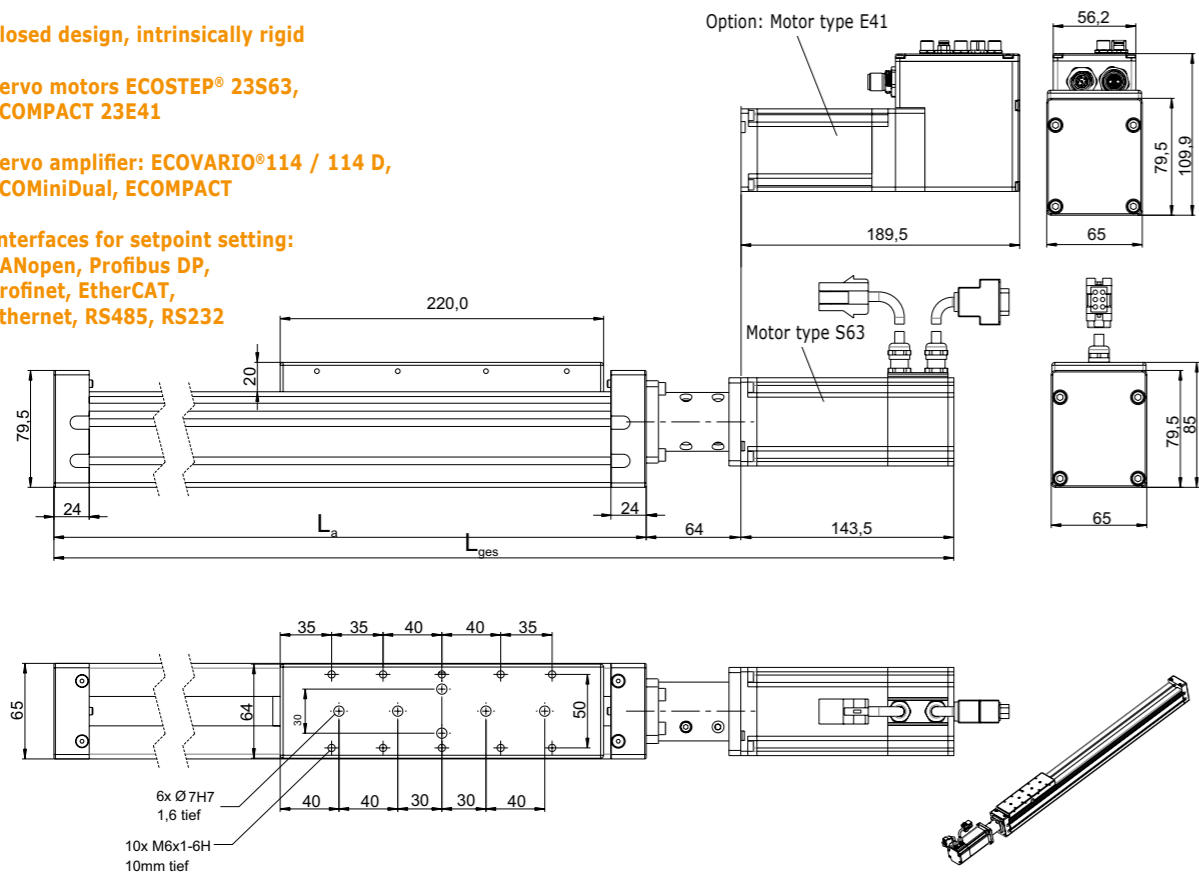
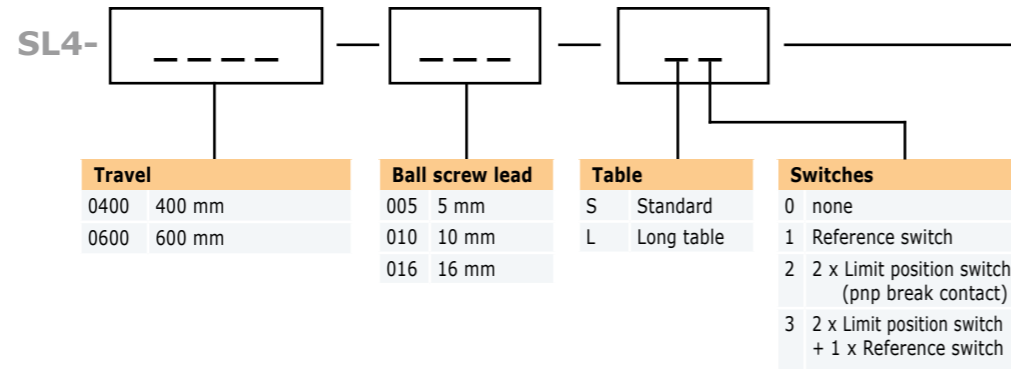


- Complete, fitted linear axis with ball screw drive
- Mechanically and electrically ready for connection
- Travel: 400 mm, 600 mm, customer specific lengths on request
- Feed forces up to 1000 N
- Smooth running thanks to ball rail system
- Ball screw, tolerance class ISO7
- Closed design, intrinsically rigid
- Servo motors ECOSTEP® 23S63, ECOMPACT 23E41
- Servo amplifier: ECOVARIO®114 / 114 D, ECOMiniDual, ECOMPACT
- Interfaces for setpoint setting: CANopen, Profibus DP, Profinet, EtherCAT, Ethernet, RS485, RS232

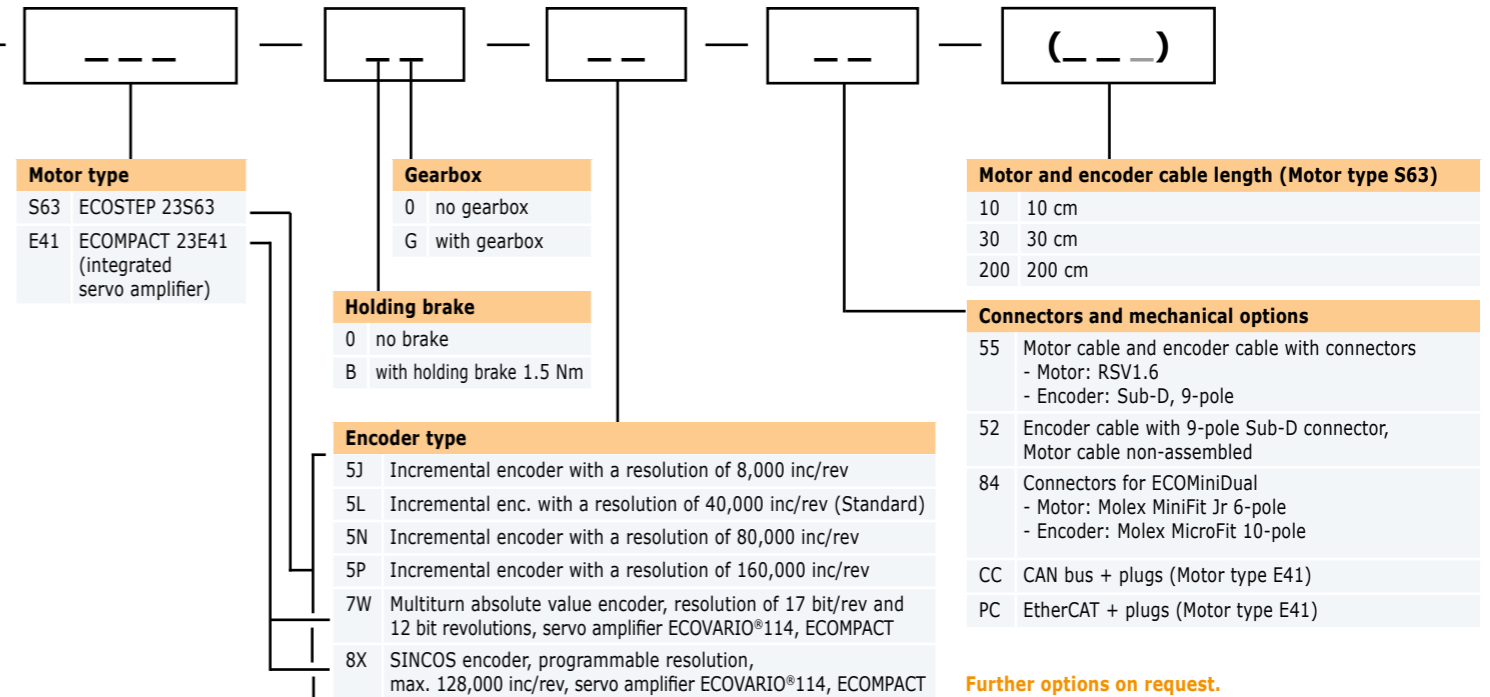


➔ Rated Values	Series SL4-0x00-005		Series SL4-0x00-010		Series SL4-0x00-016	
	vertical	horizontal	vertical	horizontal	vertical	horizontal
Mounting position						
Travel [mm]	400 / 600		400 / 600		400 / 600	
Ball screw [mm]	16x5		16x10		16x16	
Acceleration [m/s ²]	8	10	8	10	8	10
Velocity [m/s]	0.15	0.15	0.3	0.3	0.5	0.5
Load [kg]	80	100	60	90	45	80
Feed force [N]	640	1000	480	900	360	800
Dynamic torque M _x [Nm]	27					
Dynamic torque M _y [Nm]	98					
Dynamic torque M _z [Nm]	98					
➔ Resolution / Accuracy						
Positioning resolution ¹⁾ [µm]	0.0125					
Repeatability [µm]	+/- 20					
Straightness / Parallelism [µm/m]	350 / 200					

1) Depends on the selected encoder type and ball screw lead

➔ Dimensions and Weights	Series SL4-0400		Series SL4-0600	
		[kg]		
Weight (with 23S63, without holding brake)	[kg]	10	11.3	
Length L _a [mm]	[mm]	678	878	
Entire length L _{ges} [mm]	[mm]	887	1087	

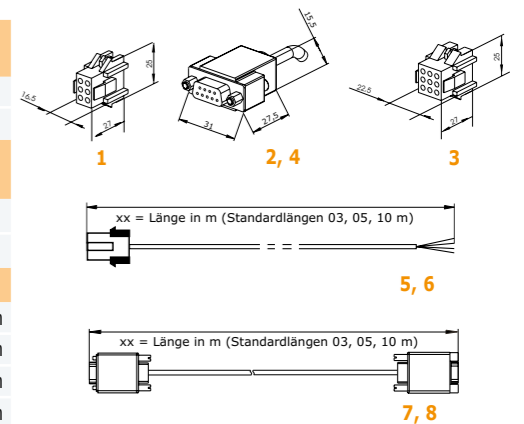
Notes: The weight of the axis with holding brake increases by 0.8 kg. The entire length of the axis with holding brake increases by 43.9 mm. The weight of the axis with motor type E41 increases by 0.6 kg. The entire length of the axis with absolute value encoder increases by 13.5 mm (motor type S63) or by 20 mm (motor type E41). With the option EtherCAT interface the height of motor type E41 is 115.5 mm (instead of 93.5 mm).



Accessories for motor type S63:

- ➔ **Coupling Set 70.040 (for motors without holding brake: >>mating connector set<< for cable extensions made by customer)**
 - Motor: RSV1.6, 6-pole socket
 - Incremental encoder: DSub, 9-pole socket
- ➔ **Coupling Set 70.044 (for motors with holding brake: >>mating connector set<< for cable extensions made by customer)**
 - Motor: RSV1.6, 9-pole socket
 - Incremental encoder: DSub, 9-pole socket
- ➔ **Cable Assemblies**

5	Motor cable extension MOT43-132-721-0xx-000	Ø 6.4 mm, trailing capability from bend radius > 35 mm
6	Motor/brake cable ext. MOT45-132-722-0xx-000	Ø 8.1 mm, trailing capability from bend radius > 45 mm
7	Incremental encoder cable ext. ENC47-491-495-0xx-000	Ø 6.2 mm, trailing capability from bend radius > 35 mm
8	Absolute encoder cable ext. ABS47-300-301-0xx-000	Ø 6.2 mm, trailing capability from bend radius > 35 mm



Recommended cables for motor type E41 (CC = CAN bus, PC = EtherCAT):

CC	PC	Connector	Interface	Cable type (incl. mating connector)	Description
X		Din/Dout	Digital outputs OUT1, OUT2, Enable / digital input 1 + 2	e.g. Phoenix Contact SAC-8P- 3,0-PUR/M12FS	Sensor/actor cable, 30V, 2A M8 female / free wire ends, 8-pole, cable length: 3m
	X	Din/Dout	Digital outputs OUT1, OUT2, Enable / digital input 1 + 2	e.g. Phoenix Contact SAC-6P- 3,0-PUR/M 8FS SH	Sensor/actor cable, 30V, 2A M12 female A coded / free wire ends, 6-pole, cable length: 3m
X		CANin, CANout	CAN bus	e.g. Phoenix Contact SAC-5P-M 8MS/ 2,0-920/M 8FS	Bus system cable, CANopen, shielded, M8 male to female, 5-pole, cable length: 2 m
X			Termination resistor for CAN bus	e.g. Phoenix Contact SAC-5P-M 8MS DN TR	M8 male, 5-pole
	X	EtherCAT IN, EtherCAT OUT	EtherCAT Master connection	e.g. Phoenix Contact VS-M12MS-IP20-93E-LI/2,0	EtherCAT cable, twisted pair, M12 male to RJ45, 4-pole, 2 m
	X		Looping through EtherCAT from ECOMPACT to ECOMPACT	e.g. Phoenix Contact SAC-M12MSD/18,0-93E/M12MSD	EtherCAT cable, twisted pair, M12 male to M12 male, 4-pole, cable length: 18 m
X	X	Power	Power supply (max. 60 V) + Logic supply (24 V)	e.g. Phoenix Contact SAC-4P-FSS/ 1,5-PUR PE SH SCO	Sensor/actor cable, 60V, 4A, M12 female / free wire ends , 4-pole, cable length: 3m
X		CWI	Digital input CWI: positive limit pos.	e.g. Phoenix Contact SAC-3P-M 8MS/ 2,0-PUR/M 8FS	Sensor/actor cable M8 male to female, 3 pole, 2 m
X		CCWI	Digital input CCWI: negativ limit pos.	e.g. Phoenix Contact SAC-3P-M 8MS/ 2,0-PUR/M 8FS	Sensor/actor cable M8 male to female, 3 pole, 2 m
X	X	Ref/Home	Digital input HOME: reference switch	e.g. Phoenix Contact SAC-3P-M 8MS/ 2,0-PUR/M 8FS	Sensor/actor cable M8 male to female, 3 pole, 2 m

The servo amplifiers ECOVARIO 114, ECOVARIO 114 D and ECOMiniDual are suitable for all available SL4 axes. SL4 axes are also provided with the compact servo drive ECOMPACT where the servo amplifier is integrated into the motor housing.

ECOVARIO 114 / 114 D

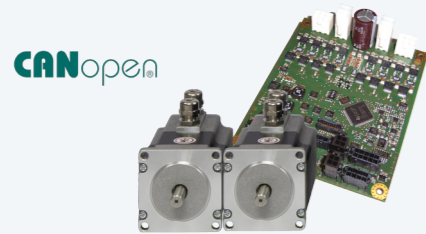


The multi talent.
1 or 2 axes.



ECOMiniDual

The space requirement for the board of the 2-axis servo amplifier ECOMiniDual is only 100 x 120 mm. Also available with mechanical protection housing and EMC protection housing.



Here, the servo amplifier is integrated in the motor housing: ECOMPACT

The complete linear axis including servo amplifier as one mechanical unit. Saves space in the cabinet and reduces the wiring effort and thus potential sources of error.



		ECOVARIO 114	ECOVARIO 114 D	ECOMini-Dual	ECOMPACT
➔ 1-phase AC Supply					
Supply voltage	V _{AC}	20 .. 48	-	-	-
Line frequency	Hz	50 .. 60	-	-	-
Rated installed load	VA	480	-	-	-
➔ DC Supply					
Supply voltage	V _{DC}	24 .. 70	24 .. 70	24 .. 60	24 .. 60
Rated installed load	W	700	960	260	180
➔ Control Signals					
24-V supply (current consumption without output)	V _{DC}	18 .. 30 / 0.8 A	18 .. 30 / 0.8 A	18 .. 30 / 0.8 A	18 .. 30 / 0.8 A
Digital control signal inputs		8	10	12	5
Digital control signal outputs		3	4	4	2
Analog input	V	0 .. +10	-	-	-
Encoder output		1	-	-	-
Bus interfaces		CANopen, EtherCAT, Ethernet, Profibus, RS485, RS232	CANopen, EtherCAT, Ethernet, Profibus, Profinet, RS485, RS232	CANopen, RS232	CANopen, EtherCAT
➔ Safety, Dimensions, Weights					
Safety functions		Safe Torque Off (STO)	-	Restart lock	
Dimensions (W x H x D)	mm	42 x 279 x 167		100 x 120 x 30 *	see drawings
Weight	kg	1,35	1,4	0,105 **	23E21: 1,55 23E41: 2,5
*) Specification without housing. With mechanical protective housing: 104 x 155 x 35,5 mm. With EMC housing: 134 x 146 x 50 mm.					
**) Specification without housing. With mechanical protective housing: 0,5 kg. With EMC housing: 0,85 kg.					
➔ Ambient Conditions					
Ambient temperature during operation with rated load		5°C .. 40°C (Storage temperature: - 10 ... 70°C)			
Degree of humidity (non-condensing)		max. 95% rel. humidity			
Cooling		In a closed cabinet, sufficient circulating air movement must be provided.		Via motor flange and convection.	
Installation altitude		max. 1500 m above mean sea level without power reduction		max. 1000 m	
Mounting position		preferably vertically	any	any	
Protection class		IP20	IP20	IP00 (IP20 with housing)	IP40
Applied standards for CE		EMC acc. to EN61800-3 Safety acc. to EN61800-5-1 For devices with safety function „STO“ acc. to EN61800-5-2: Machinery directive 2006/42/EG		n.a. (for devices with EMC housing see right column)	EMC acc. to EN61800-3 Safety acc. to EN61800-5-1
Applied standards for UL		UL508C		n.a.	n.a.

More informationen: www.jat-gmbh.de

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