





At a glance

Plug and work with the Simplified Motion Series



The simplicity of pneumatics is now combined for the first time with the advantages of electric automation thanks to the Simplified Motion Series.

These integrated drives are the perfect solution for all users who are looking for an electric alternative for very simple movement and positioning tasks between two mechanical end positions, but don't want the commissioning process for traditional electric drive systems that can often be quite complex.

Integrated

The integrated electronics in the drive are at the heart of the Simplified Motion Series.

Easy

For commissioning, simply set all relevant parameters directly on the drive:

- · Speed and force
- Reference end position and cushioning
- · Manual operation

Standardised

Electrical connection via M12 plug design

- Power (4-pin): power supply for the motor
- Logic (8-pin): control signal, sensor signal and power for the integrated electronics

Connected

There is no need for any software since operation is simply based on the "plug

and work" principle. Digital I/O (DIO) and IO-Link are always automatically

included – a product with two types of control as standard.

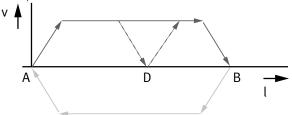
IO-Link

Use of extended functions possible via IO-Link:

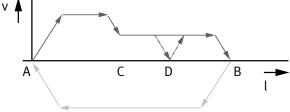
- Remote configuration of motion parameters
- Copy and backup function for transferring parameters
- Read function for extended process parameters
- Freely definable intermediate position
- · Firmware update

The functions of the Simplified Motion Series

Basic profile for movement between two end positions: with speed control



- These drives are designed for simple movements between two end positions.
- Proximity switches are required in order to implement any intermediate positions.
- With the intermediate position that can be freely configured via IO-Link, movements can be stopped at a freely defined point between the end positions, without the need for proximity switches or external stops



At a glance



- Without external servo drive: all the necessary electronic components are combined in the integrated drive
- Two control options integrated as standard: digital I/O and IO-Link
- Complete solution for simple movements between mechanical end positions
- Simplified commissioning: all parameters can be manually set directly on the drive
- · No special expertise required for commissioning
- End-position feedback similar to that of a conventional proximity switch is integrated as standard
- · Very high-quality ball screw with low internal friction
- Rigid, high load-bearing and precise linear guide for absorbing lateral forces and increased anti-twist protection

The products in the Simplified Motion Series

Electric cylinder unit EPCE

Electric cylinder unit EPCS

Electric cylinder unit with parallel motor mounting EPCS



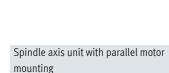
Mini slide unit EGSS-BS-KF



Mini slide unit with parallel motor mounting EGSS-BS-KF



Spindle axis unit ELGS-BS-KF



ELGS-BS-KF



Toothed belt axis unit ELGS-TB-KF



Toothed belt axis unit



Rotary drive unit ERMS









Modular and flexible with motor, motor mounting kit and servo drive

This product is also available as a modular mechanical system as spindle axis EGSC-BS:



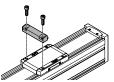
When compact dimensions and optimised installation space are important, e.g. for assembly systems, test and inspection systems, small parts handling, the electronics industry and desktop applications. Either as an individual axis or as a handling system.

- Compact: optimum ratio of installation space to working space
- Unique: "one-size-down" mounting system
- $\bullet \;\;$ Modular: individual combinations with motor, motor mounting kit and servo drive
- Flexible: wide range of mounting options for optimum machine integration

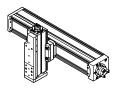
Combination matrix between axis ELGC-TB/ELGS-TB, ELGC-BS/ELGS-BS, mini slide EGSC-BS/EGSS-BS, electric cylinder EPCC-BS/EPCS-BS and guide axis ELFC Mounting options with profile mounting and with angle kit

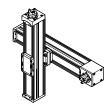
		Assembly axis ELGC-BS/-TB; ELFC; EGSC-BS; EPCC-BS; ELGS-BS/-TB; EGSS-BS, EPCS-BS					
	Size	25	32	45	60		
Base axis	32	•	-	-	-		
ELGC-BS/-TB; ELFC;	45	-	•	-	-		
ELGS-BS/-TB	60	-	-		-		
	80	-	-	-	•		

With profile mounting EAHF-L2-...-P-D...



• Mounting option: base axis with one-size-down assembly axis



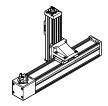


With angle kit EHAA-D-L2-...-AP



 Mounting option: base axis rotated through 90° with one-size-down assembly axis





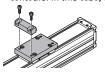
Combination matrix between axis ELGC-TB/ELGS-TB, ELGC-BS/ELGS-BS, mini slide EGSC-BS/EGSS-BS, electric cylinder EPCC-BS/EPCS-BS and guide axis ELFC Mounting options with adapter kit or direct fastening

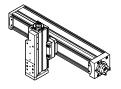
				BS/-TB; ELF S, EPCS-BS		; EPCC-BS;
	Size	25	32	45	60	80
Base axis	32			-	-	-
ELGC-BS/-TB; ELFC;	45	-		•	-	-
ELGS-BS/-TB	60	-	-			-
	80	-	-	-		

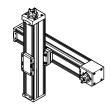
		Assembly ax	is EGSC-BS; EG	GSS-BS	
	Size	25	32	45	60
Base axis	25		-	-	-
EGSC-BS;	32	-	•	-	-
EGSS-BS	45	-	-	•	-
	60	-	-	-	•

With adapter kit EHAA-D-L2

- Mounting option: base axis with the same size assembly axis
- Mounting option: base axis with height compensation for one-size-down assembly axis
- When motors are mounted using parallel kits, this may lead to interfering contours. In this case, the adapter plate is required for height compensation

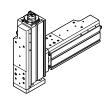






With direct mounting

• Mounting option: base axis with the same size assembly axis



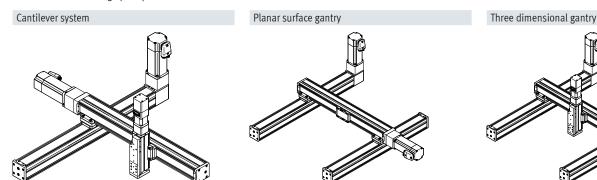
Mini slide units EGSS-BS

NEW

Key features

Typical handling systems

For applications where compact dimensions are essential, the axes ELGC can be combined into very space-saving handling systems that are suitable for assembly systems, test and inspection systems, small parts handling, the electronics industry and desktop applications. Combining the very compact linear axes ELGC, mini slide EGSC and electric cylinder EPCC offers an optimum ratio of installation space to working space. These feature a common system approach and platform architecture and the connections are largely adapterless.

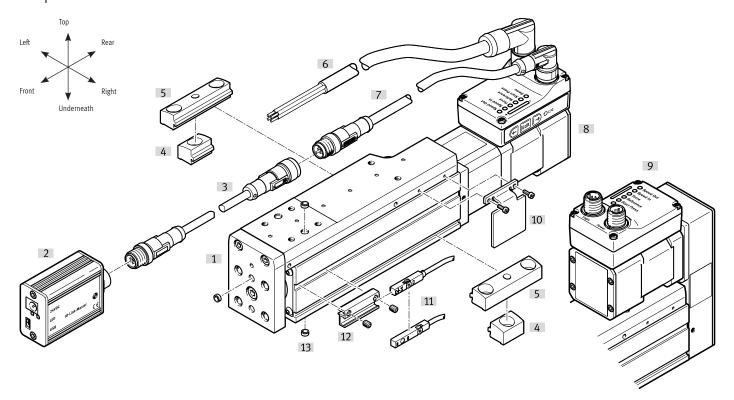


Type codes

001	Series
EGSS	Electric slide drive
Lana	In .
002	Drive system
BS	Ball screw drive
003	Guide
KF	Recirculating ball bearing guide
004	Size
32	32
45	45
60	60
005	Stroke
25	25
50	50
75	75
100	100
125	125
150	150
200	200
006	Spindle pitch
8P	8 mm
10P	10 mm
12P	12 mm
007	Motor type
ST	Stepper motor ST
008	Controller
М	Integrated

009	Control panel
H1	Integrated
010	Bus protocol/activation
PLK	PNP and IO-Link®
NLK	NPN and IO-Link®
011	End-position sensing
AA	With integrated end-position sensing
012	Cable outlet direction
	Standard
D	Underneath
L	Left
R	Right
013	Motor attachment position
	Standard
PL	Parallel, left
PR	Parallel, right
PD	Parallel, bottom
PT	Parallel, top
014	Electrical accessories
	None
L1	Adapter for operation as IO-Link® device
015	Operating instructions
	With operating instructions
DN	Without operating instructions

Peripherals overview

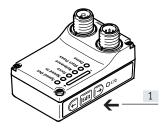


Acces	sories		
	Type/order code	Description	→ Page/Internet
[1]	Mini slide unit EGSS-BS	Electric drive	9
[2]	IO-Link master USB CDSU-1	For straightforward use of the mini slide unit via IO-Link	32
[3]	Adapter NEFC-M12G8	Connection between the motor and the IO-Link master Only recommended for use with IO-Link port class A master	32
[4]	Profile mounting EAHF-L2P-S	For mounting the axis on the side of the profile	29
[5]	Profile mounting EAHF-L2P	For mounting the axis on the side of the profile. The profile mounting can be attached to the mounting surface using the drill hole in the centre	28
[6]	Supply cable NEBL-T12	For connecting load and logic supply	33
[7]	Connecting cable NEBC-M12	For connection to a controller	33
[8]	Axial kit	For axial motor mounting (included in the scope of delivery)	9
[9]	Parallel kit	For parallel motor mounting (included in the scope of delivery)	9
[10]	Switch lug ¹⁾ EAPMSLS	For sensing the slide position in conjunction with inductive proximity switches SIES-8M	30
[11]	Proximity switches ¹⁾ SIES-8M	Inductive proximity switches, for T-slot	31
	Proximity switches ¹⁾ SMT-8M	Magnetic proximity switches, for T-slot	31
[12]	Sensor bracket ¹⁾ EAPM-L2	For mounting the proximity switches on the axis. The proximity switches can only be mounted using the sensor bracket	30
[13]	Centring pin/sleeve ZBS, ZBH	For centring loads and attachments	31

¹⁾ Proximity switches are optional and only required in order to sense any intermediate positions.

Peripherals overview

Control elements

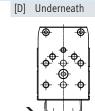


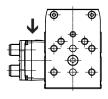
[1] Pushbutton actuators for parameterisation and control

Cable outlet direction

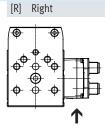
Standard







[L] Left



Motor mounting variants

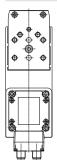
Standard



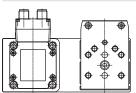




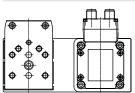
[PD] Underneath

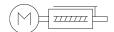


[PL] Left



[PR] Right





- **Ø** - Size

32 ... 60

- Stroke length 25 ... 200 mm



General technical data						
Size		32	45	60		
Design		Electric mini slide with ball scre	w and integrated drive			
Motor type		Stepper motor				
Guide		Recirculating ball bearing guide				
Mounting position		Any				
Working stroke	[mm]	25, 50, 75, 100	25, 50, 75, 100, 125, 150	50, 75, 100, 125, 150, 200		
Stroke reserve	[mm]	0		·		
Additional functions		Built-in end-position sensing				
		User interface				
Display		LED				
Homing	,	Positive fixed stop block				
		Negative fixed stop block				
Type of mounting		With female thread				
		With accessories				
		With centring pin, centring sleev	ve			
Max. cable length						
Inputs/outputs	[m]	15				
IO-Link operation	[m]	20				

Mechanical data					
Size		32	45	60	
Max. payload					
Horizontal	[kg]	2	6	10	
Vertical	[kg]	2	6	10	
Max. feed force F _x	[N]	60	120	250	
Max. radial force ¹⁾	[N]	140	340	420	
Repetition accuracy	[mm]	±0.015		·	
Reversing backlash	[µm]	150			
Position sensing		Via proximity switch			
		Via IO-Link			
With axial motor mounting					
Max. speed ²⁾	[m/s]	0.19	0.25	0.24	
Speed "Speed Press"3)	[m/s]	0.01	•		
Max. acceleration ³⁾	[m/s ²]	5			
With parallel motor mounting					
Max. speed ²⁾	[m/s]	0.19	0.235	0.205	
Speed "Speed Press" ³⁾	[m/s]	0.01		•	
Max. acceleration ³⁾	[m/s ²]	3			

- 1) At the drive shaft
- 2) Adjustable in increments of 10%
- 3) Unchangeable parameter

Spindle				
Size		32	45	60
Diameter	[mm]	8	10	12
Pitch	[mm/rev]	8	10	12

NEW

Datasheet

Electrical data					
Size		32	45	60	
Motor					
Nominal voltage DC	[V]	24 (±15%)			
Nominal current	[A]	3	3	5.3	
Max. current consumption (load)	[A]	3	3	5.3	
Max. current consumption (logic)	[mA]	300			
Encoder					
Rotor position sensor		Absolute encoder, single turn			
Rotor position sensor measuring principle		Magnetic			
Rotor position encoder resolution	[bit]	16			

Interfaces						
Size		32	45	60		
Parameterisation interface						
IO-Link		Yes				
User interface		Yes				
Digital inputs						
Number		2				
Switching logic		PNP				
		NPN				
Characteristics		Not galvanically isolated				
		Configurable				
Specification		Based on IEC 61131-2, typ	pe 1			
Operating range	[V]	24				
Digital outputs						
Number		2				
Switching logic		PNP				
		NPN				
Rotor position sensor		Absolute encoder, single to	urn			
Characteristics		Not galvanically isolated				
		Configurable				
Max. current	[mA]	100				

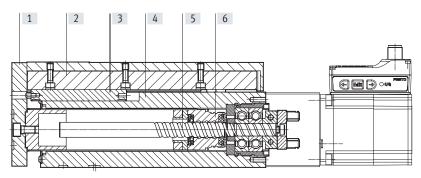
Technical data — IO-Link					
Size		32	45	60	
SIO mode support		Yes			
Communication mode		COM3 (230.4 kBd)			
Connection technology		Plug			
Port class		A			
No. of ports		1			
Process data width OUT	[byte]	2			
Process data content OUT	[bit]	1 (Move in)			
	[bit]	1 (Move out)			
	[bit]	1 (Move Intermediate)			
	[bit]	1 (Quit Error)			
Process data width IN	[byte]	2			
Process data content IN	[bit]	1 (State Device)			
	[bit]	1 (State Move)			
	[bit]	1 (State in)			
	[bit]	1 (State out)			
	[bit]	1 (State Intermediate)			
Service data content IN	[bit]	32 (Force)			
	[bit]	32 (Position)			
	[bit]	32 (Speed)			
Minimum cycle time	[ms]	1			
Data memory required	[kilobyte]	0.5			
Protocol version		Device V 1.1	·		

Operating and environmental cond	litions						
Size		32	45	60			
Insulation class		В					
Ambient temperature	[°C]	0 +50					
Storage temperature	[°C]	-20 +60					
Note on ambient temperature		Above an ambient	temperature of 30°C, the power must be redu	iced by 2% per K			
Temperature monitoring		Switch-off for exces	ssive temperature				
		Integrated precise	CMOS temperature sensor with analogue out	put			
Relative humidity	[%]	0 90					
Protection class		III					
Degree of protection		IP40	IP40				
Duty cycle	[%]	100					
CE marking (see declaration of confo	ormity)	To EU EMC Directive	e for EMCS-ST → festo.com/sp				
		To EU RoHS Directiv	ve				
UKCA marking (see declaration of co	nformity)	To UK instructions	for EMC				
		To UK RoHS instruc	tions				
KC mark		KC EMC					
Certification		RCM					
Vibration resistance		Transport applicati	ion test with severity level 1 to FN 942017-4 a	and EN 61800-2 and EN 61800-5-1			
Shock resistance		Shock test with sev	Shock test with severity level 1 to FN 942017-5 and EN 61800-2				
Maintenance interval		Lifetime lubrication	n				

Weight				
Size		32	45	60
With axial motor mounting				
Basic weight at 0 mm stroke	[g]	924	1238	2735
Additional weight per 10 mm stroke	[g]	30	63	95
Moving mass with 0 mm stroke	[g]	149	212	675
Additional moving mass per 10 mm stroke	[g]	12	30	40
With parallel motor mounting				
Basic weight at 0 mm stroke	[g]	1088	1361	2999
Additional weight per 10 mm stroke	[g]	30	63	95
Moving mass with 0 mm stroke	[g]	149	212	675
Additional moving mass per 10 mm stroke	[g]	12	30	40

Materials

Sectional view



Axis		
[1]	Yoke plate	Anodised wrought aluminium alloy
[2]	Slide	Anodised wrought aluminium alloy
[3]	Guide rail	Rolling bearing steel
[4]	Housing	Anodised wrought aluminium alloy
[5]	Spindle	Rolling bearing steel
[6]	Spindle nut	Rolling bearing steel
	PWIS conformity	VDMA24364 zone III
	Note on materials	RoHS-compliant

Pin allocation

Power supply

Plug

M12x1, 4-pin, T-coded to EN 61076-2-111



Pin	Function	
1	Power voltage supply (24 V DC)	
2	Reference potential, power voltage supply (GND)	
3	Reserved, do not connect	
4	Functional earth (FE)	

Logic interface

Plug

M12x1, 8-pin, A-coded to EN 61076-2-101



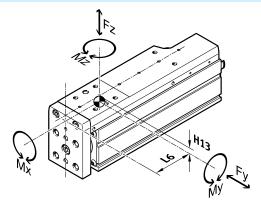
When used with	When used with digital I/O					
Pin	Function					
1	Logic voltage supply (24 V DC)					
2	Digital output 1 (State "In")					
3	Digital output 2 (State "Out")					
4	Reference potential, logic voltage supply (GND)					
5	Digital input 1 (Move "In")					
6	Digital input 2 (Move "Out")					
7	Reserved, do not connect					
8	Reference potential, logic voltage supply (GND)					

When used w	When used with IO-Link					
Pin	Function					
1	L+ IO-Link power supply (24 V DC)					
2	Reserved, do not connect					
3	C/Q communication with the IO-Link master					
4	L – Reference potential, IO-Link power supply (0 V)					
5	Reserved, do not connect					
6	Reserved, do not connect					
7	Reserved, do not connect					
8	L – Reference potential, IO-Link power supply (0 V)					

Dynamic characteristic load values

The indicated forces and torques refer to the centre of the guide.

These values must not be exceeded during dynamic operation.



Distance from the centre of the guide							
Size		32	45	60			
Dimension H13	[mm]	7.9	10.2	15.9			
Dimension L6 ¹⁾	[mm]	31.8	37.3	53.4			

1) The dimension relates to the retracted position of the slide. In the advanced position, the dimension must be extended accordingly.

Max. permissible forces and torques for the guide calculation, for a service life of 5×10^6 cycles and max. stroke						
Size		32	45	60		
Fy _{max} .	[N]	991	1314	4937		
Fz _{max} .	[N]	991	1314	4937		
Mx _{max} .	[Nm]	3.4	8.1	20		
My _{max} .	[Nm]	3.2	7	30		
Mz _{max} .	[Nm]	3.2	7	30		

Basic load ratings				
Size		32	45	60
Dynamic				
Ball screw	[N]	2000	3200	4600
Linear guide	[N]	2135	3240	13400
Fixed bearing	[N]	3795	7413	13321
Static			Ŷ	·
Ball screw	[N]	3700	5900	8500
Linear guide	[N]	3880	5630	26900
Fixed bearing	[N]	1792	3966	7000



Note

For a guide system to have a service life of $5x \cdot 10^6$ cycles, the load comparison factor must have a value of $fv \le 1$, based on the maximum permissible forces and torques for a service life of $5x \cdot 10^6$ cycles.

This formula can be used to calculate a guide value.

The engineering software "Electric Motion Sizing" is available

for more precise calculations → www.festo.com/x/electric-motion-sizing

If the axis is subjected to two or more of the indicated forces and torques simultaneously, the following equation must be satisfied in addition to the indicated maximum loads:

Calculating the load comparison factor:

$$f_v = \frac{\left| F_{y1} \right|}{F_{y2}} + \frac{\left| F_{z1} \right|}{F_{z2}} + \frac{\left| M_{x1} \right|}{M_{x2}} + \frac{\left| M_{y1} \right|}{M_{y2}} + \frac{\left| M_{z1} \right|}{M_{z2}} \leq 1$$

 $F_1/M_1 = dynamic value$

 $F_2/M_2 = maximum value$

Datasheet

Calculating the service life

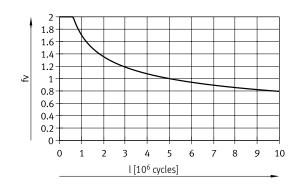
The service life of the guide depends on the load. To be able to make a statement as to the service life of the guide, the graph below plots the load comparison factor fv against the service life.

These values are only theoretical. You must consult your local Festo contact for a load comparison factor fv greater than 1.

Load comparison factor fv as a function of service life l

Example:

A user wants to move an x kg load. Using the formula (\rightarrow page 14) gives a value of 1.5 for the load comparison factor fv. According to the graph, the guide has a service life of approx. 1.5x 10⁶ cycles. Reducing the acceleration reduces the My and Mz values. A load comparison factor fv of 1 now gives a service life of 5 x 10⁶ cycles.



Comparison of the characteristic load values for 5 x 10⁶ cycles with dynamic forces and torques of recirculating ball bearing guides

The characteristic load values of the bearing guides are standardised to ISO and JIS using dynamic and static forces and torques. These forces and torques are based on an expected service life of the guide system of 100 km to ISO or 50 km to IIS.

As the characteristic load values are dependent on the service life, the maximum permissible forces and torques for a 5000 km service life cannot be compared with the dynamic forces and torques of bearing guides to ISO/JIS.

To make it easier to compare the guide capacity of mini slides EGSC with bearing guides, the table below lists the theoretically permissible forces and torques for a calculated service life of 100 km. This corresponds to the dynamic forces and torques to ISO.

These 100 km values have been calculated mathematically and are only to be used for comparing with dynamic forces and torques to ISO. The drives must not be loaded with these characteristic values as this could damage the axes.

Max. permissible forces and torques for a theoretical service life of 100 km (from a guide perspective only) Application: mass m on the slide								
Size	Size 25 32 45 60							
Fy _{max} .	[N]	1310	2135	3240	13400			
Fz _{max} .	[N]	1310	2135	3240	13400			
Mx _{max} .	[Nm]	5	10	20	107			
My _{max} .	[Nm]	4	7	17	117			
Mz _{max} .	[Nm]	4	7	17	117			

Service life of the motor

The service life of the motor at nominal power is 20000 h.

Sizing example

Application data:

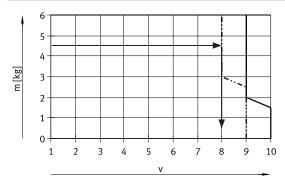
- Payload: 4 kg
- Mounting position: vertical
- Motor mounting position: axial
- Stroke: 100 mm
- Max. permitted positioning time: 1 s (one direction)

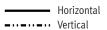
Step 1: Selecting the smallest possible size from the table \rightarrow page 10

Mechanical da	a			
Size		32	45	60
Max. payload				
Horizontal	[kg]	2	6	10
Vertical	[kg]	2	6	10

→ Smallest possible size: EGSS-BS-KF-45

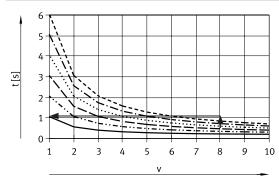
Step 2: Selecting the max. speed level v for payload m







Step 3: Reading off the min. positioning time t for stroke l





 $\rightarrow\,$ Min. positioning time for 100 mm at level 8: 0.6 s

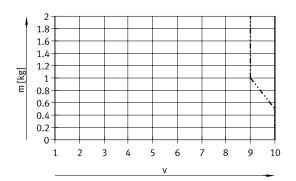
Result

The application can be implemented using EGSS-BS-KF-45-100. A minimum positioning time (one direction) of 0.6 s is achieved. Longer positioning times can be selected at any time using a lower speed level.

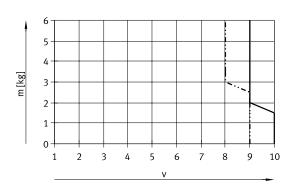
Datasheet

Mass m as a function of speed level v With axial kit

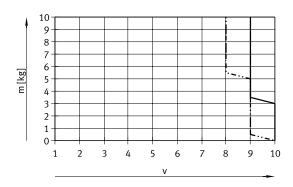
Size 32



Size 45



Size 60



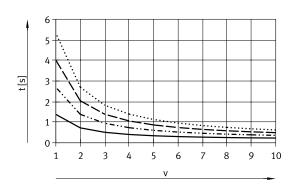
Note:

The lines represent the maximum values. The lower speed levels can be set at any time.

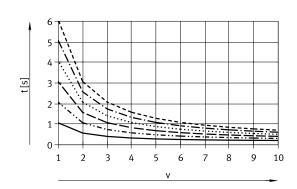
Horizontal

Positioning time t as a function of speed level v and stroke l With axial kit

Size 32

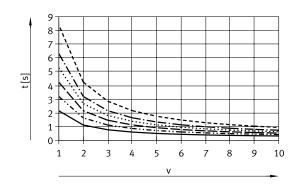


l = 25 mm l = 50 mm l = 75 mm l = 100 mm Size 45



l = 25 mm
l = 50 mm
l = 75 mm
l = 100 mm
l = 125 mm
l = 125 mm
l = 150 mm

Size 60

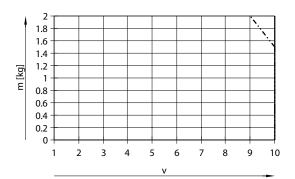


l = 50 mm
l = 75 mm
l = 75 mm
l = 100 mm
l = 125 mm
l = 150 mm
l = 200 mm

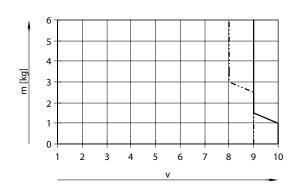
Datasheet

Mass m as a function of speed level v With parallel kit

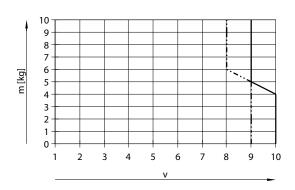
Size 32



Size 45



Size 60



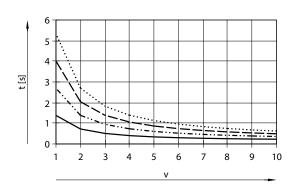
Note:

The lines represent the maximum values. The lower speed levels can be set at any time.

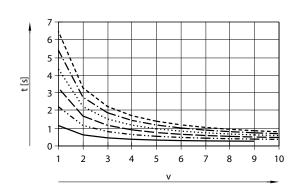
Horizontal

Positioning time t as a function of speed level v and stroke l With parallel kit

Size 32

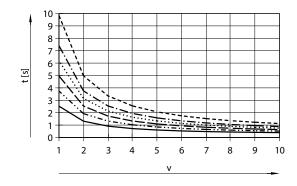


l = 25 mm l = 50 mm l = 75 mm l = 100 mm Size 45



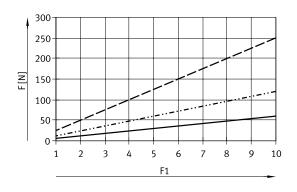
l = 25 mm
l = 50 mm
l = 75 mm
l = 100 mm
l = 125 mm
l = 125 mm
l = 150 mm

Size 60

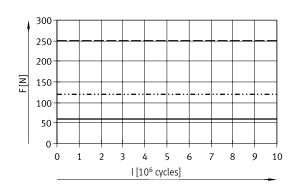


l = 50 mm
l = 75 mm
l = 75 mm
l = 100 mm
l = 125 mm
l = 150 mm
l = 200 mm

Feed force F as a function of force level F1

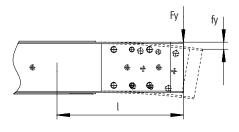


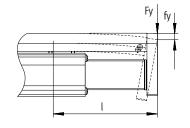
Feed force F as a function of service life l



EGSS-BS-32
EGSS-BS-45
EGSS-BS-60

Deflection f of the guide rail as a function of stroke l



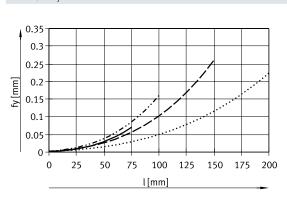


Fy/Fz at which the characteristic curves were determined EGSS-BS-32: 10 N EGSS-BS-45: 10 N

EGSS-BS-60: 10 N

Deflection fz

Deflection fy



0.35 0.25 0.25 0.15 0.10 0.05 0 25 50 75 100 125 150 175 200 L[mm]

EGSS-BS-32
EGSS-BS-45
EGSS-BS-60

Dimensions - With axial motor mounting Download CAD data → www.festo.com Size 32/45/60 • • • 2 5 1 $\phi \phi \phi$ L1+ L2 [3] 4 **(← labe → ○4%** Φ ф Ŧ H2 B1 [1] Connection to logic interface [2] Connection to power supply [3] Mini slides Axial kit [4] Motor [5] = plus stroke length Size В1 В2 Н1 Н2 L2 L1 42.3 32 81.1 69.9 167 32 65 45 42.3 45 82.6 71.4 178.8 65

97.3

86.1

218.9

60

56.6

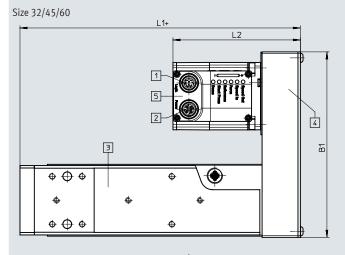
60

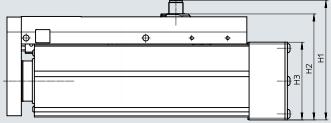
73.5

Datasheet

Dimensions - With parallel motor mounting

Download CAD data → www.festo.com





- [1] Connection to logic interface
- [2] Connection to power supply
- [3] Mini slides
- [4] Parallel kit
- [5] Motor
- + = plus stroke length

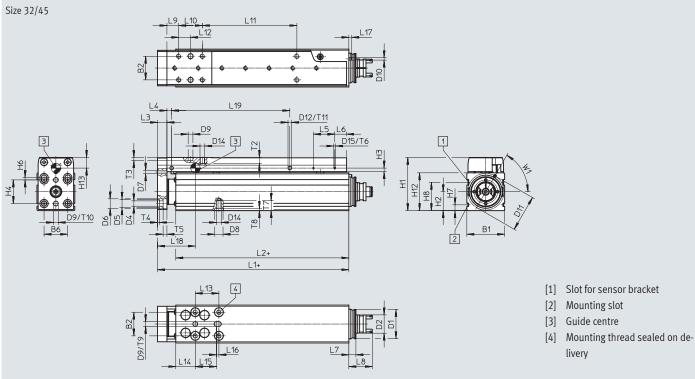
Dimensions for other motor mounting variants \rightarrow CAD data.

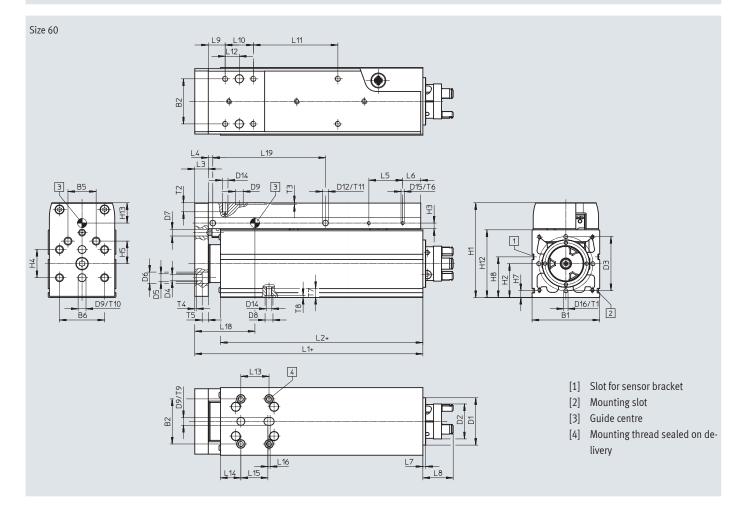
Size	B1	H1	H2	H3	L1	L2
32	111	83	72	45	86	93
45	111	83	72	45	97.8	93
60	155	100	90	65	134.4	106.5

NEW

Datasheet

Dimensions - Mechanical system Download CAD data → www.festo.com Size 32/45





NEW

Datasheet

Datashe	et														
Size	B1 ±0.15	B2	B5	B6	D1 Ø	D2 Ø	D3 Ø	D4 Ø H13	D5 Ø H7	D6 Ø H13	D7 Ø	D8 Ø H7	D9 Ø H8	D10 Ø	D11 Ø
32	32	20	-	20	25	16.5	-	4.5	7	8	3	7	4	2	31
45	45	25	-	25	32	16.5	-	5.5	7	10	3	7	5	3	41
60	60	40	25	40	42	31	48	5.5	7	10	6	7	7	-	-
Size	D12 Ø	D13	D14	D15	D16	H1	H2	H3	H4	H5	H6	H7	H8	H12	H13
32	3	_	M4	M1.6	_	45	16	3	20	_	2	4.9	24	±0.15	8.4
45	3	_	M5	M1.6	-	60.5	22.5	3	25	_	_	6.1	28.5	45	10.7
60	5	M4	M5	M3	M4	84	30	5	25	20	-	6.1	36	60	16.4
Size	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L12	L13	L14	L15	L16
22	- (2		+0.2		±0.1	10		100	10		4.0		44.5	4.0	
32	62	46.5	8	4	18	10	6	19.9	10	20	10	20	16.5	18	2
45 60	73.8 102.4	54.5 79.5	10 12	4	24 30	12 16	6 2.5	19.9 26.9	15 15	25 25	12.5 12.5	25 25	17.5 30	24	2
		,,,,												- /	_
Size	L17	L18	T1	T2	T3	T4	T5	T6	T7	Т8	Т9	T10	T11	W1	= © 1
					+0.1	+0.1				+0.1	+0.1	+0.1	-0.2		
32	2.5	31.8	-	5	2.6	1.6	3.2	1.5	8.5	1.8	2.6	2.6	1.5	60°	6
45	2	37.3	-	6	1.3	1.6	5.4	4	7	1.8	1.3	1.3	5	60°	12
60	-	53.4	10	8	1.6	1.6	5.4	6	8	1.8	1.6	1.6	5	-	15
Size	Stroke [mm]					L19						L11			
32	25					25						0			
	50					50						30			
	75					75						55			
	100					100						80			
45	25					25						0			
	50					50 75						25			
	75 100					100						50 75			
	100					125						100			
	150					150						100			
60	50					50						25			
	75					75						50			
1	100					100						7.5			

200

NEW

Ordering data

Ordering data					
	Size	Spindle pitch	Stroke	Part no.	Туре
√3 a.	32	8	25	8083801	EGSS-BS-KF-32-25-8P-ST-M-H1-PLK-AA
			50	8083802	EGSS-BS-KF-32-50-8P-ST-M-H1-PLK-AA
			75	8083803	EGSS-BS-KF-32-75-8P-ST-M-H1-PLK-AA
			100	8083804	EGSS-BS-KF-32-100-8P-ST-M-H1-PLK-AA
	45	10	25	8083814	EGSS-BS-KF-45-25-10P-ST-M-H1-PLK-AA
			50	8083815	EGSS-BS-KF-45-50-10P-ST-M-H1-PLK-AA
000			75	8083816	EGSS-BS-KF-45-75-10P-ST-M-H1-PLK-AA
			100	8083817	EGSS-BS-KF-45-100-10P-ST-M-H1-PLK-AA
			125	8083818	EGSS-BS-KF-45-125-10P-ST-M-H1-PLK-AA
			150	8083819	EGSS-BS-KF-45-150-10P-ST-M-H1-PLK-AA
	60	12	50	8083716	EGSS-BS-KF-60-50-12P-ST-M-H1-PLK-AA
			75	8083717	EGSS-BS-KF-60-75-12P-ST-M-H1-PLK-AA
			100	8083718	EGSS-BS-KF-60-100-12P-ST-M-H1-PLK-AA
			125	8083719	EGSS-BS-KF-60-125-12P-ST-M-H1-PLK-AA
			150	8083720	EGSS-BS-KF-60-150-12P-ST-M-H1-PLK-AA
			200	8083721	EGSS-BS-KF-60-200-12P-ST-M-H1-PLK-AA



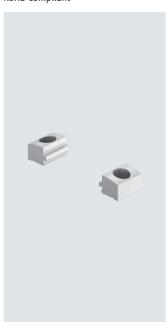
Ordering data – Modular product system

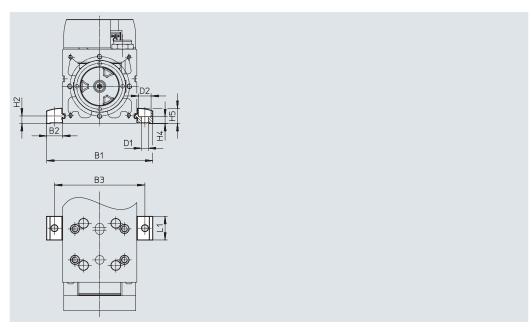
Ordering table							
Size		32	45	60	Conditions	Code	Enter code
Module no.		8083800	8083813	8083713			
Series		EGSS				EGSS	- EGSS
Drive system		Ball screw				-BS	-BS
Guide		Recirculating ball bearing guide				-KF	-KF
Size		32	45	60			
Stroke	[mm]	25, 50, 75, 100	25, 50, 75, 100, 125, 150	50, 75, 100, 125, 150, 200			
Spindle pitch	[mm]	8P	10P	12P			
Motor type		Stepper motor ST					-ST
Controllers		Integrated					-M
Operator panel		Integrated					-H1
Bus protocol/control		NPN and IO-Link				-NLK	
	PNP and IO-Link					-PLK	
End-position sensing		With integrated end-position se	nsing			-AA	-AA
Cable outlet direction		Standard	[1]				
		Left	[2]	-L			
		Underneath			[3]	-D	
		Right	[4]	-R			
Motor attachment position		Axial (standard)					
		Parallel, left			[5]	-PL	
		Parallel, right			[6]	-PR	
		Parallel, underneath			[7]	-PD	
		Parallel, top			[8]	-PT	
Electrical accessories		None					
		Adapter for operation as IO dev	ice			+L1	
Operating instructions		With operating instructions					
		Without operating instructions				DN	

- [1] Not with motor mounting position PR; PD
- Not with motor mounting position PR
 Not with motor mounting position PT

Profile mounting EAHF-L2-...-P-S

Material: Anodised wrought aluminium alloy RoHS-compliant • For mounting the slide on the side of the profile





Dimensions and	Dimensions and ordering data										
For size	B1	B2	В3	D1	D2	H2					
				Ø	Ø						
				H13	H13						
32	51.4	9.7	42	4.5	8	4.9					
45	70.6	12.8	58	5.5	10	6.1					
60	85.6	12.8	73	5.5	10	6.1					

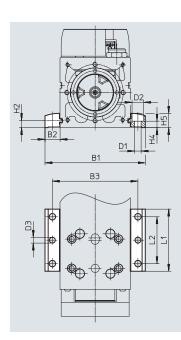
For size	H4 ±0.1	Н5	L1	Weight [g]	Part no.	Туре
32	4.2	9	19	4	5183153	EAHF-L2-25-P-S
45	5.5	12.2	19	6	5184133	EAHF-L2-45-P-S
60	5.5	12.2	19	6	5184133	EAHF-L2-45-P-S

Accessories

Profile mounting EAHF-L2-...-P

Material: Anodised wrought aluminium alloy RoHS-compliant For mounting the slide on the side of the profile.
 The profile mounting can be attached to the mounting surface using the drilled hole in the centre





Dimensions and ord	Dimensions and ordering data											
For size	B1	B2	В3	D1	D2	D3	H2					
				Ø H13	Ø H13	Ø						
32	51.4	9.7	42	4.5	8	4	4.9					
45	70.6	12.8	58	5.5	10	5	6.1					
60	85.6	12.8	73	5.5	10	5	6.1					

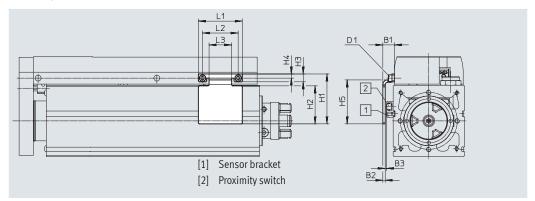
For size	H4 ±0.1	H5	L1	L2	Weight [g]	Part no.	Туре
32	4.2	9	53	40	19	4835684	EAHF-L2-25-P
/ 5	гг	12.2	Γĵ	1.0	2.5	4835728	EAUE 13 AF D
45	5.5	12.2	53	40	35	4033/20	EAHF-L2-45-P

Switch lug EAPM-...-SLS

For sensing using inductive proximity switches SIES-8M

Material: Galvanised steel RoHS-compliant





Dimensions and ord	Dimensions and ordering data										
For size	B1	B2	В3	D1	H1	H2	Н3	H4			
32	9.2	2	1.0±0.26	M1.6	27	19	4.3	2.5			
45	9.4	2	0.7±0.26	M2	37	28	5.5	3.3			

For size	H5	L1	L2	L3	Weight [g]	Part no.	Туре
32	24	22	18	10	10	8067259	EAPM-L2-32-SLS
45	33	30	24	14	18	8067260	EAPM-L2-45-SLS
60	37	37	30	19	27	8067261	EAPM-L2-60-SLS

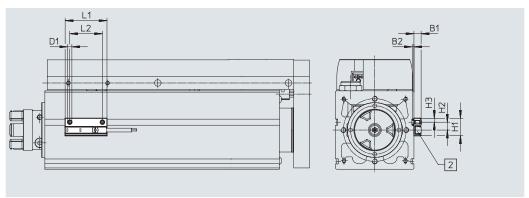
Sensor bracket EAPM-L2

Material:

Anodised wrought aluminium alloy

RoHS-compliant

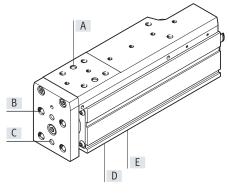




Dimensions and ordering data									
For size	B1	B2	D1	H1	H2				
22 45 60	г г	1.2	M/	12.4					
32, 45, 60	5.5	1.3	M4	13.4	6				

For size	Н3	L1	L2	Weight [g]	Part no.	Туре
32, 45, 60	3	32	25	4	4759852	EAPM-L2-SH

Ordering data – Centring sleeve



		For size	Position	Part no.	Туре	PU ¹⁾
)		32	А	562959	ZBS-4	10
			В	8146544	ZBH-7-B	
	_		С	562959	ZBS-4	
			D	8146544	ZBH-7-B	
			E	562959	ZBS-4	
		45	A	8146543	ZBH-5-B	
			В	8146544	ZBH-7-B	
			С	8146543	ZBH-5-B	
			D	8146544	ZBH-7-B	
			E	8146543	ZBH-5-B	
		60	A	8146544	ZBH-7-B	
			В	8146544	ZBH-7-B	
			С	8146544	ZBH-7-B	
			D	8146544	ZBH-7-B	
			Е	8146544	ZBH-7-B	

1) Packaging unit

Ordering data -	Push-in fitting for sealing air connection For size	Part no.	Туре	PU ¹⁾
	32	133003	QSM-M5-3-I-R	10
		133004	QSM-M5-4-I-R]
	45	186266	QSM-G1/8-4-I	
		186267	QSM-G1/8-6-I	
	60	186108	QS-G1/4-6-I	
		186110	QS-G1/4-8-I	

1) Packaging unit

Ordering data –	Proximity switches for T-slot, inductive					Datasheets → Internet: sies
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part no.	Туре
N/O						
	Inserted in the slot from above, flush	PNP	Cable, 3-wire	7.5	551386	SIES-8M-PS-24V-K-7.5-OE
	with the cylinder profile		Plug M8x1, 3-pin	0.3	551387	SIES-8M-PS-24V-K-0.3-M8D
0		NPN	Cable, 3-wire	7.5	551396	SIES-8M-NS-24V-K-7.5-OE
			Plug M8x1, 3-pin	0.3	551397	SIES-8M-NS-24V-K-0.3-M8D
N/C						
	Inserted in the slot from above, flush	PNP	Cable, 3-wire	7.5	551391	SIES-8M-PO-24V-K-7.5-OE
	with the cylinder profile		Plug M8x1, 3-pin	0.3	551392	SIES-8M-PO-24V-K-0.3-M8D
0		NPN	Cable, 3-wire	7.5	551401	SIES-8M-NO-24V-K-7.5-OE
			Plug M8x1, 3-pin	0.3	551402	SIES-8M-NO-24V-K-0.3-M8D

Ordering data − Proximity switch for T-slot, magneto-resistive Datasheets → Internet: smt							
	Type of mounting	Switching	Electrical connection	Cable length	Part no.	Туре	
		output		[m]			
N/O							
	Inserted in the slot from above,	PNP	Cable, 3-wire	2.5	574335	SMT-8M-A-PS-24V-E-2.5-OE	
	flush with the cylinder profile,		Plug M8x1, 3-pin	0.3	574334	SMT-8M-A-PS-24V-E-0.3-M8D	
(A)	short design						
N/C							
	Inserted in the slot from above,	PNP	Cable, 3-wire	7.5	574340	SMT-8M-A-PO-24V-E-7.5-OE	
N. S.	flush with the cylinder profile,						
	short design						

Ordering data – Connecting cables Datasheets → Internet: nebu							
	Electrical connection, left	Electrical connection, right	Cable length [m]	Part no.	Туре		
	Straight socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541333	NEBU-M8G3-K-2.5-LE3		
6 18			5	541334	NEBU-M8G3-K-5-LE3		
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541338	NEBU-M8W3-K-2.5-LE3		
			5	541341	NEBU-M8W3-K-5-LE3		



For sizes 45 and 60, inductive proximity switches SIES-8M must be used for strokes greater than 100 mm.

Proximity switches are optional and only required in order to sense any intermediate positions.

Ordering data – IO-Link master USB						
	Description	Cable length	Part no.	Туре		
		[m]				
	 For using the unit with IO-Link An external power supply plug is also required (not included in the scope of delivery) 	0.3	8091509	CDSU-1		

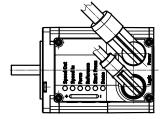
Ordering data – Adapter Datasheets → Internet: nefo							
	Electrical connection, left	Electrical connection, right	Cable length	Part no.	Туре		
			[m]				
STATE	Straight socket, M12x1, 8-pin	Straight plug, M12x1, 5-pin Only recommended for use with IO-Link port class A master	0.3	8080777	NEFC-M12G8-0.3-M12G5-LK		

Ordering data − Supply cables Datasheets → Internet: nebl							
Electric	al connection, left	Electrical connection, right	Cable length [m]	Part no.	Туре		
	socket, M12x1, 4-pin	Cable, open end, 4-wire	2	8080778	NEBL-T12W4-E-2-N-LE4		
)		5	8080779	NEBL-T12W4-E-5-N-LE4		
			10	8080780	NEBL-T12W4-E-10-N-LE4		
			15	8080781	NEBL-T12W4-E-15-N-LE4		
Straigh	t socket, M12x1, 4-pin	Cable, open end, 4-wire	2	8080790	NEBL-T12G4-E-2-N-LE4		
30			5	8080791	NEBL-T12G4-E-5-N-LE4		
			10	8080792	NEBL-T12G4-E-10-N-LE4		
Ť			15	8080793	NEBL-T12G4-E-15-N-LE4		

Ordering data –	Ordering data − Connecting cables Datasheets → Internet: nebc							
	Electrical connection, left	Electrical connection, right	Cable length	Part no.	Туре			
			[m]					
	Angled socket, M12x1, 8-pin	Cable, open end, 8-wire	2	8094476	NEBC-M12W8-E-2-N-B-LE8			
&			5	8094478	NEBC-M12W8-E-5-N-B-LE8			
			10	8094481	NEBC-M12W8-E-10-N-B-LE8			
			15	8094479	NEBC-M12W8-E-15-N-B-LE8			
		Straight plug, M12x1, 8-pin	2	8080786	NEBC-M12W8-E-2-N-M12G8			
1 (8)			5	8080787	NEBC-M12W8-E-5-N-M12G8			
Market Transport			10	8080788	NEBC-M12W8-E-10-N-M12G8			
			15	8080789	NEBC-M12W8-E-15-N-M12G8			
	Straight socket, M12x1, 8-pin	Cable, open end, 8-wire	2	8094480	NEBC-M12G8-E-2-N-B-LE8			
()			5	8094477	NEBC-M12G8-E-5-N-B-LE8			
			10	8094482	NEBC-M12G8-E-10-N-B-LE8			
			15	8094475	NEBC-M12G8-E-15-N-B-LE8			
		Straight plug, M12x1, 8-pin	2	8080782	NEBC-M12G8-E-2-N-M12G8			
			5	8080783	NEBC-M12G8-E-5-N-M12G8			
NI NI			10	8080784	NEBC-M12G8-E-10-N-M12G8			
			15	8080785	NEBC-M12G8-E-15-N-M12G8			



The cables are positioned at a 45° angle to the axis.



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