g  Additional moving mass per 10 mm stroke  Nodition and moving mass per 10 mm stroke  Number of digital logic outputs 24 V DC  Number of digital logic inputs  2 a V  Characteristics of logic input  Configurable  Not galvanically isolated  OI-Link®, protocol version  Device V 1.1  OI-Link®, protocol version  Di-Link®, protocol version  Di-	Certification	RCM compliance mark
As per EU ROHS directive   UKCA marking (see declaration of conformity)	KC characters	KC EMC
To UK ROHS instructions   Transport application test with severity level 1 as per FN 942017-4 and RN 60068-2 e   Shock resistance	CE marking (see declaration of conformity)	
EM 60068-2-6 Shock resistance Shock resistance Corrosion resistance class (CRC) O - No corrosion stress  LABS (PWIS) conformity VDMA24364 zone III Cleantoom class Class 9 according to ISO 14644-1 Storage temperature 20 °C60 °C Relative air humidity O	UKCA marking (see declaration of conformity)	
Corrosion resistance class (CRC)  LABS (WIS) conformity  VDMAZ4364 zone III  Class 9 according to ISO 14644-1  Storage temperature  -20°C60°C  Relative air humidity  0 -90 % Non-condensing  Degree of protection  IP40  Protection class  III  Ambient temperature  0 °C50°C  Note on ambient temperature  Note on ambient temperature  Note on ambient temperature  Note on ambient temperature  Nax. torque Mx  Max. torque My  Ma	Vibration resistance	
LABS (PWIS) conformity  Cleanroom class  Class 9 according to ISO 14644-1  Storage temperature  20 °C 60 °C  Relative air humidity  0 -90 % Non-condensing  Degree of protection  IP40  Protection class  III  Ambient temperature  0 °C 50 °C  Note on ambient temperature  Above an ambient temperature of 30°C, the power must be reduced by 2% per K.  Max. torque Mx  Max. torque My  2.9 Nm  Max. torque My  2.9 Nm  Max. torque My  3.9 Nm  Max. torque My  450 N  Max. for payload, horizontal  Guide value for payload, horizontal  Guide value for payload, vertical  33 kg  Maintenance interval  Life-time lubrication  Moving mass at 0 mm stroke  Additional moving mass per 10 mm stroke  Additional moving mass per 10 mm stroke  1185 g  Additional weight per 10 mm stroke  1185 g  Nomber of digital logic inputs  24 V  Number of digital logic inputs  Vortacteristics of logic input  Work range of logic input  Vortacteristics of logic input  Ves  Ol-Link®, protocol version  Device V 1.1  Ol-Link®, protocol version  Ol-Link®, protocol version  Ol-Link®, protocol version  Ol-Link®, protocl cass  A Ol-Communication mode  VDMA24364 zone IIII  Class 9 according to ISO 14640-1  Class 9 according to ISO 14640-1  Class 9 according to ISO 14640-1  Ol-Link®, port class  A OC C  Class 9 according to ISO 14640-1  Ol-Link®, port class  A OC C  Class 9 according to ISO 14640-1  Class 9 according to ISO 14640-1  Ander Class 9 according to ISO 14640-1	Shock resistance	Shock test with severity level 1 as per FN 942017-5 and EN 60068-2-27
Cleanroom class  Class 9 according to ISO 14644-1  Storage temperature  -20 °C 60 °C  Relative air humidity  0 -90 %  Non-condensing  Degree of protection  IP40  Protection class  III  Ambient temperature  0 °C 50 °C  Note on ambient temperature  Above an ambient temperature of 30°C, the power must be reduced by 2% per K.  Max. torque Mx  Max. torque Mx  Max. torque My  2.9 Nm  Max. torque My  2.9 Nm  Max. torque Mz  3.9 Nm  Max. torque Mz  450 N  Guide value for payload, horizontal  60 kg  Guide value for payload, vertical  Moving mass at 0 mm stroke  4.9 g  Product weight  Additional moving mass per 10 mm stroke  4.18 S g  Additional weight per 10 mm stroke  4.18 S g  Additional weight per 10 mm stroke  4.18 S g  Additional weight per 10 mm stroke  Additional weight logic inputs  2 Uchracteristics of logic input  Characteristics of logic input  Characteristics of logic input  Not-link®, protocol version  Device V 1.1  Device V 1.1  Device Nort class  A Class of Communication mode  COM3 (230.4 kBd)  Delink®, port class	Corrosion resistance class (CRC)	0 - No corrosion stress
Storage temperature	LABS (PWIS) conformity	VDMA24364 zone III
Relative air humidity  Degree of protection  Degree of protection  Protection class  III  Ambient temperature  O ° C 50 ° C  Note on ambient temperature  Above an ambient temperature of 30°C, the power must be reduced by 2% per K.  Max. torque Mx  Max. torque My  Above an ambient temperature of 30°C, the power must be reduced by 2% per K.  Max. torque My  Austroque My  Austroque My  Austroque Mz  Aust	Cleanroom class	Class 9 according to ISO 14644-1
Degree of protection         IP40           Degree of protection         IP40           Protection class         III           Ambient temperature         0 °C 50 °C           Note on ambient temperature         Above an ambient temperature of 30°C, the power must be reduced by 2% per K.           Max. torque Mx         0 Nm           Max. torque My         2.9 Nm           Max. radial force on actuator shaft         180 N           Max. red force Fx         450 N           Guide value for payload, horizontal         60 kg           Guide value for payload, vertical         23 kg           Maintenance interval         Life-time lubrication           Moving mass at 0 mm stroke         179 g           Additional moving mass per 10 mm stroke         4.9 g           Product weight         2415 g           Basic weight with 0 mm stroke         1185 g           Additional weight per 10 mm stroke         41 g           Number of digital logic outputs 24 V DC         2           Number of digital logic inputs         2           Voor range of logic input         24 V           Characteristics of logic input         Configurable Not galvanically isolated           10-Link®, protocol version         Device V 1.1           10-Link®, protoco	Storage temperature	-20 °C 60 °C
Protection class  Milent temperature  O °C 50 °C  Note on ambient temperature  Above an ambient temperature of 30°C, the power must be reduced by 2% per K.  Max. torque Mx  O Nm  Max. torque My  2.9 Nm  Max. torque Mz  2.9 Nm  Max. radial force on actuator shaft  180 N  Max. feed force Fx  450 N  Guide value for payload, horizontal  60 kg  Guide value for payload, vertical  Moving mass at 0 mm stroke  Additional moving mass per 10 mm stroke  Additional moving mass per 10 mm stroke  Additional weight per 10 mm stroke  1185 g  Additional weight per 10 mm stroke  1185 g  Additional weight per 10 mm stroke  1185 g  Additional weight per 10 mm stroke  120 ci input 50 cutputs 24 V DC  Number of digital logic outputs 24 V DC  Number of digital logic inputs  Configurable  Not galvanically isolated  Oclink®, SIO mode support  Oclink®, protocol version  Device V 1.1  Oclink®, communication mode  OCM3 (230.4 kBd)  IO-Link®, port class	Relative air humidity	
Ambient temperature  Note on ambient temperature  Above an ambient temperature of 30°C, the power must be reduced by 2% per K.  Max. torque Mx  Max. torque My  2.9 Nm  Max. torque Mz  2.9 Nm  Max. radial force on actuator shaft  Max. feed force Fx  450 N  Guide value for payload, horizontal  60 kg  Guide value for payload, vertical  Moving mass at 0 mm stroke  Additional moving mass per 10 mm stroke  Additional weight per 10 mm stroke  Additional weight per 10 mm stroke  Additional weight per 10 mm stroke  Number of digital logic outputs 24 V DC  Logic input 52 4V  Characteristics of logic input  Characteristics of logic input  Di-Link®, S10 mode support  Di-Link®, protocol version  Device V 1.1  O-Link®, port class  Addition, ambient temperature of 30°C, the power must be reduced by 229 Nm  Above an ambient temperature of 30°C, the power must be reduced by 229 Nm  Above an ambient temperature of 30°C, the power must be reduced by 229 Nm  Above an ambient temperature of 30°C, the power must be reduced by 229 Nm  Above an ambient temperature of 30°C, the power must be reduced by 229 Nm  Above an ambient temperature of 30°C, the power must be reduced by 229 Nm  Above an ambient temperature of 30°C, the power must be reduced by 229 Nm  Above an ambient temperature of 30°C, the power must be reduced by 229 Nm  Logic fine by Nm  Life-time lubrication  Life-time lubrication  4.9 g  2415 g  Base device of 32 g  Additional mediation of 32 g  Additional mediation of 4.9 g  Additional mediation of 4.9 g  Additional mediation of 4.9 g  Additional mediation of 50°C Nm	Degree of protection	IP40
Note on ambient temperature  Above an ambient temperature of 30°C, the power must be reduced by 2% per K.  Max. torque Mx  Above an ambient temperature of 30°C, the power must be reduced by 2% per K.  Max. torque My  2.9 Nm  Max. torque Mz  2.9 Nm  Max. torque Mz  2.9 Nm  Max. radial force on actuator shaft  180 N  Max. feed force Fx  450 N  Guide value for payload, horizontal  60 kg  Guide value for payload, vertical  23 kg  Maintenance interval  Life-time lubrication  Moving mass at 0 mm stroke  179 g  Additional moving mass per 10 mm stroke  4.9 g  Product weight  2415 g  Basic weight with 0 mm stroke  1185 g  Additional weight per 10 mm stroke  41 g  Number of digital logic outputs 24 V DC  2 lumber of digital logic inputs  24 V  Characteristics of logic input  Characteristics of logic input  Characteristics of logic input  Ves  Ol-Link®, S10 mode support  Ves  Ol-Link®, protocol version  Device V 1.1  Ol-Link®, communication mode  COM3 (230.4 kBd)  A	Protection class	III
Max. torque Mx Max. torque My Max. torque My Max. torque My Max. torque Mz Max. torque Mz Max. torque Mz Max. torque Mx Max. torque Mx Max. fed force Fx Max	Ambient temperature	0 °C 50 °C
Max. torque My2.9 NmMax. torque Mz2.9 NmMax. radial force on actuator shaft180 NMax. feed force Fx450 NGuide value for payload, horizontal60 kgGuide value for payload, vertical23 kgMaintenance intervalLife-time lubricationMoving mass at 0 mm stroke179 gAdditional moving mass per 10 mm stroke4.9 gProduct weight2415 gBasic weight with 0 mm stroke1185 gAdditional weight per 10 mm stroke41 gNumber of digital logic outputs 24 V DC2Number of digital logic inputs2Logic input specificationBased on IEC 61131-2, type 1Work range of logic input24 VCharacteristics of logic input24 VCharacteristics of logic inputYesIO-Link®, SIO mode supportYesIO-Link®, protocol versionDevice V 1.1IO-Link®, communication modeCOM3 (230.4 kBd)IO-Link®, port classA	Note on ambient temperature	
Max. torque Mz  Max. radial force on actuator shaft  Max. radial force on actuator shaft  Max. feed force Fx  450 N  Guide value for payload, horizontal  Guide value for payload, vertical  Maintenance interval  Maintenance interval  Moving mass at 0 mm stroke  Additional moving mass per 10 mm stroke  Additional moving mass per 10 mm stroke  Basic weight with 0 mm stroke  Additional weight per 10 mm stroke  Additional weight per 10 mm stroke  Additional weight per 10 mm stroke  Additional shaft per 10 mm stroke  Additional weight per 10 mm stroke  Additional weight per 10 mm stroke  Additional weight of digital logic outputs 24 V DC  2  Number of digital logic inputs  2  Logic input specification  Based on IEC 61131-2, type 1  Work range of logic input  Characteristics of logic input  Characteristics of logic input  Characteristics of logic input  Ochink@, SIO mode support  Ves  IO-Link@, protocol version  Device V 1.1  IO-Link@, communication mode  COM3 (230.4 kBd)  IO-Link@, port class	Max. torque Mx	0 Nm
Max. radial force on actuator shaft180 NMax. feed force Fx450 NGuide value for payload, horizontal60 kgGuide value for payload, vertical23 kgMaintenance intervalLife-time lubricationMoving mass at 0 mm stroke179 gAdditional moving mass per 10 mm stroke4.9 gProduct weight2415 gBasic weight with 0 mm stroke1185 gAdditional weight per 10 mm stroke41 gNumber of digital logic outputs 24 V DC2Logic input specificationBased on IEC 61131-2, type 1Work range of logic input24 VCharacteristics of logic inputConfigurable Not galvanically isolatedIO-Link®, SIO mode supportYesIO-Link®, protocol versionDevice V 1.1IO-Link®, communication modeCOM3 (230.4 kBd)IO-Link®, port classA	Max. torque My	2.9 Nm
Max. feed force Fx Guide value for payload, horizontal Guide value for payload, vertical Guide value for payload, vertical Alaintenance interval Life-time lubrication Moving mass at 0 mm stroke Additional moving mass per 10 mm stroke 4.9 g Product weight Basic weight with 0 mm stroke 1185 g Additional weight per 10 mm stroke 41 g Number of digital logic outputs 24 V DC 2 Number of digital logic inputs 224 V Characteristics of logic input Configurable Not galvanically isolated IO-Link®, SIO mode support Ves IO-Link®, port cclass A 450 N  660 kg 660 k	Max. torque Mz	2.9 Nm
Guide value for payload, vertical Guide value for payload, vertical Aditional moving mass at 0 mm stroke Additional moving mass per 10 mm stroke Additional weight Basic weight with 0 mm stroke Additional weight per 10 mm stroke At g  Configuration Configuration Configuration Configuration Configuration Configuration Device V 1.1 Col-Link®, protocol version Device V 1.1 Col-Link®, port class A	Max. radial force on actuator shaft	180 N
Guide value for payload, vertical  Maintenance interval  Life-time lubrication  Moving mass at 0 mm stroke  Additional moving mass per 10 mm stroke  Additional moving mass per 10 mm stroke  Product weight  Basic weight with 0 mm stroke  Additional weight per 10 mm stroke  Additional weight per 10 mm stroke  Additional weight per 10 mm stroke  Additional weight logic outputs 24 V DC  Number of digital logic inputs  Logic input specification  Based on IEC 61131-2, type 1  Work range of logic input  Configurable Not galvanically isolated  IO-Link®, SIO mode support  Ves  IO-Link®, rotocol version  Device V 1.1  IO-Link®, communication mode  COM3 (230.4 kBd)  IO-Link®, port class	Max. feed force Fx	450 N
Maintenance interval  Moving mass at 0 mm stroke  Additional moving mass per 10 mm stroke  Product weight  Basic weight with 0 mm stroke  Additional weight per 10 mm stroke  Additional weight per 10 mm stroke  Additional weight logic outputs 24 V DC  Number of digital logic inputs  Logic input specification  Based on IEC 61131-2, type 1  Work range of logic input  Characteristics of logic input  Work product weight  IO-Link®, SIO mode support  Ves  IO-Link®, communication mode  COM3 (230.4 kBd)  IO-Link®, port class  Life-time lubrication  Infection  Identication  Life-time lubrication  Identication  Infectine lubrication  Infectine lu	Guide value for payload, horizontal	60 kg
Moving mass at 0 mm stroke 4.9 g Additional moving mass per 10 mm stroke 4.9 g Product weight 2415 g Basic weight with 0 mm stroke 1185 g Additional weight per 10 mm stroke 41 g Number of digital logic outputs 24 V DC 2 Number of digital logic inputs 24 V DC 2 Logic input specification Based on IEC 61131-2, type 1 Work range of logic input 24 V DC 24 V Characteristics of logic input Characteristics of logic input Version Version Version Version Version Version Version Device V 1.1 IO-Link®, protocol version Device V 1.1 IO-Link®, port class Additional version Version Additional version Additional version Version Version Additional version	Guide value for payload, vertical	23 kg
Additional moving mass per 10 mm stroke Product weight Basic weight with 0 mm stroke 1185 g Additional weight per 10 mm stroke 41 g Number of digital logic outputs 24 V DC 2 Number of digital logic inputs 2 Logic input specification Based on IEC 61131-2, type 1 Work range of logic input 24 V Characteristics of logic input Characteristics of logic input Ves 10-Link®, S10 mode support Ves 10-Link®, protocol version Device V 1.1 COM3 (230.4 kBd) IO-Link®, port class A	Maintenance interval	Life-time lubrication
Product weight Basic weight with 0 mm stroke 1185 g  Additional weight per 10 mm stroke 41 g  Number of digital logic outputs 24 V DC 2  Number of digital logic inputs 2  Logic input specification Based on IEC 61131-2, type 1  Work range of logic input Characteristics of logic input Characteristics of logic input Ves  IO-Link®, SIO mode support Ves  IO-Link®, communication mode COM3 (230.4 kBd)  A  185 g  240  Communication mode COM3 (230.4 kBd)	Moving mass at 0 mm stroke	179 g
Basic weight with 0 mm stroke Additional weight per 10 mm stroke At 18  Additional weight per 10 mm stroke Additional weight per 10 mm stroke Additional weight per 10 mm stroke At 18  Additional weight per 10 mm stroke At 18  Additional weight per 10 mm stroke Additio	Additional moving mass per 10 mm stroke	4.9 g
Additional weight per 10 mm stroke  Number of digital logic outputs 24 V DC  Number of digital logic inputs  2  Logic input specification  Based on IEC 61131-2, type 1  Work range of logic input  Characteristics of logic input  Characteristics of logic input  Configurable Not galvanically isolated  IO-Link®, SIO mode support  Yes  IO-Link®, protocol version  Device V 1.1  IO-Link®, communication mode  COM3 (230.4 kBd)  A	Product weight	2415 g
Number of digital logic outputs 24 V DC  Number of digital logic inputs  2  Logic input specification  Based on IEC 61131-2, type 1  Work range of logic input  Characteristics of logic input  Configurable Not galvanically isolated  IO-Link®, SIO mode support  Ves  IO-Link®, protocol version  Device V 1.1  IO-Link®, communication mode  COM3 (230.4 kBd)  A	Basic weight with 0 mm stroke	1185 g
Number of digital logic outputs 24 V DC  Number of digital logic inputs  2  Logic input specification  Based on IEC 61131-2, type 1  Work range of logic input  Characteristics of logic input  Configurable Not galvanically isolated  IO-Link®, SIO mode support  Ves  IO-Link®, protocol version  Device V 1.1  IO-Link®, communication mode  COM3 (230.4 kBd)  A	Additional weight per 10 mm stroke	41 g
Number of digital logic inputs  Logic input specification  Based on IEC 61131-2, type 1  Work range of logic input  Characteristics of logic input  Configurable Not galvanically isolated  IO-Link®, SIO mode support  Yes  IO-Link®, protocol version  Device V 1.1  IO-Link®, communication mode  COM3 (230.4 kBd)  A	Number of digital logic outputs 24 V DC	
Work range of logic input  Characteristics of logic input  Configurable Not galvanically isolated  IO-Link®, SIO mode support  IO-Link®, protocol version  IO-Link®, communication mode  COM3 (230.4 kBd)  IO-Link®, port class  A	Number of digital logic inputs	2
Characteristics of logic input  Configurable Not galvanically isolated  IO-Link®, SIO mode support  Yes  IO-Link®, protocol version  Device V 1.1  IO-Link®, communication mode  COM3 (230.4 kBd)  A	Logic input specification	Based on IEC 61131-2, type 1
Not galvanically isolated  10-Link®, SIO mode support  10-Link®, protocol version  10-Link®, communication mode  10-Link®, port class  A  Not galvanically isolated  Yes  Cows  Cows  Cows  Cows  Cows  Cows  A	Work range of logic input	24 V
IO-Link®, protocol version  Device V 1.1  IO-Link®, communication mode  COM3 (230.4 kBd)  IO-Link®, port class  A	Characteristics of logic input	
IO-Link®, protocol version  Device V 1.1  IO-Link®, communication mode  COM3 (230.4 kBd)  IO-Link®, port class  A	IO-Link®, SIO mode support	Yes
IO-Link®, communication mode COM3 (230.4 kBd) IO-Link®, port class A	IO-Link®, protocol version	Device V 1.1
IO-Link®, port class A		COM3 (230.4 kBd)
·	IO-Link®, port class	A
	· · · · · · · · · · · · · · · · · · ·	1

Feature	Value
IO-Link®, process data width OUT	2 Byte
IO-Link®, process data content OUT	Move in 1 bit Move out 1 bit Quit Error 1 bit Move Intermediate 1 bit
IO-Link®, process data width IN	2 Byte
IO-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
IO-Link®, service data contents IN	32 bit force 32 bit position 32 bit speed
IO-Link®, minimum cycle time	1 ms
IO-Link®, data memory required	500 byte
Max. cable length	15 m outputs 15 m inputs 20 m for IO-Link® operation
Switching logic at outputs	NPN (negative switching) PNP (positive switching)
Input switching logic	NPN (negative switching) PNP (positive switching)
Logic interface, connection type	Plug
Logic interface, connection technology	M12x1, A-coded as per EN 61076-2-101
Logic interface, number of poles/wires	8
Logic interface, connection pattern	00992264
Type of mounting	With internal thread With accessories
Note on materials	RoHS-compliant
Housing material	Wrought aluminum alloy, smooth-anodized
Piston rod material	High-alloy stainless steel
Spindle nut material	Steel
Spindle material	Roller bearing steel