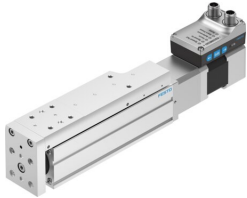


Mini slide unit

EGSS-BS-KF-45-100-10P-ST-M-H1-PLK-AA

FESTO

Part number: 8083817



[PDF](#) General operating condition

Data sheet

Feature	Value
Working stroke	100 mm
Size	45
Stroke reserve	0 mm
Reversing backlash	150 µm
Screw diameter	10 mm
Spindle pitch	10 mm/U
Mounting position	Any
Guide	Recirculating ball bearing
Structural design	With ball screw With integrated actuator
Motor type	Stepper motor
Homing	Fixed stop block positive Fixed stop block negative
Spindle type	Ball screw
Symbol	00997294
Position sensing	Motor encoder Via proximity switch
Rotor position sensor	Absolute single-turn encoder
Rotor position sensor measuring principle	Magnetic
Protective function	Temperature monitoring
Additional functions	Integrated end-position sensing
Display	LED
Ready status indication	LED
Max. acceleration	5 m/s ²
Max. speed	0.25 m/s
Speed "Speed Press"	0.01 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
Logic max. current consumption	0.3 A
DC nominal voltage	24 V
Nominal current	3 A

Feature	Value
Parameterization interface	IO-Link® User interface
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-EMV
CE marking (see declaration of conformity)	As per EU EMC directive As per EU RoHS directive
UKCA marking (see declaration of conformity)	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
Corrosion resistance class (CRC)	0 - No corrosion stress
LABS (PWIS) conformity	VDMA24364 Zone III
Cleanroom suitability, measured according to ISO 14644-14	Class 9 according to ISO 14644-1
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.
Fixed bearing dynamic basic load rating	7413 N
Linear guide dynamic basic load rating	3240 N
Dynamic basic load rating, ball screw drive	3200 N
Max. force Fy	1314 N
Max. force Fz	1314 N
Fy with theoretical service life of 100 km (from a guide perspective only)	3240 N
Fz with theoretical service life of 100 km (from a guide perspective only)	3240 N
Max. torque Mx	8.14 Nm
Max. torque My	7.05 Nm
Max. torque Mz	7.05 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. radial force on actuator shaft	340 N
Max. feed force Fx	120 N
Guide value for payload, horizontal	6 kg
Guide value for payload, vertical	6 kg
Ball screw drive statistical basic load rating	5900 N
Linear guide statistical basic load rating	5630 N
Feed constant	10 mm/U
Statistical fixed bearing load rating	3966 N
Reference service life	5000 km
Maintenance interval	Lifetime lubrication
Moving mass at 0 mm stroke	212 g
Additional moving mass per 10 mm stroke	30 g
Product weight	1867 g

Feature	Value
Basic weight with 0 mm stroke	1238 g
Additional weight per 10 mm stroke	63 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
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)
IO-Link®, port class	A
IO-Link®, number of ports	1
IO-Link®, process data width OUT	2 bytes
IO-Link®, process data content OUT	1 bit (move in) 1 bit (move out) 1 bit (quit error) 1 bit (move intermediate)
IO-Link®, process data width IN	2 Byte
IO-Link®, process data content IN	1 bit (state device) 1 bit (State Intermediate) 1 bit (state move) 1 bit (state intermediate) 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
Type of mounting	With internal thread With centering sleeve With accessories With cylindrical pin
Note on materials	RoHS compliant
Slide carriage material	Bearing steel
Guide rail material	Bearing steel
Housing material	Wrought aluminum alloy, anodized
Material of yoke plate	Wrought aluminum alloy, anodized
Piston rod material	high-alloy stainless steel
Slide material	Wrought aluminum alloy, anodized
Ball screw nut material	Bearing steel
Spindle material	Bearing steel