

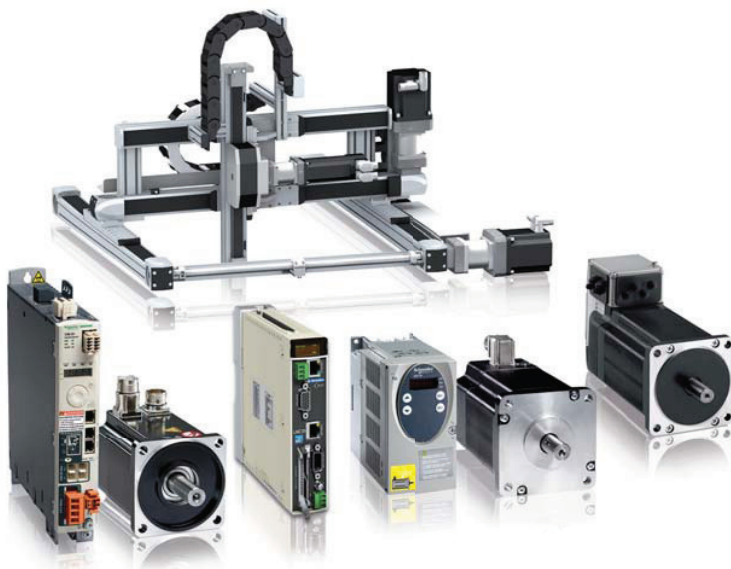
Altistart and Altivar

Start your motors smoothly and protect your installation's mechanics using Altistart soft starters and Altivar variable speed drives.



4

Improve machine efficiency, reduce energy consumption and optimise dynamics with the Altistart, Altivar and Lexium ranges. Easy to install and offering intuitive programming and extensive communication options, they can be integrated seamlessly into your control system architectures.



Lexium

Motion controllers, drives, motors and linear motion axes - Schneider Electric offers a complete range of motion products and solutions for your specific applications. All our motion products are designed for maximum ease over the entire machine lifecycle to reduce costs and make your machine processes even more productive.

4 | Motion control



WARNING

This document is a selection of the top selling products.

Soft starters and variable speed drives

Selection guide	4/3 and 4/7
Starters	
Altistart 01	4/8 and 4/9
Altistart 22	4/10 and 4/11
Altistart 48	4/12 and 4/13
Drives	
Altivar 12	4/14
Altivar 21	4/15
Altivar 312	4/16
Altivar 31C	4/17
Altivar 32	4/18 and 4/19
Altivar 61	4/20 to 4/27
Altivar 71	4/28 to 4/36
Dialogue and communication	4/37 to 4/39

Controllers, drives, motors and linear motion axes

Selection Guide	4/40 to 4/42
Lexium Motion Controller	4/43
Lexium Servo Drives and Motors	4/44 to 4/51
Lexium 32 servo drives	
Lexium BMH and Lexium BSH servo motors	
Lexium Stepper Drives and Motors	4/52
Lexium SD2/Lexium SD3 stepper drives	
Lexium BRS2/Lexium BRS3 stepper motors	
Lexium Integrated Drives	4/53 to 4/55
Lexium ILA/ILE/ILS/ILT/ILP	
Lexium Linear Motion	4/56 and 4/57
Lexium PAS/CAS/TAS/MAX	

Selection guide

4

⇒ Applications :

Lexium 32 is the perfect drive system for applications involving high-precision, dynamic positioning.

⇒ Applications :

Lexium SDx stepper drives and motors are used for short-distance positioning applications requiring maximum accuracy and high torque.

Servo Drives

Servo Motors

Stepper Drives

Stepper Motors

Lexium 32



Lexium BMH



Lexium SD2



Lexium BRS2



Lexium BSH



Lexium SD3



Lexium BRS3



Machines

Packaging machines
Material handling machines
Material working machines
Assembling machines

Printing machines
Labelling machines
Screen printing machines

Description

The Lexium 32 servo range consists of three high-performance book-size servo drive models – Lexium 32 Compact, Lexium 32 Advanced and Lexium 32 Modular – and two motor families – the versatile medium-inertia Lexium BMH and the dynamic low-inertia Lexium BSH.

The Lexium SDx stepper motor drive range consists of two high-precision stepper drive lines – the three-phase stepper drives Lexium SD3 and the two-phase stepper drives Lexium SD2. These drive lines are complemented by two perfectly matched stepper motor families – Lexium BRS3 three-phase stepper motors and Lexium BRS2 two-phase stepper motors.

Power range

0.15...7 kW

up to 750 W

Voltage range

115...240 VAC, 400...480 VAC

24...48 VDC, 115...240 VAC

Speed

up to 8000 rpm

up to 1000 rpm

Torque

up to 84 Nm

up to 16.5 Nm

Communication interfaces

CANopen, CANmotion, PROFIBUS DP, DeviceNet, EtherNet/IP

CANopen, CANmotion, PROFIBUS DP or Pulse/Direction

Safety function (STO) on board
Enhanced Safety Module (SS1, SS2, SLS, SOS)
Encoder module for digital and analog encoders and resolvers

Safety function (STO) on board
(Lexium SD3 28)

⇒ Applications :

Lexium Integrated Drives allow for extremely space-saving decentralised motion solutions.

⇒ Applications :

The Lexium Linear Motion products are designed for maximum flexibility, performance and cost-effectiveness. This range offers products for all linear movements in the automation industry from single-axis to multi-axis systems.

Integrated Drives

Lexium ILA



Lexium ILE



Lexium ILS



Lexium ILP / ILT



Linear Motion

Lexium PAS



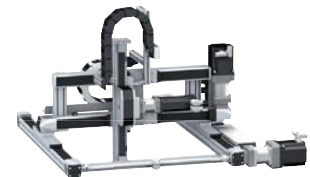
Lexium CAS



Lexium TAS



Lexium MAX



Format adjustment
Printing machines
Material handling machines

Material handling machines
Material working machines
On-the-fly working machines
Assembling machines

The Lexium ILx Integrated Drives comprise motor, positioning controller, power electronics, fieldbus and "Safe Torque Off" safety function in an extremely compact single device. Lexium ILx Integrated Drives are available with all important motor technologies (servo, brushless DC, stepper).

Lexium Linear Motion is a comprehensive linear motion range comprising Lexium PAS portal axes, Lexium TAS linear tables, Lexium CAS cantilever and telescopic axes and Lexium MAX multi-axis systems.

100...370 W
24...48 VDC, 115 to 240 VAC
up to 9000 rpm
up to 12 Nm

RS485, CANopen, PROFIBUS DP, DeviceNet, EtherNet/IP, EtherCAT, Ethernet POWERLINK, Modbus TCP, Pulse/Direction

Safety function (STO) on board
(Lexium ILA, Lexium ILE, Lexium ILS)

Stand-alone device with controller inside (Lexium ILP)

Single axes:

Stroke up to 5.5 m
Load up to 150 kg
Speed up to 8 m/s

Multi axes:

Stroke up to 5.5 m
Load up to 300 kg
Speed up to 8 m/s
Available as individual components or completely pre-assembled, customised systems with drives and motors

Selection guide

⇒ *Applications :*

Lexium Motion Controllers can be used as a stand-alone motion and automation controllers for machines without a PLC or as pure motion controllers for machines in which a PLC takes care of automation control.

Axis controller

Lexium Motion Controllers



4

Machines	Packaging machines Material handling machines Material working machines Assembling machines
Description	The compact LMC Lexium Motion Controllers are used to control multiple synchronised axes via a motion bus and feature high performance coupled with economy.
Technical information	Synchronisation of up to 4 axes in 2 ms Synchronisation of up to 8 axes in 4 ms PLCopen function blocks single / multi axis control Application function blocks (Rotary knife, Flying shear, Clamping, Grouping/Un grouping)
Communication interfaces	Modbus, CANmotion, Profibus DP, DeviceNet, Ethernet TCP/IP (for programming)

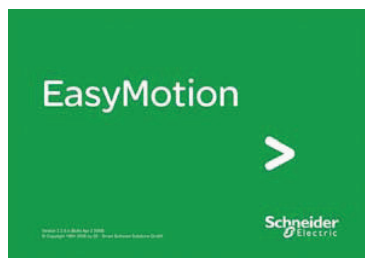
Lexium Controller Motion control Motion controller



Controller type		Optimised	Standard	Extended	
Drive synchronisation	Up to 4 axes	2 ms			
CAN Motion bus	Up to 8 axes	4 ms			
Interpolation of drive position loops		250 µs			
Internal memory	RAM	1 MB			
	Flash Eeprom	1 MB			
	Protected RAM	60 Kb			
Expert application	Application function blocks	yes			
	Single-axis PLCopen control	yes			
	Multi-axis PLCopen control	yes			
	2D interpolation	yes			
Number of logic inputs		8 + 4 Fast inputs			
Number of logic outputs		8		8	
Communication	Modbus	yes	yes	yes	yes
	CANopen automation	–	yes	yes	yes
	Ethernet TCP/IP	–	yes	yes	yes
	Profibus DP V1	–	–	yes	–
	Device Net	–	–	–	yes
Reference		LMC10	LMC20	LMC20A1307	LMC20A1309

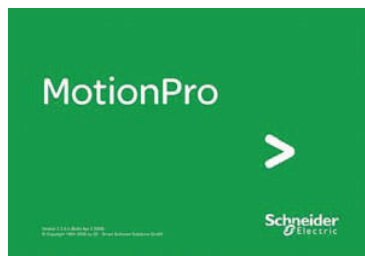
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Software solutions



Easy Motion... for configuring motion control functions

- Axis parameter setting
- Drive and controller adjustment and diagnostics
- Creation of position registers via the Teach function
- Management of axis operating modes and manual control
- Configuration of positioning tasks
- Editing cam profiles
- Application back up and restore



Motion Pro... for configuring and programming motion control functions

- Retains the same benefits as Easy Motion mode for motion control
- Creates the whole application, control system function and motion control function, using the programming editor conforming to standard IEC 61131
- Saves the machine signature
- Protection of application programs



4

Main functions		Lexium 32 Compact	Lexium 32 Advanced	Lexium 32 Modular
Communication	Integrated	Modbus serial link Pulse train	Modbus serial link CANopen, CANmotion machine bus	Modbus serial link Pulse train
	As an option	–	–	CANopen, CANmotion machine bus, DeviceNet, EtherNet/IP, PROFIBUS DP
	Operating modes	Manual mode (JOG) Electronic gearbox Speed control Current control	Homing Manual mode (JOG) Speed control Current control Position control	Homing Manual mode (JOG) Motion sequence Electronic gearbox Speed control Current control Position control
	Functions	Auto-tuning, monitoring, stopping, conversion –	Stop window Rapid entry of position values	Stop window Rapid entry of position values Rotary axes Position register
24 V $\overline{\text{N}}$ logic inputs		6, reassignable	3, reassignable	4, reassignable
24 V $\overline{\text{N}}$ capture inputs (1) (2)		–	1	2
24 V $\overline{\text{N}}$ logic outputs (1)		5, reassignable	2, reassignable	3, reassignable
Analog inputs		2	–	
Pulse control input		1, configurable as: RS 422 link 5 V or 24 V push-pull 5 V or 24 V open collector		
ESIM PTO output		RS 422 link		
Safety functions	Integrated	"Safe Torque Off" STO		
	As an option	–		Safe Stop 1 (SS1) and Safe Stop 2 (SS2) Safe Operating Stop (SOS) Safe Limited Speed (SLS)
Sensor	Integrated	SinCos Hiperface® sensor		
	As an option	–		Resolver encoder Analog encoder Digital encoder
Architecture		Control via: Logic or analog I/O	Control via: Motion controller via CANopen and CANmotion machine bus	Control via: Schneider Electric or third-party PLCs via communication buses and networks
Type of servo drive		LXM 32C	LXM 32A	LXM 32M



Main functions			
Application type		High load, With robust adjustment of the movement	High dynamic range, Power density
Flange size		70, 100, 140 and 205 mm	55, 70, 100 and 140 mm
Continuous stall torque		1.2 to 84 Nm	0.5 to 33.4 Nm
Encoder type		Single turn SinCos: 32,768 points/turn and 131,072 points/turn Multiturn SinCos: 32,768 points/turn x 4096 turns and 131,072 points/turn x 4096 turns	Single turn SinCos: 131,072 points/turn Multiturn SinCos: 131,072 points/turn x 4096 turns
Degree of protection	Casing	IP 65 (IP 67 conformity kit as an option)	IP 65
	Shaft end	IP 50 or IP 65 (IP 67 conformity kit as an option)	IP 50 or IP 65
Type of servo motor		Lexium BMH	Lexium BSH



Lexium 32 servo drive/BMH or BSH servo motor combinations

Servo motors				Lexium 32C, 32A and 32M servo drives			
BMH (IP 50, IP65 or IP 67)		BSH (IP 50 or IP 65)		100...120 V single-phase supply voltage with integrated EMC filter			
				LXM 32●U90M2			
				Continuous output current: 3 A rms			
				Nominal operating point			Stall torques
Type of servo motor	Rotor inertia	Type of servo motor	Rotor inertia	Nominal torque	Nominal speed	Nominal power	M_0/M_{max}
	kgcm ²		kgcm ²	Nm	rpm	W	Nm/Nm
		BSH 0551T	0.06	0.49	3000	150	0.5/1.5
		BSH 0552T	0.10	0.77	3000	250	0.8/1.9
		BSH 0553T	0.13				
BMH 0701T	0.59						
		BSH 0701T	0.25				
		BSH 0702T	0.41				
BMH 0702T	1.13						
BMH 0703T	1.67						
		BSH 1001T	1.40				
BMH1001T	3.2						
BMH1002T	6.3						

4



Lexium 32 servo drive/BMH or BSH servo motor combinations

Servo motors				Lexium 32C, 32A and 32M servo drives			
BMH (IP 50, IP65 or IP 67)		BSH (IP 50 or IP 65)		200...240 V single-phase supply voltage with integrated EMC filter			
				LXM 32●U45M2			
				Continuous output current: 1.5 A rms			
				Nominal operating point			Stall torques
Type of servo motor	Rotor inertia	Type of servo motor	Rotor inertia	Nominal torque	Nominal speed	Nominal power	M_0/M_{max}
	kgcm ²		kgcm ²	Nm	rpm	W	Nm/Nm
		BSH 0551T	0.06	0.45	6000	300	0.5/1.4
		BSH 0552T	0.10				
		BSH 0553T	0.13				
		BSH 0701T	0.25				
BMH 0701T	0.59						
		BSH 0702T	0.41				
		BSH 0703T	0.58				
BMH 0702T	1.13						
		BSH 1001T	1.40				
BMH 0703T	1.67						
BMH 1001T	3.2						
		BSH 1002T	2.31				
BMH 1002T	6.3						
BMH 1003T	9.4						
BMH 1401P	16.5						

LXM 32●U18M2 Continuous output current: 6 A rms				LXM 32●D30M2 Continuous output current: 10 A rms			
Nominal operating point			Stall torques	Nominal operating point			Stall torques
Nominal torque	Nominal speed	Nominal power	M_0/M_{max}	Nominal torque	Nominal speed	Nominal power	M_0/M_{max}
Nm	rpm	W	Nm/Nm	Nm	rpm	W	Nm/Nm
1.14	3000	350	1.2/3.3				
1.35	2500	350	1.4/4.2				
1.36	2500	350	1.4/3.5				
				2.07	2500	550	2.2/6.1
				2.3	2500	600	2.5/6.4
				3.1	2000	650	3.4/8.7
				2.75	2500	700	3.3/6.3
				3.3	2000	700	3.4/8.9
				3.5	2000	750	6/10.3

LXM 32●U90 M2 Continuous output current: 3 A rms				LXM 32●D18M2 Continuous output current: 6 A rms				LXM 32●D30M2 Continuous output current: 10 A rms			
Nominal operating point			Stall torques	Nominal operating point			Stall torques	Nominal operating point			Stall torques
Nominal torque	Nominal speed	Nominal power	M_0/M_{max}	Nominal torque	Nominal speed	Nominal power	M_0/M_{max}	Nominal torque	Nominal speed	Nominal power	M_0/M_{max}
Nm	rpm	W	Nm/Nm	Nm	rpm	W	Nm/Nm	Nm	rpm	W	Nm/Nm
0.74	6000	450	0.8/2.5								
0.84	6000	550	1.2/3								
0.94	5000	500	1.3/3.5								
1.1	4000	450	1.4/4								
				1.8	5000	950	2.2/7.2				
				2.1	4000	900	2.6/7.4				
				2.1	4000	900	2.5/7.4				
				2.2	4000	900	2.7/7.5				
				2.9	3000	900	3.4/10.2				
				2.8	3000	900	3.4/10.2				
								3.7	4000	1500	5.8/16.4
								4.6	3000	1450	6/18.4
								5.6	2500	1450	8.2/22.8
								6.9	2000	1450	10.3/30.8



Lexium 32 servo drive/BMH or BSH servo motor combinations

Servo motors				Lexium 32C, 32A and 32M servo drives							
				380...480 V three-phase supply voltage with integrated EMC filter							
BMH (IP 50, IP65 or IP 67)		BSH (IP 50 or IP 65)		LXM 32●U60N4 Continuous output current: 1.5 A rms				LXM 32●D12N4 Continuous output current: 3 A rms			
Type of servo motor	Rotor inertia	Type of servo motor	Rotor inertia	Nominal operating point			Stall torques	Nominal operating point			Stall torques
	kgcm ²		kgcm ²	Nominal torque	Nominal speed	Nominal power	M ₀ /M _{max}	Nominal torque	Nominal speed	Nominal power	M ₀ /M _{max}
				Nm	rpm	W	Nm/Nm	Nm	rpm	W	Nm/Nm
		BSH 0551P	0.06	0.48	6000	300	0.5/1.5				
		BSH 0552P	0.10	0.65	6000	400	0.8/2.5				
		BSH 0553P	0.13	0.65	6000	400	1.05/3.5				
BMH 0701P	0.59			1.1	3000	350	1.2/4.2				
BMH 0701P	0.59							1.3	5000	700	1.4/4.2
		BSH 0701P	0.25					1.32	5000	700	1.4/3.5
		BSH 0702P	0.41					1.64	5000	850	2.2/7.6
BMH 1001P	3.2							1.9	4000	800	3.3/10.8
BMH 0702P	1.13							2.2	3000	700	2.5/7.4
BMH 0703P	1.67										
		BSH 0703P	0.58								
		BSH 1001P	1.40								
BMH 1001P	3.2										
BMH 1002P	6.3										
		BSH 1002P	2.31								
BMH 1003P	9.4										
		BSH 1003P	3.2								
BMH 1401P	16.5										
		BSH 1004P	4.2								
		BSH 1401P	7.4								
BMH 1402P	32.0										
		BSH 1402T	12.7								
		BSH 1403T	17.9								
BMH 1403P	47.5										
		BSH 1404P	23.7								
BMH 2051P	71.4										
BMH 2052P	129										
BMH 2053P	190										

4



Multi-Loader configuration tool	
Use	For downloading configurations from a PC or drive and duplicating them on another drive. The drives do not need to be powered-up. Supplied with: 1 cordset equipped with 2 RJ45 connectors 1 cordset equipped with one type A USB connector and one mini B USB connector 1 x 2 GB SD memory card 1 x female/female RJ 45 adaptor 4 AA 1.5 V LR6 round batteries
Reference	VW3 A8 121

4



	Single memory card	Pack of 25 memory cards
Use	Used to store parameters of the Lexium 32 servo drive. Another Lexium 32 servo drive can be commissioned immediately if the application is undergoing maintenance or duplication.	
Reference	VW3 M8 705	VW3 M8 704

Memory card recorder	
Use	Writes data from the Lexium 32 servo drive to the memory card. This recorder is not supplied by Schneider Electric.
Reference	See the User's manual



Communication modules	
Lexium 32M can be connected to the following communication buses and networks: CANopen and CANmotion, DeviceNet, Profibus DP V1, EtherNet/IP	
Reference CANopen / CANmotion module with 2 * RJ 45 connectors	VW3 A3 608
CANopen / CANmotion module with SUB-D 9 connector	VW3 A3 618
DeviceNet module	VW3 M3 301
Profibus DP V1 module	VW3 A3 607
EtherNet/IP module	VW3 A3 616



Second encoder modules		Machine	Motor
Lexium 32M has an input for an additional encoder to connect third party motor (motor encoder) or to improve positioning accuracy (machine encoder)			
Reference Module for resolver encoder	VW3 M3 401		x
Module for digital encoder (A/B/I, BiSS, EndDat 2.2, SSI)	VW3 M3 402	x	
Module for analog encoder (1 Vpp/Hall, 1 Vpp, Hiperface)	VW3 M3 403	x (Hiperface only)	x

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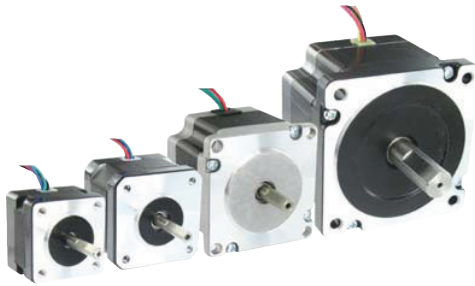


Safety module	
eSM safety module allows Lexium 32M servo drives to access additional IEC/EN 61800-5-2 safety functions: SS1, SS2, SLS, SOS	
Reference eSM safety module allows	VW3 M3 501

Connection elements

Power cordsets			
Description	Cables equipped with one M23 industrial connector (servo motor end)		Cables equipped with one M40 industrial connector (servo motor end)
From servo motor	BMH 070●●, BMH 100●●, BMH 1401P, BSH 055●●, BSH 070●●, BSH 100●●, BSH 1401P	BMH 1402P, BMH 1403P	BMH 205●P, BSH 1402T, BSH 1403T, BSH 1404P
To servo drive	LXM 32●●●●●●	LXM 32●D72N4	LXM 32●D72N4
Composition	[(4 x 1.5 mm ²) + (2 x 1 mm ²)]	[(4 x 2.5 mm ²) + (2 x 1 mm ²)]	[(4 x 4 mm ²) + (2 x 1 mm ²)]
Length	3 m	3 m	3 m
Reference	VW3 M5 101 R30	VW3 M5 102 R30	VW3 M5 103 R30

Encoder cordsets	
Description	SinCos Hiperface® encoder cables equipped with an M23 industrial connector (servo motor end) and an RJ45 connector with 8 + 2 contacts (servo drive end)
From servo motor	BMH ●●●●●, BSH ●●●●●
To servo drive	LXM 32●●●●●●
Composition	[3 x (2 x 0.14 mm ²) + (2 x 0.34 mm ²)]
Length	3 m
Reference	VW3 M8 102 R30



Assignment of BRS2 2-phase stepper motors and SD2 stepper motor drives

BRS2 2-phase stepper motors	SD21●●U20C	SD21●●U50C
BRS236	24...48 V; 3 A	24...48 V; 5 A
BRS242	0.07 Nm	–
BRS257	0.23...0.53 Nm	–
BRS285	0.64...1.69 Nm	0.64...1.69 Nm
	–	2.96...9.20 Nm

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Assignment of BRS3 3-phase stepper motors and SD3 stepper motor drives

BRS3 3-phase stepper motors	SD326●U25	SD328●U25	SD326●U68	SD328●U68
BRS368	115 V / 230 V; 2.5 A; including mains filter		115 V / 230 V; 6.8 A; including mains filter and fan	
BRS397	1.7 Nm / 1.5 Nm		–	
BRS39A	2.3 Nm / 2.0 Nm		–	
BRS39A	4.5 Nm / 4.0 Nm		–	
BRS39B	6.8 Nm / 6.0 Nm		–	
BRS3AC	–		13.5 Nm / 12.0 Nm	
BRS3AD	–		19.7 Nm / 16.5 Nm	



Assignment of stepper motors, stepper motor drives SD3 15

3-phase stepper motors	SD3 15
	24...48 VDC; max. 10 A
Motors with F winding	
BRS 364F	0.46 Nm / 0.40 Nm
BRS 366F	0.92 Nm / 0.80 Nm
BRS 368F	1.50 Nm / 1.30 Nm
BRS 397F	2.00 Nm / 1.85 Nm
BRS 39AF	4.20 Nm / 3.40 Nm
BRS 39BF	5.55 Nm / 4.80 Nm
Motors with H winding	
BRS 364H	0.51 Nm / 0.45 Nm
BRS 366H	1.02 Nm / 0.90 Nm
BRS 368F	1.70 Nm / 1.50 Nm
BRS 397H	2.26 Nm / 2.00 Nm
BRS 39AH	4.80 Nm / 4.00 Nm
BRS 39BH	6.50 Nm / 5.75 Nm



Integrated Drives		Lexium ILA	Lexium ILE	Lexium ILS	Lexium ILP / ILT	
Type of process		Dynamic process and accurate positioning	Automatic format adjustment	Short distance movements with accurate positioning		
Type of technology		Integrated drive with servo motor	Integrated drive with dc brushless motor	Integrated drive with three-phase stepper motor	Integrated drive with two-phase stepper motor	
Main characteristics		Highly dynamic Compact Integrated holding brake in option	High holding torque without power Integrated gearbox in option	High torque at low speed		
Dynamic		★★★★	★★	★★★	★★★	
Precision and stability		★★★★	★★	★★★★	★★★★	
Energy saving		★★★★★	★★★★	★★	★★	
Motor inertia		Medium				
Control interface		Control signals		Input/output	Pulse/direction Input/output	
		Bus and networks		CANopen, PROFIBUS DP, RS 485 serial link, DeviceNet, EtherCAT, Modbus TCP, Ethernet Powerlink, EtherNet/IP	CANopen, RS485	
		Motion bus		-		
Association	Nominal power	150...370W	100...350W	100...350W	100...350W	
Drive/motor combinations	Nominal speed	500...9000 min ⁻¹	1500...7000 min ⁻¹	0...1000 min ⁻¹	0...1000 min ⁻¹	
Drive characteristics	Nominal torque	0.26...0.78 Nm	0.18...0.5 Nm	0.45...6 Nm	0.11...5.87 Nm	
Motor characteristics	Safety function	"Safe Torque Off"				
Motor characteristics		Type of sensor (resolution) (1)	Single turn SinCos encoder (16.384 increments/turn) Multiturn SinCos encoder (16.384 increments/turn × 4096 turns)	Absolute value encoder (12...1380 increments/turn)	Index pulse monitoring	Index pulse monitoring
		Motor flange size	57	66	57, 85	36, 42, 57, 85
Accessories		Cable, Connector kits, Installation sets, Commissioning tools, Planetary gearboxes			Cable, Connector kits, Installation sets, Commissioning tools	
References		ILA	ILE	ILS	ILP ILT	

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Lexium ILA/ILE/ILS Motion Control Lexium Integrated Drives



Lexium ILA with Servo Motor	Nominal Torque (Nm)	Maximum Torque (Nm)	Nominal Speed (Rpm)	Maximum Speed (Rpm)	Nominal Power (W)
ILS1 for CANopen, PROFIBUS DP, RS485, Pulse-Direction, Motion Sequence Mode					
ILA1•571P	0.26	0.6	5500	7500	150
ILA1•571T	0.26	0.43	7500	11500	200
ILA1•572P	0.45	0.72	4300	6200	200
ILA1•572T	0.41	0.61	5000	7500	215
ILA2 for DeviceNet, EtherCAT, EtherNet/IP, Modbus TCP, Ethernet Powerlink					
ILA2•571P	0.44	0.62	5100	7000	235
ILA2•571T	0.31	0.45	7000	9000	255
ILA2•572P	0.78	1.62	3400	4300	275
ILA2•572T	0.57	0.85	5100	6800	305

4

Lexium ILE with included spurwheel gearbox.
Ratios: 18:1, 38:1, 54:1, 115:1

Lexium ILE with included worm gearbox with hollow shaft.
Ratios: 24:1, 54:1, 92:1, 115:1



Lexium ILE with Brushless DC Motor	Nominal Torque (Nm)	Detent Torque (Nm)	Nominal Speed (Rpm)	Maximum Speed (Rpm)
ILE1 for CANopen, PROFIBUS DP, RS485				
ILE1•661	0.24	0.08	4800	5000
ILE1•661 spurwheel gearing	up to 11.0	up to 8.0	44	44
ILE1•661 worm gearing	up to 10.6	up to 16.7	44	44
ILA2 for DeviceNet, EtherCAT, EtherNet/IP, Modbus TCP, Ethernet Powerlink				
ILE2•661	0.26	0.08	6000	7000
ILE2•661 spurwheel gearing	up to 12	up to 9.19	44	44
ILE2•661 worm gearing	up to 10.6	up to 16.7	44	44
ILE2•662	0.5	0.106	5000	7000



Lexium ILS with three-phase Stepper Motor	Maximum Torque (Nm)	Holding Torque (Nm)	Speed (Rpm)
ILS1 for CANopen, PROFIBUS DP, RS485, Pulse-Direction, Motion Sequence Mode			
ILS1•571•	0.45	0.51	1000
ILS1•572•	0.9	1.02	600
ILS1•573•	1.5	1.7	450
ILS1•851•	2.0	2.0	450
ILS1•852•	4.0	4.0	200
ILS1•853P	6.0	6.0	120
ILS1•853T	4.5	4.5	300
ILS2 for CANopen, PROFIBUS DP, RS485, Pulse-Direction, Motion Sequence Mode			
ILS2•571•	0.45	0.51	1100
ILS2•572•	0.9	1.02	900
ILS2•573•	1.5	1.7	600
ILS2•851•	2.0	2.0	600
ILS2•852•	4.0	4.0	380
ILS2•853P	6.0	6.0	200
ILS2•853T	4.5	4.5	300

Lexium ILP/ILT Motion Control Lexium Integrated Drives



Lexium ILP, Lexium ILT with two-phase Stepper Motor	Nominal Torque (Nm)	Holding Torque (Nm)	Maximum Speed (Rpm)
ILP for RS485 with programmable interface			
ILP2R361	0.11	0.11	1800
ILP2R421	0.19	0.19	1500
ILP2R422	0.33	0.33	1500
ILP2R423	0.39	0.39	1500
ILP2R571	0.63	0.63	1500
ILP2R572	0.86	0.86	1500
ILP2R573	1.44	1.44	1500
ILP2R574	1.77	1.77	1500
ILP2R851	2.13	2.13	1000
ILP2R852	3.12	3.12	1000
ILP2R853	5.87	5.87	1000
ILT for Pulse/Direction, CANopen			
ILT2●361	0.11	0.11	1800
ILT2●421	0.19	0.19	1500
ILT2●422	0.33	0.33	1500
ILT2●423	0.39	0.39	1500
ILT2●571	0.63	0.63	1500
ILT2●572	0.86	0.86	1500
ILT2●573	1.44	1.44	1500
ILT2●574	1.77	1.77	1500
ILT2●851	2.13	2.13	1000
ILT2●852	3.12	3.12	1000
ILT2●853	5.87	5.87	1000

4

Lexium Linear Motion — Motion Control

Linear axes



4

Product		Lexium PAS S	Lexium PAS B
Axis type		Portal axes	
Movement	Number of directions	1	
	Movement type	Typically horizontal	
	Position of the load	On carriage	
Drive		Toothed belt	Ballscrew
Type of guide		Ball or roller	Ball
Main characteristics		High dynamic response, Long stroke length, High positioning speed	High precision movement (positioning, repeatability, guiding), High feed forces, High rigidity
Dynamic response		★★★★★	★★★
Precision		★★★	★★★★★
Maximum payload		100 kg	100 kg
Maximum driving force		2600 N	4520 N
Maximum speed of movement of the load		8 m/s	1.25 m/s
Maximum working stroke		5500 mm	3000 mm
Repeatability		± 0.05 mm	± 0.02 mm
Options		Choice of guide type: Ball (for applications requiring high forces and torques) or roller (simple, cost-effective solution), Wide range of sensors, Choice of carriage type for adapting to the load, Option to add carriages, Protective metal strip.	Choice of pitch, Protective metal strip, Wide range of sensors, Choice of carriage type for adapting to the load, Option to add carriages, Option to add ballscrew supports for longer axes
Reference		PAS 4●B	PAS 4●S

Multi-axis systems

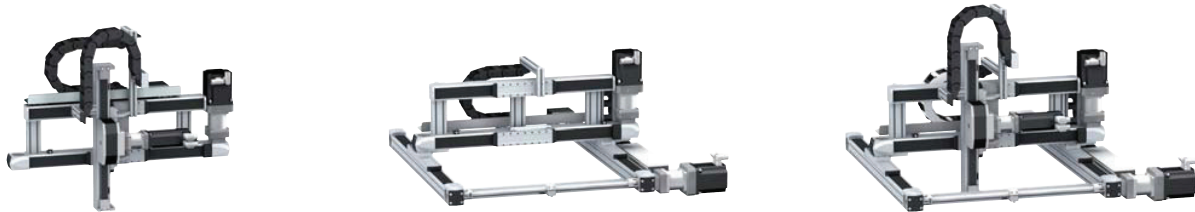


Product		Lexium MAX H	Lexium MAX S
Axis type		Double portal axes	
Movement	Number of directions	1	
	Movement type	Combination of two parallel axes	
	Position of the load	On two parallel carriages	
Multi-axis system type		PAS 4●B axes + PAS 4●H support axis (driven by the load)	PAS 4●B + PAS 4●B axes (shaft-driven)
Drive		Toothed belt on one axis	Toothed belt on both axes
Type of guide		Ball or roller	Ball or roller
Main characteristics		Long stroke length, High dynamic response, High precision movement (positioning, guiding)	Long stroke length, High precision movement (positioning, guiding), High feed forces
Maximum payload		250 kg	300 kg
Maximum working stroke	On the X-axis	5500 mm	
	On the Y-axis	–	
	On the Z-axis	–	
Options		Choice of guide type: Ball (for applications requiring high forces and torques) or roller (simple, cost-effective solution), Protective metal strip, Anti-corrosion version, Anti-static belt, Wide range of sensors, Several different motor mounting options, Variable distance between the two axes	
Reference		MAX H	MAX S



Lexium TAS	Lexium CAS 4	Lexium CAS 3	Lexium CAS 2
Linear tables	Cantilever axes with mobile structure on profile	Cantilever axes with mobile structure on parallel rods	Telescopic axes
1			
Typically horizontal	Typically vertical		Typically horizontal
On carriage	On the side of the profile or on the 2 end blocks	On the 2 end blocks	On carriage
Ballscrew	Toothed belt	Toothed belt or rack	Toothed belt
Double, ball	Ball or roller	Ball	Ball or roller
High precision movement (positioning, repeatability, guiding), High feed forces, High rigidity, Feed movement without mechanical backlash	Long stroke length, High feed forces, Option to mount the load on the side of the profile or on the end blocks, High rigidity	Compact, Mobile structure with light travel weight	Long stroke length from a compact unit, High rigidity, High dynamic response
★★	★★★★	★★★★	★★★★
★★★★★	★★★	★★★	★★
150 kg	50 kg	18 kg	35 kg
2580 N	2150 N	705 N	1500 N
1 m/s	3 m/s	3 m/s	3 m/s
1500 mm	1200 mm	500 mm	2400 mm
± 0.02 mm	± 0.05 mm	± 0.05 mm	± 0.1 mm
Choice of pitch , Several different motor mounting options	Choice of guide type: Ball (for applications requiring high forces and torques) or roller (simple, cost-effective solution), Protective metal strip, Anti-corrosion version, Wide range of sensors	Anti-corrosion version, Anti-static belt	Choice of guide type: Ball (for applications requiring high forces and torques) or roller (simple, cost-effective solution), Choice of carriage type for adapting to the load
TAS 4	CAS 4	CAS 3	CAS 2

4



Lexium MAX P	Lexium MAX R2	Lexium MAX R3
Linear positioners	Portal robots	
2		3
Horizontal and vertical: Combination of one X-axis and one Z-axis	Horizontal: Combination of two perpendicular axes X and Y	Horizontal and vertical: Combination of two perpendicular axes X and Y and one Z-axis
On the side or on the end blocks of the Z-axis profile	On the Y-axis carriage	On the side or on the end blocks of the Z-axis profile
MAX S + CAS 4 axes MAX S + CAS 3 axes	MAX S + MAX H axes MAX S + PAS 4●B axes	MAX S + MAX H + CAS 4 axes MAX S + MAX H + CAS 3 axes
Toothed belt on each axis		
Ball or roller		
Dynamic load positioning	Long stroke length on both axes	Long stroke length on three axes
50 kg	130 kg	50 kg
5500 mm		
–	1500 mm	1500 mm
1200 mm	–	1200 mm
Choice of guide type: Ball (for applications requiring high forces and torques) or roller (simple, cost-effective solution), Wide range of sensors Supplied as standard: Protective metal strip , Anti-corrosion version		
MAX P	MAX R●2	MAX R●3