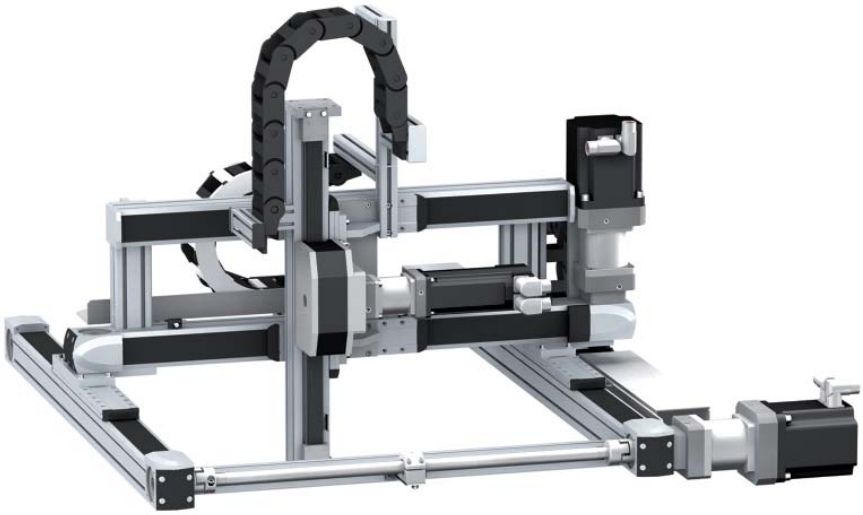
Lexium Linear Motion

Linear axes and multi-axis systems

Catalogue

April 2011



Schneider Electric

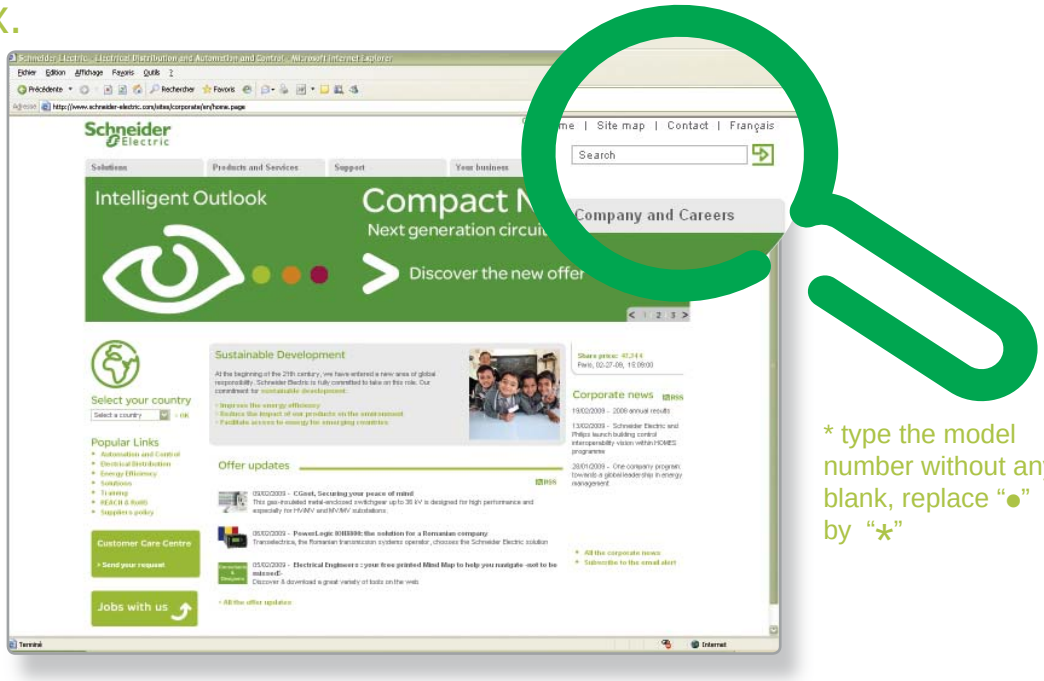
All technical information about products listed in this catalogue are now available on:

www.schneider-electric.com

Browse the “product data sheet” to check out :

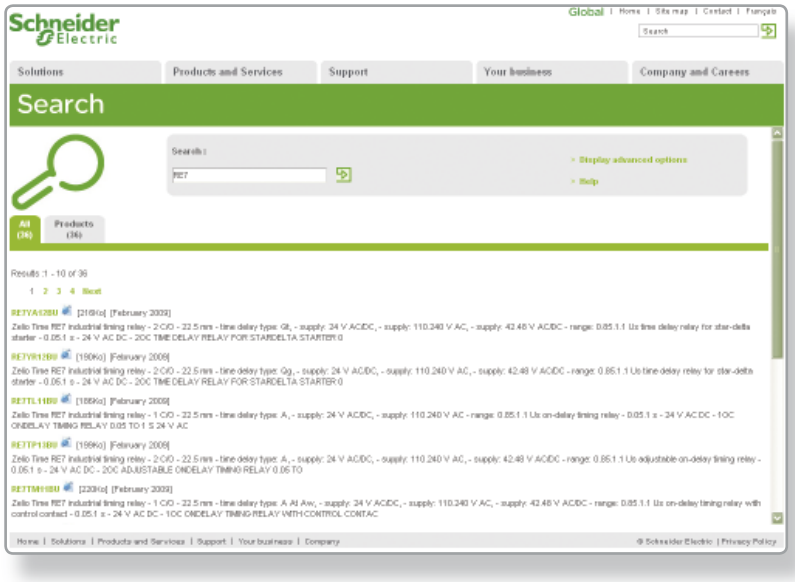
- characteristics,
- dimensions,
- curves, ...
- and also the links to the user guides and the CAD files.

1 From the home page, type the model number* into the “Search” box.



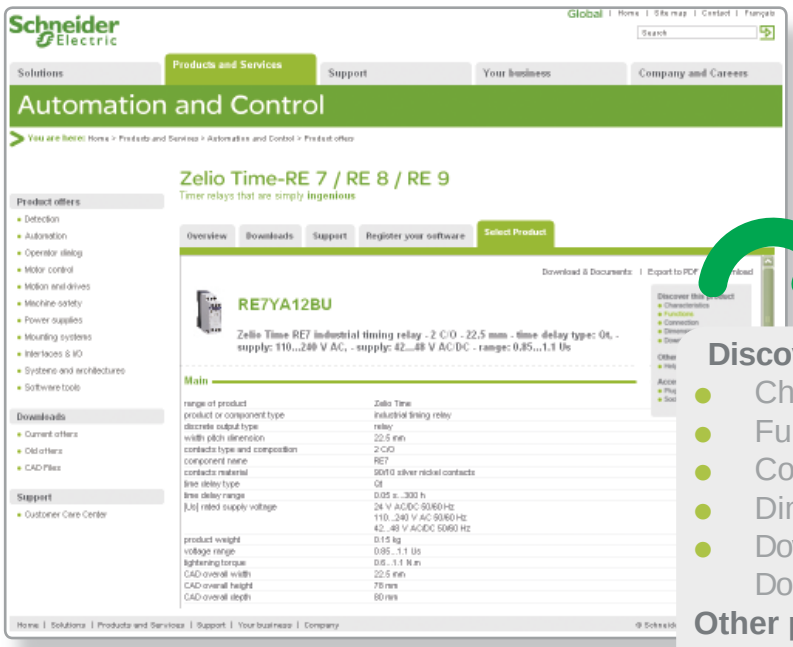
* type the model number without any blank, replace “●” by “*”

2 Under ”All” tab, click the model number that interests you.



3 The product data sheet displays.

Example : Zelio Time data sheet



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Accessories
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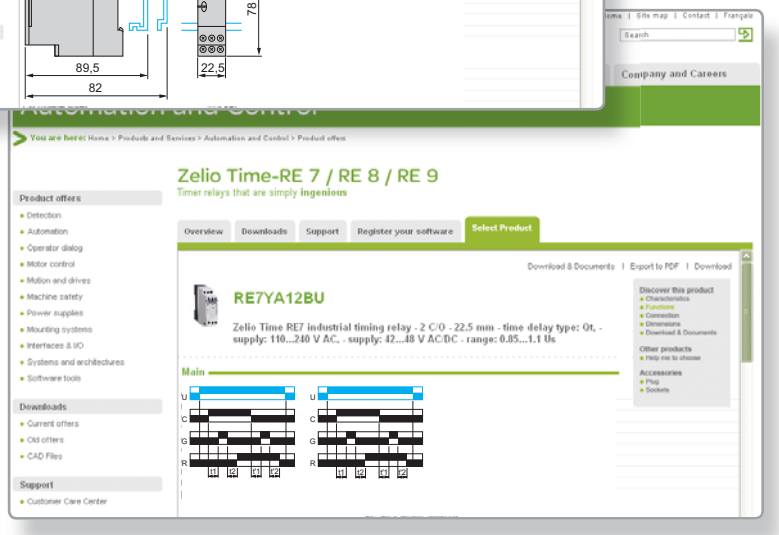
Example : Zelio Time data sheet

Example : Zelio Time data sheet



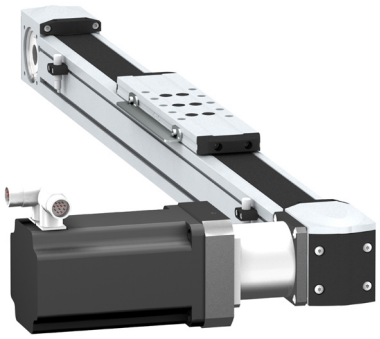
☑ You can get this information in one single pdf file.

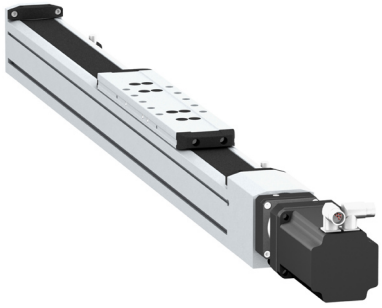
Contents

Lexium Linear Motion
Linear axes and multi-axis systems

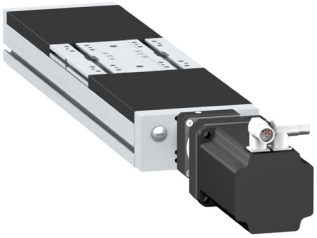
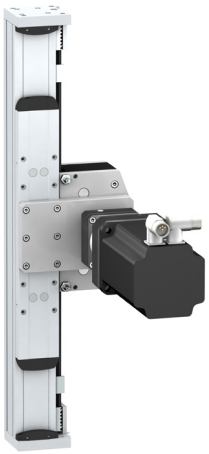
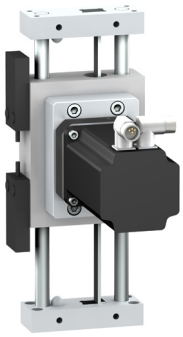
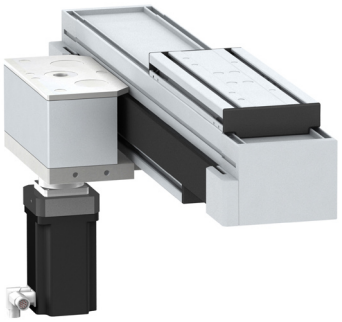
Lexium Linear Motion
Linear axes

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 for the limit switch function □ Choice of carriage type for adapting to the load □ Option to add carriages □ Anti-corrosion version □ Anti-static belt	□ Choice of pitch □ Protective metal strip □ Wide range of sensors for the limit switch function □ 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	10	14

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 for the limit switch function □ Anti-static belt	□ 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**
18	22	26	30

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				■			
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				■			
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 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			■	■			

(1) Please refer to our website www.schneider-electric.com or the CD-ROM supplied with this catalogue.

■ Possible to combine
Incompatible

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
	■	■	■						■	■		
	■	■	■	■					■	■		
	■	■	■	■					■	■	■	
		■		■							■	
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Lexium Linear Motion
Lexium PAS B portal axes

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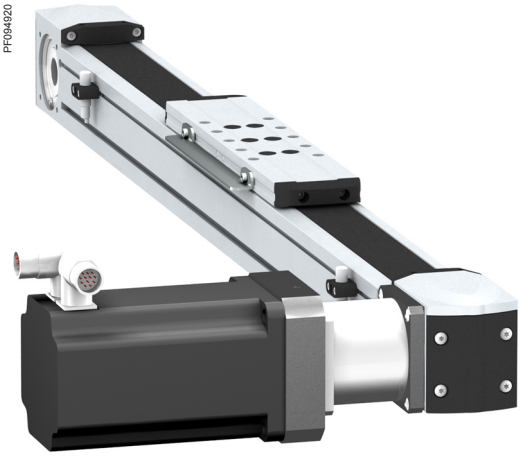


Lexium PAS 4●B portal axis with motor and gearbox mounted

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 a high dynamic response.

These axes, with a ball guide, are particularly suitable for applications requiring high forces and significant torque.
Rollers offer a simple and cost-effective guiding solution for other applications.

Lexium PAS B portal axes offer various configuration options. These include axis length, various types of sensor for the limit switch function, 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, etc. (see page 10).

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 6 and 11).
Third-party drive elements can also be used under certain conditions. Contact our 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.

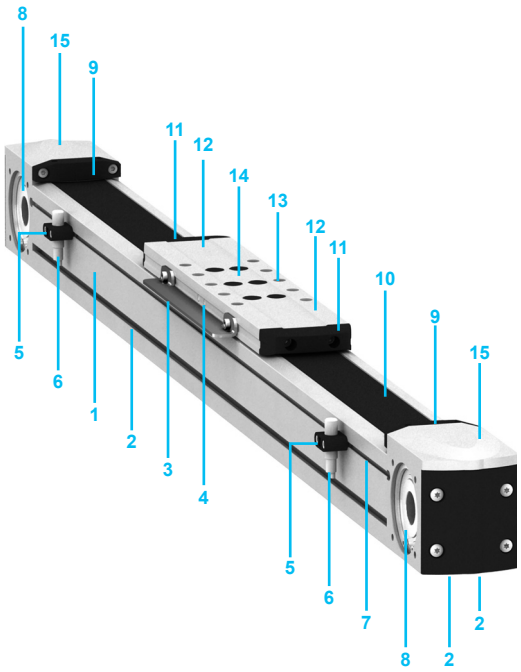
Special product features

- Profile with T-slots on 3 sides
- Carriage with drill holes for easier load mounting
- Grease nipples accessible from each side of the carriage to simplify routine maintenance
- Quick-coupling system for easy motor assembly
- Stroke can be set to the nearest millimeter
- T-slot means sensors can be placed anywhere along the profile
- Payload up to 100 kg, depending on the model :
  - up to 8 kg for Lexium PAS 41BR axes
  - up to 12 kg for Lexium PAS 42BR axes
  - up to 25 kg for Lexium PAS 42BB and PAS 43BR axes
  - up to 60 kg for Lexium PAS 43BB axes
  - up to 100 kg for Lexium PAS 44BB axes

(1) All technical data (characteristics, dimensions, etc.) for Lexium PAS B portal axes is available on our website www.schneider-electric.com and 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.

PAS 4●S portal axes: page 12 | TAS 4 linear tables: page 16 | CAS 4 cantilever axes: page 20 | CAS 3 cantilever axes: page 24 | CAS 2 telescopic axes: page 28

Description *(1) (2)*



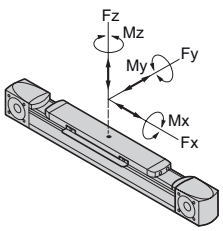
Lexium PAS 4●B

1 Lexium PAS 4●B 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 for the limit switch function
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

Mechanical characteristics *(1)*

Type of portal axis	Lexium		PAS 41	PAS 42		PAS 43		PAS 44
			BR	BR	BB	BR	BB	BB
Type of drive			Toothed belt					
Type of guide			Rollers	Rollers	Ball	Rollers	Ball	Ball
Typical payload		kg	8	12	25		60	100
Maximum driving force for X axis (Fx) *(3)*		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) *(3)*		N	660		2810	1760	4410	6270
Maximum force for Z axis (Fz) *(3)*		N	430		2810	1040	4410	6270
Maximum torque for X axis (Mx) *(3)*		Nm	5	9	19	29	42	67
Maximum torque for Y axis (My) *(3)*	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) *(3)*	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		mm	3000	5500				
Repeatability		mm	± 0.05					
Profile cross-section	Width x height	mm	40 x 40	60 x 60		80 x 80		110 x 110
Service life		km	30,000					

(1) All technical data (characteristics, dimensions, etc.) for Lexium PAS B portal axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) Description of a Lexium PAS B portal axis; the configuration options selected will determine whether or not certain components are included.
(3) Forces and torques exerted on the Lexium PAS B portal axis:



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TAS 4 linear tables: page 16
CAS 4 cantilever axes: page 20
CAS 3 cantilever axes: page 24
CAS 2 telescopic axes: page 28

Lexium Linear Motion
Lexium PAS B portal axes

References *(1)*

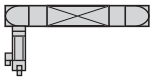
To order a Lexium PAS B portal axis, complete each reference by replacing the "●" *(2)*:

Example: PAS 4 1 B R M 1000 A 2 B A XXX R/… rest of the reference on page 11

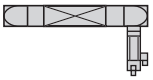
		PAS 4	●	●	●	●	●●●●	●	●	●	●	●●●	●	/*(2)*
Size (profile cross-section)	40 (40 x 40 mm cross-section)		**1**											/
	60 (60 x 60 mm cross-section)		**2**											/
	80 (80 x 80 mm cross-section)		**3**											/
	110 (110 x 110 mm cross-section)		**4**											/
Type of drive for carriage	Toothed belt			**B**										/
	Axis with no drive facility (for support only)			**H**										/
Type of guide for carriage	Roller (for PAS 41BR, 42BR, 43BR)				**R**									/
	Ball (for PAS 42BB, 43BB, 44BB)				**B**									/
Feed per revolution	84 mm/revolution (for PAS 41B)					**M**								/
	155 mm/revolution (for PAS 42B)					**M**								/
	205 mm/revolution (for PAS 43B)					**M**								/
	264 mm/revolution (for PAS 44B)					**M**								/
	Axis with no drive facility (for PAS 4●H)					**N**								/
Stroke	Maximum 3000 mm (for PAS 41)						**●●●●**							/
	Maximum 5500 mm (for PAS 42, PAS 43 and PAS 44)						**●●●●**							/
Limit switches *(3)*	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 sensor/without detection plate							**N**						/
Type of carriage *(4)*	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 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 *(5)*	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 *(6)*	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 (characteristics, dimensions, etc.) for Lexium PAS B portal axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) 2nd part of the reference (see page 11).
(3) Supplied with a 0.1 m cable equipped with an M8 connector. Other cable lengths are also available (see the accessories on page 46).
(4) See characteristics and dimensions on our website www.schneider-electric.com or refer to the documentation CD-ROM supplied with this catalogue.
(5) Only carriages of the same type (type 1, type 2 or type 4) are permitted.
(6) 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)*

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References (continued) *(1)*

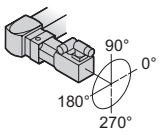
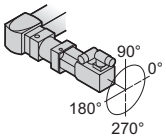
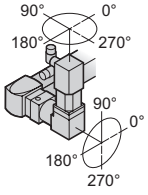
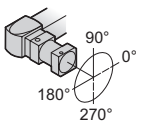
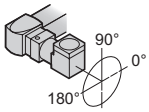
To order a Lexium PAS B portal axis, complete each reference by replacing the "●" *(2)*:

Example: PAS 4 1 B R M 1000 A 2 B A XXX R *(2)* /2 1G 0 H7 0 + PLE60 3:1 + BMH 0702P01A2A

PAS 4 ● ● ● ● ● ●●●● ● ● ● ● ●●● ● *(2)*/

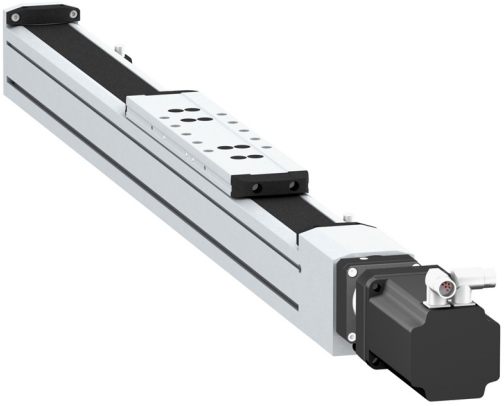
			●	●●	●	●●	●	+	...
Motor drive configuration *(3)*	Motor only	/	**1**						
	Motor + gearbox	/	**2**						
	Gearbox only	/	**3**						
	Without motor/without gearbox/with adaptor plate for the drive	/	**4**						
	Without motor/without gearbox	/	**X**						
Gearbox interface	PLE 40 gearboxes	/		**0G**					
	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**					
	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 interface	Servo motors BSH 055●	/				**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 and gearbox with straight teeth	/				**E7**			
	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**		
Planetary gearbox gear ratio + motor reference	State the planetary gearbox gear ratio and the complete motor reference at the end of the reference, in plain text. Example: **PLE60 3:1 + BMH 0702P01A2A**							+	...

(1) All technical data (characteristics, dimensions, etc.) for Lexium PAS B portal axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) 1st part of the reference (see page 10).
(3) Possible motor drive configurations and orientation (view from motor/gearbox towards the axis or from motor towards the gearbox):

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**
						

PAS 4●S portal axes: page 12 | TAS 4 linear tables: page 16 | CAS 4 cantilever axes: page 20 | CAS 3 cantilever axes: page 24 | CAS 2 telescopic axes: page 28

Lexium Linear Motion
Lexium PAS S portal axes



Lexium PAS 4●S portal axis with motor and gearbox mounted

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 pitches for the ballscrew, various types of sensor for the limit switch function, adding a protective metal strip, a choice between 2 carriage types of different sizes and the option of having up to 3 carriages, etc. (see page 14).

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 6 and 15).
Third-party drive elements can also be used under certain conditions. Contact our 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.

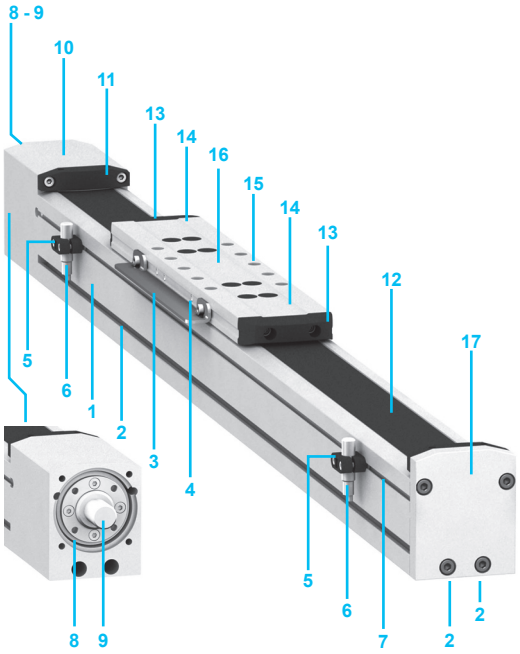
Special product features

- Profile with T-slots on 3 sides
- Carriage with drill holes for easier load mounting
- Grease nipples accessible from each side of the carriage to simplify routine maintenance
- Quick-coupling system for easy motor assembly
- Stroke can be set to the nearest millimeter
- T-slot means sensors can be placed anywhere along the profile
- Payload up to 100 kg, depending on the model :
  - up to 25 kg for Lexium PAS 42 linear axes
  - up to 60 kg for Lexium PAS 43 linear axes
  - up to 100 kg for Lexium PAS 44 axes

(1) All technical data (characteristics, dimensions, etc.) for Lexium PAS S portal axes is available on our website www.schneider-electric.com and 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.

PAS 4●B portal axes: page 8 | TAS 4 linear tables: page 16 | CAS 4 cantilever axes: page 20 | CAS 3 cantilever axes: page 24 | CAS 2 telescopic axes: page 28

Description *(1) (2)*



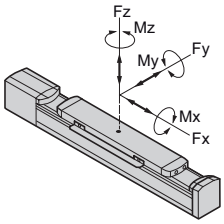
Lexium PAS 4●S

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 for the limit switch function
7 T-slot 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 deflectors
15 Tapped holes for load mounting
16 Carriage to support load
17 End block

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 step		mm/rev	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) *(3)*		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/s^2	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) *(3)*		N	4050			6360			9040		
Maximum force for Z axis (Fz) *(3)*		N	4050			6360			9040		
Maximum torque for X axis (Mx) *(3)*		Nm	27			60			98		
Maximum torque for Y axis (My) *(3)*	With carriage type 1	Nm	304			556			935		
	With carriage type 4	Nm	668			1224			2155		
Maximum torque for Z axis (Mz) *(3)*	With carriage type 1	Nm	304			556			935		
	With carriage type 4	Nm	668			1224			2155		
Maximum stroke		mm	1500			3000					
Repeatability		mm	± 0.02								
Profile cross-section	Width x height	mm	60 x 60			80 x 80			110 x 110		
Service life		km	10,000								

(1) All technical data (characteristics, dimensions, etc.) for Lexium PAS B portal axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) Description of a Lexium PAS S portal axis; the configuration options selected will determine whether or not certain components are included.
(3) Forces and torques exerted on the Lexium PAS S telescopic axis:



PAS 4●B portal axes: page 8
TAS 4 linear tables: page 16
CAS 4 cantilever axes: page 20
CAS 3 cantilever axes: page 24
CAS 2 telescopic axes: page 28

References *(1)*

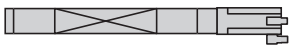
To order a Lexium PAS S portal axis, complete each reference by replacing the "●" *(2)*:

Example: PAS 4 2 S B F 1000 A 1 B A XXX S/… rest of the reference on page 15

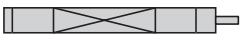
		PAS 4 ●	●	B	●	●●●●	●	●	●	●	●●●	●	/(2)
Size (profile cross-section)	60 (60 x 60 mm cross-section)	**2**											/
	80 (80 x 80 mm cross-section)	**3**											/
	110 (110 x 110 mm cross-section)	**4**											/
Type of drive for carriage	Ballscrew		**S**										/
	Axis with no drive facility (for support only)		**A**										/
Type of guide for carriage	Ball			**B**									/
Ballscrew step	5 mm/revolution (for PAS 4●SBB)				**B**								/
	10 mm/revolution (for PAS 4●SBD)				**D**								/
	16 mm/revolution (for PAS 42SBF)				**F**								/
	20 mm/revolution (for PAS 43SBG)				**G**								/
	25 mm/revolution (for PAS 44SBH)				**H**								/
	Axis with no drive facility (for PAS 4●A)				**N**								/
Stroke	Maximum 1500 mm (for PAS 42)					**●●●●**							/
	Maximum 3000 mm (for PAS 43 and PAS 44)					**●●●●**							/
Limit switches *(3)*	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 *(4)*	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 metal strip/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 carriages *(5)*	1									**A**			/
	2									**B**			/
	3									**N**			/
Distance between two carriages	State the distance in mm										**●●●**		/
	1 carriage only, state "XXX"										**XXX**		/
Interface for the drive element *(6)*	With motor or adaptor plate											**S**	/
	With shaft											**D**	/
	Axis with no drive facility (only for PAS 4●A)											**N**	/

(1) All technical data (characteristics, dimensions, etc.) for Lexium PAS S portal axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) 2nd part of the reference (see page 15).
(3) Supplied with a 0.1 m cable equipped with an M8 connector. Other cable lengths are also available (see the accessories on page 46).
(4) See characteristics and dimensions on our website www.schneider-electric.com or refer to the documentation CD-ROM supplied with this catalogue.
(5) Only carriages of the same type (type 1 or type 4) are permitted (only the carriage next to the motor is driven).
(6) Types of interface for the drive element:

PAS 4●SB●●●●●●●●●●●●S/… *(2)*



PAS 4●SB●●●●●●●●●●●●D/… *(2)*



PAS 4●AN●●●●●●●●●●●●N/… *(2)*

PAS 4●B portal axes: page 8 | TAS 4 linear tables: page 16 | CAS 4 cantilever axes: page 20 | CAS 3 cantilever axes: page 24 | CAS 2 telescopic axes: page 28

References (continued) *(1)*

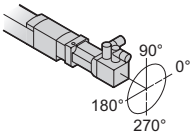
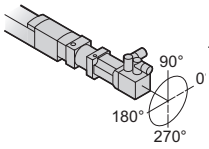
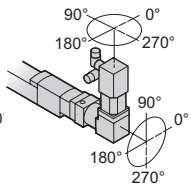
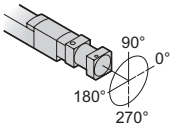
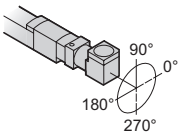
To order a Lexium PAS S portal axis, complete each reference by replacing the "●" *(2)*:

Example: PAS 4 2 S B F 1000 A 1 B A XXX S *(2)* /1 XX X H7 0 + PLE60 3:1 + BMH 0702P01A2A

PAS 4 ● ● B ● ●●●● ● ● ● ● ●●● ● *(2)*/ ● ●● ● ●● ● + ...

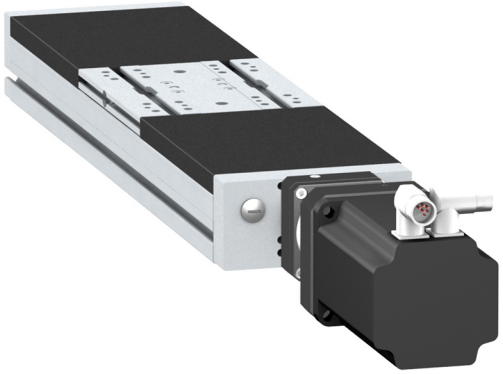
Motor drive configuration *(3)*	Motor only	/	**1**							
	Motor + gearbox	/	**2**							
	Gearbox only	/	**3**							
	Without motor/without gearbox/with adaptor plate for the drive	/	**4**							
	Without motor/without gearbox	/	**X**							
Gearbox interface	PLE 40 gearboxes	/		**0G**						
	PLE 60 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**						
	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 interface	Servo motors BSH 055●	/				**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 and gearbox with straight teeth	/				**E7**				
	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**			
Planetary gearbox gear ratio + motor reference	State the planetary gearbox gear ratio and the complete motor reference at the end of the reference, in plain text. Example: **PLE60 3:1 + BMH 0702P01A2A**								**+**	**...**

(1) All technical data (characteristics, dimensions, etc.) for Lexium PAS S portal axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) 1st part of the reference (see page 14).
(3) Possible motor drive configurations and orientation (view from motor/gearbox towards the axis or from motor towards the gearbox):

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)*/ XXXXXXX**
						

PAS 4●B portal axes: page 8 | TAS 4 linear tables: page 16 | CAS 4 cantilever axes: page 20 | CAS 3 cantilever axes: page 24 | CAS 2 telescopic axes: page 28

Lexium Linear Motion
Lexium TAS linear tables



Lexium TAS 4●S linear table with motor and gearbox mounted

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 move 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 table length, different pitches for the ballscrew, different mounting options for the drive element, etc. (see page 18).

Schneider Electric offers a number of drive elements which can be used to drive Lexium TAS linear tables *(2)* (see page 19).
Third-party drive elements can also be used under certain conditions. Contact our Customer Care Centre for further details.

Applications

Applications requiring:

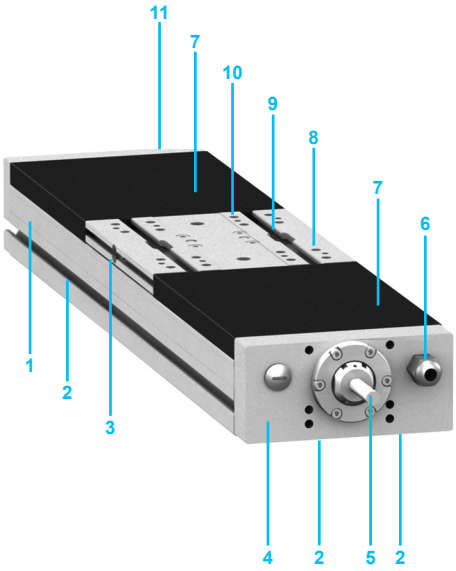
- Feed movement without mechanical backlash: cutting, separating, labelling, etc.
- High feed forces: clamping, machining, etc.
- Precise movement of heavy loads: material handling, etc.
- Precise positioning: optical applications, laser use, etc.

Special product features

- Profile with T-slots on 3 sides
- Carriage with drill holes and T-slots for easier load mounting
- Grease nipples accessible from each side of the carriage to simplify routine 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
- Stroke can be set to the nearest millimeter
- Preloaded ballscrew for movement without mechanical backlash
- 2 integrated sensors for the limit switch function
- Payload up to 150 kg, depending on the model :
  - up to 20 kg for the Lexium TAS 41 table
  - up to 80 kg for the Lexium TAS 42 table
  - up to 150 kg for the Lexium TAS 43 table

(1) All technical data (characteristics, dimensions, etc.) for Lexium TAS linear tables is available on our website www.schneider-electric.com and 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.

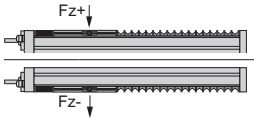
Description *(1) (2)*



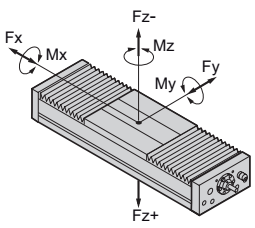
Lexium TAS 4●S

1 Lexium TAS 4●S linear table
2 T-slots for fixing the axis: 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 sensors' cable outlet
7 Bellows
8 Tapped holes for load mounting
9 Slots for load mounting
10 Carriage to support load
11 End block

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		Twin ball guides								
Typical payload	**kg**	20			80			150		
Ballscrew step	**mm/rev**	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) *(3)*	**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/s²**	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) *(3)*	**N**	1720			2660			3550		
Maximum force for Z axis (Fz-, Fz+) *(3)* 	**N**	2155			6285			8380		
	N	2155			3140			4190		
Maximum torque for X axis (Mx) *(3)*	**Nm**	48			110			205		
Maximum torque for Y axis (My) *(3)*	**Nm**	90			190			335		
Maximum torque for Z axis (Mz) *(3)*	**Nm**	72			160			285		
Maximum stroke	**mm**	600			1000			1500		
Repeatability	**mm**	± 0.02								
Profile cross-section Width x height	**mm**	100 x 39			150 x 54			200 x 59		
Service life	**km**	5000			10,000					

(1) All technical data (characteristics, dimensions, etc.) for Lexium TAS linear tables is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) Description of a Lexium TAS linear table; the configuration options selected will determine whether or not certain components are included.
(3) Forces and torques exerted on the Lexium TAS linear table:



PAS 4●B portal axes: page 8
PAS 4●S portal axes: page 12
CAS 4 cantilever axes: page 20
CAS 3 cantilever axes: page 24
CAS 2 telescopic axes: page 28

Lexium Linear Motion
Lexium TAS linear tables

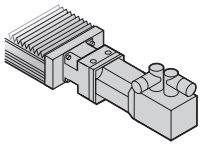
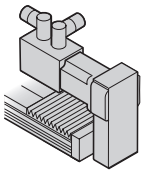
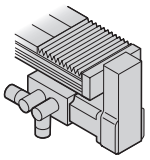
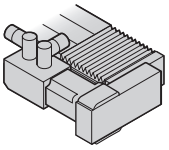
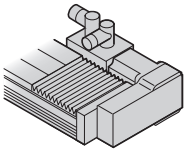
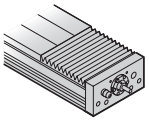
References *(1)*

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/… rest of the reference on page 19

		TAS 4 ●	S	B	●	●●●●	●	1	B	●	/(2)
Size (profile cross-section)	100 (100 x 39 mm cross-section)	1									/
	150 (150 x 54 mm cross-section)	2									/
	200 (200 x 59 mm cross-section)	3									/
Type of drive for carriage	Ballscrew		S								/
Type of guide for carriage	Twin ball guides			B							/
Ballscrew step	2 mm/revolution (for TAS 41SBA)				A						/
	5 mm/revolution (for TAS 4●SBB)				B						/
	10 mm/revolution (for TAS 4●SBC)				C						/
	16 mm/revolution (for TAS 42SBD)				D						/
	20 mm/revolution (for TAS 43SBE)				E						/
Stroke	Maximum 600 mm (for TAS 41)					●●●●					/
	Maximum 1000 mm (for TAS 42)					●●●●					/
	Maximum 1500 mm (for TAS 43)					●●●●					/
Limit switches	2 sensors with PNP output, NC contact *(3)*						A				/
	2 sensors with PNP output, NC contact *(4)*						B				/
	Without sensors						N				/
Type of carriage	Type 1							1			/
Options	None/Linear table supplied with bellows								B		/
Interface for the 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 (characteristics, dimensions, etc.) for Lexium TAS linear tables is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) For the second part of the reference, see page 19.
(3) Supplied with a 0.2 m cable equipped with an M8 connector.
(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)*
					

PAS 4●B portal axes: page 8 | PAS 4●S portal axes: page 12 | CAS 4 cantilever axes: page 20 | CAS 3 cantilever axes: page 24 | CAS 2 telescopic axes: page 28

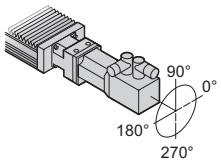
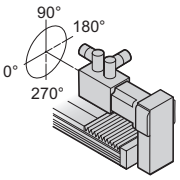
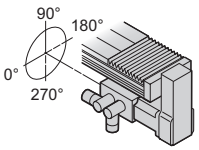
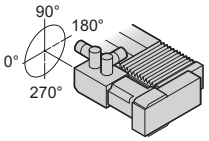
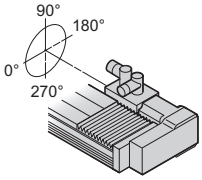
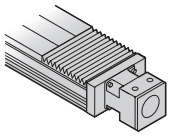
References (continued) *(1)*

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 *(2)* /H5 0 + BSH 0552P01A2A — **TAS 4 ● S B ● ●●●● ● 1 B ● *(2)*/ ●● ● + ...**

Motor interface	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 and gearbox with straight teeth	/	**E7**				
	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**			
Motor reference	State the complete motor reference at the end of the reference, in plain text. Example: **BSH 0552P01A2A**					+	...

(1) All technical data (characteristics, dimensions, etc.) for Lexium TAS linear tables is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) For the first part of the reference, see page 18.
(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 cantilever axis with motor and gearbox mounted

Presentation *(1)*

Lexium CAS 4 cantilever axes are linear motion axes. They consist of a mobile axis structure and a fixed drive element.

The mobile axis structure is used to support the load. Its design is based on an anodized aluminium profile. The rail is driven by a toothed belt with roller or ball guides.
The aluminium profile is very strong and can take loads of up to 50 kg, depending on the model.

Lexium CAS 4 cantilever axes are designed for applications which require positioning of heavy loads over long distances with a high dynamic response.

These axes, with a ball guide, are particularly suitable for applications requiring high forces and significant torque.

Rollers offer a simple and cost-effective guiding solution for other applications.

Lexium CAS 4 cantilever axes offer various configuration options. These include axis length, various types of sensor for the limit switch function, adding a protective metal strip, etc. (see page 22).

Schneider Electric offers a number of drive elements which can be used to drive Lexium CAS 4 cantilever axes *(2)* (see pages 6 and 23).
Third-party drive elements can also be used under certain conditions. Contact our Customer Care Centre for further details.

Applications

Applications requiring:

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

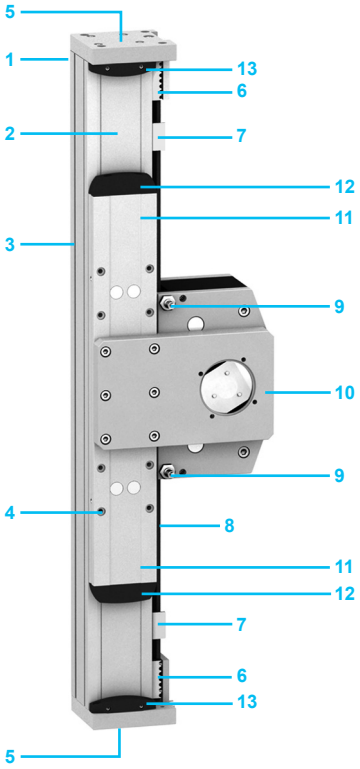
Special product features

- 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
- Long strokes can be set to the nearest millimeter
- Payload up to 50 kg, depending on the model:
  - 5 kg for the Lexium CAS 41BR axes
  - 8 kg for the Lexium CAS 42BR axes
  - 15 kg for the Lexium CAS 42BB axes
  - 12 kg for the Lexium CAS 43BR axes
  - 25 kg for the Lexium CAS 43BB axes
  - 50 kg for the Lexium CAS 44BB axes

(1) All technical data (characteristics, dimensions, etc.) for Lexium CAS 4 cantilever axes is available on our website www.schneider-electric.com and 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.

PAS 4●B portal axes: page 8 | PAS 4●S portal axes: page 12 | TAS 4 linear tables: page 16 | CAS 3 cantilever axes: page 24 | CAS 2 telescopic axes: page 28

Description *(1) (2)*



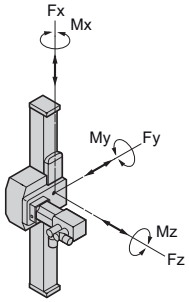
Lexium CAS 4●B

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 for the limit switch function
10 Drive block
11 Protective metal strip deflectors
12 Buffers
13 Brackets for protective metal strip

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			Rollers		Ball	Rollers	Ball	
Typical payload		kg	5	8	15	12	25	50
Maximum driving force for X axis (Fx) *(3)*		N	250	650		900		2150
Maximum speed		m/s	3					
Maximum acceleration		m/s²	20					
Maximum driving torque		Nm	3.5	16		30		90
Maximum force for Y axis (Fy) *(3)*		N	930		3540	2430	5550	7890
Maximum force for Z axis (Fz) *(3)*		N	600		3540	1430	5550	7890
Maximum torque for X axis (Mx) *(3)*		Nm	7	13	24	40	53	85
Maximum torque for Y axis (My) *(3)*		Nm	24	29	250	85	487	1021
Maximum torque for Z axis (Mz) *(3)*		Nm	37	45	250	144	487	1021
Maximum stroke		mm	400	600		800		1200
Repeatability		mm	± 0.05					
Profile cross-section	Width x height	mm	40 x 40	60 x 60		80 x 80		110 x 110
Service life		km	15,000					

(1) All technical data (characteristics, dimensions, etc.) for Lexium CAS 4 cantilever axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) Description of a Lexium CAS 4 cantilever axis; the configuration options selected will determine whether or not certain components are included.
(3) Forces and torques exerted on the Lexium CAS 4 cantilever axis:



PAS 4●B portal axes: page 8
PAS 4●S portal axes: page 12
TAS 4 linear tables: page 16
CAS 3 cantilever axes: page 24
CAS 2 telescopic axes: page 28

Lexium Linear Motion
Lexium CAS 4 cantilever axes

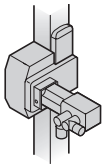
References *(1)*

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

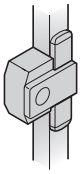
		CAS 4	●	B	●	M	●●●●	●	3	●	●	/*(2)*
Example: CAS 4 1 B R M 0300 A 3 B R /… rest of the reference on page 23												
Size (profile cross-section)	40 (40 x 40 mm cross-section)		1									/
	60 (60 x 60 mm cross-section)		2									/
	80 (80 x 80 mm cross-section)		3									/
	110 (110 x 110 mm cross-section)		4									/
Type of drive for mobile axis structure	Toothed belt			B								/
Type of guide for mobile axis structure	Roller (for CAS 41BR, 42BR, 43BR)				R							/
	Ball (for CAS 42BB, 43BB, 44BB)				B							/
Feed per revolution	84 mm/revolution (for CAS 41)					M						/
	155 mm/revolution (for CAS 42)					M						/
	205 mm/revolution (for CAS 43)					M						/
	264 mm/revolution (for CAS 44)					M						/
Stroke	Maximum 400 mm (for CAS 41)						●●●●					/
	Maximum 600 mm (for CAS 42)						●●●●					/
	Maximum 800 mm (for CAS 43)						●●●●					/
	Maximum 1200 mm (for CAS 44)						●●●●					/
Limit switches *(3)*	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 *(4)*	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 the drive element *(5)*	Drive element fixed on right-hand side										R	/
	None (hollow shaft)										H	/

(1) All technical data (characteristics, dimensions, etc.) for Lexium CAS 4 cantilever axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) For the second part of the reference, see page 23.
(3) Supplied with a 0.1 m cable equipped with an M8 connector. Other cable lengths are also available (see the accessories on page 46).
(4) Please refer to our website www.schneider-electric.com or the documentation CD-ROM supplied with this catalogue.
(5) Types of interface for the drive element:

CAS 4●B●M●●●●●3●R/…*(2)*



CAS 4●B●M●●●●●3●H/…*(2)*



References (continued) *(1)*

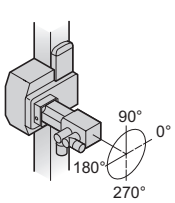
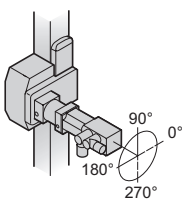
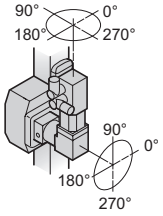
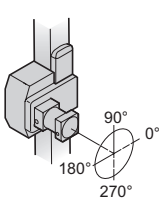
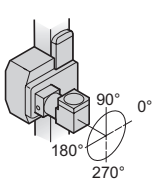
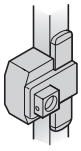
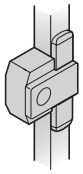
To order a Lexium CAS 4 cantilever axis, complete each reference by replacing the "●" *(2)*:

Example: CAS 4 1 B R M 0300 A 3 B R *(2)* /2 1G 0 H7 0 + PLE60 3:1 + BMH 0702P01A2A

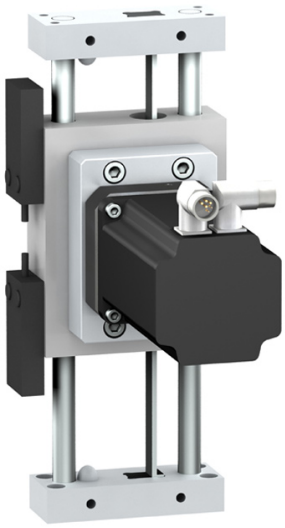
CAS 4 ● B ● M ●●●● ● 3 ● ● *(2)*/ ● ●● ● ●● ● + ...

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 interface	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**							
	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 interface	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 and gearbox with straight teeth	/				**E7**					
	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**				
Planetary gearbox gear ratio + motor reference	State the planetary gearbox gear ratio and the complete motor reference at the end of the reference, in plain text. Example: **PLE60 3:1 + BMH 0702P01A2A**									**+**	**...**

(1) All technical data (characteristics, dimensions, etc.) for Lexium CAS 4 cantilever axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) For the first part of the reference, see page 22.
(3) Possible motor drive configurations and orientation (view from motor/gearbox towards the axis or from motor towards the gearbox):

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 3 cantilever axis with motor and gearbox mounted

Presentation *(1)*

Lexium CAS 3 cantilever axes are linear motion axes with a rack or a toothed belt for driving the carriage and ball guides for guidance. They consist of a mobile axis structure and a fixed drive element.

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 highly rigid axis.
It 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 for the limit switch function, an anti-corrosion version, anti-static toothed belt, etc. (see page 26).

Schneider Electric offers a number of drive elements which can be used to drive Lexium CAS 3 cantilever axes *(2)* (see pages 6 and 27).
Third-party drive elements can also be used under certain conditions. Contact our 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.

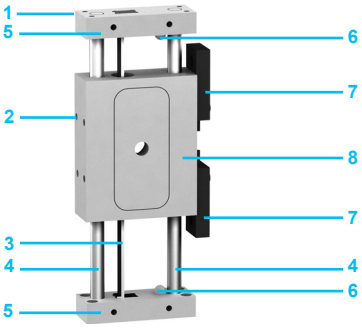
Special product features

- Excellent rigidity
- Mobile structure with light travel weight
- Compact
- Load can be fixed to the 2 end blocks
- Various possible mounting options to assist integration into wider solutions
- Stroke can be set to the nearest millimeter
- Payload up to 18 kg, depending on the model:
  - up to 1 kg for Lexium CAS 30 axes
  - up to 3 kg for Lexium CAS 31 axes
  - up to 5 kg for Lexium CAS 32 axes
  - up to 10 kg for Lexium CAS 33 axes
  - up to 18 kg for Lexium CAS 34 axes

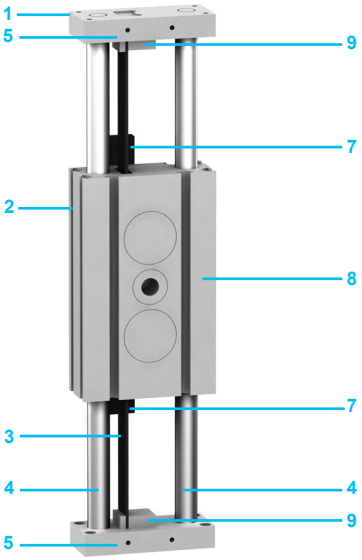
(1) All technical data (characteristics, dimensions, etc.) for Lexium CAS 3 cantilever axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) When selecting the drive element, the maximum permissible driving torque for the axis drive shaft must always be taken into account.

PAS 4●B portal axes: page 8
PAS 4●S portal axes: page 12
TAS 4 linear tables: page 16
CAS 4 cantilever axes: page 20
CAS 2 telescopic axes: page 28

Description *(1) (2)*



Lexium CAS 30R, CAS 31B



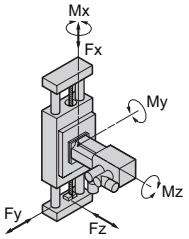
Lexium CAS 32B, CAS 33B, CAS 34B

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

Mechanical characteristics *(1)*

Type of cantilever axis	Lexium	CAS 30RC	CAS 31BC	CAS 32BC	CAS 33BC	CAS 34BC
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) *(3)*	**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) *(3)*	**N**	160	210	290	460	950
Maximum force for Z axis (Fz) *(3)*	**N**	130	180	250	400	820
Maximum torque for X axis (Mx) *(3)*	**Nm**	1.9	5.1	9	16	45
Maximum torque for Y axis (My) *(3)*	**Nm**	2.8	6.7	21	34	85
Maximum torque for Z axis (Mz) *(3)*	**Nm**	3.5	7.8	25	39	100
Maximum stroke	**mm**	150	200	300	400	500
Repeatability	**mm**	± 0.05				
Service life	**km**	15 ,000				

(1) All technical data (characteristics, dimensions, etc.) for Lexium CAS 3 cantilever axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) Description of Lexium CAS 30R and CAS 3●B cantilever axes; the configuration options selected will determine whether or not certain components are included.
(3) Forces and torques exerted on the Lexium CAS 3 cantilever axis:



Lexium Linear Motion
Lexium CAS 3 cantilever axes

References *(1)*

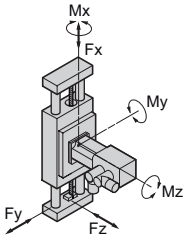
To order a Lexium CAS 3 cantilever axis, complete each reference by replacing the "●" *(2)*:

Example: CAS 3 1 B C M 0200 A 1 C R/… rest of the reference on page 27

		CAS 3	●	●	C	M	●●●●	●	1	●	R	/*(2)*
Size (profile cross-section)	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 (for CAS 30)			**R**								/
	Toothed belt (for CAS 31, 32, 33, 34)			**B**								/
Type of guide for mobile axis structure	Ball				**C**							/
Feed per revolution	50 mm/revolution (for CAS 30)					**M**						/
	75 mm/revolution (for CAS 31)					**M**						/
	100 mm/revolution (for CAS 32, 33, 34)					**M**						/
Stroke	Maximum 150 mm (for CAS 30)						**●●●●**					/
	Maximum 200 mm (for CAS 31)						**●●●●**					/
	Maximum 300 mm (for CAS 32)						**●●●●**					/
	Maximum 400 mm (for CAS 33)						**●●●●**					/
	Maximum 500 mm (for CAS 34)						**●●●●**					/
Limit switches	2 sensors with PNP output, NC contact, not connected *(3)*							**A**				/
	2 sensors with PNP output, NC contact, not connected *(4)*							**B**				/
	Without sensors							**N**				/
Type of fixing support *(5)*	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 *(6)*	Drive element fixed on right-hand side										**R**	/

(1) All technical data (characteristics, dimensions, etc.) for Lexium CAS 3 cantilever axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) For the second part of the reference, see page 27.
(3) Supplied with a 0.2 m cable equipped with an M8 connector.
(4) Supplied with a 5 m cable with flying leads at one end.
(5) Please refer to our website www.schneider-electric.com or the documentation CD-ROM supplied with this catalogue.
(6) 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)*:

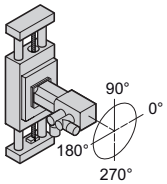
Example: CAS 3 1 B C M 0200 A 1 C R *(2)* /2 1G 0 H7 0 + PLE60 3:1 + BMH 0702P01A2A

CAS 3 ● ● C M ●●●● ● 1 ● R *(2)*/ ● ●● ● ●● ● + ...

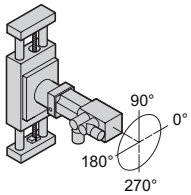
Motor drive configuration *(3)*	Motor only	/	**1**							
	Motor + gearbox	/	**2**							
	Gearbox only	/	**3**							
Gearbox interface	PLE 40 gearboxes	/		**0G**						
	PLE 60 gearboxes	/		**1G**						
	PLE 80 gearboxes	/		**3G**						
	PLE 120 gearboxes	/		**5G**						
	WPLE 40 gearboxes	/		**0A**						
	WPLE 60 gearboxes	/		**1A**						
	WPLE 80 gearboxes	/		**3A**						
	WPLE 120 gearboxes	/		**5A**						
	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 interface	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 and gearbox with straight teeth	/				**E7**				
	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**			
Planetary gearbox gear ratio + motor reference	State the planetary gearbox gear ratio and the complete motor reference at the end of the reference, in plain text. Example: **PLE60 3:1 + BMH 0702P01A2A**							+	...	

(1) All technical data (characteristics, dimensions, etc.) for Lexium CAS 3 cantilever axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) For the first part of the reference, see page 26.
(3) Possible motor drive configurations and orientation (view from motor/gearbox towards the axis or from motor towards the gearbox):

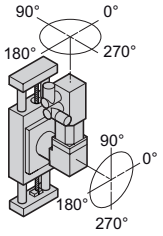
CAS 3●●…*(2)*/1XXX●●●



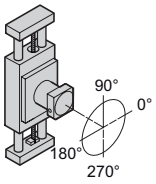
CAS 3●●…*(2)*/2●G●●●●



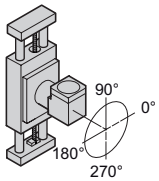
CAS 3●●…*(2)*/2●A●●●●



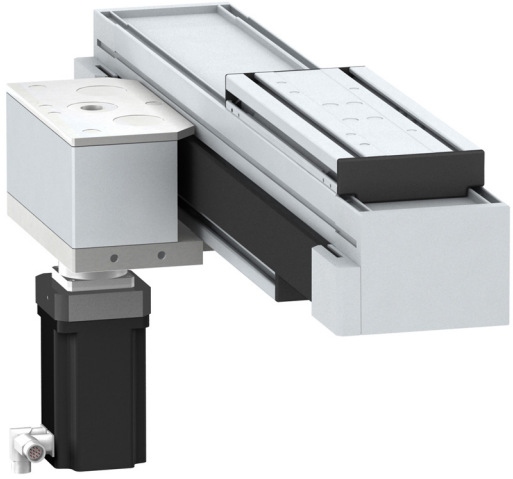
CAS 3●●…*(2)*/3●G●XXX



CAS 3●●…*(2)*/3●A●XXX



Lexium Linear Motion
Lexium CAS 2 telescopic axes



Lexium CAS 2 telescopic axis with motor and gearbox mounted

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 stroke 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 mobile 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.

Lexium CAS 24BB axes, with a ball guide, are particularly suitable for applications requiring high forces and significant torque.

The rollers on Lexium CAS 24BR axes offer a simple and cost-effective guiding solution for other applications.

Lexium CAS 2 telescopic axes offer various configuration options. These include axis length, various types of sensor for the limit switch function, a choice between 2 carriage types of different sizes, etc. (see page 30).

Schneider Electric offers a number of drive elements which can be used to drive Lexium CAS 2 cantilever axes *(2)* (see pages 6 and 31).
Third-party drive elements can also be used under certain conditions. Contact our Customer Care Centre for further details.

Applications

Applications requiring positioning over long distances where space is at a premium:

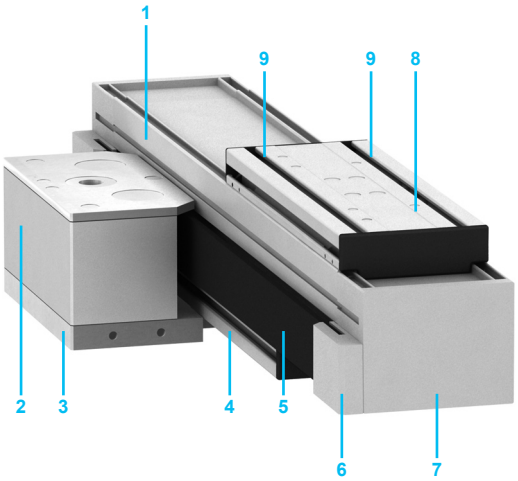
- Material handling
- Stock transporters
- Transfer machines
- Etc.

Special product features

- Excellent rigidity with light travel weight
- Carriage with T-slots for easier load mounting
- Compact
- Stroke can be set to the nearest millimeter
- Payload up to 25 kg for the Lexium CAS 24BR axes and up to 35 kg for the Lexium CAS 24BB axes

(1) All technical data (characteristics, dimensions, etc.) for Lexium CAS 2 telescopic axes is available on our website www.schneider-electric.com and 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.

Description *(1) (2)*



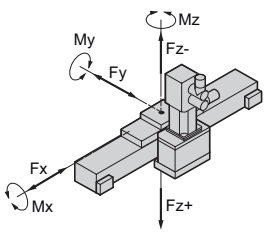
Lexium CAS 24B

1 Lexium CAS 24B telescopic axis
2 Drive 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 Grooves for load mounting

Mechanical characteristics *(1)*

Telescopic axis type		Lexium	CAS 24BR	CAS 24BB
Type of drive	For supporting load		Toothed belt	
	For axis structure		Toothed belt	
Type of guide			Rollers	Ball
Typical payload		**kg**	25	35
Maximum driving force for X axis (Fx) *(3)*		**N**	1500	
Maximum speed		**m/s**	3	
Maximum acceleration		**m/s²**	20	
Maximum driving torque		**Nm**	36	
Maximum force for Y axis (FY) *(3)*		**N**	1810	2460
Maximum force for Z axis (Fz-, Fz+) *(3)*	Fz+	**N**	1070	4650
	Fz-	**N**	1070	2320
Maximum torque for X axis (Mx) *(3)*		**Nm**	52	70
Maximum torque for Y axis (My) *(3)*	With carriage type 1	**Nm**	106	281
	With carriage type 2	**Nm**	148	374
Maximum torque for Z axis (Mz) *(3)*	With carriage type 1	**Nm**	219	298
	With carriage type 2	**Nm**	308	397
Maximum stroke		**mm**	2400	
Repeatability		**mm**	± 0.1	
Profile cross-section	Width x height	**mm**	120 x 95	
Service life		**km**	30,000	

(1) All technical data (characteristics, dimensions, etc.) for Lexium CAS 2 telescopic axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) Description of a Lexium CAS 2 telescopic axis; the configuration options selected will determine whether or not certain components are included.
(3) Forces and torques exerted on the Lexium CAS 2 telescopic axis:



Lexium Linear Motion
Lexium CAS 2 telescopic axes

References *(1)*

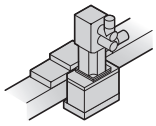
To order a Lexium CAS 2 telescopic axis, complete each reference by replacing the "●" *(2)*:

Example: CAS 2 4 B R M 2000 A 1 N R *(2)* /… rest of the reference on page 31

		CAS 2	4	B	●	M	●●●●	●	●	N	R	/*(2)*
Size (profile cross-section)	120 (120 x 95 mm cross-section)		**4**									/
Type of drive for carriage and axis structure	2 toothed belts: 1 for the carriage and 1 for the axis structure			**B**								/
Type of guide for carriage	Rollers				**R**							/
	Ball				**B**							/
Feed per revolution	Axis structure: 150 mm/revolution Carriage: 300 mm/revolution					**M**						/
Stroke	2400 mm max.						**●●●●**					/
Limit switches	2 sensors with PNP output, NC contact, not connected *(3)*							**A**				/
	2 sensors with PNP output, NC contact, not connected *(4)*							**B**				/
	Without sensors/without detection plate							**N**				/
Type of carriage *(5)*	Type 1								**1**			/
	Type 2								**2**			/
Options	Without option									**N**		/
Interface for the drive element *(6)*	Drive element fixed on right-hand side										**R**	/

(1) All technical data (characteristics, dimensions, etc.) for Lexium CAS 2 telescopic axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) For the second part of the reference, see page 31.
(3) Supplied with a 0.2 m cable equipped with an M8 connector.
(4) Supplied with a 5 m cable with flying leads at one end.
(5) See characteristics and dimensions on our website www.schneider-electric.com or refer to the documentation CD-ROM supplied with this catalogue.
(6) Drive element fixed on right-hand side:

CAS 24B●M●●●●●●NR/…*(2)*



PAS 4●B portal axes: page 8 | PAS 4●S portal axes: page 12 | TAS 4 linear tables: page 16 | CAS 4 cantilever axes: page 20 | CAS 3 cantilever axes: page 24

References (continued) (1)

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

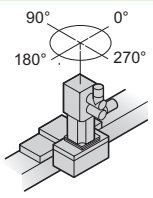
Example: CAS 2 4 B R M 2000 A 1 N R (2) /2 3G 0 H7 0 + PLE80 3:1 + BMH 0702P01A2A

CAS 2 4 B ● M ●●●● ● ● N R (2)/ ● ●● ● ●● ● + ...

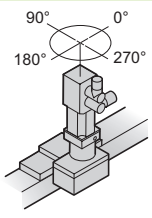
Motor drive configuration (3)	Motor only	/	**1**							
	Motor + gearbox	/	**2**							
	Gearbox only	/	**3**							
Gearbox interface	PLE 40 gearboxes	/		**0G**						
	PLE 60 gearboxes	/		**1G**						
	PLE 80 gearboxes	/		**3G**						
	PLE 120 gearboxes	/		**5G**						
	WPLE 40 gearboxes	/		**0A**						
	WPLE 60 gearboxes	/		**1A**						
	WPLE 80 gearboxes	/		**3A**						
	WPLE 120 gearboxes	/		**5A**						
	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 interface	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 and gearbox with straight teeth	/				**E7**				
	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**			
Planetary gearbox gear ratio + motor reference	State the planetary gearbox gear ratio and the complete motor reference at the end of the reference, in plain text. Example: **PLE80 3:1 + BMH 0702P01A2A**							+	...	

(1) All technical data (characteristics, dimensions, etc.) for Lexium CAS 2 telescopic axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) For the first part of the reference, see page 30.
(3) Possible motor drive configurations and orientation (view from motor/gearbox towards the axis or from motor towards the gearbox):

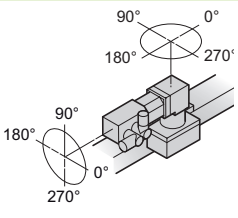
CAS 2●B…(2)/1XXX●●●



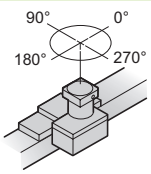
CAS 2●B…(2)/2●G●●●●



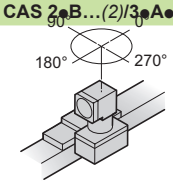
CAS 2●B…(2)/2●A●●●●



CAS 2●B…(2)/3●G●XXX

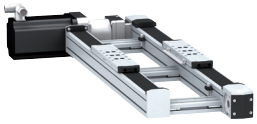


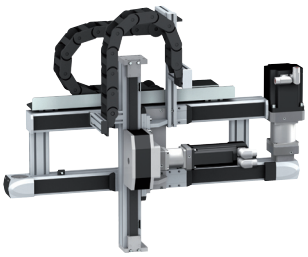
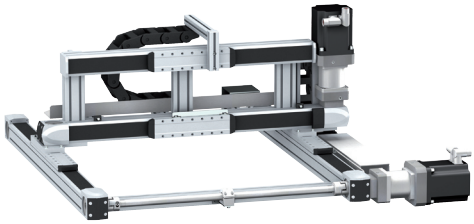
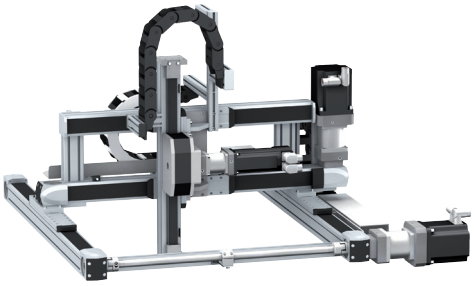
CAS 2●B…(2)/3●A●XXX



PAS 4●B portal axes: page 8
PAS 4●S portal axes: page 12
TAS 4 linear tables: page 16
CAS 4 cantilever axes: page 20
CAS 3 cantilever axes: page 24

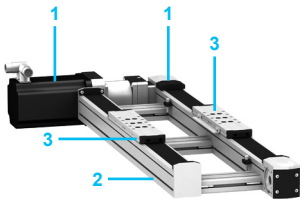
Lexium Linear Motion
Multi-axis systems

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 for the limit switch function □ Several different motor mounting options □ Variable distance between the two axes	
Reference		**MAX H**	**MAX S**
Page		36	

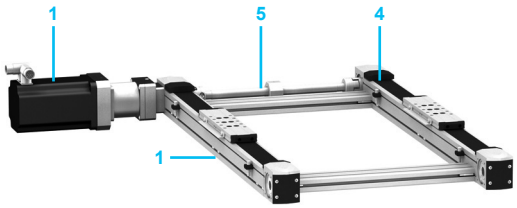
Linear positioners	Portal robots	
2		**3**
Horizontal and vertical: Combination of one X axis and one Z axis	**Horizontal: Combination of two perpendicular axes X and Y**	**Horizontal and vertical: Combination of two perpendicular axes X and Y and one Z axis**
On the side or on the end blocks of the 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 for the limit switch function		
Supplied as standard: □ Protective metal strip □ Anti-corrosion version □ Anti-static belt		
MAX P	**MAX R●2**	**MAX R●3**
39	42	43

Lexium Linear Motion

Lexium MAX H and Lexium MAX S double portal axes



Lexium MAX H double portal axis with motor and gearbox mounted



Lexium MAX S double portal axis with motor and gearbox mounted

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 axes: the support axis **2** is driven by the load fixed on the two parallel carriages **3**
  - Lexium MAX S axes: 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.

MAX ●2BB, MAX ●3BB and MAX ●4BB axes, with a ball guide, are particularly suitable for applications requiring high forces and significant torque.
The rollers on MAX ●1BR, MAX●2BR and MAX ●3BR axes offer a simple and cost-effective guiding solution for other applications.

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 a high dynamic response.

Lexium MAX H double portal axes are able to move loads of up to 250 kg and Lexium MAX S double portal axes, loads of up to 300 kg, depending on the model.

Lexium MAX H and Lexium MAX S double portal axes offer different configuration options, including axis length, different types of sensor for the limit switch function, 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 36).

Schneider Electric offers numerous drive elements for driving Lexium MAX H and Lexium MAX S axes *(2)* (see pages 6 and 37).
Third-party drive elements can also be used under certain conditions. Contact our Customer Care Centre for further details.

Applications

Applications requiring:

- Positioning of heavy loads and/or involving large surface areas: material handling, etc.
- Positioning over long distances: material handling, Pick & Place, etc.

Special product features

- Profiles 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 easy motor assembly
- Stroke can be set to the nearest millimeter
- Option to position sensors anywhere along the profile thanks to the T-slots
- Payload for portal axes:
  - Lexium MAX H: 250 kg maximum
  - Lexium MAX S: 300 kg maximum

(1) All technical data (characteristics, dimensions, etc.) for Lexium MAX ● axes is available on our website www.schneider-electric.com and 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) When selecting the drive element, the maximum permissible driving torque for the axis drive shaft must always be taken into account.

MAX P linear positioners: page 38
MAX R portal robots: page 40

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			Rollers		Ball	Rollers	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			Rollers		Ball	Rollers	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 technical data (characteristics, dimensions, etc.) for Lexium MAX H and Lexium MAX S axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.

MAX P linear positioners: page 38

MAX R portal robots: page 40

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 "●" *(2)*:

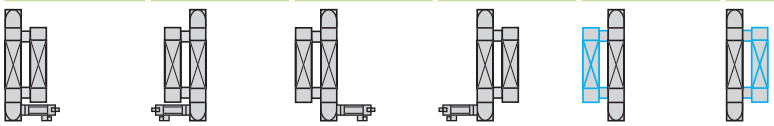
Example: MAX H 1 B R M 1000 A 2 B A XXX R 0120R/… rest of the reference on page 37

		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												/
Drive system for carriages	Toothed belt			B											/
Type of guide for carriages	Roller (for MAX ●1B, ●2B, ●3B)				R										/
	Ball (for MAX ●2B, ●3B, ●4B)				B										/
Feed per revolution	84 mm/revolution (for MAX ●1B)					M									/
	155 mm/revolution (for MAX ●2B)					M									/
	205 mm/revolution (for MAX ●3B)					M									/
	264 mm/revolution (for MAX ●4B)					M									/
Stroke	Maximum 3000 mm (for MAX ●1)						●●●●								/
	Maximum 5500 mm (for MAX ●2, MAX ●3 and MAX ●4)						●●●●								/
Limit switches *(3)*	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 *(4)*	Type 1 (for MAX ●2B, ●3B, ●4B)								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 *(5)*	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 *(6)*	Drive element fixed on right-hand side												R		/
	Drive element fixed on left-hand side												L		/
	Drive element fixed externally, right-hand side (for MAX H)												A		/
	Drive element fixed externally, left-hand side (for MAX H)												B		/
	Without drive element/driven axis on the right (for MAX H)												G		/
	Without drive element/driven axis on the left (for MAX H)												H		/
	Without drive element (for MAX S)												N		/
Distance between the two axes	State the distance in mm *(3)*													●●●●	/

(1) All technical data (characteristics, dimensions, etc.) for Lexium MAX H and Lexium MAX S axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) For the second part of the reference, see page 37.
(3) Supplied with a 0.1 m cable equipped with an M8 connector.
(4) See characteristics and dimensions on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(5) Only carriages of the same type (type 1, type 2 or type 4) are permitted.
(6) Types of interface for the drive element:

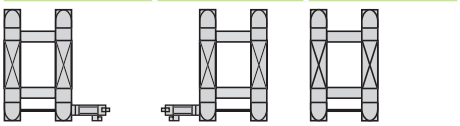
MAX H●B…

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



MAX S●B…

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

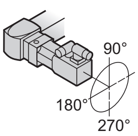
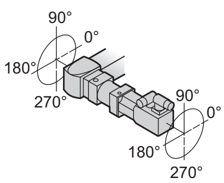
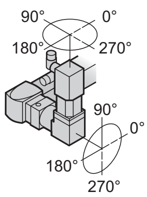
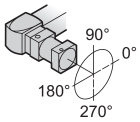
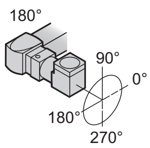
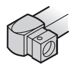
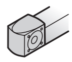


References (continued) *(1)*

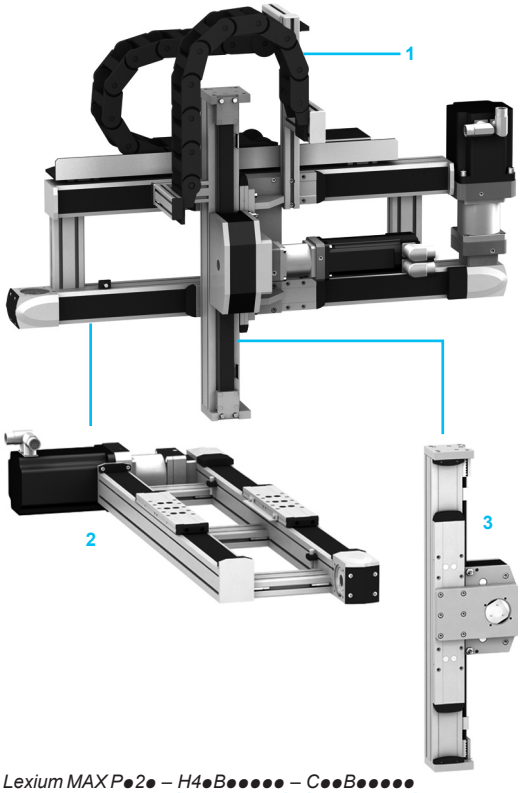
To order a Lexium MAX H or Lexium MAX S double portal axis, complete each reference by replacing the "●" *(2)*:

Example: MAX H 1 B R M 1000 A 2 B A XXX R 0120/2 1G 0 H7 0 *(2)* **+ PLE60 3:1 + BMH 0702P01A2A**	**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 interface	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					
	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 interface	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 and gearbox with straight teeth	/				E7			
	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		
Planetary gearbox gear ratio + motor reference	State the planetary gearbox gear ratio and the complete motor reference at the end of the reference, in plain text. Example: **PLE60 3:1 + BMH 0702P01A2A**							+	…

(1) All technical data (characteristics, dimensions, etc.) for Lexium MAX H and Lexium MAX S axes is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) For the first part of the reference, see page 36.
(3) Possible motor drive configurations and orientation (view from motor/gearbox towards the axis or from motor towards the gearbox):

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
						

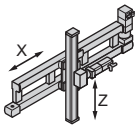
Lexium Linear Motion
Lexium MAX P linear positioners



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

Presentation *(1)*

Lexium MAX P linear positioners **1** 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 profile, 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, you will need to contact our Customer Care Centre.

Applications

Applications requiring dynamic load positioning
- Material handling
- Pick & Place
- Etc.

Special product features

- Numerous adaptation possibilities thanks to its modular design
- Maximum payload for Lexium MAX P positioners: 50 kg

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 drive	X and Z axes		Toothed belt					
Type of guide	X axis		Rollers			Ball	Rollers	Ball
	Z axis		Ball	Rollers	Ball		Rollers	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 drive	X and Z axes		Toothed belt				
Type of guide	X axis		Rollers	Ball	Rollers	Ball	
	Z axis		Ball		Rollers	Ball	
Typical payload		**kg**	14	18	9	25	50
Maximum stroke	X axis	**mm**	5500				
	Z axis	**mm**	500		800		1200

(1) All technical data (characteristics, dimensions, etc.) for Lexium MAX P linear positioners is available on our website www.schneider-electric.com and 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 "●":

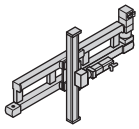
Example: MAX P 1 2 R – H41 B R 4000 – C41 B R 0400
+ PLE60 3:1 + BMH 0702P01A2A (for the X axis)
+ PLE60 3:1 + BMH 0702P01A2A (for the Z axis)

MAX P ● 2 ● – ●●● B ● ●●●● – ●●● B ● ●●●● + … + …

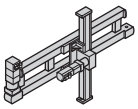
Size of X axis (profile cross-section)	40 (40 x 40 mm cross-section)	**1**
	60 (60 x 60 mm cross-section)	**2**
	80 (80 x 80 mm cross-section)	**3**
	110 (110 x 110 mm cross-section)	**4**
Number of independent axes	2 axes: 1 X axis, 1 Z axis	**2**
Interface for the drive element *(3)*	Drive element fixed on right-hand side	**R**
	Drive element fixed on left-hand side	**L**
Type of X axis	MAX H41 (for MAX P12) *(2)*	**H41**
	MAX H42 (for MAX P22) *(2)*	**H42**
	MAX H43 (for MAX P32) *(2)*	**H43**
	MAX H44 (for MAX P42) *(2)*	**H44**
Type of drive	Toothed belt	**B**
Type of guide	Roller (for MAX P●2● – H41/H42/H43)	**R**
	Ball (for MAX P●2● – H42/H43/H44)	**B**
Stroke	State the length in mm (see the maximum possible length depending on the model on page 38)	**●●●●**
Type of Z axis	CAS 41 (for MAX P12) *(2)*	**C41**
	CAS 42 (for MAX P22) *(2)*	**C42**
	CAS 43 (for MAX P32) *(2)*	**C43**
	CAS 44 (for MAX P42) *(2)*	**C44**
	CAS 31 (for MAX P12) *(2)*	**C31**
	CAS 32 (for MAX P22) *(2)*	**C32**
	CAS 34 (for MAX P32) *(2)*	**C34**
Type of drive	Toothed belt	**B**
Type of guide	Roller (for MAX P●2● – H4●B●●●●● – C41/C42/C43)	**R**
	Ball (for MAX P●2● – H4●B●●●●● – C42/C43/C44)	**B**
	Ball (for MAX P●2● – H4●B●●●●● – C3●)	**C**
Stroke	State the length in mm (see the maximum possible length depending on the model on page 38)	**●●●●**
Planetary gearbox gear ratio + motor reference	State the planetary gearbox gear ratio and the complete motor reference at the end of the reference, in plain text, selected for the X axis and for the Z axis. Example: **PLE60 3:1 + BMH 0702P01A2A** for each axis	**+ …** **+ …**

(1) All technical data (characteristics, dimensions, etc.) for Lexium MAX P linear positioners is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) Supplied with 2 PNP output sensors, NC contact, with a 0.1 m cable equipped with an M8 connector.
(3) Types of interface for the drive element:

MAX P●2R – …

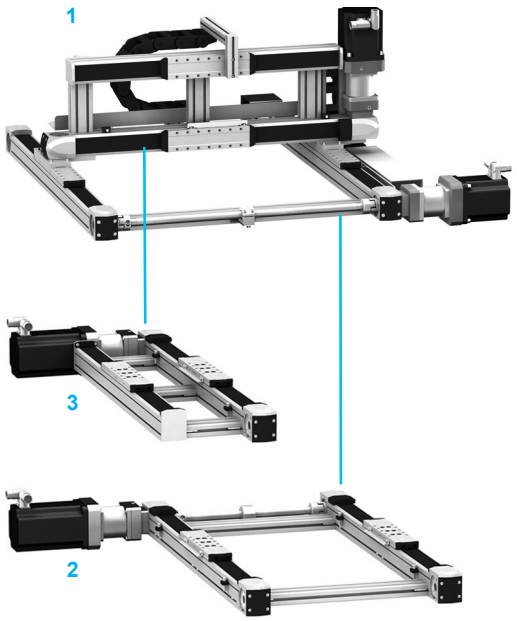


MAX P●2L – …

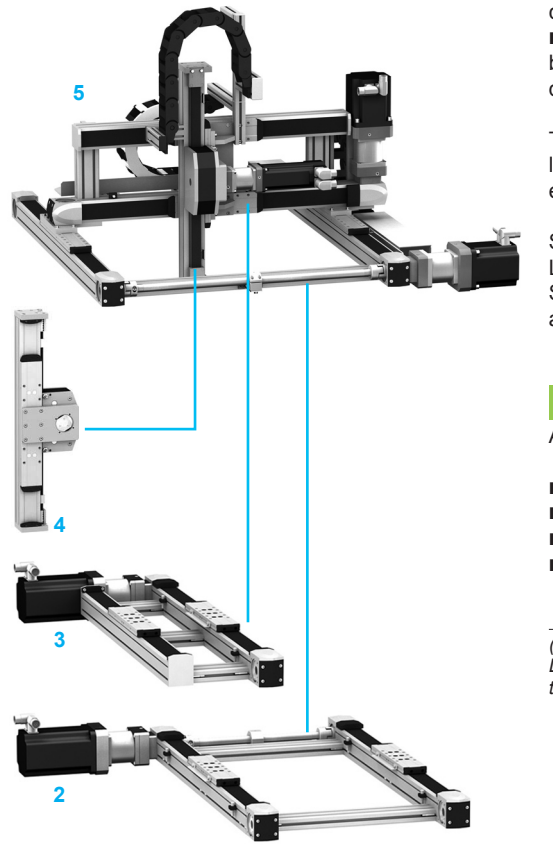


Lexium Linear Motion

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



Lexium MAX R●2● – S4●B●●●●● – H4●B●●●●●
2 3
1

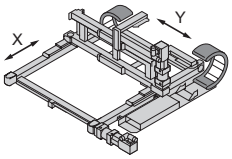


Lexium MAX R●3● – S4●B●●●●● – H4●B●●●●● – C●●B●●●●●
2 3 4
5

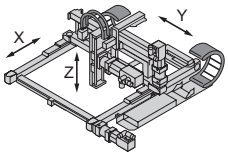
Presentation *(1)*

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 MAX 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 profile, choice of different types of guide, etc. (see pages 42 and 43).

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 our Customer Care Centre.

Applications

Applications requiring load handling over long distances:

- Material handling
- Optics
- Pick & Place
- Etc.

(1) All technical data (characteristics, dimensions, etc.) for Lexium MAX R●2 and Lexium MAX R●3 portal robots is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.

MAX ● double portal axes: page 34
MAX P linear positioners: page 38

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 axes			Toothed belt					
Type of guide	X axis			Rollers			Ball	Rollers	Ball
	Y axis			Rollers			Ball	Rollers	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 axes			Toothed belt				
Type of guide	X axis			Rollers	Ball	Rollers	Ball	
	Y axis			Rollers	Ball	Rollers	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 axes			Toothed belt					
Type of guide	X axis			Rollers			Ball	Rollers	Ball
	Y axis			Rollers			Ball	Rollers	Ball
	Z axis			Ball	Rollers	Ball		Rollers	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 axes			Toothed belt				
Type of guide	X axis			Rollers	Ball	Rollers	Ball	
	Y axis			Rollers	Ball	Rollers	Ball	
	Z axis			Ball		Rollers	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 technical data (characteristics, dimensions, etc.) for Lexium MAX R●2 and Lexium MAX R●3 portal robots is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.

MAX ● double portal axes: page 34

MAX P linear positioners: page 38

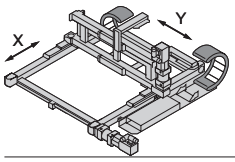
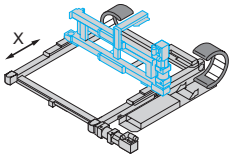
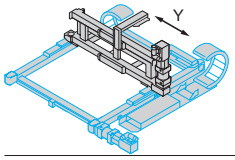
Lexium Linear Motion
Lexium MAX R●2 portal robots

References *(1)*

To order a Lexium MAX R●2 portal robot, complete each reference by replacing the "●":

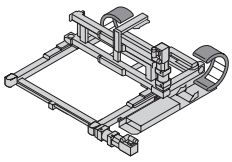
Example: MAX R 1 2 R – S41 B R 3000 – H41 B R 1200
+ PLE60 3:1 + BMH 0702P01A2A
+ PLE60 3:1 + BMH 0702P01A2A

MAX R ● 2 ● – ●●● B ● ●●●● – ●●● B ● ●●●● + … + …

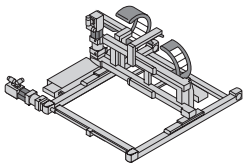
Size of X axis (profile cross-section) 	40 (40 x 40 mm cross-section)	**1**
	60 (60 x 60 mm cross-section)	**2**
	80 (80 x 80 mm cross-section)	**3**
	110 (110 x 110 mm cross-section)	**4**
Number of independent axes	2 axes: 1 X axis, 1 Y axis	**2**
Interface for the drive element *(3)*	Drive element fixed on right-hand side	**R**
	Drive element fixed on left-hand side	**L**
Type of X axis 	MAX S41 (for MAX R12) *(2)*	**S41**
	MAX S42 (for MAX R22) *(2)*	**S42**
	MAX S43 (for MAX R32) *(2)*	**S43**
	MAX S44 (for MAX R42) *(2)*	**S44**
Type of drive	Toothed belt	**B**
Type of guide	Roller (for MAX R●2● – S41/S42/S43)	**R**
	Ball (for MAX R●2● – S42/S43/S44)	**B**
Stroke	State the length in mm (see maximum possible length depending on the model on page 41)	**●●●●**
Type of Y axis 	MAX H41 (for MAX R12) *(2)*	**H41**
	MAX H42 (for MAX R22) *(2)*	**H42**
	MAX H43 (for MAX R32) *(2)*	**H43**
	MAX H44 (for MAX R42) *(2)*	**H44**
	PAS 41 (for MAX R12) *(2)*	**P41**
	PAS 42 (for MAX R22) *(2)*	**P42**
	PAS 43 (for MAX R32) *(2)*	**P43**
Type of drive	Toothed belt	**B**
Type of guide	Roller guide (for MAX R●2● – S4●B●●●●● – H41/H42/H43/P4●)	**R**
	Ball guide (for MAX R●2● – S4●B●●●●● – H42/H43/H44/P42/P43/P44)	**B**
Stroke	State the length in mm (see maximum possible length depending on the model on page 41)	**●●●●**
Planetary gearbox gear ratio + motor reference	State the planetary gearbox gear ratio and the complete motor reference at the end of the reference, in plain text, selected for the X axis and for the Y axis. Example: **PLE60 3:1 + BMH 0702P01A2A** for each axis	**+ …** **+ …**

(1) All technical data (characteristics, dimensions, etc.) for Lexium MAX R●2 portal robots is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) Each axis is supplied with 2 PNP output sensors, NC contact, with a 0.1 m cable equipped with an M8 connector.
(3) Types of interface for the drive element:

MAX R●2R – …



MAX R●2L – …

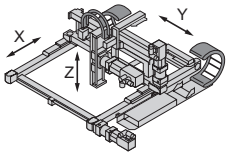
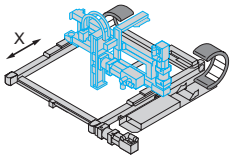
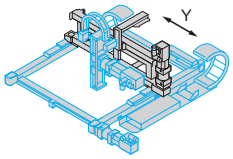
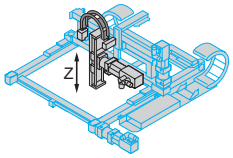


MAX ● double portal axes: page 34
MAX P linear positioners: page 38

References *(1)*

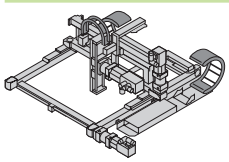
To order a MAX R●3 portal robot, complete each reference by replacing the "●" :

Example: MAX R 1 3 R – S41 B R 3000 – H41 B R 1200 – C31 B C 1200 MAX R ● 3 ● – ●●● B ● ●●●● – ●●● B ● ●●●● – ●●● B ● ●●●●
+ PLE60 3:1 + BMH 0702P01A2A (for the X axis) + …
+ PLE60 3:1 + BMH 0702P01A2A (for the Y axis) + …
+ PLE60 3:1 + BMH 0702P01A2A (for the Z axis) + …

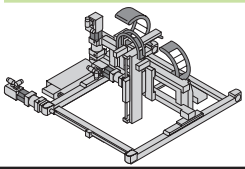
Size of X axis (profile cross-section) 	40 (40 x 40 mm cross-section)	**1**
	60 (60 x 60 mm cross-section)	**2**
	80 (80 x 80 mm cross-section)	**3**
	110 (110 x 110 mm cross-section)	**4**
Number of axes	3 independent axes: 1 X axis, 1 Y axis, 1 Z axis	**3**
Interface for the drive element *(3)*	Drive element fixed on right-hand side	**R**
	Drive element fixed on left-hand side	**L**
Type of X axis 	MAX S41 (for MAX R13) *(2)*	**S41**
	MAX S42 (for MAX R23) *(2)*	**S42**
	MAX S43 (for MAX R33) *(2)*	**S43**
	MAX S44 (for MAX R43) *(2)*	**S44**
Type of drive	Toothed belt	**B**
Type of guide	Roller (for MAX R●3● – S41/S42/S43)	**R**
	Ball (for MAX R●3● – S42/S43/S44)	**B**
Stroke	State the length in mm (see the maximum possible length depending on the model on page 41)	**●●●●**
Type of Y axis 	MAX H41 (for MAX R13) *(2)*	**H41**
	MAX H42 (for MAX R23) *(2)*	**H42**
	MAX H43 (for MAX R33) *(2)*	**H43**
	MAX H44 (for MAX R43) *(2)*	**H44**
Type of drive	Toothed belt	**B**
Type of guide	Roller (for MAX R●3● – S4●B●●●●● – H41/H42/H43)	**R**
	Ball (for MAX R●3● – S4●B●●●●● – H42/H43/H44)	**B**
Stroke	State the length in mm (see the maximum possible length depending on the model on page 41)	**●●●●**
Type of Z axis 	CAS 41 (for MAX R13) *(2)*	**C41**
	CAS 42 (for MAX R23) *(2)*	**C42**
	CAS 43 (for MAX R33) *(2)*	**C43**
	CAS 44 (for MAX R43) *(2)*	**C44**
	CAS 31 (for MAX R13) *(2)*	**C31**
	CAS 32 (for MAX R23) *(2)*	**C32**
	CAS 34 (for MAX R33) *(2)*	**C34**
Type of drive	Toothed belt	**B**
Type of guide	Roller (for MAX R●3● – S4●B●●●●● – H4●B●●●●● – C41/C42/C43)	**R**
	Ball (for MAX R●3● – S4●B●●●●● – H4●B●●●●● – C42/C43/C44)	**B**
	Ball (for MAX R●3● – S4●B●●●●● – H4●B●●●●● – C3●)	**C**
Stroke	State the length in mm (see the maximum possible length depending on the model on page 41)	**●●●●**
Planetary gearbox gear ratio + motor reference	State the planetary gearbox gear ratio and the complete motor reference at the end of the reference, in plain text, selected for the X axis, the Y axis and the Z axis. Example: **PLE60 3:1 + BMH 0702P01A2A** for each axis	+ … + … + …

(1) All technical data (characteristics, dimensions, etc.) for Lexium MAX R●3 portal robots is available on our website www.schneider-electric.com and on the documentation CD-ROM supplied with this catalogue.
(2) Each axis is supplied with 2 PNP output sensors, NC contact, with a 0.1 m cable equipped with an M8 connector.
(3) Types of interface for the drive element:

MAX R●3R – …

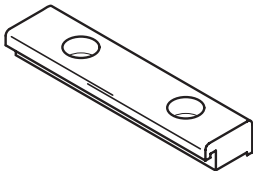


MAX R●3L – …



Lexium Linear Motion
Accessories

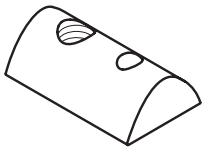
Clamping jaws *(1)*



VW33MF10●●●

Description	For Lexium linear axes *(2)*	Reference	Weight kg
Clamping jaws 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**	–

T-slot nuts *(1)*



VW33MF010T●●●

Description	For Lexium linear axes *(2)*	T-slot width and retaining screw Ø	Reference	Weight kg
		mm		
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 CAS 44 TAS 42 TAS 43	Width: 8 M6 screw	**VW33MF010T8N6**	–
		Width: 8 M8 screw	**VW33MF010T8N8**	–

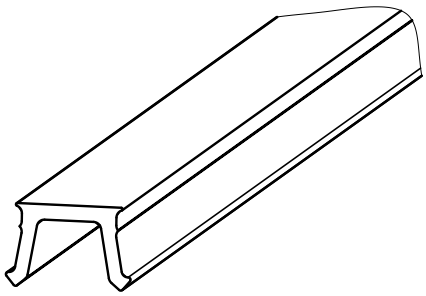
(1) All technical data for accessories is available on our website www.schneider-electric.com or on the documentation CD-ROM supplied with this catalogue.
(2) Also available for Lexium MAX H, Lexium MAX S, Lexium MAX P, Lexium MAX R●2 and Lexium MAX R●3 multi-axis systems designed with the Lexium linear 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.

Adaptors *(1)*

VW33MF020LD0●

Description	For Lexium linear axes *(2)*	Reference	Weight kg
Adaptors 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**	–

Protective covers for T-slots *(1)*



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**	–

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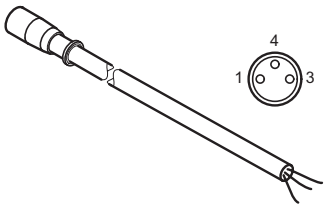
(2) Also available for Lexium MAX H, Lexium MAX S, Lexium MAX P, Lexium MAX R●2 and Lexium MAX R●3 multi-axis systems designed with the Lexium linear axes mentioned, of the same size. Example: An accessory available for a Lexium PAS 41B portal axis is also available for a Lexium MAX H1 double portal axis.

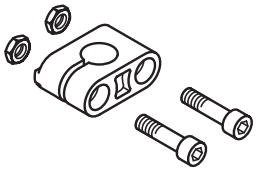
Extension cables for sensor (1)



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 cables 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**	–

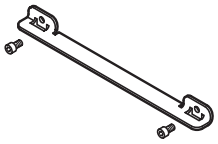
Sensor support (1)



VW33MF010M8

Description	For Lexium linear axes (2)	Reference	Weight
			kg
Sensor support This is used to hold a standard Ø 8 mm sensor for the limit switch function. 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)



VW33MASP1

Description	For Lexium linear axes (2)	Reference	Weight
			kg
Detection plate for sensor This acts as a physical marker for the sensors acting as limit switches 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**	–

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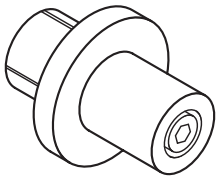
(2) Also available for Lexium MAX H, Lexium MAX S, Lexium MAX P, Lexium MAX R●2 and Lexium MAX R●3 multi-axis systems designed with the Lexium linear axes mentioned, of the same size. Example: An accessory available for a Lexium PAS 41B portal axis is also available for a Lexium MAX H1 double portal axis.

Lexium Linear Motion
Accessories

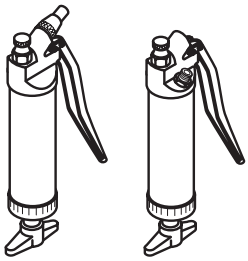
Shaft journals *(1)*



VW33MF1S●●A●●

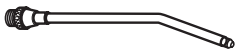
Description	For Lexium linear axes *(2)*	Maximum radial force	Moment of inertia	Maximum driving torque	Reference	Weight *(3)*
		N	kgcm²	N		kg
Shaft journals Coupled to the axis, these can be used, via a mechanical adaptor (not supplied), to connect: ■ An encoder indicating the axis position ■ A third-party 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

Lubrication accessories *(1)*



VW33MAP01 *VW33MAP02*

VW33MAT01



VW33MAT02

Description	For Lexium linear axes *(2)*	Nozzle angle	Reference	Weight
				kg
High-pressure grease pump *(4)* 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 *(4)* 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●	90°	**VW33MAT01**	–
	TAS 4● CAS 4●B●	20°	**VW33MAT02**	–
	CAS 2		**VW33MAT03**	–

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(3) Weight of unpackaged product.
(4) Requires a D type nozzle, to be ordered separately.

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