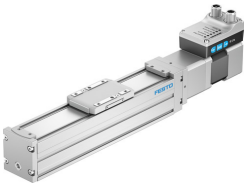
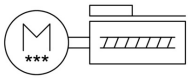
Ball Screw axis unit
ELGS-BS-KF-45-100-10P-ST-M-H1-PLK-AA

Part number: 8083470





Data sheet

Feature	Value
Working stroke	100 mm
Size	45
Stroke reserve	0 mm
Screw diameter	10 mm
Spindle pitch	10 mm/U
Mounting position	Any
Guide	Recirculating ball bearing guide
Structural design	Electromechanical linear axis with ball screw With integrated drive
Motor type	Stepper motor
Spindle type	Ball screw drive
Symbol	00997292
Position sensing	Motor encoder For proximity sensor
Homing	Fixed stop block positive Fixed stop block, negative
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	5 m/s²
Max. speed	0.25 m/s
Repetition accuracy	±0.015 mm
Characteristics of digital logic outputs	Configurable Not galvanically isolated
Duty cycle	100%
Insulation protection class	B
Max. current of digital logic outputs	100 mA
Max. current consumption	3000 mA
DC nominal voltage	24 V
Nominal current	3 A
Parameterization interface	IO-Link® User interface

Feature	Value
Rotor position sensor resolution	16 bit
Permissible voltage fluctuations	+/- 15 %
Power supply, type of connection	Plug
Power supply, connection technology	M12x1, T-coded as per EN 61076-2-111
Power supply, number of pins/wires	4
Power supply, connection pattern	00995989
Certification	RCM compliance mark
KC characters	KC EMC
CE marking (see declaration of conformity)	As per EU EMC directive As per EU RoHS directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK RoHS instructions
Vibration resistance	Transport application test with severity level 1 as per FN 942017-4 and EN 60068-2-6
Shock resistance	Shock test with severity level 1 as per FN 942017-5 and EN 60068-2-27
LABS conformity	VDMA24364 zone III
Storage temperature	-20 °C ... 60 °C
Relative air humidity	0 - 90 %
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.
2nd moment of area Iy	140000 mm⁴
2nd moment of area Iz	170000 mm⁴
Max. force Fy	300 N
Max. force Fz	600 N
Fy with theoretical service life of 100 km (from a guide perspective only)	1104 N
Fz with theoretical service life of 100 km (from a guide perspective only)	2208 N
Max. torque Mx	5.5 Nm
Max. torque My	4.7 Nm
Max. torque Mz	4.7 Nm
Mx with theoretical service life of 100 km (from a guide perspective only)	20 Nm
My with theoretical service life of 100 km (from a guide perspective only)	17 Nm
Mz with theoretical service life of 100 km (from a guide perspective only)	17 Nm
Max. feed force Fx	100 N
Guide value for payload, horizontal	10 kg
Guide value for payload, vertical	5 kg
Torsion moment of inertia It	8500 mm⁴
Feed constant	10 mm/U
Moving mass	220 g
Product weight	1714 g
Dynamic deflection (load moved)	0.05% of axis length, maximum 0.5 mm
Static deflection (load at standstill)	0.1 % of axis length
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
IO-Link®, SIO mode support	Yes
Characteristics of logic input	Configurable Not galvanically isolated
IO-Link®, protocol version	Device V 1.1
IO-Link®, communication mode	COM3 (230.4 kBd)

Feature	Value
IO-Link®, port class	A
IO-Link®, number of ports	1
IO-Link®, process data width OUT	2 Byte
IO-Link®, process data content OUT	1 bit (move in) 1 bit (move out) 1 bit (quit error)
IO-Link®, process data width IN	2 Byte
IO-Link®, process data content IN	1 bit (state device) 1 bit (state move) 1 bit (state in) 1 bit (state out)
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	PNP (positive switching)
Input switching logic	PNP (positive switching)
IO-Link®, Connection technology	Plug
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
Material of end caps	Die cast aluminum, painted
Profile material	Wrought aluminum alloy, anodized
Note on materials	RoHS-compliant
Cover strip material	High-alloy stainless steel
Drive cover material	Die cast aluminum, painted
Slide carriage material	Steel
Guide rail material	Steel
Slide material	Die-cast aluminum
Spindle nut material	Steel
Spindle material	Steel