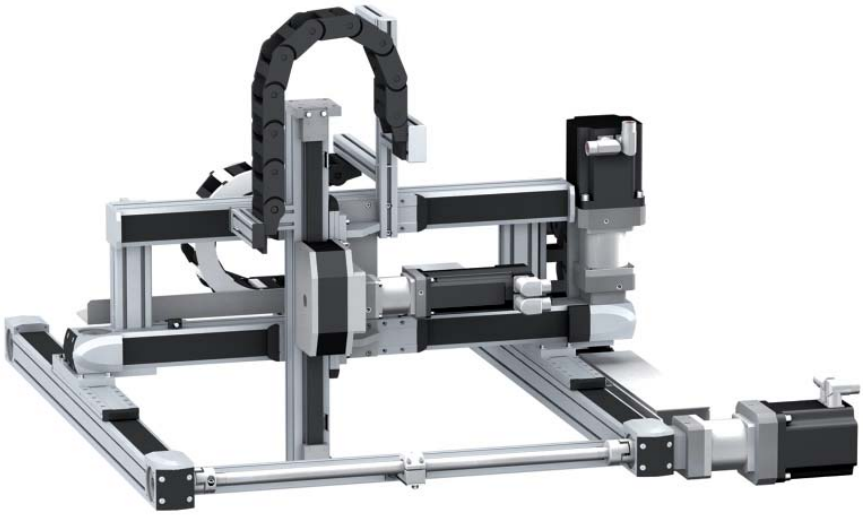
Lexium Linear Motion
Linear axes and multi-axis systems

Catalogue

September 2009



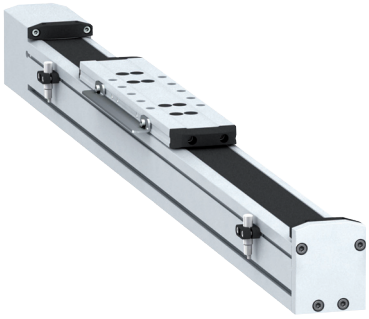
Schneider Electric

Contents

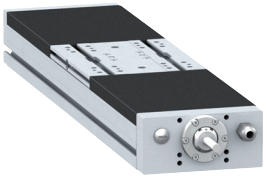
Lexium Linear Motion
Linear axes and multi-axis systems

Lexium Linear Motion
Linear axes

Axis type		**Portal axes**	
Movement	Number of directions	**1**	
	Movement type	**Generally 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	□ 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**
Page	8	12

Linear tables	Cantilever axes with mobile structure on profile	Cantilever axes with mobile structure on parallel rods	Telescopic axes
1			
Generally horizontal	Generally vertical		Generally 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	
			
□ 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**
16	20	24	28

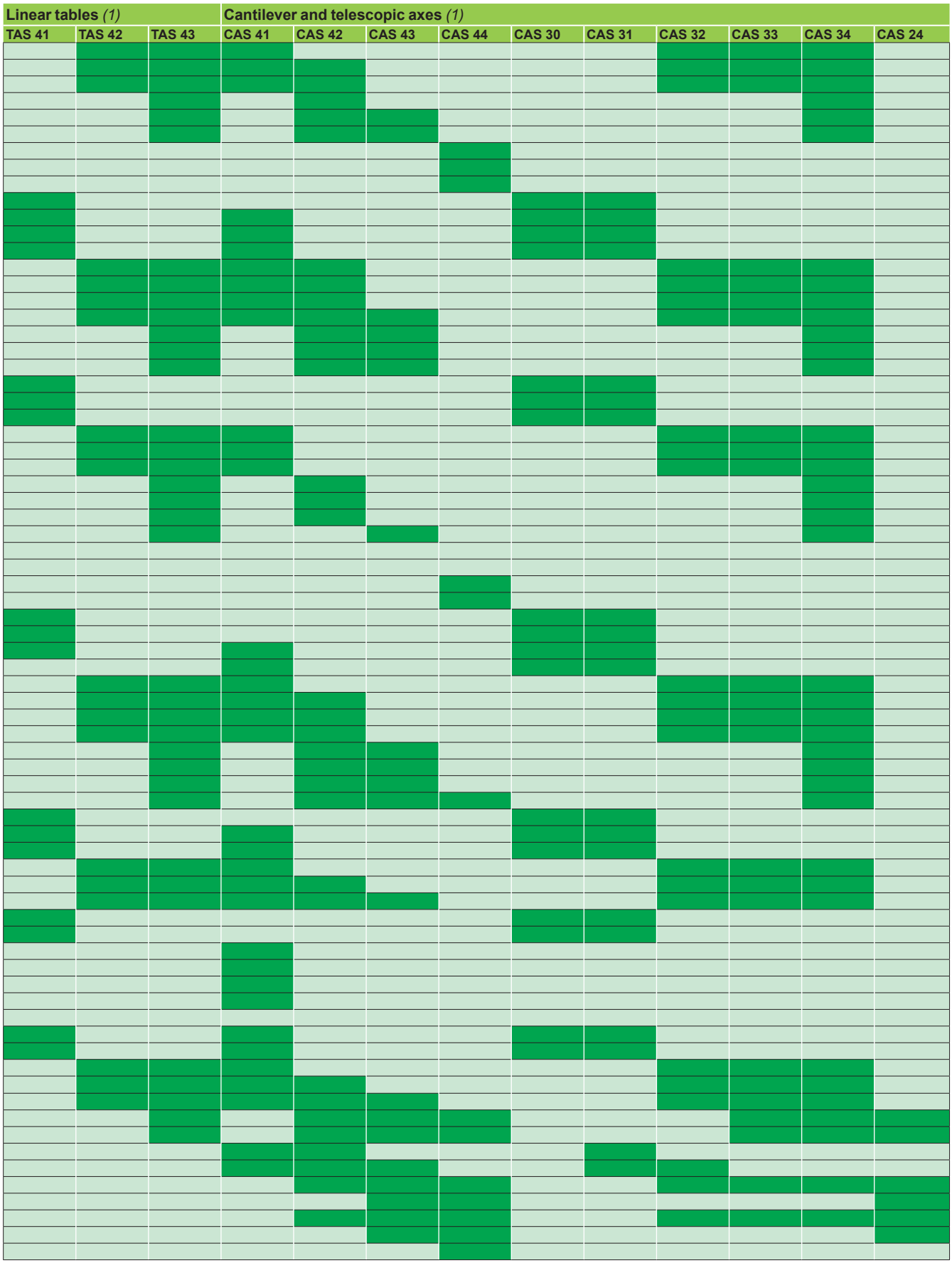
Lexium Linear Motion

Combinations of drive elements/linear axes

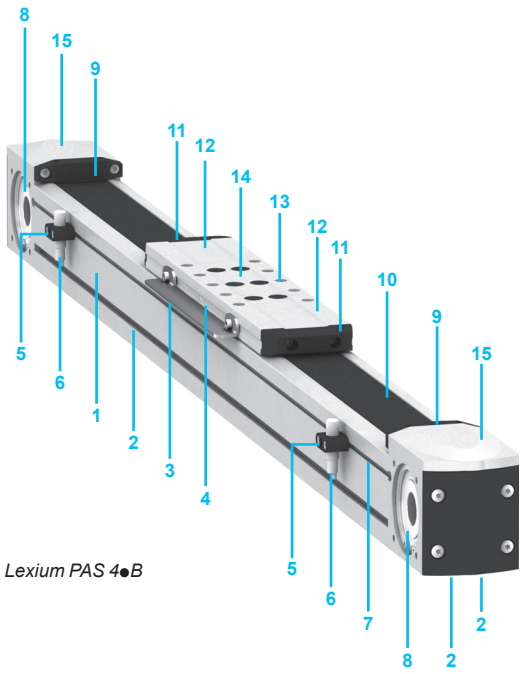
Drive element *(1)*		**Portal axes** *(1)*						
	Type	**PAS 41B**	**PAS 42B**	**PAS 43B**	**PAS 44B**	**PAS 42S**	**PAS 43S**	**PAS 44S**
BMH servo motors	BMH 0701	■	■			■	■	
	BMH 0702	■	■			■	■	■
	BMH 0703	■	■			■	■	■
	BMH 1001		■	■		■	■	■
	BMH 1002		■	■		■	■	■
	BMH 1003		■	■		■	■	■
	BMH 1401				■			
	BMH 1402				■			
	BMH 1403				■			
BRH servo motors	BRH 0571							
	BRH 0572	■				■		
	BRH 0573	■				■		
	BRH 0574	■				■		
	BRH 0851	■	■			■	■	■
	BRH 0852	■	■			■	■	■
	BRH 0853	■	■	■		■	■	■
	BRH 0854	■	■	■		■	■	■
	BRH 1101		■	■			■	■
	BRH 1102		■	■	■		■	■
	BRH 1103		■	■	■		■	■
BSH servo motors	BSH 0551							
	BSH 0552							
	BSH 0553							
	BSH 0701	■				■		
	BSH 0702	■				■	■	
	BSH 0703	■	■			■	■	
	BSH 1001		■			■	■	■
	BSH 1002		■			■	■	■
	BSH 1003		■			■	■	■
	BSH 1004			■			■	■
	BSH 1401							
	BSH 1402				■			
	BSH 1403				■			
	BSH 1404				■			
SER servo motors	SER 364							
	SER 366					■		
	SER 368	■				■		
	SER 3610	■				■		
	SER 397	■	■			■	■	
	SER 3910	■	■			■	■	■
	SER 3913	■	■	■		■	■	■
	SER 3916	■	■	■		■	■	■
	SER 31112		■	■			■	■
	SER 31117		■	■	■		■	■
	SER 31122		■	■	■		■	■
	SER 31127		■	■	■		■	■
Lexium integrated drives	ILS1●571							
	ILS1●572	■				■		
	ILS1●573	■				■		
	ILS1●851	■				■	■	■
	ILS1●852	■	■			■	■	■
	ILS1●853	■	■	■		■	■	■
	ILA1●571							
	ILA1●572							
	ILE1●661●●●●1	■	■			■		
	ILE1●661●●●●2	■	■					
	ILE1●661●●●●3	■	■					
	ILE1●661●●●●4	■	■					
Lexium stepper motors	BRS 364							
	BRS 366	■				■		
	BRS 368	■				■		
	BRS 397	■				■	■	■
	BRS 39A	■	■			■	■	■
	BRS 39B	■	■	■		■	■	■
	BRS 3AC		■	■	■		■	■
	BRS 3AD		■	■	■		■	■
Gearboxes	PLE 40/WPLE40	■	■			■		
	PLE 60/WPLE60	■	■	■		■	■	■
	PLE 80/WPLE80		■	■	■		■	■
	PLE 120/WPLE120			■	■			
	PLS 70		■	■	■	■	■	■
	PLS 90			■	■		■	■
	PLS 115				■			

■ Possible to combine
Not applicable

(1) Refer to the CD-ROM supplied with this catalogue.


Linear tables (1)
Cantilever and telescopic axes (1)
TAS 41
TAS 42
TAS 43
CAS 41
CAS 42
CAS 43
CAS 44
CAS 30
CAS 31
CAS 32
CAS 33
CAS 34
CAS 24

Lexium Linear Motion
Lexium PAS B portal axes



Lexium PAS 4●B

Presentation *(1)*

Lexium PAS B portal axes are linear motion axes with a toothed belt for driving the carriage and roller or ball guides for guidance.
The carriage moving the load is mobile and the body of the axis is fixed.

Lexium PAS B portal axes are designed for applications which require positioning of heavy loads over long distances with highly dynamic performance.
These axes, with a ball guide, are particularly suitable for applications requiring high forces and significant torque.
For other applications, the roller guide offers a simple, cost-effective solution.

Lexium PAS B portal axes offer various configuration options. These include axis length, various types of sensor adding a protective metal strip, a choice between various carriage types of different sizes, the option of having up to 3 carriages and an anti-static toothed belt (see page 8).
The axes' design is based on very strong aluminium profiles capable of accepting loads up to 100 kg, depending on the model used.

Schneider Electric offers a number of drive elements which can be used to drive Lexium PAS B axes *(2)* (see pages 4 and 9).
Third-party drive elements can also be used under certain conditions. Contact your Customer Care Centre for further details.

Applications

Applications requiring:
- Positioning over long distances: material handling, palletizers, etc.
- Positioning of parts at high speeds: flying shear, optical and measuring applications, labelling, etc.
- High feed forces: hoisting, cutting, machining, etc.

Special product features

- Profile with T-slots on 3 sides
- Carriage with drill holes for easier load mounting
- Grease nipples accessible on each side of the carriage to simplify regular maintenance
- Quick-coupling system for easy motor assembly
- Strokes can be set to the nearest millimetre.
- T-slot means sensors can be placed anywhere on the profile.

Description *(1) (3)*

1 Lexium PAS 4●B portal axis
2 T-slot for fixing : 1 on each side and 2 under profile
3 Detection plate for sensors
4 Grease nipples on each side of carriage
5 Sensor supports
6 Sensors
7 T-slot for positioning sensor supports
8 Hollow shafts for connecting drive element or journal
9 Brackets for protective metal strip
10 Protective metal strip
11 Buffers
12 Protective metal strip deflectors
13 Tapped holes for load mounting
14 Carriage to support load
15 End blocks

(1) All technical data for Lexium PAS B portal axes is available on the documentation CD-ROM supplied with this catalogue.
(2) When selecting the drive element, the maximum permissible driving torque for the axis drive shaft must always be taken into account.
(3) Description of a Lexium PAS B portal axis; the configuration options selected will determine whether or not certain components are included.

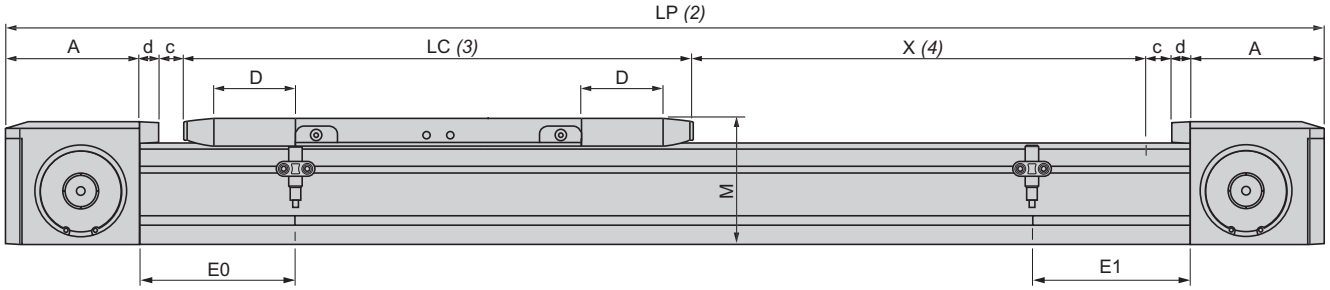
Characteristics: page 7
Dimensions: page 7
References: pages 8 and 9

Lexium Linear Motion
Lexium PAS B portal axes

Mechanical characteristics *(1)*

Type of portal axis	Lexium		PAS 41 BR	PAS 42 BR	PAS 42 BB	PAS 43 BR	PAS 43 BB	PAS 44 BB
Type of drive			Toothed belt					
Type of guide			Roller	Roller	Ball	Roller	Ball	Ball
Typical payload		kg	8	12	25		60	100
Maximum driving force for X axis (Fx) *(5)*		N	300	800		1100		2600
Maximum speed		m/s	8		5	8	5	
Maximum acceleration		m/s^2	20					
Maximum driving torque		Nm	4	20		36		110
Maximum force for Y axis (Fy) *(5)*		N	660		2810	1760	4410	6270
Maximum force for Z axis (Fz) *(5)*		N	430		2810	1040	4410	6270
Maximum torque for X axis (Mx) *(5)*		Nm	5	9	19	29	42	67
Maximum torque for Y axis (My) *(5)*	With carriage type 1	Nm	–	18	74	51	162	256
	With carriage type 2	Nm	11	31	194	87	379	655
	With carriage type 4	Nm	28	56	362	160	687	1209
Maximum torque for Z axis (Mz) *(5)*	With carriage type 1	Nm	–	28	74	86	162	256
	With carriage type 2	Nm	17	48	194	148	379	655
	With carriage type 4	Nm	43	87	362	271	687	1209
Maximum stroke: dimension "X" *(4)*		mm	3000	5500				
Repeatability		mm	± 0.05					
Cross-section of profile	Width x height	mm	40 x 40	60 x 60		80 x 80		110 x 110
Service life		km	30,000					

Size characteristics *(1)*



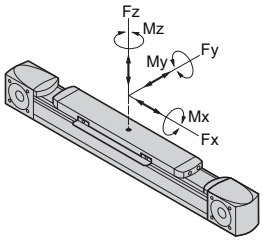
Without protective metal strip

PAS							Carriage type 1			Carriage type 2			Carriage type 4		
	A	c	d	D	LP	M	E0	E1	LC	E0	E1	LC	E0	E1	LC
41B	53.5	10	0	0	= 127 + LC + X	55	–	–	–	25	25	200	25	105	280
42B	80	15	0	0	= 190 + LC + X	75	33	33	206	33	93	266	33	213	386
43B	110	25	0	0	= 270 + LC + X	100	62	62	244	62	133	314	62	273	454
44B	146	40	0	0	= 372 + LC + X	135	110	110	310	110	200	400	110	380	580

With protective metal strip

PAS							Carriage type 1			Carriage type 2			Carriage type 4		
	A	c	d	D	LP	M	E0	E1	LC	E0	E1	LC	E0	E1	LC
41B	53.5	10	9	48.5	= 145 + LC + X	55	–	–	–	82	82	297	82	162	377
42B	80	15	11.5	48.5	= 213 + LC + X	75	93	93	303	93	153	363	93	273	483
43B	110	25	15	60	= 300 + LC + X	100	138	138	364	138	208	434	138	348	574
44B	146	40	20	80	= 412 + LC + X	135	210	210	470	210	300	560	210	480	740

(1) All technical data for Lexium PAS B portal axes is available on the documentation CD-ROM supplied with this catalogue.
(2) LP: total length of axis
(3) LC: length of carriage
(4) X: Stroke, depending on application
(5) Forces and torques exerted on the Lexium PAS B portal axis:



Presentation: page 6
References: pages 8 and 9

Lexium Linear Motion
Lexium PAS B portal axes

References *(1)*

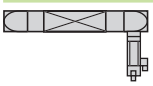
To order a Lexium PAS B portal axis, complete each reference by replacing the "●" *(2)*:

		PAS 4	●	●	●	●	●●●●	●	●	●	●	●●●	●	/*(2)*
Example: PAS 4 1 B R M 1000 A 2 B A XXX R/1 XX X V6 0 *(2)*														
Size (cross-section of profile)	40 (cross-section 40 x 40 mm)		**1**											/
	60 (cross-section 60 x 60 mm)		**2**											/
	80 (cross-section 80 x 80 mm)		**3**											/
	110 (cross-section 110 x 110 mm)		**4**											/
Type of drive	Toothed belt			**B**										/
	Axis with no drive facility (for support only)			**H**										/
Type of guide	Roller (only for PAS 41B, 42B, 43B)				**R**									/
	Ball (only for PAS 42B, 43B, 44B)				**B**									/
Feed per revolution	84 mm/revolution (only for PAS 41B)					**M**								/
	155 mm/revolution (only for PAS 42B)					**M**								/
	205 mm/revolution (only for PAS 43B)					**M**								/
	264 mm/revolution (only for PAS 44B)					**M**								/
	Axis with no drive facility (only for PAS 4●H)					**N**								/
Stroke	State the length in mm *(3)*.						**●●●●**							/
Limit switches *(4)*	2 sensors with PNP output, NC contact, not connected							**A**						/
	2 sensors with PNP output, NO contact, not connected							**C**						/
	2 sensors with NPN output, NC contact, not connected							**E**						/
	2 sensors with NPN output, NO contact, not connected							**G**						/
	Without sensors/without detection plate							**N**						/
Carriage type *(5)*	Type 1 (only for PAS 42B, 43B, 44B)								**1**					/
	Type 2								**2**					
	Type 4								**4**					/
Options	With protective metal strip									**B**				/
	Anti-corrosion version/without protective metal strip									**C**				/
	With anti-static notched belt/without protective metal strip									**A**				/
	Anti-corrosion version/with anti-static toothed belt/ without protective metal strip									**E**				/
	With anti-static toothed belt/with protective metal strip									**L**				/
	Without option									**N**				/
Number of carriages *(6)*	1										**A**			/
	2										**B**			/
	3										**C**			/
Distance between two carriages	State the distance in mm											**●●●**		/
	1 carriage only, state "XXX"											**XXX**		/
Interface for the drive element *(7)*	Drive element fixed on right-hand side												**R**	/
	Drive element fixed on left-hand side												**L**	/
	Without connection/without adaptor plate												**H**	/
	Axis with no drive facility (only for PAS 4●H)												**N**	/

(1) All technical data for Lexium PAS B portal axes is available on the documentation CD-ROM supplied with this catalogue.
(2) For the second part of the reference, see page 9.
(3) The maximum length depends on the cross-section of the profile. Refer to the characteristics table on page 7.
(4) Supplied with a 100 mm cable fitted with an M8 connector. Other cable lengths are also available (see the accessories on page 44).
(5) Refer to the characteristics on page 7 and the documentation CD-ROM supplied with this catalogue.
(6) Only carriages of the same type (type 1, type 2 or type 4) are authorized.
(7) Types of interface for the drive element:

PAS 4●B●M●●●●●●●●●●●R/…*(2)*

PAS 4●B●M●●●●●●●●●●●L/…*(2)*



PAS 4●B●M●●●●●●●●●●●H/…*(2)*

PAS 4●H●N●●●●●●●●●●●N/…*(2)*

Presentation: page 6
Characteristics: page 7
Dimensions: page 7

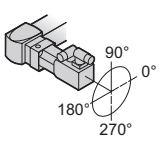
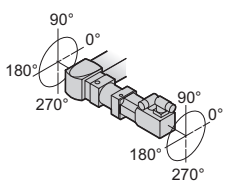
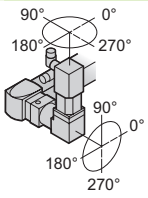
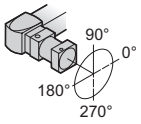
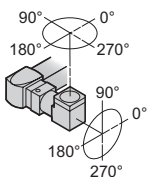
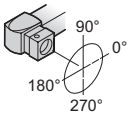
References (continued) *(1)*

To order a Lexium PAS B portal axis, complete each reference by replacing the "●" *(2)*:

Example: PAS 4 1 B R M 1000 A 2 B A XXX R/1 XX X V6 0 *(2)*

			PAS 4 ● ● ● ● ●●●● ● ● ● ● ●●● ● *(2)*/	●	●●	●	●●	●
Motor drive configuration *(3)*	Motor only	/		**1**				
	Motor + gearbox	/		**2**				
	Gearbox only	/		**3**				
	Without motor/without gearbox/with adaptor plate for the drive	/		**4**				
	Without motor/without gearbox	/		**X**				
Gearbox (PLE/WPLE/PLS: third-party gearboxes from Neugart)	Gearboxes PLE 40	/			**0G**			
	Gearboxes PLE 60	/			**1G**			
	Gearboxes PLE 80	/			**3G**			
	Gearboxes PLE 120	/			**5G**			
	Gearboxes WPLE 40	/			**0A**			
	Gearboxes WPLE 60	/			**1A**			
	Gearboxes WPLE 80	/			**3A**			
	Gearboxes WPLE 120	/			**5A**			
	Gearboxes PLS 70	/			**7G**			
	Gearboxes PLS 90	/			**8G**			
	Gearboxes PLS 115	/			**9G**			
	Other third-party gearboxes, not mounted by Schneider Electric (gearbox drawings required)	/			**YY**			
	Other third-party gearboxes, mounted by Schneider Electric (gearbox and drawings required)	/			**ZZ**			
	Without gearbox	/			**XX**			
Gearbox orientation *(3)*	0°	/				**3**		
	90°	/				**0**		
	180°	/				**9**		
	270°	/				**6**		
	Without gearbox	/				**X**		
Motor	Servo motors BRH 057/SER 36●	/					**S6**	
	Servo motors BRH 085/SER 39●	/					**S9**	
	Servo motors BRH 110/SER 311●	/					**S1**	
	Servo motors BSH 055●	/					**H5**	
	Servo motors BSH 0701, 0702/BMH 0701, 0702	/					**H7**	
	Servo motors BSH 0703/BMH 0703	/					**H8**	
	Servo motors BSH 1001 to 1003/BMH 1001 to 1003	/					**H1**	
	Servo motors BSH 1004	/					**H4**	
	Servo motors BSH 1401 to 1404/BMH 1401 to 1403	/					**H2**	
	Lexium integrated drives ILS●●571, 572 with 3-phase stepper motor	/					**I6**	
	Lexium integrated drives ILS●●573 with 3-phase stepper motor	/					**I7**	
	Lexium integrated drives ILS●●851, 852 with 3-phase stepper motor	/					**I9**	
	Lexium integrated drives ILS●●853 with 3-phase stepper motor	/					**I8**	
	Lexium integrated drives ILA●●57 with AC synchronous servo motor	/					**A6**	
	Lexium integrated drives ILE●●66 with brushless DC motor	/					**E7**	
	Stepper motors BRS 364, 366	/					**V6**	
	Stepper motors BRS 368	/					**V8**	
	Stepper motors BRS 397, 39A	/					**V9**	
	Stepper motors BRS 39B	/					**V0**	
	Stepper motors BRS 3AC, 3AD	/					**V1**	
	Third-party motors, not mounted by Schneider Electric (motor drawings required)	/					**YY**	
	Third-party motors, mounted by Schneider Electric (motor and drawings required)	/					**ZZ**	
	Without motor	/					**XX**	
Motor orientation *(3)*	0°	/						**3**
	90°	/						**0**
	180°	/						**9**
	270°	/						**6**
	Without motor	/						**X**

(1) All technical data for Lexium PAS B portal axes is available on the documentation CD-ROM supplied with this catalogue.
(2) For the first part of the reference, see page 8.
(3) Possible motor drive configurations and orientations:

PAS 4●B…*(2)*/ 1XXX●●●	**PAS 4●B…***(2)*/ 2●G●●●●	**PAS 4●B…***(2)*/ 2●A●●●●	**PAS 4●B…***(2)*/ 3●G●XXX	**PAS 4●B…***(2)*/ 3●A●XXX	**PAS 4●B…***(2)*/ 4XXX●●●	**PAS 4●B…***(2)*/ XXXXXXX
						

Lexium Linear Motion
Lexium PAS S portal axes

Presentation *(1)*

Lexium PAS S portal axes are linear motion axes, with a ballscrew for driving the carriage and ball guides for guidance.
The carriage moving the load is mobile and the body of the axis is fixed.

Lexium PAS S portal axes are particularly suited to applications which require precise positioning of heavy loads at low speeds and high feed forces.

To facilitate integration into a large number of applications, there are a range of different configuration options. These include axis length, different feed steps for the ballscrew, various types of sensor adding a protective metal strip, a choice between 2 carriage types of different sizes and the option of having up to 3 carriages (see page 12).
The axes' design is based on very strong aluminium profiles capable of accepting loads up to 100 kg, depending on the model used.

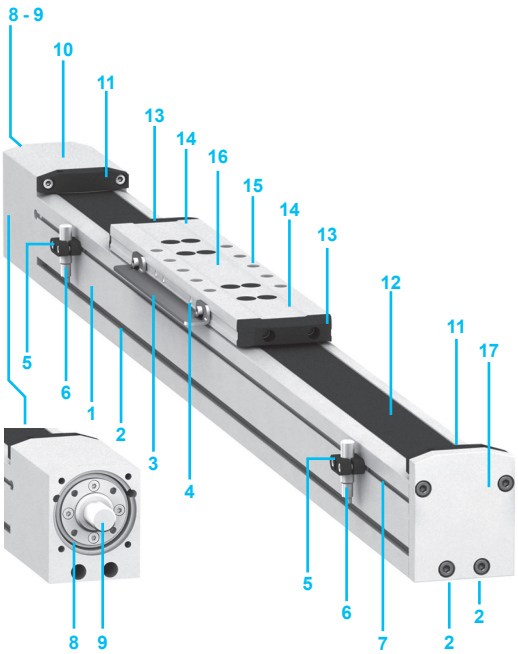
Schneider Electric offers a number of drive elements which can be used to drive Lexium PAS S axes *(2)* (see pages 4 and 13).
Third-party drive elements can also be used under certain conditions. Contact your Customer Care Centre for further details.

Applications

Applications requiring:
- A feed movement with precision guiding, even at variable loads and torques: cutting, separating, machining, etc.
- High feed forces: clamping, cutting, etc.
- Precise positioning and repeatability: optical and measuring applications, etc.

Special product features

- Profile with T-slots on 3 sides
- Carriage with drill holes for easier load mounting
- Grease nipples accessible on each side of the carriage to simplify regular maintenance
- Quick-coupling system for easy motor assembly
- Strokes can be set to the nearest millimeter.
- T-slot means sensors can be placed anywhere on the profile.



Lexium PAS 4●S

Description *(1) (3)*

1 Lexium PAS 4●S portal axis
2 T-slots for fixing the axis: 1 on each side and 2 under profile
3 Detection plate for sensors
4 Grease nipples on each side of carriage
5 Sensor supports
6 Sensors
7 T-slots for positioning sensor supports
8 Flange for mounting drive element
9 Drive shaft
10 Drive block
11 Brackets for protective metal strip
12 Protective metal strip
13 Buffers
14 Protective metal strip deflecters
15 Tapped holes for load mounting
16 Carriage to support load
17 End block

(1) All technical data for Lexium PAS S portal axes is available on the documentation CD-ROM supplied with this catalogue.
(2) When selecting the drive element, the maximum permissible driving torque for the axis drive shaft must always be taken into account.
(3) Description of a Lexium PAS S portal axis; the configuration options selected will determine whether or not certain components are included.

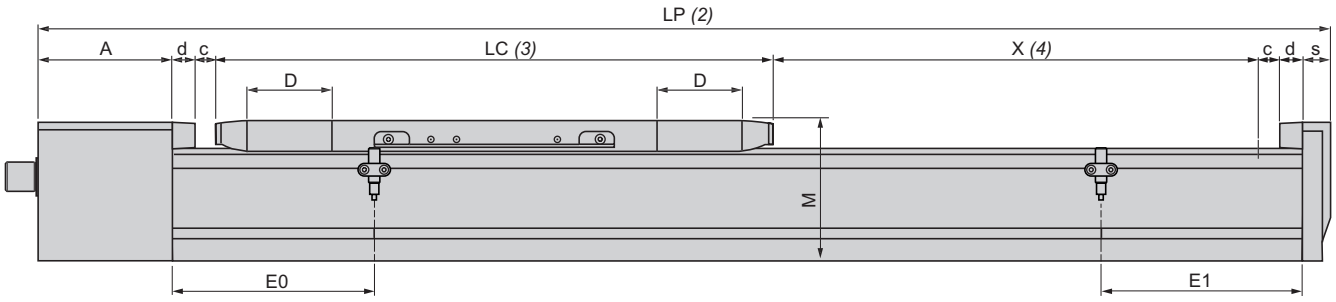
Characteristics: page 11
Dimensions: page 11
References: pages 12 and 13

Lexium Linear Motion
Lexium PAS S portal axes

Mechanical characteristics *(1)*

Type of portal axis	Lexium		PAS 42			PAS 43			PAS 44		
			SBB	SBD	SBF	SBB	SBD	SBG	SBB	SBD	SBH
Type of drive			Ballscrew								
Type of guide			Ball								
Typical payload		kg	25			60			100		
Ballscrew		mm/ revolution	5	10	16	5	10	20	5	10	25
Ballscrew diameter		mm	16			20			25		
Axial backlash for ballscrew		mm	0.04								
Maximum driving force (Fx) *(5)*		N	2980	1560	1540	3400	2600	1720	3700	4520	3000
Maximum speed		m/s	0.25	0.5	0.8	0.25	0.5	1	0.25	0.5	1.25
Maximum acceleration		m/s²	10								
Maximum driving torque		Nm	3.2	3.3	4.9	3.7	5.3	6.8	4.3	9	14.3
Maximum force for Y axis (Fy) *(5)*		N	4050			6360			9040		
Maximum force for Z axis (Fz) *(5)*		N	4050			6360			9040		
Maximum torque for X axis (Mx) *(5)*		Nm	27			60			98		
Maximum torque for Y axis (My) *(5)*	With carriage type 1	Nm	304			556			935		
	With carriage type 4	Nm	668			1224			2155		
Maximum torque for Z axis (Mz) *(5)*	With carriage type 1	Nm	304			556			935		
	With carriage type 4	Nm	668			1224			2155		
Maximum stroke: dimension "X" *(4)*		mm	1500			3000					
Repeatability		mm	± 0.02								
Cross-section of profile	Width x height	mm	60 x 60			80 x 80			110 x 110		
Service life		km	10,000								

Size characteristics *(1)*



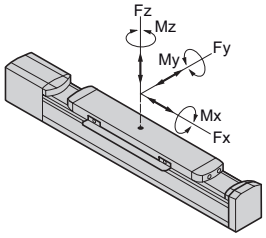
Without protective metal strip

PAS	A	c	d	D	LP	M	s	Carriage type 1			Carriage type 4		
								E0	E1	LC	E0	E1	LC
42S	85	10	11.5	0	= 143 + LC + X	75	15	50	50	226	50	230	406
43S	95	15	15	0	= 175 + LC + X	100	20	83	83	274	83	293	484
44S	110	20	20	0	= 215 + LC + X	135	25	120	120	330	120	390	600

With protective metal strip

PAS	A	c	d	D	LP	M	s	Carriage type 1			Carriage type 4		
								E0	E1	LC	E0	E1	LC
42S	85	10	11.5	48.5	= 143 + LC + X	75	15	98	98	323	98	278	503
43S	95	15	15	60	= 175 + LC + X	100	20	143	143	394	143	353	604
44S	110	20	20	80	= 215 + LC + X	135	25	200	200	490	200	470	760

(1) All technical data for Lexium PAS S portal axes is available on the documentation CD-ROM supplied with this catalogue.
(2) LP: total length of axis
(3) LC: length of carriage
(4) X: stroke, depending on application
(5) Forces and torques exerted on the Lexium PAS S portal axis:



Presentation:
page 10

References:
pages 12 and 13

Lexium Linear Motion
Lexium PAS S portal axes

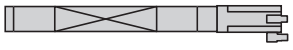
References *(1)*

To order a Lexium PAS S portal axis, complete each reference by replacing the "●" *(2)*:

Example: PAS 4 2 S B F 1000 A 1 B A XXX S/1 XX X V6 0 *(2)*		**PAS 4**	●	●	B	●	●●●●	●	●	●	●	●●●	●	/*(2)*
Size (cross-section of profile)	60 (cross-section 60 x 60 mm)		**2**											/
	80 (cross-section 80 x 80 mm)		**3**											/
	110 (cross-section 110 x 110 mm)		**4**											/
Type of drive	Ballscrew			**S**										/
	Axis with no drive facility (for support only)			**A**										/
Type of guide	Ball				**B**									/
Ballscrew pitch	5 mm/revolution					**B**								/
	10 mm/revolution					**D**								/
	16 mm/revolution (only for PAS 42S)					**F**								/
	20 mm/revolution (only for PAS 43S)					**G**								/
	25 mm/revolution (only for PAS 44S)					**H**								/
	Axis with no drive facility (only for PAS 4●A)					**N**								/
Stroke	State the length in mm *(3)*.						**●●●●**							/
Limit switches *(4)*	2 sensors with PNP output, NC contact, not connected							**A**						/
	2 sensors with PNP output, NO contact, not connected							**C**						/
	2 sensors with NPN output, NC contact, not connected							**E**						/
	2 sensors with NPN output, NO contact, not connected							**G**						/
	Without sensors/without detection plate							**N**						/
Type of carriage *(5)*	Type 1								**1**					/
	Type 4								**4**					/
Options	With protective metal strip/without ballscrew support									**B**				/
	With protective metal strip/with 1 ballscrew support									**C**				/
	Without protective metallic band/with 1 ballscrew support									**D**				/
	With protective metal strip/with 2 ballscrew supports									**E**				/
	Without protective metal strip/with 2 ballscrew supports									**F**				/
	Without protective metal strip/without ballscrew support									**N**				/
Number of carriage *(6)*	1										**A**			/
	2 (contact your Customer Care Centre)										**B**			/
	3 (contact your Customer Care Centre)										**C**			/
Distance between two carriages	State the distance in mm (contact your Customer Care Centre)											**●●●**		/
	1 carriage only, state "XXX"											**XXX**		/
Interface for drive element *(7)*	With motor or adaptor plate												**S**	/
	With shaft												**D**	/
	Axis with no drive facility (only for PAS 4●A)												**N**	/

(1) All technical data for Lexium PAS S portal axes is available on the documentation CD-ROM supplied with this catalogue.
(2) For the second part of the reference see page 13.
(3) The maximum length depends on the cross-section of the profile. Refer to the characteristics table on page 11.
(4) Supplied with a 100 mm cable fitted with an M8 connector. Other cable lengths are also available (see the accessories on page 44).
(5) Refer to the characteristics on page 11 and the documentation CD-ROM supplied with this catalogue.
(6) Only carriages of the same type (type 1 or type 4) are authorized.
(7) Types of interface for the drive element:

PAS 4●SB●●●●●●●●●●●●S/… *(2)*



PAS 4●SB●●●●●●●●●●●●D/… *(2)*

PAS 4●AN●●●●●●●●●●●●N/… *(2)*

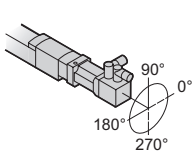
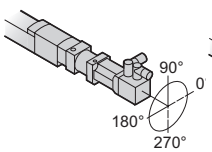
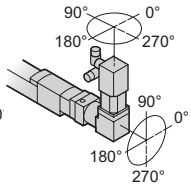
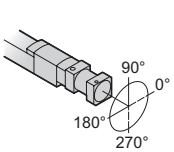
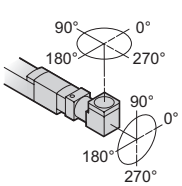
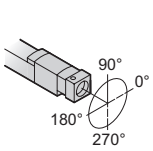
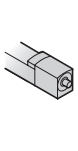
References (continued) *(1)*

To order a Lexium PAS S portal axis, complete each reference by replacing the "●" *(2)*:

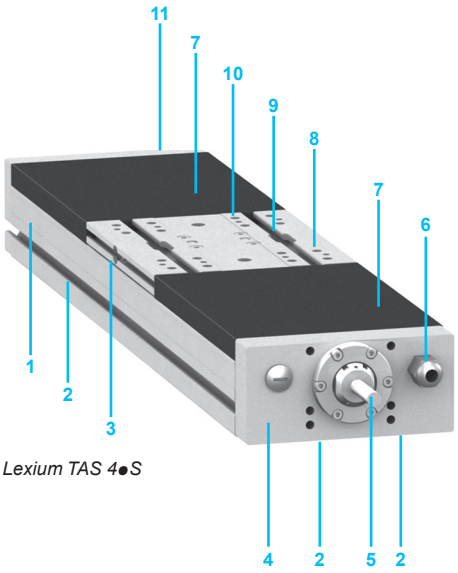
Example: PAS 4 2 S B F 1000 A 1 B A XXX S/1 XX X V6 0 *(2)* **PAS 4 ● ● B ● ●●●● ● ● ● ● ●●● ● *(2)*/**

			●	●●	●	●●	●
Motor drive Configuration *(3)*	Motor only	/	**1**				
	Motor + gearbox	/	**2**				
	Gearbox only	/	**3**				
	Without motor/without gearbox/with adaptor plate for the drive element	/	**4**				
	Without motor/without gearbox	/	**X**				
Gearbox (PLE/WPLE/PLS: third-party gearboxes from Neugart)	Gearboxes PLE 40	/		**0G**			
	Gearboxes PLE 60	/		**1G**			
	Gearboxes PLE 80	/		**3G**			
	Gearboxes PLE 120	/		**5G**			
	Gearboxes WPLE 40	/		**0A**			
	Gearboxes WPLE 60	/		**1A**			
	Gearboxes WPLE 80	/		**3A**			
	Gearboxes WPLE 120	/		**5A**			
	Gearboxes PLS 70	/		**7G**			
	Gearboxes PLS 90	/		**8G**			
	Gearboxes PLS 115	/		**9G**			
	Other third-party gearboxes, not mounted by Schneider Electric (gearbox drawings required)	/		**YY**			
	Other third-party gearboxes, mounted by Schneider Electric (gearbox and drawings required)	/		**ZZ**			
	Without gearbox	/		**XX**			
Gearbox orientation *(3)*	0°	/			**3**		
	90°	/			**0**		
	180°	/			**9**		
	270°	/			**6**		
	Without gearbox	/			**X**		
Motor	Servo motors BRH 057/SER 36●	/				**S6**	
	Servo motors BRH 085/SER 39●	/				**S9**	
	Servo motors BRH 110/SER 311●	/				**S1**	
	Servo motors BSH 055●	/				**H5**	
	Servo motors BSH 0701, 0702/BMH 0701, 0702	/				**H7**	
	Servo motors BSH 0703/BMH 0703	/				**H8**	
	Servo motors BSH 1001 to 1003/BMH 1001 to 1003	/				**H1**	
	Servo motors BSH 1004	/				**H4**	
	Servo motors BSH 1401 to 1404/BMH 1401 to 1403	/				**H2**	
	Lexium integrated drives ILS●●571, 572 with 3-phase stepper motor	/				**I6**	
	Lexium integrated drives ILS●●573 with 3-phase stepper motor	/				**I7**	
	Lexium integrated drives ILS●●851, 852 with 3-phase stepper motor	/				**I9**	
	Lexium integrated drives ILS●●853 with 3-phase stepper motor	/				**I8**	
	Lexium integrated drives ILA●●57 with AC synchronous servo motor	/				**A6**	
	Lexium integrated drives ILE●●66 with brushless DC motor	/				**E7**	
	Stepper motors BRS 364, 366	/				**V6**	
	Stepper motors BRS 368	/				**V8**	
	Stepper motors BRS 397, 39A	/				**V9**	
	Stepper motors BRS 39B	/				**V0**	
	Stepper motors BRS 3AC, 3AD	/				**V1**	
	Third-party motors, not mounted by Schneider Electric (motor drawings required)	/				**YY**	
	Third-party motors, mounted by Schneider Electric (motor and drawings required)	/				**ZZ**	
	Without motor	/				**XX**	
Motor orientation *(3)*	0°	/					**3**
	90°	/					**0**
	180°	/					**9**
	270°	/					**6**
	Without motor	/					**X**

(1) All technical data for Lexium PAS S portal axes is available on the documentation CD-ROM supplied with this catalogue.
(2) For the first part of the reference, see page 12.
(3) Possible motor drive configurations and orientations:

PAS 4●S…*(2)*/ 1XXX●●●	**PAS 4●S…*(2)*/ 2●G●●●●**	**PAS 4●S…*(2)*/ 2●A●●●●**	**PAS 4●S…*(2)*/ 3●G●XXX**	**PAS 4●S…*(2)*/ 3●A●XXX**	**PAS 4●S…*(2)*/ 4XXX●●●**	**PAS 4●S…*(2)*/ XXXXXX**
						

Lexium Linear Motion
Lexium TAS linear tables



Lexium TAS 4●S

Presentation *(1)*

Lexium TAS linear tables support high-precision linear positioning of heavy loads at high feed forces.
This level of performance is made possible by the drive system, which uses a preloaded ballscrew.

The linear tables' design is based on an aluminium profile capable of supporting substantial pressure without bending. They are able to bear loads of up to 150 kg, depending on the model.

To facilitate integration into a large number of applications, there are a range of different configuration options. These include axis length, different pitches for the ballscrew, different mounting options for the drive element, etc. (see page 16).

Schneider Electric offers a number of drive element which can be used to drive Lexium TAS linear tables *(2)* (see page 17).
Third-party drive element can also be used under certain conditions. Contact your Customer Care Centre for further details.

Applications

Applications requiring:
- Feed movement without mechanical backlash: cutting, separating, labelling, etc.
- High feed forces: clamping, machining, etc.
- Precise movement of heavy loads: material handling, etc.
- Precise positioning: optical applications, laser use, etc.

Special product features

- Profile with T-slots on 3 sides
- Carriage with drill holes and T-slots for easier load mounting
- Grease nipple accessible from each side of the carriage to simplify regular maintenance
- Quick-coupling system for easy motor assembly
- Motor positioning right at the shaft end along the table axis, on each side, above or below the linear table
- Strokes can be set to the nearest millimeter.
- Preloaded ballscrew for movement without mechanical backlash
- 2 integrated sensors to ensure limit switch is working correctly

Description *(1) (3)*

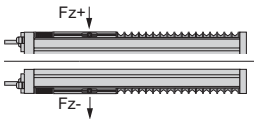
1 Lexium TAS 4●S linear table
2 T-slots for fixing purposes: 1 on each side and 2 under profile
3 Grease nipples on each side of carriage
4 Drive block
5 Drive shaft
6 Cable gland for sensor cable outlet
7 Bellows
8 Tapped holes for load mounting
9 Slots for load mounting
10 Carriage to support load
11 End block

(1) All technical data for Lexium TAS linear tables is available on the documentation CD-ROM supplied with this catalogue.
(2) When selecting the drive element, the maximum permissible driving torque for the axis drive shaft must always be taken into account.
(3) Description of a Lexium TAS linear table; the configuration options selected will determine whether or not certain components are included.

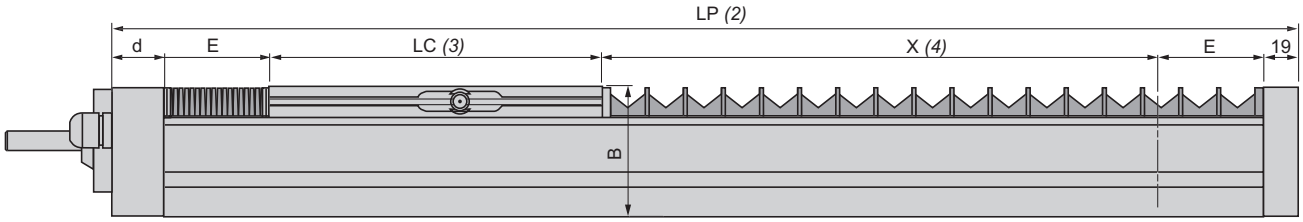
Characteristics: page 15
Dimensions: page 15
References: pages 16 and 17

Lexium Linear Motion
Lexium TAS linear tables

Mechanical characteristics *(1)*

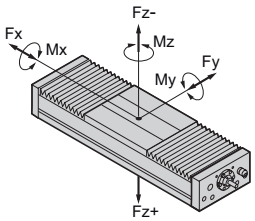
Type of linear table	Lexium		TAS 41			TAS 42			TAS 43		
			SBA	SBB	SBC	SBB	SBC	SBD	SBB	SBC	SBE
Type of drive			Ballscrew								
Type of guide			Double ball guides								
Typical payload		kg	20			80			150		
Ballscrew step		mm/ revolution	2	5	10	5	10	16	5	10	20
Ballscrew diameter		mm	12			16			20		
Axial backlash for ballscrew		mm	0.04								
Maximum driving force for X axis (Fx) *(5)*		N	500	800	780	2200	1120	1080	2580	1760	1700
Maximum speed		m/s	0.1	0.25	0.5	0.25	0.5	0.8	0.25	0.5	1
Maximum acceleration		m/s^2	10								
Maximum driving torque		Nm	0.4	0.9	1.6	2.2	2.3	3.4	2.7	3.5	6.4
Maximum force for Y axis (Fy) *(5)*		N	1720			2660			3550		
Maximum force for Z axis (Fz-, Fz+) *(5)* 		N	2155			6285			8380		
		N	2155			3140			4190		
Maximum torque for X axis (Mx) *(5)*		Nm	48			110			205		
Maximum torque for Y axis (My) *(5)*		Nm	90			190			335		
Maximum torque for Z axis (Mz) *(5)*		Nm	72			160			285		
Stroke: dimension "X" *(4)*		mm	600			1000			1500		
Repeatability		mm	± 0.02								
Cross-section of profile	Width x height	mm	100 x 39			150 x 54			200 x 59		
Service life		km	5000			10,000					

Size characteristics *(1)*



TAS	B	d	E	LC	LP
41	50	24	= (LP - 163 - X)/2	120	= 205 + (X multiplied by 1.38532)
42	70	28	= (LP - 227 - X)/2	180	= 278 + (X multiplied by 1.21106)
43	80	29	= (LP - 278 - X)/2	230	= 339 + (X multiplied by 1.15054)

(1) All technical data for Lexium TAS linear tables is available on the documentation CD-ROM supplied with this catalogue.
(2) LP: total length of axis. Length rounded down to the nearest whole number. Using the example of a Lexium TAS 41 linear table and a desired stroke of 500 mm: LP = 205 + (500 x 1.38532) = 897.66; 897.66 rounded down to the nearest whole number gives LP = 897 mm.
(3) LC: length of carriage
(4) X:stroke, depending on application
(5) Forces and torques exerted on the Lexium TAS linear table:



Presentation: page 14
References: pages 16 and 17

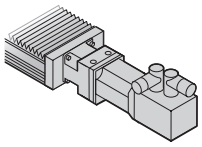
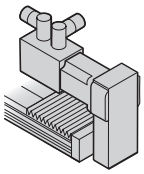
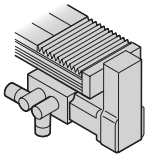
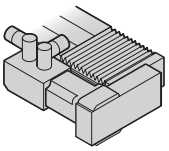
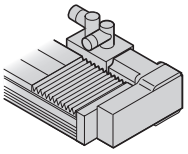
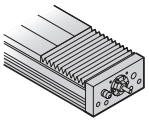
Lexium Linear Motion
Lexium TAS linear tables

References *(1)*

To order a Lexium TAS linear table, complete each reference by replacing the "●" *(2)*:

Example: TAS 4 1 S B A 0600 A 1 B S/V6 0 *(2)*		**TAS 4**	●	S	B	●	●●●●	●	1	B	●	/*(2)*
Size (cross-section of profile)	100 (cross-section 100 x 39 mm)		**1**									/
	150 (cross-section 150 x 54 mm)		**2**									/
	200 (cross-section 200 x 59 mm)		**3**									/
Type of drive	Ballscrew			**S**								/
Type of guide	Double ball guides				**B**							/
Ballscrew pitch	2 mm/revolution (only for TAS 41S)					**A**						/
	5 mm/revolution					**B**						/
	10 mm/revolution					**C**						/
	16 mm/revolution (only for PAS 42S)					**D**						/
	20 mm/revolution (only for PAS 43S)					**E**						/
Stroke	State the length in mm *(3)*.						**●●●●**					/
Limit switches *(4)*	2 sensors with PNP output, NC contact							**A**				/
	Without sensors							**N**				/
Type of carriage	Type 1								**1**			/
Options	None/Linear table supplied with bellows									**B**		/
Interface for drive element *(5)*	Motor in the table axis, driven directly										**S**	/
	Motor above table, driven by belt										**O**	/
	Motor below table, driven by belt										**U**	/
	Motor to left of table, driven by belt										**L**	/
	Motor to right of table, driven by belt										**R**	/
	With shaft (without connection, without motor)										**N**	/

(1) All technical data for Lexium TAS linear tables is available on the documentation CD-ROM supplied with this catalogue.
(2) For the second part of the reference, see page 17.
(3) The maximum length depends on the cross-section of the profile. Refer to the characteristics table on page 15.
(4) Supplied with a 5 m cable with flying leads at one end.
(5) Types of interface for the drive element:

TAS 4●SB●●●●●●1BS*(2)*	**TAS 4●SB●●●●●●1BO***(2)*	**TAS 4●SB●●●●●●1BU***(2)*	**TAS 4●SB●●●●●●1BL***(2)*	**TAS 4●SB●●●●●●1BR***(2)*	**TAS 4●SB●●●●●●1BN***(2)*
					

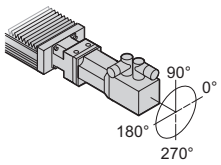
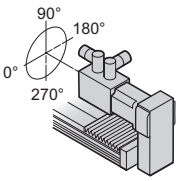
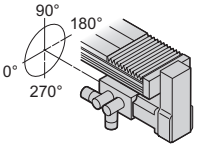
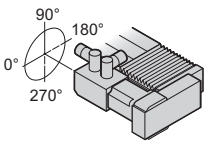
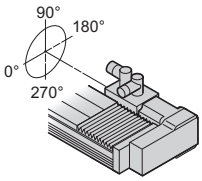
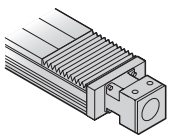
References (continued) *(1)*

To order a Lexium TAS linear table, complete each reference by replacing the "●" *(2)*:

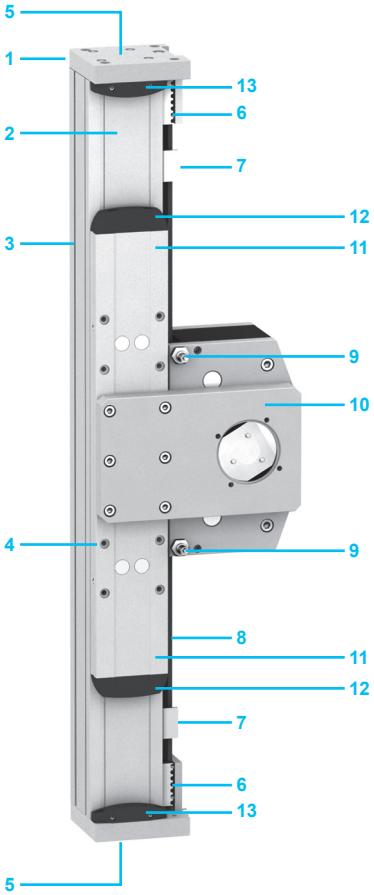
Example: TAS 4 1 S B A 0600 A 1 B S/V6 0 *(2)*

		TAS 4 ● S B ● ●●●● ● 1 B ● *(2)*/	●●	●
Motor	Servo motors BRH 057/SER 36●	/	**S6**	
	Servo motors BRH 085/SER 39●	/	**S9**	
	Servo motors BRH 110/SER 311●	/	**S1**	
	Servo motors BSH 055●	/	**H5**	
	Servo motors BSH 0701, 0702/BMH 0701, 0702	/	**H7**	
	Servo motors BSH 0703/BMH 0703	/	**H8**	
	Servo motors BSH 1001 to 1003/BMH 1001 to 1003	/	**H1**	
	Servo motors BSH 1004	/	**H4**	
	Servo motors BSH 1401 to 1404/BMH 1401 to 1403	/	**H2**	
	Lexium integrated drives ILS●●571, 572 with 3-phase stepper motor	/	**I6**	
	Lexium integrated drives ILS●●573 with 3-phase stepper motor	/	**I7**	
	Lexium integrated drives ILS●●851, 852 with 3-phase stepper motor	/	**I9**	
	Lexium integrated drives ILS●●853 with 3-phase stepper motor	/	**I8**	
	Lexium integrated drives ILA●●57 with AC synchronous servo motor	/	**A6**	
	Lexium integrated drives ILE●●66 with brushless DC motor	/	**E7**	
	Stepper motors BRS 364, 366	/	**V6**	
	Stepper motors BRS 368	/	**V8**	
	Stepper motors BRS 397, 39A	/	**V9**	
	Stepper motors BRS 39B	/	**V0**	
	Stepper motors BRS 3AC, 3AD	/	**V1**	
	Third-party motors, not mounted by Schneider Electric (motor drawings required)	/	**YY**	
	Third-party motors, mounted by Schneider Electric (motor and drawings required)	/	**ZZ**	
	Without motor *(3)*	/	**XX**	
Motor orientation *(3)*	0°	/		**3**
	90°	/		**0**
	180°	/		**9**
	270°	/		**6**
	Without motor	/		**X**

(1) All technical data for Lexium TAS linear tables is available on the documentation CD-ROM supplied with this catalogue.
(2) For the first part of the reference, see page 16.
(3) Possible motor drive configurations and orientations:

TAS 4●SB●●●●●●1BS*(2)*/ ●●●	**TAS 4●SB●●●●●●1BO***(2)*/ ●●●	**TAS 4●SB●●●●●●1BU***(2)*/ ●●●	**TAS 4●SB●●●●●●1BL***(2)*/ ●●●	**TAS 4●SB●●●●●●1BR***(2)*/ ●●●	**TAS 4●SB●●●●●●1BS***(2)*/ XXX
					

Lexium Linear Motion
Lexium CAS 4 cantilever axes



Lexium CAS 4●B

Presentation *(1)*

Lexium CAS 4 cantilever axes are linear motion axes. They consist of a mobile axis structure and a fixed driving block.
The mobile axis structure is used to support the load. Its design is based on an anodized aluminium profile. The profile is driven by a toothed belt and guided by roller or ball guides.
The aluminium profile is very strong and can take loads of up to 50 kg, depending on the model used.

Lexium CAS 4 cantilever axes are designed for applications which require positioning of heavy loads over long distances with highly dynamic performance. These axes, with a ball guide, are particularly suitable for applications requiring high forces and significant torque.
For other applications, the roller guide offers a simple, cost-effective solution.

Lexium CAS 4 cantilever axes offer various configuration options. These include axis length, various types of sensor, adding a protective metal strip, etc. (see page 20).

Schneider Electric offers a number of drive elements which can be used to drive Lexium CAS 4 cantilever axes *(2)* (see pages 4 and 21).
Third-party drive elements can also be used under certain conditions. Contact your Customer Care Centre for further details.

Applications

Applications requiring:
- Loop-back movement within a work area: pusher, etc.
- High feed forces: clamping, cutting out, etc.
- Positioning over long distances: material handling, etc.

Special product features

- Profile with T-slots on 2 sides
- Load can be fixed to the 2 end blocks and to one of the sides using the T-slots.
- Drive block with drill holes for easier axis mounting
- Quick-coupling system for easy motor assembly
- Strokes can be set to the nearest millimeter.

Description *(1) (3)*

1 Lexium CAS 4●B cantilever axis
2 Protective metal strip
3 T-slots for fixing load to side
4 Tapped holes for fixing axis
5 End blocks for fixing load
6 Brackets for toothed belt
7 Detection plates for sensors
8 Toothed belt
9 Sensors
10 Drive block
11 Protective metal strip deflectors
12 Buffers
13 Brackets for protective metal strip

(1) All technical data for Lexium CAS 4 cantilever axes is available on the documentation CD-ROM supplied with this catalogue.
(2) When selecting the drive element, the maximum permissible driving torque for the axis drive shaft must always be taken into account.
(3) Description of a Lexium CAS 4 cantilever axis; the configuration options selected will determine whether or not certain components are included.

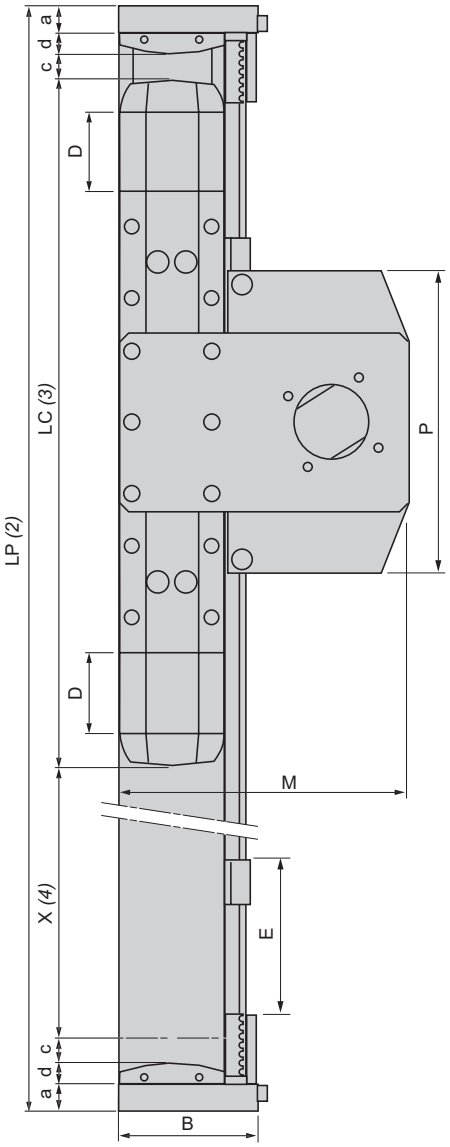
Characteristics: page 19
Dimensions: page 19
References: pages 20 and 21

Lexium Linear Motion
Lexium CAS 4 cantilever axes

Mechanical characteristics *(1)*

Type of cantilever axis	Lexium		CAS 41	CAS 42		CAS 43		CAS 44
			BR	BR	BB	BR	BB	BB
Type of drive			Toothed belt					
Type of guide			Roller		Ball	Roller	Ball	
Typical payload		kg	5	8	15	12	25	50
Maximum driving force for X axis (Fx) *(5)*		N	250	650		900		2150
Maximum speed		m/s	3					
Maximum acceleration		m/s^2	20					
Maximum driving torque		Nm	3.5	16		30		90
Maximum force for Y axis (Fy) *(5)*		N	930		3540	2430	5550	7890
Maximum force for Z axis (Fz) *(5)*		N	600		3540	1430	5550	7890
Maximum torque for X axis (Mx) *(5)*		Nm	7	13	24	40	53	85
Maximum torque for Y axis (My) *(5)*		Nm	24	29	250	85	487	1021
Maximum torque for Z axis (Mz) *(5)*		Nm	37	45	250	144	487	1021
Stroke: dimension "X"		mm	400	600		800		1200
Repeatability		mm	± 0.05					
Cross-section of profile	Width x height	mm	40 x 40	60 x 60		80 x 80		110 x 110
Service life		km	15,000					

Size characteristics *(1)*



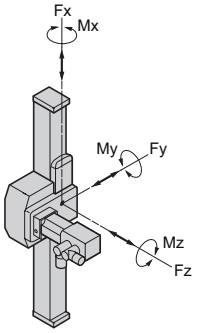
Without protective metal strip

CAS	a	B	c	d	D	E	LC	LP	M	P
41B	12	54	10	0	0	73	230	= 274 + X	103.5	120
42B	15	78	15	0	0	85	296	= 356 + X	163.5	170
43B	20	100	20	0	0	109	364	= 444 + X	195	200
44B	25	139	30	0	0	142	490	= 600 + X	250	300

With protective metal strip

CAS	a	B	c	d	D	E	LC	LP	M	P
41B	12	54	10	9	48.5	130	327	= 389 + X	103.5	120
42B	15	78	15	11.5	48.5	145	393	= 476 + X	163.5	170
43B	20	100	20	15	60	184	484	= 594 + X	195	200
44B	25	139	30	20	80	232	650	= 800 + X	250	300

(1) All technical data for Lexium CAS 4 cantilever axes is available on the documentation CD-ROM supplied with this catalogue.
(2) LP: total length of axis
(3) LC: length of drive element
(4) X: stroke, depending on application
(5) Forces and torques exerted on the Lexium CAS 4 cantilever axis:



Presentation: page 18
References: pages 20 and 21

Lexium Linear Motion
Lexium CAS 4 cantilever axes

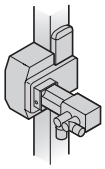
References *(1)*

To order a Lexium CAS 4 cantilever axis, complete each reference by replacing the "●" *(2)*:

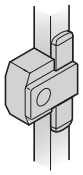
		CAS 4	●	B	●	M	●●●●	●	3	●	●	/(2)
Example: CAS 4 1 B R M 0300 A 3 B R/1 XX X V6 0 *(2)*												
Size (cross-section of profile)	40 (cross-section 40 x 40 mm)		1									/
	60 (cross-section 60 x 60 mm)		2									/
	80 (cross-section 80 x 80 mm)		3									/
	110 (cross-section 110 x 110 mm)		4									/
Type of drive for mobile axis structure	Toothed belt			B								/
Type of guide for mobile axis structure	Roller (only for CAS 41, 42, 43)				R							/
	Ball (only for CAS 42, 43, 44)				B							/
Feed per revolution	84 mm/revolution (only for CAS 41)					M						/
	155 mm/revolution (only for CAS 42)					M						/
	205 mm/revolution (only for CAS 43)					M						/
	264 mm/revolution (only for CAS 44)					M						/
Stroke	State the length in mm *(3)*.						●●●●					/
Limit switches *(4)*	2 sensors with PNP output, NC contact, not connected							A				/
	2 sensors with PNP output, NO contact, not connected							C				/
	2 sensors with NPN output, NC contact, not connected							E				/
	2 sensors with NPN output, NO contact, not connected							G				/
	Without sensors/without detection plates							N				/
Type of fixing support *(5)*	Type 3								3			/
Options	With protective metal strip									B		/
	Anti-corrosion version/without protective metal strip									C		/
	With anti-static toothed belt/without protective metal strip									A		/
	Anti-corrosion version/with anti-static toothed belt/ without protective metal strip									E		/
	With anti-static toothed belt/with protective metal strip									L		/
	Without option									N		/
Interface for drive element *(6)*	Drive element fixed on right-hand side										R	/
	None (hollow shaft)										H	/

(1) All technical data for Lexium CAS 4 cantilever axes is available on the documentation CD-ROM supplied with this catalogue.
(2) For the second part of the reference, see page 21.
(3) The maximum length depends on the cross-section of the profile. Refer to the characteristics table on page 19.
(4) Supplied with a 100 mm cable fitted with an M8 connector. Other cable lengths are also available (see the accessories on page 44).
(5) Refer to the documentation CD-ROM supplied with this catalogue.
(6) Types of interface for the drive element:

CAS 4●B●M●●●●●3●R/…*(2)*



CAS 4●B●M●●●●●3●H/…*(2)*

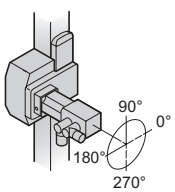
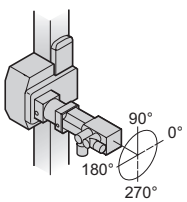
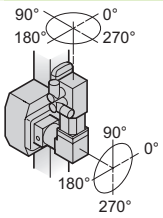
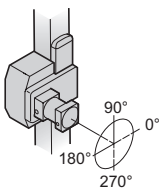
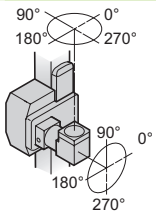
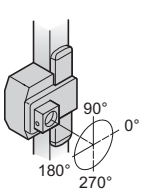
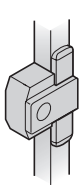


References (continued) *(1)*

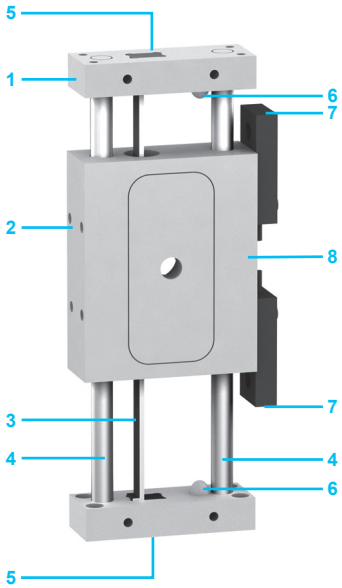
To order a Lexium CAS 4 cantilever axis, complete each reference by replacing the "●" *(2)*:

Example: CAS 4 1 B R M 0300 A 3 B R/1 XX X V6 0 *(2)*		**CAS 4 ● B ● M ●●●● ● 3 ● ● *(2)*/**	**●**	**●●**	**●**	**●●**	**●**
Motor drive configuration *(3)*	Motor only	/	**1**				
	Motor + gearbox	/	**2**				
	Gearbox only	/	**3**				
	Without motor/without gearbox/with adaptor plate for the drive	/	**4**				
	Without motor/without gearbox	/	**X**				
Gearbox (PLE/WPLE/PLS: third-party gearboxes from Neugart)	Gearboxes PLE 40	/		**0G**			
	Gearboxes PLE 60	/		**1G**			
	Gearboxes PLE 80	/		**3G**			
	Gearboxes PLE 120	/		**5G**			
	Gearboxes WPLE 40	/		**0A**			
	Gearboxes WPLE 60	/		**1A**			
	Gearboxes WPLE 80	/		**3A**			
	Gearboxes WPLE 120	/		**5A**			
	Gearboxes PLS 70	/		**7G**			
	Gearboxes PLS 90	/		**8G**			
	Gearboxes PLS 115	/		**9G**			
	Other third-party gearboxes, not mounted by Schneider Electric (gearbox drawings required)	/		**YY**			
	Other third-party gearboxes, mounted by Schneider Electric (gearbox and drawings required)	/		**ZZ**			
	Without gearbox	/		**XX**			
Gearbox orientation *(3)*	0°	/			**3**		
	90°	/			**0**		
	180°	/			**9**		
	270°	/			**6**		
	Without gearbox	/			**X**		
Motor	Servo motors BRH 057/SER 36●	/				**S6**	
	Servo motors BRH 085/SER 39●	/				**S9**	
	Servo motors BRH 110/SER 311●	/				**S1**	
	Servo motors BSH 055●	/				**H5**	
	Servo motors BSH 0701, 0702/BMH 0701, 0702	/				**H7**	
	Servo motors BSH 0703/BMH 0703	/				**H8**	
	Servo motors BSH 1001 to 1003/BMH 1001 to 1003	/				**H1**	
	Servo motors BSH 1004	/				**H4**	
	Servo motors BSH 1401 to 1404/BMH 1401 to 1403	/				**H2**	
	Lexium integrated drives ILS●●571, 572 with 3-phase stepper motor	/				**I6**	
	Lexium integrated drives ILS●●573 with 3-phase stepper motor	/				**I7**	
	Lexium integrated drives ILS●●851, 852 with 3-phase stepper motor	/				**I9**	
	Lexium integrated drives ILS●●853 with 3-phase stepper motor	/				**I8**	
	Lexium integrated drives ILA●●57 with AC synchronous servo motor	/				**A6**	
	Lexium integrated drives ILE●●66 with brushless DC motor	/				**E7**	
	Stepper motors BRS 364, 366	/				**V6**	
	Stepper motors BRS 368	/				**V8**	
	Stepper motors BRS 397, 39A	/				**V9**	
	Stepper motors BRS 39B	/				**V0**	
	Stepper motors BRS 3AC, 3AD	/				**V1**	
	Third-party motors, not mounted by Schneider Electric (motor drawings required)	/				**YY**	
	Third-party motors, mounted by Schneider Electric (motor and drawings required)	/				**ZZ**	
	Without motor	/				**XX**	
Motor orientation *(3)*	0°	/					**3**
	90°	/					**0**
	180°	/					**9**
	270°	/					**6**
	Without motor	/					**X**

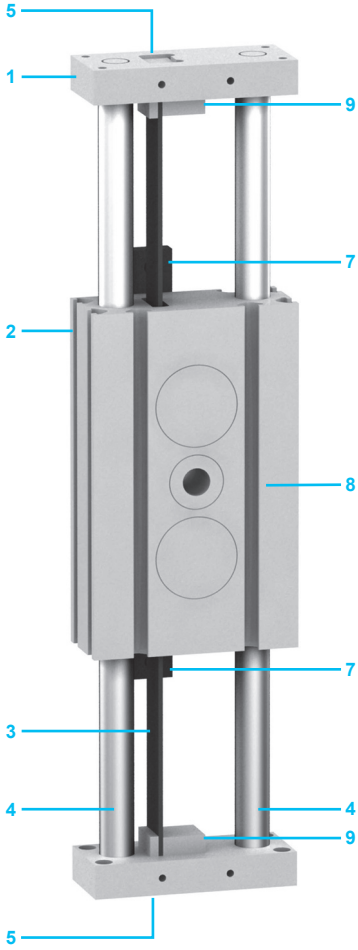
(1) All technical data for Lexium CAS 4 cantilever axes is available on the documentation CD-ROM supplied with this catalogue.
(2) For the first part of the reference, see page 20.
(3) Possible motor drive configurations and orientations:

CAS 4●B…*(2)*/ 1XXX●●●	**CAS 4●B…*(2)*/ 2●G●●●●**	**CAS 4●B…*(2)*/ 2●A●●●●**	**CAS 4●B…*(2)*/ 3●G●XXX**	**CAS 4●B…*(2)*/ 3●A●XXX**	**CAS 4●B…*(2)*/ 4XXX●●●**	**CAS 4●B…*(2)*/ XXXXXXX**
						

Lexium Linear Motion
Lexium CAS 3 cantilever axes



Lexium CAS 30R, CAS 31B



Lexium CAS 32B, CAS 33B, CAS 34B

Presentation *(1)*

Lexium CAS 3 cantilever axes are linear motion axes. They consist of a mobile axis structure and a fixed motor unit.
The mobile axis structure, designed on the basis of 2 parallel rods, is used to support the load. This structure is driven by a rack or a toothed belt, depending on the size of the axis.

This type of mobile structure supports the use of a light, compact, yet very strong axis. The structure is able to move loads of up to 18 kg, depending on the model.

Lexium CAS 3 cantilever axes offer various configuration options. These include axis length, various types of sensor, an anti-corrosion version, anti-static toothed belt, etc. (see page 24).

Schneider Electric offers a number of drive elements which can be used to drive Lexium CAS 3 cantilever axes *(2)* (see pages 4 and 25).
Third-party drive elements can also be used under certain conditions. Contact your Customer Care Centre for further details.

Applications

Applications requiring:
- High-speed positioning for short working distances: material handling, etc.
- High feed forces: clamping, assembly, etc.

Special product features

- Very strong
- Mobile structure with light travel weight
- Compact
- Various possible mounting combinations for easy integration into wider solutions

Description *(1) (3)*

1 Lexium CAS 3●● cantilever axis
2 T-slots for fixing axis
3 Rack or toothed belt
4 Rods providing mobile structure and guide method
5 End blocks for fixing load. These blocks also act as detection plates for sensors.
6 End stops
7 Sensors
8 Drive block
9 Bracket for toothed belt

(1) All technical data for Lexium CAS 3 cantilever axes is available on the documentation CD-ROM supplied with this catalogue.
(2) When selecting the drive element, the maximum permissible driving torque for the axis drive shaft must always be taken into account.
(3) Description of Lexium CAS 30R and CAS 3●B cantilever axes; the configuration options selected will determine whether or not certain components are included.

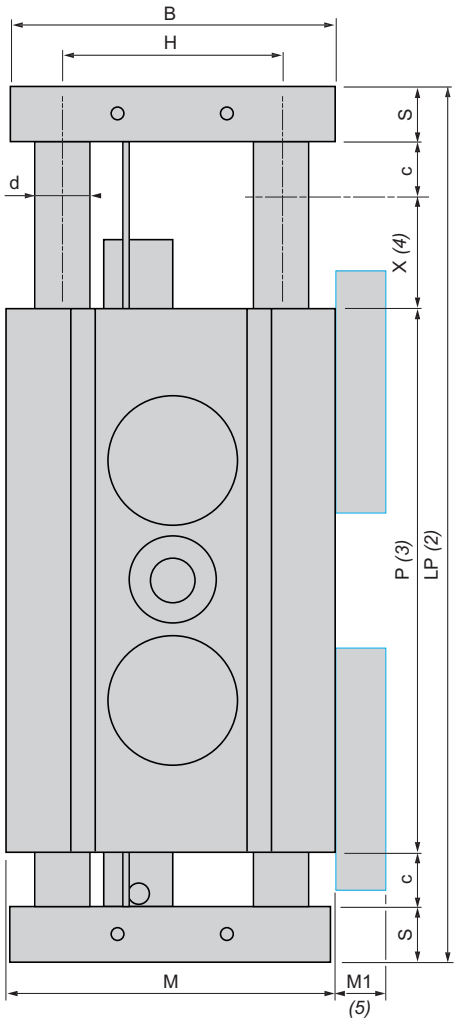
Characteristics: page 23
Dimensions: page 23
References: pages 24 and 25

Lexium Linear Motion
Lexium CAS 3 cantilever axes

Mechanical characteristics *(1)*

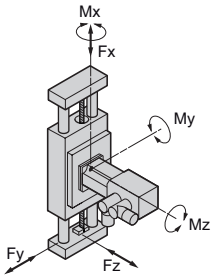
Type of cantilever axis	Lexium	CAS 30 RC	CAS 31 BC	CAS 32 BC	CAS 33 BC	CAS 34 BC
Type of drive		Rack	Toothed belt			
Type of guide		Ball				
Typical payload	**kg**	1	3	5	10	18
Maximum driving force for X axis (Fx) *(6)*	**N**	80	125	435	535	705
Maximum speed	**m/s**	3				
Maximum acceleration	**m/s²**	20				
Maximum driving torque	**Nm**	0.6	1.5	7	8.5	11.5
Maximum force for Y axis (Fy) *(6)*	**N**	160	210	290	460	950
Maximum force for Z axis (Fz) *(6)*	**N**	130	180	250	400	820
Maximum torque for X axis (Mx) *(6)*	**Nm**	1.9	5.1	9	16	45
Maximum torque for Y axis (My) *(6)*	**Nm**	2.8	6.7	21	34	85
Maximum torque for Z axis (Mz) *(6)*	**Nm**	3.5	7.8	25	39	100
Stroke: dimension "X"	**mm**	150	200	300	400	500
Repeatability	**mm**	± 0.05				
Service life	**km**	15,000				

Size characteristics *(1)*



CAS	B	c	d	H	LP	M	M1 *(5)*	P	S
30R	66	13	10	30	= 120 + X	66	10	70	12
31B	79	10	10	56	= 150 + X	80	10	100	15
32B	99	20	14	72	= 280 + X	100	–	200	20
33B	119	20	20	80	= 280 + X	120	–	200	20
34B	159	25	25	110	= 340 + X	160	–	250	20

(1) All technical data for Lexium CAS 3 cantilever axes is available on the documentation CD-ROM supplied with this catalogue.
(2) LP: total length of axis
(3) P: length of drive element
(4) X: stroke, depending on application
(5) Only for Lexium CAS 30 cantilever axes with sensors and CAS 31
(6) Forces and torques exerted on the Lexium CAS 3 cantilever axis:



Presentation:
page 22

References:
pages 24 and 25

Lexium Linear Motion
Lexium CAS 3 cantilever axes

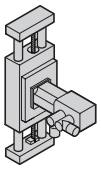
References *(1)*

To order a Lexium CAS 3 cantilever axis, complete each reference by replacing the "●" *(2)*:

Example: CAS 3 1 B C M 0200 A 1 C R/1 XX X V6 0 *(2)*		**CAS 3**	●	●	C	M	●●●●	●	1	●	R	/*(2)*
Size	66 x 28 mm		**0**									/
	80 x 30 mm		**1**									
	100 x 40 mm		**2**									/
	120 x 50 mm		**3**									/
	160 x 50 mm		**4**									/
Type of drive for mobile axis structure	Rack (only for CAS 30)			**R**								/
	Toothed belt (only for CAS 31, 32, 33, 34)			**B**								/
Type of guide for mobile axis structure	Ball				**C**							/
Feed per revolution	50 mm/revolution (only for CAS 30)					**M**						/
	75 mm/revolution (only for CAS 31)					**M**						/
	100 mm/revolution (only for CAS 32, 33, 34)					**M**						/
Stroke	State the length in mm *(3)*.						**●●●●**					/
Limit switches	2 sensors with PNP output, NC contact, not connected *(4)*							**A**				/
	2 sensors with PNP output, NC contact, not connected *(5)*							**B**				/
	Without sensors							**N**				/
Type of fixing support *(6)*	Type 1								**1**			/
Options	Anti-corrosion version (only for CAS 31, 32, 33, 34)									**C**		/
	With anti-static toothed belt									**A**		/
	Anti-corrosion version/with anti-static toothed belt (only for CAS 31, 32, 33, 34)									**E**		/
	Without option									**N**		/
Interface for the drive element *(7)*	Drive element fixed on right-hand side										**R**	/

(1) All technical data for Lexium CAS 3 cantilever axes is available on the documentation CD-ROM supplied with this catalogue.
(2) For the second part of the reference, see page 25.
(3) The maximum length depends on the cross-section of the profile. Refer to the characteristics table on page 23.
(4) Supplied with a 0.2 m cable fitted with an M8 connector.
(5) Supplied with a 5 m cable fitted with flying leads at one end.
(6) Refer to the documentation CD-ROM supplied with this catalogue.
(7)Drive element fixed on right-hand side:

CAS 3●●CM●●●●●1●R/…*(2)*



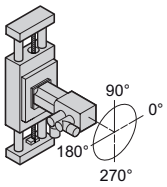
References (continued) *(1)*

To order a Lexium CAS 3 cantilever axis, complete each reference by replacing the "●" *(2)*:

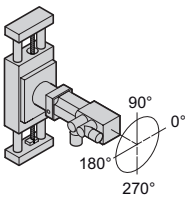
Example: CAS 3 1 B C M 0200 A 1 C R/1 XX X V6 0 *(2)*		**CAS 3 ● ● C M ●●●● ● 1 ● R** *(2)*/	●	●●	●	●●	●
Motor drive configuration *(3)*	Motor only	/	**1**				
	Motor + gearbox	/	**2**				
	Gearbox only	/	**3**				
Gearbox (PLE/WPLE/PLS: third-party gearboxes from Neugart)	Gearboxes PLE 40	/		**0G**			
	Gearboxes PLE 60	/		**1G**			
	Gearboxes PLE 80	/		**3G**			
	Gearboxes PLE 120	/		**5G**			
	Gearboxes WPLE 40	/		**0A**			
	Gearboxes WPLE 60	/		**1A**			
	Gearboxes WPLE 80	/		**3A**			
	Gearboxes WPLE 120	/		**5A**			
	Gearboxes PLS 70	/		**7G**			
	Gearboxes PLS 90	/		**8G**			
	Gearboxes PLS 115	/		**9G**			
	Other third-party gearboxes, not mounted by Schneider Electric (gearbox drawings required)	/		**YY**			
	Other third-party gearboxes, mounted by Schneider Electric (gearbox and drawings required)	/		**ZZ**			
	Without gearbox	/		**XX**			
Gearbox orientation *(3)*	0°	/			**3**		
	90°	/			**0**		
	180°	/			**9**		
	270°	/			**6**		
	Without gearbox	/			**X**		
Motor	Servo motors BRH 057/SER 36●	/				**S6**	
	Servo motors BRH 085/SER 39●	/				**S9**	
	Servo motors BRH 110/SER 311●	/				**S1**	
	Servo motors BSH 055●	/				**H5**	
	Servo motors BSH 0701, 0702/BMH 0701, 0702	/				**H7**	
	Servo motors BSH 0703/BMH 0703	/				**H8**	
	Servo motors BSH 1001 to 1003/BMH 1001 to 1003	/				**H1**	
	Servo motors BSH 1004	/				**H4**	
	Servo motors BSH 1401 to 1404/BMH 1401 to 1403	/				**H2**	
	Lexium integrated drives ILS●●571, 572 with 3-phase stepper motor	/				**I6**	
	Lexium integrated drives ILS●●573 with 3-phase stepper motor	/				**I7**	
	Lexium integrated drives ILS●●851, 852 with 3-phase stepper motor	/				**I9**	
	Lexium integrated drives ILS●●853 with 3-phase stepper motor	/				**I8**	
	Lexium integrated drives ILA●●57 with AC synchronous servo motor	/				**A6**	
	Lexium integrated drives ILE●●66 with brushless DC motor	/				**E7**	
	Stepper motors BRS 364, 366	/				**V6**	
	Stepper motors BRS 368	/				**V8**	
	Stepper motors BRS 397, 39A	/				**V9**	
	Stepper motors BRS 39B	/				**V0**	
	Stepper motors BRS 3AC, 3AD	/				**V1**	
	Third-party motors, not mounted by Schneider Electric (motor drawings required)	/				**YY**	
	Third-party motors, mounted by Schneider Electric (motor and drawings required)	/				**ZZ**	
	Without motor	/				**XX**	
Motor orientation *(3)*	0°	/					**3**
	90°	/					**0**
	180°	/					**9**
	270°	/					**6**
	Without motor	/					**X**

(1) All technical data for Lexium CAS 3 cantilever axes is available on the documentation CD-ROM supplied with this catalogue.
(2) For the first part of the reference, see page 24.
(3) Possible motor drive configurations and orientations:

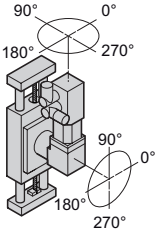
CAS 3●●…*(2)*/1XXX●●●



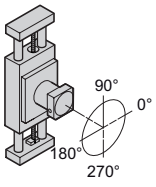
CAS 3●●…*(2)*/2●G●●●●



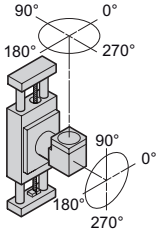
CAS 3●●…*(2)*/2●A●●●●



CAS 3●●…*(2)*/3●G●XXX



CAS 3●●…*(2)*/3●A●XXX



Lexium Linear Motion
Lexium CAS 2 telescopic axes

Presentation *(1)*

Lexium CAS 2 telescopic axes are linear motion axes. They consist of a mobile axis structure, a mobile carriage and a fixed drive element.
This technology combination offers a longer maximum travelling distance than the actual length of the axis. The axis is able to move within a work area before moving out again completely.

The mobile carriage is used to support the load. It is driven by a toothed belt with roller or ball guides. The mobile structure's design is based on a very strong profile made of anodized aluminium. This profile is able to move loads of up to 35 kg, depending on the model. The structure is driven by a toothed belt.

Lexium CAS 2 telescopic axes are designed for loading and unloading applications in work areas subject to access restrictions imposed, for example, by set working periods or limited space.

These axes with a ball guide, are particularly suitable for applications requiring high forces and significant torque. For other applications, the roller guide offers a simple, cost-effective solution.

Lexium CAS 2 telescopic axes offer various configuration options. These include axis length, various types of sensor a choice between 2 carriage types of different sizes, etc. (see page 28).

Schneider Electric offers a number of drive elements which can be used to drive Lexium CAS 2 telescopic axes *(2)* (see pages 4 and 29).
Third-party drive elements can also be used under certain conditions. Contact your Customer Care Centre for further details.

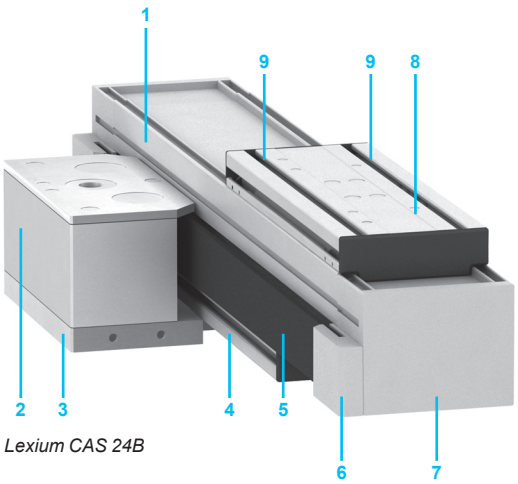
Applications

Applications requiring positioning over long distances where space is at a premium: material handling, stock transporters, transfer machines, etc.

Special product features

- High rigidity mobile structure with light travel weight.
- Carriage with T-slots for easier load mounting.
- Compact.
- Stroke can be set to the nearest millimeter.

Description *(1) (3)*



Lexium CAS 24B

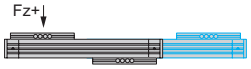
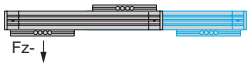
1 Lexium CAS 24B telescopic axis
2 Driving block
3 Adaptor plate for drive element
4 Support for fixing axis
5 Toothed belt for driving mobile axis structure
6 Bracket for toothed belt driving mobile axis structure
7 End blocks
8 Carriage to support load
9 Slots for load mounting

(1) All technical data for Lexium CAS 2 telescopic axes is available on the documentation CD-ROM supplied with this catalogue.
(2) When selecting the drive element, the maximum permissible driving torque for the axis drive shaft must always be taken into account.
(3) Description of a Lexium CAS 2 telescopic axis; the configuration options selected will determine whether or not certain components are included.

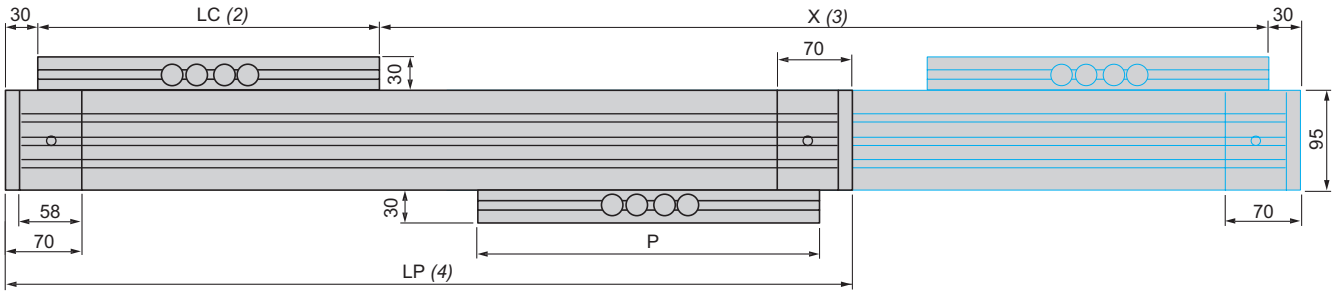
Characteristics: page 27
Dimensions: page 27
References: pages 28 and 29

Lexium Linear Motion
Lexium CAS 2 telescopic axes

Mechanical characteristics *(1)*

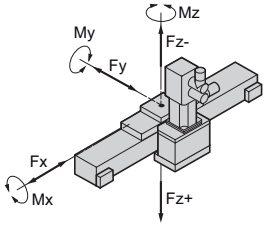
Type of telescopic axis		Lexium		CAS 24BR	CAS 24BB
Type of drive	For supporting load			Toothed belt	
	For axis structure			Toothed belt	
Type of guide				Roller	Ball
Typical payload			kg	25	35
Maximum driving force for X axis (Fx) *(5)*			N	1500	
Maximum speed			m/s	3	
Maximum acceleration			m/s^2	20	
Maximum driving torque			Nm	36	
Maximum force for Y axis (FY) *(5)*			N	1810	2460
Maximum force for Z axis (Fz-, Fz+) *(5)*	Fz+ 		N	1070	4650
	Fz- 		N	1070	2320
Maximum torque for X axis (Mx) *(5)*			Nm	52	70
Maximum torque for Y axis (My) *(5)*	With carriage type 1		Nm	106	281
	With carriage type 2		Nm	148	374
Maximum torque for Z axis (Mz) *(5)*	With carriage type 1		Nm	219	298
	With carriage type 2		Nm	308	397
Maximum stroke dimension "X" *(4)*			mm	2400	
Repeatability			mm	± 0.1	
Cross-section of profile	Width x height		mm	120 x 95	
Service life			km	30,000	

Size characteristics *(1)*



CAS		Carriage type 1		Carriage type 2	
	LP	LC	P	LC	P
24B	= 60 + LC + (X / 2)	320	320	400	400

(1) All technical data for Lexium CAS 2 telescopic axes is available on the documentation CD-ROM supplied with this catalogue.
(2) LC: length of carriage
(3) X: stroke depending on application
(4) LP: total length of axis
(5) Forces and torques exerted on the Lexium CAS 2 telescopic axis:



Presentation: page 26
References: pages 28 and 29

Lexium Linear Motion
Lexium CAS 2 telescopic axes

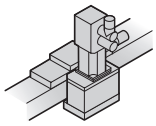
References *(1)*

To order a Lexium CAS 2 telescopic axis, complete each reference by replacing the "●" *(2)*:

Example: CAS 2 4 B R M 2000 A 1 N R/1 XX X V6 0 *(2)*		**CAS 2**	**4**	**B**	**●**	**M**	**●●●●**	**●**	**●**	**N**	**R**	*/(2)*
Size (cross-section profile)	120 (cross-section 120 x 95 mm)		**4**									/
Drive system for carriage and axis structure	2 toothed belts: 1 for the carriage and 1 for the axis structure			**B**								/
Guide system for carriage	Roller				**R**							/
	Ball				**B**							/
Feed per revolution	Axis structure: 150 mm/revolution Carriage: 300 mm/revolution					**M**						/
Stroke	State the length in mm *(3)*.						**●●●●**					/
Limit switches	2 sensors with PNP output, NC contact, not connected *(4)*							**A**				/
	2 sensors with PNP output, NC contact, not connected *(5)*							**B**				/
	Without sensors/without detection plate							**N**				/
Type of Carriage *(6)*	Type 1								**1**			/
	Type 2								**2**			/
Options	Without option									**N**		/
Interface for drive element *(7)*	Motor unit fixed on right-hand side										**R**	/

(1) All technical data for Lexium CAS 2 telescopic axes is available on the documentation CD-ROM supplied with this catalogue.
(2) For the second part of the reference, see page 29.
(3) Please refer to the characteristics table on page 27.
(4) Supplied with a 0.2 m cable fitted with an M8 connector.
(5) Supplied with a 5 m cable fitted with flying leads at one end.
(6) Refer to the characteristics on page 27 and the documentation CD-ROM supplied with this catalogue.
(7) Drive element fixed on right-hand side:

CAS 24B●M●●●●●●NR/…*(2)*



References (continued) *(1)*

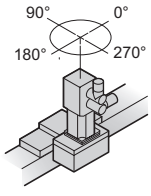
To order a Lexium CAS 2 telescopic axis, complete each reference by replacing the "●" *(2)*:

Example: CAS 2 4 B R M 2000 A 1 N R/1 XX X V6 0 *(2)* **CAS 2 4 B ● M ●●●● ● ● N R** *(2)*/ ● ●● ● ●● ●

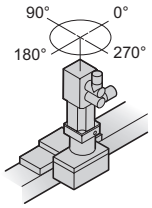
Motor drive configuration *(3)*	Motor only	/	**1**					
	Motor + gearbox	/	**2**					
	Gearbox only	/	**3**					
Gearbox (PLE/WPLE/PLS: third-party gearboxes from Neugart)	Gearboxes PLE 40	/		**0G**				
	Gearboxes PLE 60	/		**1G**				
	Gearboxes PLE 80	/		**3G**				
	Gearboxes PLE 120	/		**5G**				
	Gearboxes WPLE 40	/		**0A**				
	Gearboxes WPLE 60	/		**1A**				
	Gearboxes WPLE 80	/		**3A**				
	Gearboxes WPLE 120	/		**5A**				
	Gearboxes PLS 70	/		**7G**				
	Gearboxes PLS 90	/		**8G**				
	Gearboxes PLS 115	/		**9G**				
	Other third-party gearboxes, not mounted by Schneider Electric (gearbox diagrams required)	/		**YY**				
	Other third-party gearboxes, mounted by Schneider Electric (gearbox and diagrams required)	/		**ZZ**				
	Without gearbox	/		**XX**				
Gearbox orientation *(3)*	0°	/			**3**			
	90°	/			**0**			
	180°	/			**9**			
	270°	/			**6**			
	Without gearbox	/			**X**			
Motor	Servo motors BRH 057/SER 36●	/				**S6**		
	Servo motors BRH 085/SER 39●	/				**S9**		
	Servo motors BRH 110/SER 311●	/				**S1**		
	Servo motors BSH 055●	/				**H5**		
	Servo motors BSH 0701, 0702/BMH 0701, 0702	/				**H7**		
	Servo motors BSH 0703/BMH 0703	/				**H8**		
	Servo motors BSH 1001 to 1003/BMH 1001 to 1003	/				**H1**		
	Servo motors BSH 1004	/				**H4**		
	Servo motors BSH 1401 to 1404/BMH 1401 to 1403	/				**H2**		
	Lexium integrated drives ILS●●571, 572 with 3-phase stepper motor	/				**I6**		
	Lexium integrated drives ILS●●573 with 3-phase stepper motor	/				**I7**		
	Lexium integrated drives ILS●●851, 852 with 3-phase stepper motor	/				**I9**		
	Lexium integrated drives ILS●●853 with 3-phase stepper motor	/				**I8**		
	Lexium integrated drives ILA●●57 with AC synchronous servo motor	/				**A6**		
	Lexium integrated drives ILE●●66 with brushless DC motor	/				**E7**		
	Stepper motors BRS 364, 366	/				**V6**		
	Stepper motors BRS 368	/				**V8**		
	Stepper motors BRS 397, 39A	/				**V9**		
	Stepper motors BRS 39B	/				**V0**		
	Stepper motors BRS 3AC, 3AD	/				**V1**		
	Third-party motors, not mounted by Schneider Electric (motor diagrams required)	/				**YY**		
	Third-party motors, mounted by Schneider Electric (motor and diagrams required)	/				**ZZ**		
	Without motor	/				**XX**		
Motor orientation *(3)*	0°	/					**3**	
	90°	/					**0**	
	180°	/					**9**	
	270°	/					**6**	
	Without motor	/					**X**	

(1) All technical data for Lexium CAS 2 telescopic axes is available on the documentation CD-ROM supplied with this catalogue.
(2) For the first part of the reference, see page 28.
(3) Possible motor drive configurations and orientations.

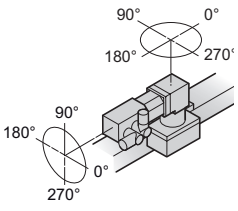
CAS 2●B…*(2)*/1XXX●●●



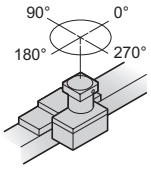
CAS 2●B…*(2)*/2●G●●●●



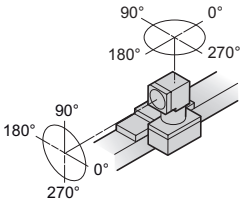
CAS 2●B…*(2)*/2●A●●●●



CAS 2●B…*(2)*/3●G●XXX



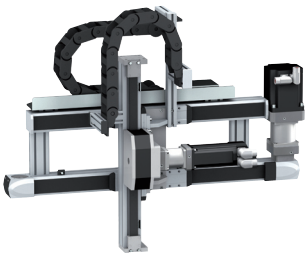
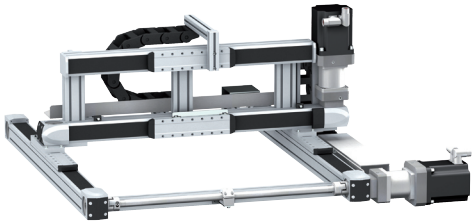
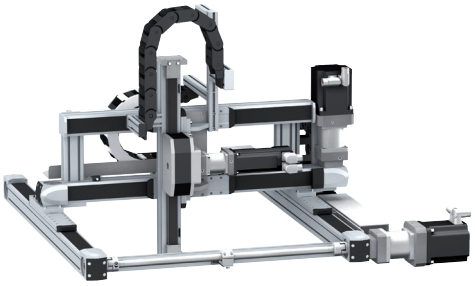
CAS 2●B…*(2)*/3●A●XXX



Lexium Linear Motion
Multi-axis systems

Axis type		**Double portal axes**	
Movement	Number of directions	**1**	
	Movement type	**Horizontal: Combination of two parallel axes X and X**	
	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**

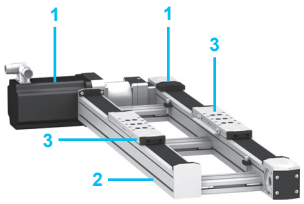
Main characteristics		□ Long stroke length □ High dynamic response □ High precision movement (positioning, guiding)	□ High precision movement (positioning, guiding) □ High feed forces
Maximum payload		250 kg	300 kg
Maximum working stroke	**On the X-axis**	5500 mm	
	On the Y-axis	–	
	On the Z-axis	–	
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**
Page		34	

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	5500 mm	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		

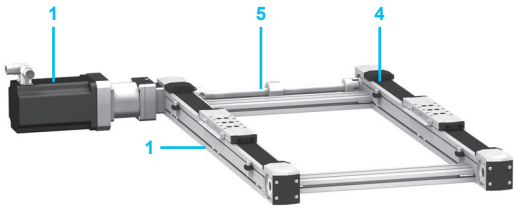
MAX P	MAX R●2	MAX R●3
37	40	41

Lexium Linear Motion

Lexium MAX H and Lexium MAX S double portal axes



Lexium MAX H



Lexium MAX S

Presentation *(1)*

Lexium MAX H and Lexium MAX S double portal axes are linear motion axes. They consist of two PAS B portal axes mounted in parallel with:

- 1 axis driven by a drive element **1**
- 1 support axis **2** (Lexium MAX H) or **4** (Lexium MAX S). The support axis drive differs according to the model:
  - Lexium MAX H: The support axis **2** is driven by the load fixed on the two parallel carriages **3.**
  - Lexium MAX S: the support axis **4** is driven by a transmission shaft **5**.

The carriages are driven by a toothed belt, available with either a roller guide or a ball guide.

Lexium MAX H and Lexium MAX S double portal axes can provide a solution to applications requiring positioning of heavy loads over a long stroke with high dynamics.
These axes, with a ball guide, are particularly suitable for applications requiring high feed forces and significant torque.
For other applications, the roller guide offers a simple, cost-effective solution.

Lexium MAX H and Lexium MAX S double portal axes offer different configuration options, including axis length, different types of sensor addition of a protective metal strip, the choice between several types and sizes of carriage, the option of having up to 3 carriages, an anti-static toothed belt and an anti-corrosion version, etc. (see page 34).

Schneider Electric offers numerous drive elements for driving Lexium MAX H and Lexium MAX S axes *(2)* (see pages 4 and 35).
Third-party drive elements can also be used in certain conditions; in this instance, please contact your Customer Care Centre.

Applications

Applications requiring:

- Positioning of heavy loads with large surfaces: material handling, etc.
- Positioning over long distances: material handling, Pick & Place, etc.

Special features

- Profile with T-slots on 3 sides for simple integration into existing structures
- Carriage with drill holes for easier load mounting
- Grease nipples accessible on each side of the carriages to simplify routine maintenance
- Quick-coupling system for simple motor assembly
- Stroke can be set to the nearest millimetre
- Option to position sensors anywhere along the profile thanks to the T-slots

(1) All the technical data for Lexium MAX H and Lexium MAX S axes is available on the documentation CD-ROM supplied with this catalogue. The load, force and torque data indicated in all the documents relates to carriages fixed on a rigid mechanical structure with a centrally fixed load.
(2) The choice of drive element must always take account of the maximum drive torque permitted on the axis drive shaft.

Characteristics: page 33
References: pages 34 and 35

Lexium Linear Motion

Lexium MAX H and Lexium MAX S double portal axes

Mechanical characteristics *(1)*

Type of double portal axis	Lexium		MAX H1 BR	MAX H2 BR	MAX H2 BB	MAX H3 BR	MAX H3 BB	MAX H4 BB
Type of drive			Toothed belt					
Type of guide			Roller		Ball	Roller	Ball	
Typical payload		kg	12	20	65	40	150	250
Maximum stroke		mm	3000	5500				
Distance between the two axes	minimum...maximum	mm	100…300	110…400		120…500		130…600

Type of double portal axis	Lexium		MAX S1 BR	MAX S2 BR	MAX S2 BB	MAX S3 BR	MAX S3 BB	MAX S4 BB
Type of drive			Toothed belt					
Type of guide			Roller		Ball	Roller	Ball	
Typical payload		kg	15	25	75	50	180	300
Maximum stroke		mm	3000	5500				
Distance between the two axes	minimum...maximum	mm	100…1400	110…1800		120…2300		130…2800

(1) All the technical data for Lexium MAX H and Lexium MAX S axes is available on the documentation CD-ROM supplied with this catalogue.

Presentation: page 32
References: pages 34 and 35

Lexium Linear Motion

Lexium MAX H and Lexium MAX S double portal axes

References *(1)*

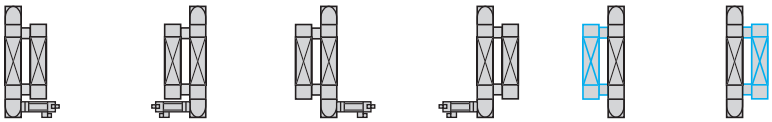
To order a Lexium MAX H or Lexium MAX S double portal axis, complete each reference by replacing the "●" as required *(2)*:

Example: MAX H 1 B R M 1000 A 2 B A XXX R 0120/1 XX X V6 0 *(2)*		**MAX**	●	●	**B**	●	●	●●●●	●	●	●	●	●●●	●	●●●●	/*(2)*
Type of drive for support axis	Support axis driven by the load		**H**													/
	Support axis driven by a drive shaft		**S**													/
Size (profile cross-section)	40 (40 x 40 mm cross-section)			**1**												/
	60 (60 x 60 mm cross-section)			**2**												/
	80 (80 x 80 mm cross-section)			**3**												/
	110 (110 x 110 mm cross-section)			**4**												/
Type of drive	Toothed belt				**B**											/
Type of guide	Roller (MAX ●1B, ●2B, ●3B only)					**R**										/
	Ball (MAX ●2B, ●3B, ●4B only)					**B**										/
Feed per revolution	84 mm/revolution (MAX ●1B only)						**M**									/
	155 mm/revolution (MAX ●2B only)						**M**									/
	205 mm/revolution (MAX ●3B only)						**M**									/
	264 mm/revolution (MAX ●4B only)						**M**									/
Stroke	Indicate the length in mm *(3)*							**●●●●**								/
Limit switches *(4)*	2 PNP output sensors, NC contact, not connected								**A**							/
	2 PNP output sensors, NO contact, not connected								**C**							/
	2 NPN output sensors, NC contact, not connected								**E**							/
	2 NPN output sensors, NO contact, not connected								**G**							/
	Without sensors/without detection plate								**N**							/
Type of carriage *(5)*	Type 1 (MAX ●2B, ●3B, ●4B only)									**1**						/
	Type 2									**2**						
	Type 4									**4**						/
Options	With protective metal strip										**B**					/
	Anti-corrosion version/without protective metal strip										**C**					/
	With anti-static toothed belt/without protective metal strip										**A**					/
	Anti-corrosion version/with anti-static toothed belt/ without protective metal strip										**E**					/
	With anti-static toothed belt/with protective metal strip										**L**					/
	Without option										**N**					/
Number of carriages *(6)*	1											**A**				/
	2 (please contact our Customer Care Centre)											**B**				/
	3 (please contact our Customer Care Centre)											**C**				/
Distance between two carriages	Indicate the distance in mm (999 mm maximum) (please contact our Customer Care Centre)												**●●●**			/
	1 carriage only, indicate "XXX"												**XXX**			/
Interface for the drive element *(7)*	Drive element fixed on the right													**R**		/
	Drive element fixed on the left													**L**		/
	Drive element fixed externally, right-hand side (MAX H only)													**A**		/
	Drive element fixed externally, left-hand side (MAX H only)													**B**		/
	Without drive element/driven axis on the right (MAX H only)													**G**		/
	Without drive element/driven axis on the left (MAX H only)													**H**		/
	Without drive element (MAX S only)													**N**		
Distance between the 2 axes	Indicate the length in mm *(3)*														**●●●●**	/

(1) All the technical data for Lexium MAX H and Lexium MAX S axes is available on the documentation CD-ROM supplied with this catalogue.
(2) For the second part of the reference, see page 35.
(3) The maximum value depends on the profile cross-section. Please refer to the characteristics table on page 33.
(4) Supplied with a 100 m cable equipped with an M8 connector.
(5) Please refer to the documentation CD-ROM supplied with this catalogue.
(6) Only carriages of the same type (type 1, type 2 or type 4) are permitted.
(7) Interface types for the drive element:

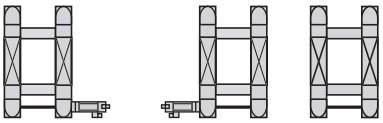
MAX H●B…

…R●●●●/…(2) | **…L●●●●/…(2)** | **…A●●●●/…(2)** | **…B●●●●/…(2)** | **…G●●●●/…(2)** | **…H●●●●/…(2)**



MAX S●B…

…R●●●●/…(2) | **…L●●●●/…(2)** | **…N●●●●/…(2)**



Lexium Linear Motion

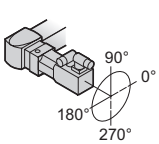
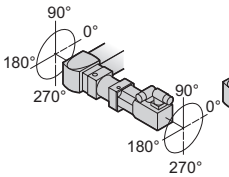
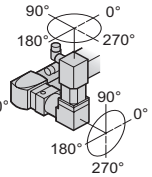
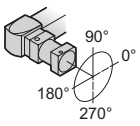
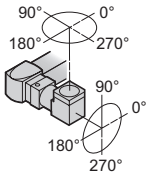
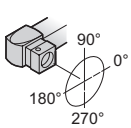
Lexium MAX H and Lexium MAX S double portal axes

References (continued) *(1)*

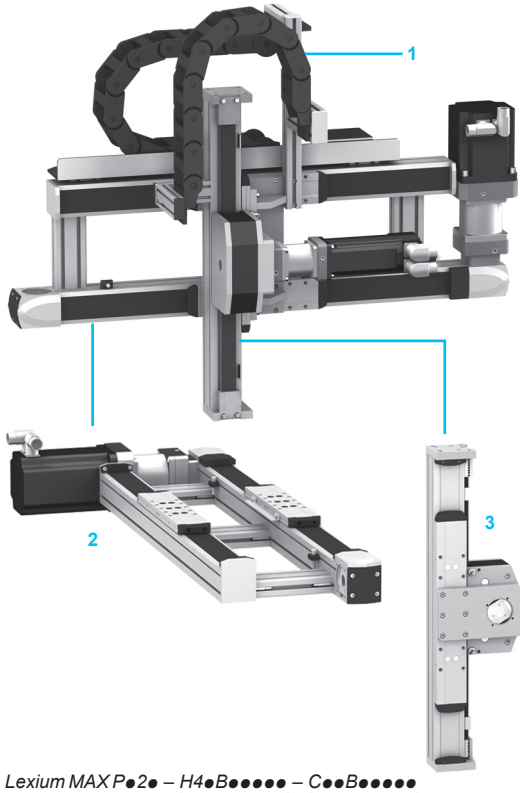
To order a Lexium MAX H or Lexium MAX S double portal axis, complete each reference by replacing the "●" as required *(2)*:

Example: MAX H 1 B R M 1000 A 2 B A XXX R 0120/1 XX X V6 0 *(2)*		**MAX ● ● ● ● ● ●●●● ● ● ● ● ●●● ● ●●●● *(2)*/**	**●**	**●●**	**●**	**●●**	**●**
Motor drive configuration *(3)*	Motor only	/	**1**				
	Motor + gearbox	/	**2**				
	Gearbox only	/	**3**				
	Without motor/without gearbox/with adaptor plate for the drive	/	**4**				
	Without motor/without gearbox	/	**X**				
Gearbox (PLE/WPLE/PLS: Neugart third-party gearboxes)	PLE 40 gearboxes	/		**0G**			
	PLE 60 gearboxes	/		**1G**			
	PLE 80 gearboxes	/		**3G**			
	PLE 120 gearboxes	/		**5G**			
	WPLE 40 gearboxes	/		**0A**			
	WPLE 60 gearboxes	/		**1A**			
	WPLE 80 gearboxes	/		**3A**			
	WPLE 120 gearboxes	/		**5A**			
	PLS 70 gearboxes	/		**7G**			
	PLS 90 gearboxes	/		**8G**			
	PLS 115 gearboxes	/		**9G**			
	Other third-party gearboxes not assembled by Schneider Electric (gearbox drawings required)	/		**YY**			
	Other third-party gearboxes assembled by Schneider Electric (gearbox and drawings required)	/		**ZZ**			
	Without gearbox	/		**XX**			
Gearbox orientation *(3)*	0°	/			**3**		
	90°	/			**0**		
	180°	/			**9**		
	270°	/			**6**		
	Without gearbox	/			**X**		
Motor	BRH 057/SER 36● servo motors	/				**S6**	
	BRH 085/SER 39● servo motors	/				**S9**	
	BRH 110/SER 311● servo motors	/				**S1**	
	BSH 055● servo motors	/				**H5**	
	BSH 0701, 0702/BMH 0701, 0702 servo motors	/				**H7**	
	BSH 0703/BMH 0703 servo motors	/				**H8**	
	BSH 1001…1003/BMH 1001…1003 servo motors	/				**H1**	
	BSH 1004 servo motors	/				**H4**	
	BSH 1401…1404/BMH 1401…1403 servo motors	/				**H2**	
	Lexium ILS●●571, 572 integrated drives with 3-phase stepper motor	/				**I6**	
	Lexium ILS●●573 integrated drives with 3-phase stepper motor	/				**I7**	
	Lexium ILS●●851, 852 integrated drives with 3-phase stepper motor	/				**I9**	
	Lexium ILS●●853 integrated drives with 3-phase stepper motor	/				**I8**	
	Lexium ILA●●57 integrated drives with AC synchronous servo motor	/				**A6**	
	Lexium ILE●●66 integrated drives with DC brushless motor	/				**E7**	
	BRS 364, 366 stepper motors	/				**V6**	
	BRS 368 stepper motors	/				**V8**	
	BRS 397, 39A stepper motors	/				**V9**	
	BRS 39B stepper motors	/				**V0**	
	BRS 3AC, 3AD stepper motors	/				**V1**	
	Third-party motors not assembled by Schneider Electric (motor drawings required)	/				**YY**	
	Third-party motors assembled by Schneider Electric (motor and drawings required)	/				**ZZ**	
	Without motor	/				**XX**	
Motor orientation *(3)*	0°	/					**3**
	90°	/					**0**
	180°	/					**9**
	270°	/					**6**
	Without motor	/					**X**

(1) All the technical data for Lexium MAX H and Lexium MAX S axes is available on the documentation CD-ROM supplied with this catalogue.
(2) For the first part of the reference, see page 34.
(3) Possible motor drive configurations and orientations:

MAX ●●B…*(2)*/ 1XXX●●●	**MAX ●●B…*(2)*/2●G●●●●**	**MAX ●●B…*(2)*/ 2●A●●●●**	**MAX ●●B…*(2)*/ 3●G●XXX**	**MAX ●●B…*(2)*/ 3●A●XXX**	**MAX ●●B…*(2)*/ 4XXX●●●**	**MAX ●●B…*(2)*/ XXXXXXX**
						

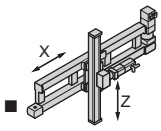
Lexium Linear Motion
Lexium MAX P linear positioners



Lexium MAX P●2● – H4●B●●●●● – C●●B●●●●●
2
3
1

Presentation *(1)*

Lexium MAX P **1** linear positioners are multi-axis systems for linear motion in directions X and Z:



They consist of two axes with:
- A Lexium MAX H double portal axis providing motion in direction X **2**
- A Lexium CAS 4 or Lexium CAS 3 Cantilever axis providing motion in direction Z **3**

Each carriage is driven by a toothed belt, available with either a roller guide or a ball guide.

Lexium MAX P linear positioners operate above or below the working area. They offer a reliable solution to dynamic load handling. Depending on the model, loads of up to 50 kg can be moved as far as 5500 mm in direction X and 1200 mm in direction Z.

These linear positioners offer different configuration options for each axis, including length, choice of different sizes and types of cantilever axis, choice of different types of guide, etc. (see next page).

Schneider Electric offers numerous drive elements for driving Lexium MAX P linear positioners.
Since the choice and combination of these drive elements is specific to each application, it will be necessary to contact your Customer Care Centre.

Applications

Applications requiring dynamic load positioning: material handling, Pick & Place, etc.

Special features

- Payload up to 50 kg
- Numerous adaptation possibilities thanks to its modular design

Mechanical characteristics *(1)*

Type of linear positioner	Lexium		MAX P12 – H41BR – C31BC	MAX P12 – H41BR – C41BR	MAX P22 – H42BR – C32BC	MAX P22 – H42BB – C32BC	MAX P22 – H42BR – C42BR	MAX P22 – H42BB – C42BB
Type of load	X and Z axis		Toothed belt					
Type of guide	X axis		Roller			Ball	Roller	Ball
	Z axis		Ball	Roller	Ball		Roller	Ball
Typical payload		**kg**	2	4		5	6	15
Maximum stroke	X axis	**mm**	3000	4000				
	Z axis	**mm**	200	400	300		600	

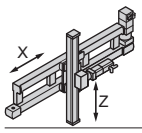
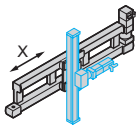
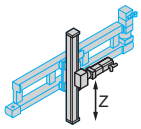
Type of linear positioner	Lexium		MAX P32 – H43BR – C34BC	MAX P32 – H43BB – C34BC	MAX P32 – H43BR – C43BR	MAX P32 – H43BB – C43BB	MAX P42 – H44BB – C44BB
Type of load	X and Z axis		Toothed belt				
Type of guide	X axis		Roller	Ball	Roller	Ball	
	Z axis		Ball		Roller	Ball	
Typical payload		**kg**	14	18		25	50
Maximum stroke	X axis	**mm**	5500				
	Z axis	**mm**	500		800		1200

(1) All the technical data for Lexium MAX P linear positioners is available on the documentation CD-ROM supplied with this catalogue.

Lexium Linear Motion
Lexium MAX P linear positioners

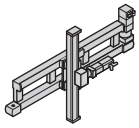
References *(1)*

To order a Lexium MAX P linear positioner, complete each reference by replacing the "●" as required *(3)*:

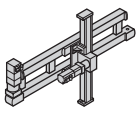
Example: MAX P 1 2 R – H41 B R 4000 – C41 B R 0400 *(3)*		**MAX P**	●	2	●	–	●●●	B	●	●●●●	–	●●●	B	●	●●●●
Size of X axis profile cross-section) 	40 (40 x 40 mm cross-section)		**1**												
	60 (60 x 60 mm cross-section)		**2**												
	80 (80 x 80 mm cross-section)		**3**												
	110 (110 x 110 mm cross-section)		**4**												
Number of independent axes	2 axes: 1 X axis, 1 Z axis			**2**											
Interface for the drive element *(5)*	Drive element fixed on the right				**R**										
	Drive element fixed on the left				**L**										
Type of X axis 	MAX H41 (MAX P12 only) *(2)*						**H41**								
	MAX H42 (MAX P22 only) *(2)*						**H42**								
	MAX H43 (MAX P32 only) *(2)*						**H43**								
	MAX H44 (MAX P42 only) *(2)*						**H44**								
Type of drive	Toothed belt							**B**							
Type of guide for carriage	Roller (MAX P●2● – H41/H42/H43 only)								**R**						
	Ball (MAX P●2● – H42/H43/H44 only)								**B**						
Stroke	Indicate the length in mm *(4)*									**●●●●**					
Type of Z axis 	CAS 41 *(2)* (MAX P12 only)											**C41**			
	CAS 42 *(2)* (MAX P22 only)											**C42**			
	CAS 43 *(2)* (MAX P32 only)											**C43**			
	CAS 44 *(2)* (MAX P42 only)											**C44**			
	CAS 31 *(2)* (MAX P12 only)											**C31**			
	CAS 32 *(2)* (MAX P22 only)											**C32**			
	CAS 34 *(2)* (MAX P32 only)											**C34**			
Type of drive	Toothed belt												**B**		
Type of guide for carriage	Roller (MAX P●2● – H4●B●●●●● – C41/C42/C43 only)													**R**	
	Ball (MAX P●2● – H4●B●●●●● – C42/C43/C44 only)													**B**	
	Ball (MAX P●2● – H4●B●●●●● – C3● only)													**C**	
Stroke	Indicate the length in mm *(4)*														**●●●●**

(1) All the technical data for Lexium MAX P linear positioners is available on the documentation CD-ROM supplied with this catalogue.
(2) Supplied with 2 PNP output sensors, NC contact, with a 100 mm cable equipped with an M8 connector.
(3) Since the combination of drive elements is specific to each application, it will be necessary to contact your Customer Care Centre.
(4) The maximum length depends on the profile cross-section. Please refer to the characteristics table on the previous page.
(5) Interface types for the drive element:

MAX P●2R – …

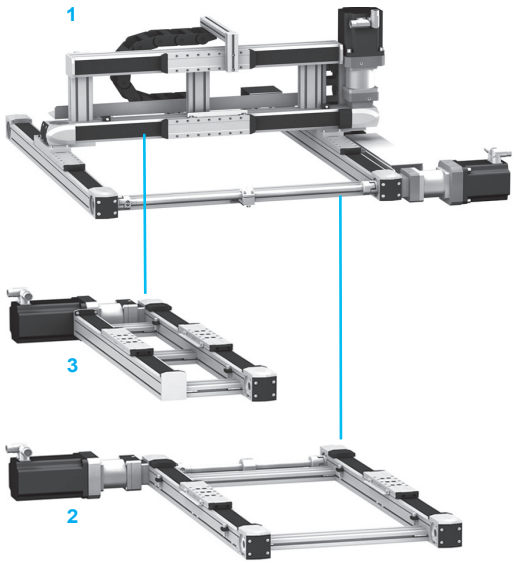


MAX P●2L – …



Lexium Linear Motion

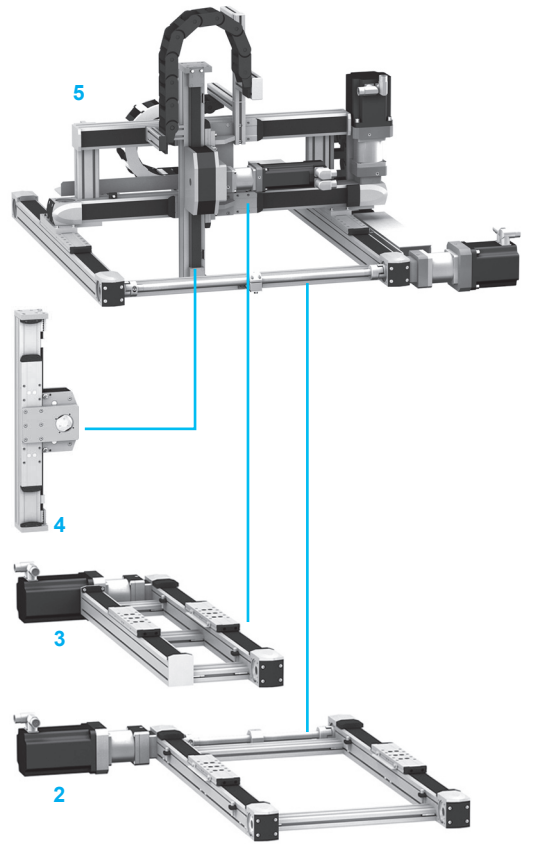
Lexium MAX R●2 and Lexium MAX R●3 portal robots



Lexium MAX R●2● – S4●B●●●●● – H4●B●●●●●

2 3

1



Lexium MAX R●3● – S4●B●●●●● – H4●B●●●●● – C●●B●●●●●

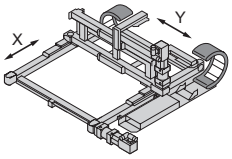
2 3 4

5

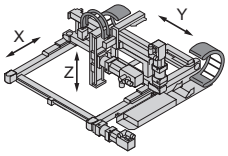
Presentation *(1)*

Lexium MAX R●2 **1** and Lexium MAX R●3 **5** portal robots are multi-axis linear motion systems.
Lexium MAX R●2 portal robots allow motion in directions X and Y.
Lexium R●3 portal robots offer additional motion in direction Z.

Lexium MAX R●2 portal robot



Lexium MAX R●3 portal robot



Lexium MAX R●2 portal robots **1** consist of two axes:
- A Lexium MAX S double portal axis providing motion in direction X **2**
- A Lexium MAX H double portal axis or a Lexium PAS B portal axis providing motion in direction Y **3**

Lexium MAX R●3 portal robots **5** consist of three axes:
- A Lexium MAX S double portal axis providing motion in direction X **2**
- A Lexium MAX H double portal axis providing motion in direction Y **3**
- A Lexium CAS 4 or Lexium CAS 3 Cantilever axis providing motion in direction Z **4**

The carriages are driven by a toothed belt, available with either a roller guide or a ball guide.

Lexium MAX R●2 and Lexium MAX R●3 portal robots operate above the working area. They offer a reliable solution to load handling over long distances:
- Lexium MAX R●2 portal robots: Depending on the model, loads of up to 130 kg can be moved as far as 5500 mm in direction X and 1500 mm in direction Y.
- Lexium MAX R●3 portal robots: Depending on the model, loads of up to 50 kg can be moved as far as 5500 mm in direction X, 1500 mm in direction Y and 1200 mm in direction Z.

These portal robots offer different configuration options for each axis, including length, choice of different sizes and types of axes choice of different types of guide, etc. (see pages 40 and 41).

Schneider Electric offers numerous drive elements for driving Lexium MAX R●2 and Lexium MAX R●3 portal robots.
Since the choice and combination of these drive elements is specific to each application, you will need to contact your Customer Care Centre.

Applications

Applications requiring load handling over long distances: material handling, optics, Pick & Place, etc.

Special features

- Payload up to 130 kg for Lexium MAX R●2 portal robots and up to 50 kg for Lexium MAX R●3 portal robots
- Drive elements mounted on the right or left
- Numerous adaptation possibilities thanks to its modular design

(1) All the technical data for Lexium MAX R●2 and Lexium MAX R●3 portal robots is available on the documentation CD-ROM supplied with this catalogue.

Characteristics: page 39
References: pages 40 and 41

Lexium Linear Motion

Lexium MAX R●2 and Lexium MAX R●3 portal robots

Mechanical characteristics *(1)*

Lexium MAX R●2 portal robots

Type of portal robot		Lexium		MAX R12 –		MAX R22 –			
				S41BR – P41BR	S41BR – H41BR	S42BR – P42BR	S42BB – P42BB	S42BR – H42BR	S42BB – H42BB
Type of drive	X and Y axis			Toothed belt					
Type of guide	X axis			Roller			Ball	Roller	Ball
	Y axis			Roller			Ball	Roller	Ball
Typical payload			kg	5	8	5	12	15	30
Maximum stroke	X axis		mm	3000		5500			
	Y axis		mm	1200		1500			

Type of portal robot		Lexium		MAX R32 –				MAX R42 –	
				S43BR – P43BR	S43BB – P43BB	S43BR – H43BR	S43BB – H43BB	S44BB – H44BB	
Type of drive	X and Y axis			Toothed belt					
Type of guide	X axis			Roller	Ball	Roller	Ball		
	Y axis			Roller	Ball	Roller	Ball		
Typical payload			kg	11	30	40	80	130	
Maximum stroke	X axis		mm	5500					
	Y axis		mm	1500					

Lexium MAX R●3 portal robots

Type of portal robot		Lexium		MAX R13 –		MAX R23 –			
				S41BR – H41BR – C31BC	S41BR – H41BR – C41BR	S42BR – H42BR – C32BC	S42BB – H42BB – C32BC	S42BR – H42BR – C42BR	S42BB – H42BB– C42BB
Type of drive	X, Y and Z axis			Toothed belt					
Type of guide	X axis			Roller			Ball	Roller	Ball
	Y axis			Roller			Ball	Roller	Ball
	Z axis			Ball	Roller	Ball		Roller	Ball
Typical payload			kg	2	4	4	5	6	15
Maximum stroke	X axis		mm	3000		5500			
	Y axis		mm	1200		1500			
	Z axis		mm	200	400	300		600	

Type of portal robot		Lexium		MAX R33 –				MAX R43 –	
				S43BR – H43BR – C34BC	S43BB – H43BB – C34BC	S43BR – H43BR – C43BR	S43BB – H43BB – C43BB	S44BB – H44BB – C44BB	
Type of drive	X , Y and Z axis			Toothed belt					
Type of guide	X axis			Roller	Ball	Roller	Ball		
	Y axis			Roller	Ball	Roller	Ball		
	Z axis			Ball		Roller	Ball		
Typical payload			kg	14	18	9	25	50	
Maximum stroke	X axis		mm	5500					
	Y axis		mm	1500					
	Z axis		mm	500		800		1200	

(1) All the technical data for Lexium MAX R●2 and Lexium MAX R●3 portal robots is available on the documentation CD-ROM supplied with this catalogue.

Presentation: page 38

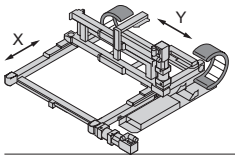
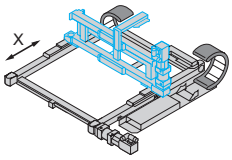
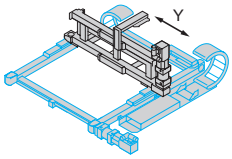
References: pages 40 and 41

Lexium Linear Motion
Lexium MAX R●2 portal robots

References *(1)*

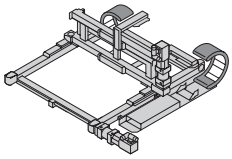
To order a Lexium MAX R●2 portal robot, complete each reference by replacing the "●" as required *(3)*:

Example: MAX R 1 2 R – S41 B R 3000 – H41 B R 1200 *(3)*

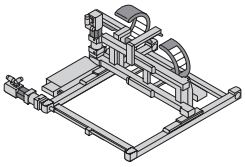
		MAX R	●	2	●	–	●●●	B	●	●●●●	–	●●●	B	●	●●●●
Size of X axis (profile cross-section) 	40 (40 x 40 mm cross-section)		**1**												
	60 (60 x 60 mm cross-section)		**2**												
	80 (80 x 80 mm cross-section)		**3**												
	110 (110 x 110 mm cross-section)		**4**												
Number of independent axes	2 axes: 1 X axis, 1 Y axis			**2**											
Interface for the drive element *(5)*	Drive element fixed on the right				**R**										
	Drive element fixed on the left				**L**										
Type of X axis 	MAX S41 (MAX R12 only) *(2)*						**S41**								
	MAX S42 (MAX R22 only) *(2)*						**S42**								
	MAX S43 (MAX R32 only) *(2)*						**S43**								
	MAX S44 (MAX R42 only) *(2)*						**S44**								
Type of drive for carriage	Toothed belt							**B**							
Type of guide for carriage	Roller (MAX R●2● – S41/S42/S43 only)								**R**						
	Ball (MAX R●2● – S42/S43/S44 only)								**B**						
Stroke	Indicate the length in mm *(4)*									**●●●●**					
Type of Y axis 	MAX H41 (MAX R12 only) *(2)*											**H41**			
	MAX H42 (MAX R22 only) *(2)*											**H42**			
	MAX H43 (MAX R32 only) *(2)*											**H43**			
	MAX H44 (MAX R42 only) *(2)*											**H44**			
	PAS 41 (MAX R12 only) *(2)*											**P41**			
	PAS 42 (MAX R22 only) *(2)*											**P42**			
	PAS 43 (MAX R32 only) *(2)*											**P43**			
Type of drive for carriage	Toothed belt												**B**		
Type of guide for carriage	Roller (MAX R●2● – S4●B●●●●● – H41/H42/H43/P4● only)													**R**	
	Ball(MAX R●2● – S4●B●●●●● – H42/H43/H44/P42/P43/P44 only)													**B**	
Stroke	Indicate the length in mm *(4)*														**●●●●**

(1) All the technical data for Lexium MAX R●2 portal robots is available on the documentation CD-ROM supplied with this catalogue.
(2) Each axis is supplied with 2 PNP output sensors, NC contact, with a 100 mm cable equipped with an M8 connector.
(3) Since the combination of drive elements is specific to each application, you will need to contact your Customer Care Centre.
(4) The maximum length depends on the profile cross-section. Please refer to the characteristics table on page 39.
(5) Interface types for the drive element:

MAX R●2R – …



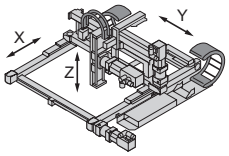
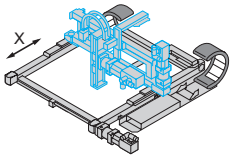
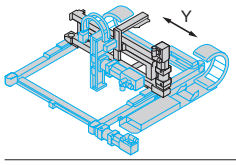
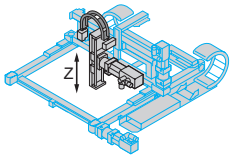
MAX R●2L – …



References (1)

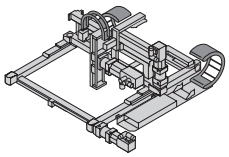
To order a Lexium MAX R●3 portal robot, complete each reference by replacing the "●" as required (3):

Example: MAX R 1 3 R – S41 B R 3000 – H41 B R 1200 – C31 B C 1200 (3) — **MAX R ● 3 ● – ●●● B ● ●●●● – ●●● B ● ●●●● – ●●● B ● ●●●●**

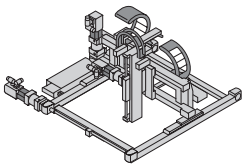
Size of X axis (profile cross-section) 	40 (40 x 40 mm cross-section)	**1**
	60 (60 x 60 mm cross-section)	**2**
	80 (80 x 80 mm cross-section)	**3**
	110 (110 x 110 mm cross-section)	**4**
Number of independent axes	3 axes: 1 X axis, 1 Y axis, 1 Z axis	**3**
Interface for the drive element *(5)*	Drive element fixed on the right	**R**
	Drive element fixed on the left	**L**
Type of X axis 	MAX S41 (MAX R13 only) *(2)*	**S41**
	MAX S42 (MAX R23 only) *(2)*	**S42**
	MAX S43 (MAX R33 only) *(2)*	**S43**
	MAX S44 (MAX R43 only) *(2)*	**S44**
Type of drive	Toothed belt	**B**
Type of guide	Roller guide (MAX R●3● – S41/S42/S43 only)	**R**
	Ball guide (MAX R●3● – S42/S43/S44 only)	**B**
Stroke	Indicate the length in mm *(4)*	**●●●●**
Type of Y axis 	MAX H41 (MAX R13 only) *(2)*	**H41**
	MAX H42 (MAX R23 only) *(2)*	**H42**
	MAX H43 (MAX R33 only) *(2)*	**H43**
	MAX H44 (MAX R43 only) *(2)*	**H44**
Type of drive	Toothed belt	**B**
Type of guide	Roller (MAX R●3● – S4●B●●●●● – H41/H42/H43 only)	**R**
	Ball (MAX R●3● – S4●B●●●●● – H42/H43/H44 only)	**B**
Stroke	Indicate the length in mm *(4)*	**●●●●**
Type of Z axis 	CAS 41 (MAX R13 only) *(2)*	**C41**
	CAS 42 (MAX R23 only) *(2)*	**C42**
	CAS 43 (MAX R33 only) *(2)*	**C43**
	CAS 44 (MAX R43 only) *(2)*	**C44**
	CAS 31 (MAX R13 only) *(2)*	**C31**
	CAS 32 (MAX R23 only) *(2)*	**C32**
	CAS 34 (MAX R33 only) *(2)*	**C34**
Type of drive	Toothed belt	**B**
Type of guide	Roller guide (MAX R●3● – S4●B●●●●● – H4●B●●●●● – C41/C42/C43 only)	**R**
	Ball guide (MAX R●3● – S4●B●●●●● – H4●B●●●●● – C42/C43/C44 only)	**B**
	Ball (MAX R●3● – S4●B●●●●● – H4●B●●●●● – C3● only)	**C**
Stroke	Indicate the length in mm *(4)*	**●●●●**

(1) All the technical data for Lexium MAX R●3 portal robots is available on the documentation CD-ROM supplied with this catalogue.
(2) Each axis is supplied with 2 PNP output sensors, NC contact, with a 100 mm cable equipped with an M8 connector.
(3) Since the combination of drive elements is specific to each application, you will need to contact your Customer Care Centre.
(4) The maximum length depends on the profile cross-section. Please refer to the characteristics table on page 39.
(5) Interface types for the drive element:

MAX R●3R – …

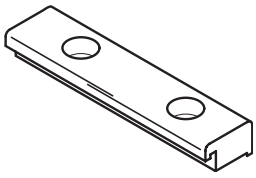


MAX R●3L – …



Clamping claws *(1)*

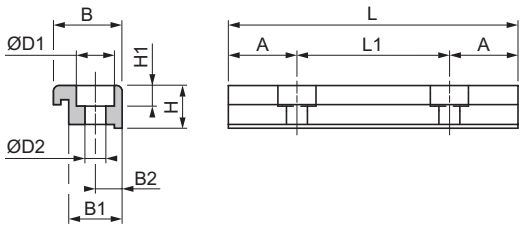
References



VW33MF10●●●

Description	For Lexium linear axes *(2)*	Reference	Weight kg
Clamping claws These are used to mount portal axes on a fixed support. (Sold in lots of 10)	PAS 41B PAS 41S	**VW33MF10511**	–
	TAS 41	**VW33MF10515**	–
	PAS 42B PAS 42S	**VW33MF10512**	–
	PAS 43B PAS 43S	**VW33MF10613**	–
	PAS 44B PAS 44S TAS 42 TAS 43	**VW33MF10814**	–

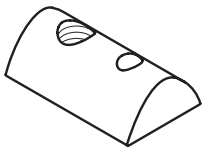
Dimensions



	A	B	B1	B2	H	H1	L	L1	ØD1	ØD2
VW33MF10511	18	18	14	7	11.2	5.4	76	40	10	5.5
VW33MF10512	18	19	14	7	16.2	5.4	76	40	10	5.5
VW33MF10515	8	18	14	7	11.2	5.4	36	20	10	5.5
VW33MF10613	18	24	16	8	21.5	6.4	76	40	11	6.6
VW33MF10814	18	28	20	10	22	12	76	40	15	9

T-slot nuts *(1)*

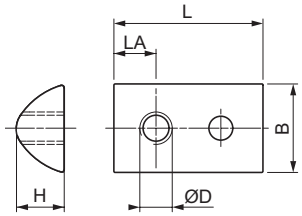
References



VW33MF010T●●●

Description	For Lexium linear axes *(2)*	T-slot width and retaining screw Ø mm	Reference	Weight kg
T-slot nuts These are inserted in the axis T-slots. They are used to mount the axis on a fixed support. (Sold in lots of 10)	PAS 41B PAS 41S PAS 42B PAS 42S CAS 41 CAS 42 TAS 41	Width: 5 M5 screw	**VW33MF010T5N5**	–
	PAS 43B PAS 43S CAS 43	Width: 6 M6 screw	**VW33MF010T6N6**	–
	PAS 44B PAS 44S	Width: 8 M6 screw	**VW33MF010T8N6**	–
	CAS 44 TAS 42 TAS 43	Width: 8 M8 screw	**VW33MF010T8N8**	–

Dimensions



	B	H	L	LA	ØD
VW33MF010T5N5	8	4	11.5	4	M5
VW33MF010T6N6	10.6	6.4	17	5.5	M6
VW33MF010T8N6	13.8	7.3	23	6.5	M6
VW33MF010T8N8	13.8	7.3	23	7.5	M8

(1) All technical data for accessories is available on the documentation CD-ROM supplied with this catalogue.
(2) Also available for Lexium MAX H, Lexium MAX S, Lexium MAX P, Lexium MAX R●2 and Lexium MAX R●3 multi-axis systems designed with the Lexium linear axes mentioned, of the same size. For example: An accessory available for a Lexium PAS 41B portal axis is also available for a Lexium MAX H1 double portal axis.

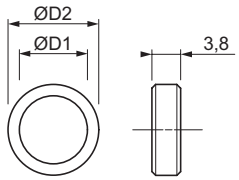
Locating dowels *(1)*

References

VW33MF020LD0●

Description	For Lexium linear axes *(2)*	Reference	Weight kg
Locating dowels These ensure accurate, reproducible positioning of the load on the carriage. They are inserted in the holes provided on the carriage. (Sold in lots of 20)	PAS 41B PAS 41S PAS 42B PAS 42S CAS 41 CAS 42	**VW33MF020LD01**	–
	PAS 43B PAS 43S CAS 43	**VW33MF020LD02**	–
	PAS 44B PAS 44S CAS 44	**VW33MF020LD03**	–

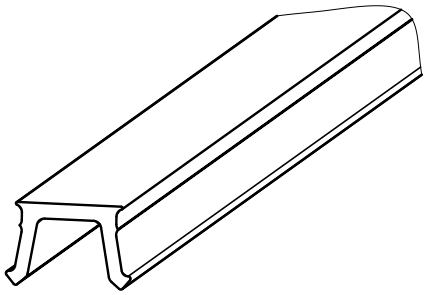
Dimensions



	ØD1	ØD2
VW33MF020LD01	5.5	8 h6
VW33MF020LD02	6.6	10 h6
VW33MF020LD03	9	12 h6

Protective covers for T-slots *(1)*

References



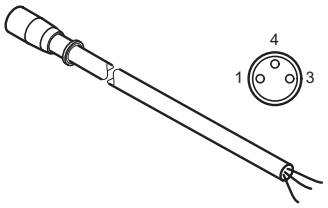
VW33MC05●0●

Description	For Lexium linear axes *(2)*	Reference	Weight kg
Protective covers for T-slots These protect the profile T-slots. Length 2 m (Sold in lots of 5)	PAS 41B PAS 41S CAS 41	**VW33MC05A05**	–
	PAS 42B PAS 42S CAS 42	**VW33MC05B05**	–
	PAS 43B PAS 43S CAS 43	**VW33MC05A06**	–
	PAS 44B PAS 44S CAS 44	**VW33MC05A08**	–

(1) All technical data for accessories is available on the documentation CD-ROM supplied with this catalogue.
(2) Also available for Lexium MAX H, Lexium MAX S, Lexium MAX P, Lexium MAX R●2 and Lexium MAX R●3 multi-axis systems designed with the Lexium linear axes mentioned, of the same size. Example: An accessory available for a Lexium PAS 41B portal axis is also available for a Lexium MAX H1 double portal axis.

Extension cables for sensor *(1)*

References

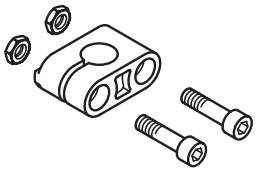


VW32SBCBGA●●●

Description	For Lexium linear axes *(2)*	Length	Reference	Weight
		m		kg
Extension cables for sensor Cables equipped with a 3-way M8 connector on the sensor end and one stripped end. These cordsets connect directly to the cable supplied with the sensor via the M8 connector.	PAS 4●B PAS 4●S CAS 4●	5	**VW32SBCBGA050**	–
		10	**VW32SBCBGA100**	–
		20	**VW32SBCBGA200**	–

Sensor support *(1)*

References

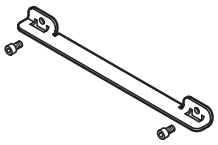


VW33MF010M8

Description	For Lexium linear axes *(2)*	Reference	Weight
			kg
Sensor support This is used to hold a standard Ø 8 mm sensor. It is inserted in the axis T-slots. (Sold in lots of 10)	PAS 4●B PAS 4●S	**VW33MF010M8**	–

Detection plate for sensor *(1)*

References



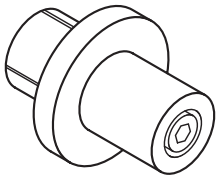
VW33MASP1

Description	For Lexium linear axes *(2)*	Reference	Weight
			kg
Detection plate for sensor This acts as a physical marker for the sensors when detecting the presence of the carriage. It is mounted on the axis carriage and is supplied with retaining screws.	PAS 4●B PAS 4●S	**VW33MASP1**	–

(1) All technical data for accessories is available on the documentation CD-ROM supplied with this catalogue.
(2) Also available for Lexium MAX H, Lexium MAX S, Lexium MAX P, Lexium MAX R●2 and Lexium MAX R●3 multi-axis systems designed with the Lexium linear axes mentioned, of the same size. For example: An accessory available for a Lexium PAS 41B portal axis is also available for a Lexium MAX H1 double portal axis.

Shaft journals *(1)*

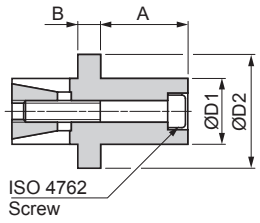
References



VW33MF1S●●A●●

Description	For Lexium linear axes *(2)*	Maximum radial force	Moment of inertia	Maximum driving torque	Reference	Weight *(3)*
		N	kgcm²	N		kg
Shaft journals Coupled to the axis, these can be used, via a mechanical locating dowel *(4)*, to connect: ■ An encoder indicating the axis position ■ A third-party application-specific drive	PAS 41B PAS 41S CAS 41	230	0.002	7.7	**VW33MF1S12A12**	0.012
	PAS 42B PAS 42S CAS 42	400	0.05	35.7	**VW33MF1S27A20**	0.073
	PAS 43B PAS 43S CAS 43	700	0.16	82	**VW33MF1S32A25**	0.148
	PAS 44B PAS 44S CAS 44	1300	0.54	182	**VW33MF1S37A32**	0.311

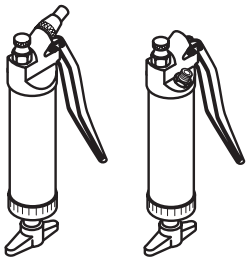
Dimensions



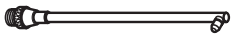
	A (journal)	B (shoulder)	ØD1	ØD2	ISO 4762 screw
VW33MF1S12A12	12	5.5	12	17	M4
VW33MF1S27A20	27	7	20	35	M6
VW33MF1S32A25	32	7.5	25	45	M8
VW33MF1S37A32	37	9	32	55	M10

Lubrication accessories *(1)*

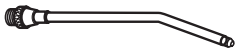
References



VW33MAP01 *VW33MAP02*



VW33MAT01



VW33MAT02

Description	For Lexium linear axes *(2)*	Nozzle angle	Reference	Weight kg
High-pressure grease pump *(5)* This is used to lubricate axes with ball guides: ■ Grease capacity: 120 cm³ ■ Flow rate: 0.5 cm³/pressure	PAS 4●BB PAS 4●SB TAS 4● CAS 4●BB	–	**VW33MAP01**	–
High-pressure oil pump *(5)* This is used to lubricate axes with roller guides: ■ Oil capacity: 120 cm³ ■ Flow rate: 0.5 cm³/pressure	PAS 4●BR CAS 4●BR	–	**VW33MAP02**	–
D6 rigid nozzles These are mounted on VW33MAP01 and VW3MAP02 high-pressure pumps to lubricate the Lexium axes.	PAS 4●B● PAS 4●S● TAS 4● CAS 4●B●	90°	**VW33MAT01**	–
		20°	**VW33MAT02**	–

(1) All technical data for accessories is available on the documentation CD-ROM supplied with this catalogue.
(2) Also available for Lexium MAX H, Lexium MAX S, Lexium MAX P, Lexium MAX R●2 and Lexium MAX R●3 multi-axis systems designed with the Lexium linear axes mentioned, of the same size. For example: An accessory available for a Lexium PAS 41B portal axis is also available for a Lexium MAX H1 double portal axis.
(3) Weight of unpackaged product.
(4) Mechanical locating dowel not supplied.
(5) Requires a D type nozzle, to be ordered separately.

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