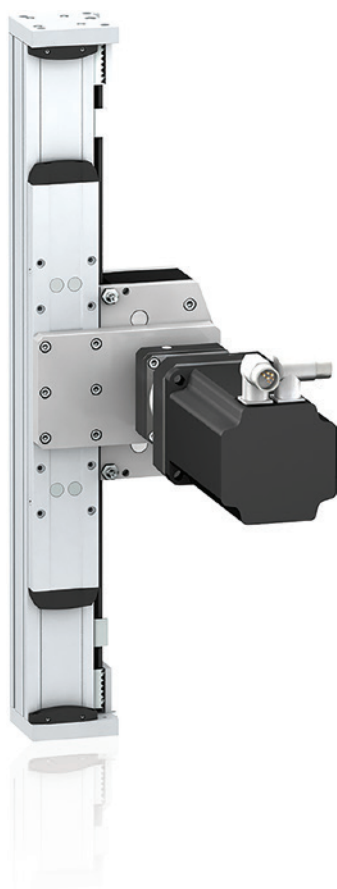


Lexium Cartesian Robots Cantilever and Telescopic Axes

Catalog

January 2018



Quick access to Product information

Select your Catalog, your Training

Digi-Cat

The complete digital catalog for industrial automation



Makes your choice easy every day, everywhere!



With just 3 clicks, you can reach the 7,000 pages of the Industrial Automation & Control catalog, in both English and French.

- Digi-Cat is available on a USB key (for PC). To get your Digi-Cat, please contact your local center
- Download Digi-Cat from this address:

<http://digi-cat.schneider-electric.com/download.html>



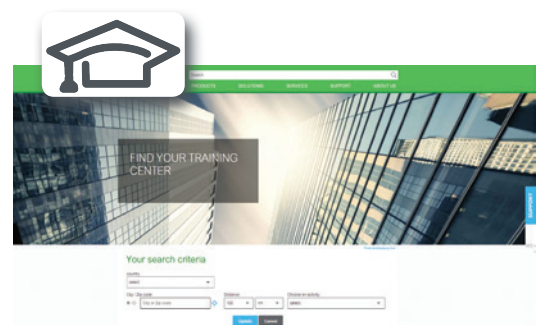
Find your training

- Find the right training for your needs
- Locate the training center with the selector tool, using this address:

<http://www.schneider-electric.com/b2b/en/services/training/technical-training.jsp>

then click on

Find your training center



Life Is On

Schneider
Electric

General contents

Lexium Cartesian Robots - Cantilever and telescopic axes

Selection guide *page 2*

■ **Combinations of drive units/cantilever axes** *page 4*

■ **Lexium CAS 4 cantilever axes** *page 6*

■ **Lexium CAS 3 cantilever axes** *page 10*

■ **Lexium CAS 2 telescopic axes** *page 14*

■ **Accessories** *page 18*

■ **Index** *page 20*

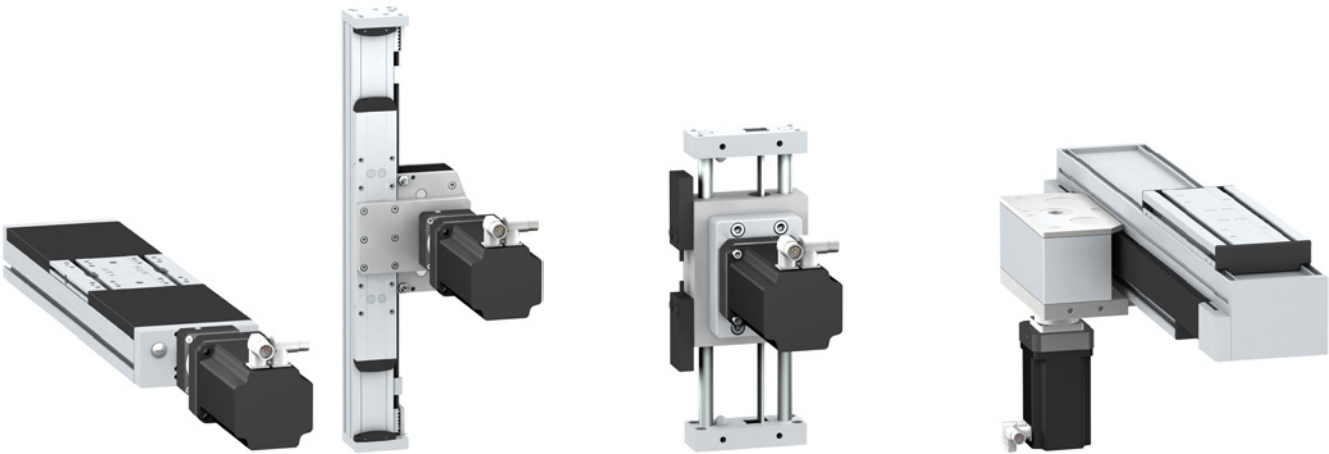
Lexium Cartesian Robots
Cantilever and Telescopic Axes

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 ■ Certified for Cleanrooms with ISO class 6 (ISO14644-1)		■ High dynamic response ■ Long stroke length ■ High positioning speed	■ High precision movement (positioning, repeatability, guiding) ■ High feed forces ■ High rigidity
	★★★★★	★★★★	★★★	★★★
	★★★	★★★	★★★★★	★★★★★
	41, 42, 43, 44	41, 42, 43, 44	42, 43, 44	
	2600 N	2600 N	4520 N	
Dynamic response	8 m/s	2 m/s	1.25 m/s	
Precision	9 ... 5500 mm	150 ... 2500 mm	9 ... 3000 mm	
Sizes	± 0.05 mm	± 0.05 mm	± 0.02 mm	
Maximum driving force	■ 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 ■ Increased corrosion resistance, with cover strip ■ Anti-static belt ■ Protective metal strip ■ Several different motor and gearbox mounting options		■ No options available ■ PAS 4•E axes are pre-configured PAS 4•B axes	
Maximum speed of movement of the load	■ Choice of pitch ■ Wide range of sensors for the limit switch function ■ Choice of carriage type for adapting to the load ■ Several carriages possible ■ Protective metal strip ■ Ballscrew supports for longer axes ■ Several different motor and gearbox mounting options		■ Choice of pitch ■ Wide range of sensors for the limit switch function ■ Choice of carriage type for adapting to the load ■ Several carriages possible ■ Protective metal strip ■ Ballscrew supports for longer axes ■ Several different motor and gearbox mounting options	
working stroke	PAS 4•B		PAS 4•E	PAS 4•S
Repeatability	For more information, please refer to the catalog "Lexium Cartesian Robots Portal Axes"			
Options				
Reference				
Page				

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	Linear ball bearing	Ball or roller



■ High precision movement (positioning, repeatability, guiding) ■ High feed forces ■ High rigidity ■ Feed movement without mechanical backlash	■ Long stroke length ■ High feed forces ■ Option to mount the load on the side of the profile or on the end blocks ■ High rigidity	■ Compact ■ Mobile structure with light travel weight	■ Long stroke length from a compact unit ■ High rigidity ■ High dynamic response
★★	★★★★	★★★★	★★★★
★★★★★	★★★	★★★	★★
41, 42, 43	41, 42, 43, 44	30, 31, 32, 33, 34	24
2580 N	2150 N	705 N	1500 N
1 m/s	3 m/s	3 m/s	3 m/s
7 ... 1500 mm	9 ... 1800 mm	8 ... 500 mm	13 ... 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) ■ Wide range of sensors for the limit switch function ■ Increased corrosion resistance, with cover strip ■ Anti-static belt ■ Protective metal strip ■ Several different motor and gearbox mounting options	■ Anti-corrosion version ■ Anti-static belt ■ Several different motor and gearbox mounting options	■ 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 ■ Several different motor and gearbox mounting options
TAS 4	CAS 4	CAS 3	CAS 2
For more information, please refer to the catalog "Lexium Cartesian Robots Table Axes"	8	12	16

Lexium Cartesian Robots

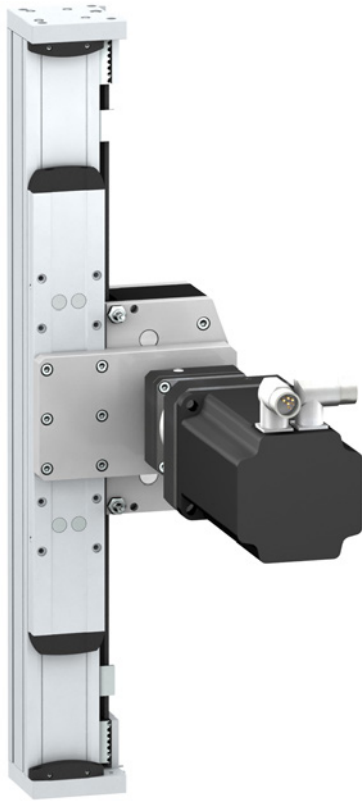
Combinations of drive units/cantilever axes

Drive element (1)	Type	Portal axes				Cantilever and telescopic axes	
		PAS41B CAS41B	PAS42B PAS42S CAS42B	PAS43B PAS43S CAS43B	PAS44B PAS44S CAS44B	CAS30R	CAS31B
Stepper motors	BRS368						
	BRS397						
	BRS39A						
	BRS39B						
	BRS3AC						
	BRS3AD						
Integrated stepper motors	ILS1●571						
	ILS1●572						
	ILS1●573						
	ILS1●851						
	ILS1●852						
	ILS1●853						
Integrated servo motors	ILA1●571						
	ILA1●572						
Integrated DC-motors with mounted gearbox	ILE1●661●●●●1						
	ILE1●661●●●●2						
	ILE1●661●●●●3						
	ILE1●661●●●●4						
Servo motors	BSH / SH3 0401						
	BSH / SH3 0402						
	BSH / SH3 0551						
	BSH / SH3 0552						
	BSH / SH3 0553						
	BSH / BMH / ----- / MH3 / SH3 / ILM 0701						
	BSH / BMH / BMi / MH3 / SH3 / ILM 0702						
	BSH / BMH / BMi / MH3 / SH3 / ILM 0703						
	BSH / BMH / ----- / MH3 / SH3 / ILM 1001						
	BSH / BMH / BMi / MH3 / SH3 / ILM 1002						
	BSH / BMH / BMi / MH3 / SH3 / ILM 1003						
	BSH / ----- / ----- / ----- / SH3 / ----- 1004						
	BSH / BMH / ----- / MH3 / SH3 / ILM 1401						
	BSH / BMH / BMi / MH3 / SH3 / ILM 1402						
	BSH / BMH / ----- / MH3 / SH3 / ----- 1403						
BSH / ----- / ----- / ----- / SH3 / ----- 1404							
Servo motors BCH2	BCH2MBA53						
	BCH2MB013						
	BCH2LD023						
	BCH2LD043						
	BCH2LF043						
	BCH2HF073						
	BCH2LF073						
	BCH2LH103						
	BCH2MM052						
	BCH2MM031						
	BCH2MM102						
	BCH2HM102						
	BCH2MM081						
	BCH2MM061						
	BCH2MM091						
	BCH2MM152						
	BCH2LH203						
	BCH2MM202						
	BCH2MR202						
	BCH2HR202						
	BCH2MR302						
	BCH2MR301						
	BCH2MR352						
BCH2MR451							
Planetary gearboxes (Fa. Neugart)	PLE40 (WPLE40)						
	PLE60 (WPLE60)						
	PLE80 (WPLE80)						
	PLE120 (WPLE120)						

(1) Please refer to our website www.schneider-electric.com.

	Possible to combine
	Incompatible

[illegible]



Lexium CAS4●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 aluminum profile. The rail is driven by a toothed belt with roller or ball guides.

Lexium CAS 4 cantilever axes are designed for applications that 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, and the addition of a protective metal strip (see page 8).

Schneider Electric offers a number of drive elements that can be used to drive Lexium CAS 4 cantilever axes (2) (see pages 4 and 9).

Third-party drive elements can also be used under certain conditions. Contact our Customer Care Center for further details.

Applications

Applications with the following requirements:

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

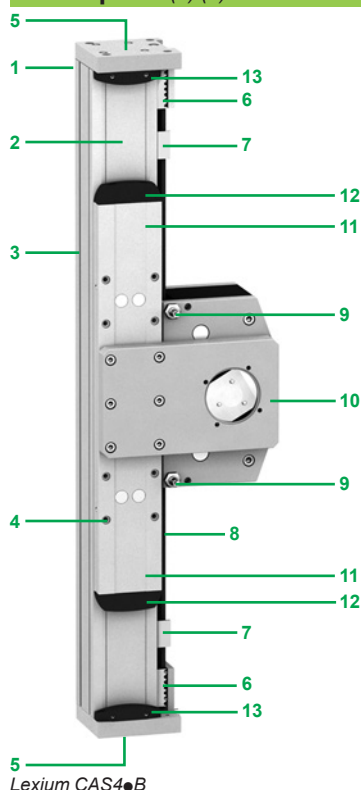
Special product features

- 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 centering tapped holes for mounting the load
- Quick-coupling system for easy drive element assembly
- Stroke in various lengths available per millimeter

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

(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)



- 1 Lexium CAS4B cantilever axis
- 2 Protective metal strip
- 3 T-slots for mounting the load on the side
- 4 Tapped holes with centering holes for mounting the load
- 5 End blocks
- 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)

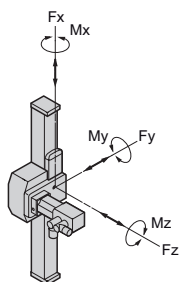
Force and torque (F_y , F_z , M_x , M_y , M_z) are calculated for a service life of 15,000 km/9,321 miles

Type of cantilever axis		CAS41BR	CAS42BR	CAS42BB	CAS43BR	CAS43BB	CAS44BB
Type of drive		Toothed belt					
Type of guide		Rollers		Ball	Rollers		Ball
Constant feed rate	mm/U	84	155		205		264
Max. driving force (F_x) (3)	N	250	650		900		2150
Max. speed	m/s/ft/s	3/9.84					
Max. acceleration	m/s ² /ft/s ²	20/65.62		50/164.04	20/65.62	50/164.04	
Max. driving torque	Nm	3.5	16		30		90
Max. force (F_y) (3)	N	930		3,540	2,430	5,550	7,890
Max. force (F_z) (3)	N	600		3,540	1,430	5,550	7,890
Max. torque (M_x) (3)	Nm	7	13	24	40	53	85
Max. torque (M_y) (3)	Nm	24	29	250	85	487	1,021
Max. torque (M_z) (3)	Nm	37	45	250	144	487	1,021
Min. ... max. stroke (4)	mm/in.	125...400/ 4.92...15.75	125...600/ 4.92...23.62	9...700/ 0.35...27.56	175...800/ 6.89...31.50	11...1,000/ 0.43...39.37	13...1,800/ 0.51...70.87
Repeatability	mm/in.	± 0.05/± 0.002					
Profile cross-section (width x height)	mm/in.	40 x 40/ 1.58 x 1.58	60 x 60/ 2.36 x 2.36		80 x 80/ 3.15 x 3.15		110 x 110/ 4.33 x 4.33
Typical payload (5)	kg/lb	6/13.23	10/22.04	20/44.09	15/33.07	30/66.14	60/132.28

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

(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 moments acting on the cantilever axis Lexium CAS 4. If there are several forces and moments acting at the same time, refer to the manufacturer's documentation



(4) Larger strokes at the ball guides on request.

(5) Values can also be exceeded. Refer to max. force (F_z) value and manufacturer's documentation.

References (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 /... rest of the reference on page 9

		CAS 4	●	B	●	M	●●●●	●	3	●	●	/(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 mobile axis structure	Toothed belt		B									/
Type of guide for mobile axis structure	Roller (for CAS41BR, 42BR, 43BR)			R								/
	Ball (for CAS42BB, 43BB, 44BB)		B									/
Feed per revolution	84 mm/revolution (for CAS41)				M							/
	155 mm/revolution (for CAS42)				M							/
	205 mm/revolution (for CAS43)				M							/
	264 mm/revolution (for CAS44)				M							/
Stroke	Maximum 400 mm (for CAS41)					●●●●						/
	Maximum 700 mm (for CAS42)					●●●●						/
	Maximum 1,000 mm (for CAS43)					●●●●						/
	Maximum 1,800 mm (for CAS44)					●●●●						/
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 mounted 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.

(2) For the second part of the reference, see page 9.

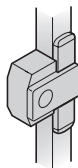
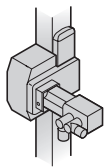
(3) Supplied with a 0.1 m/0.33 ft cable equipped with an M8 connector. Other cable lengths are also available (see the accessories on page 18).

(4) Please refer to our website www.schneider-electric.com.

(5) Types of interface for the drive element:

CAS4●B●M●●●●●3●R/...

CAS4●B●M●●●●●3●H/...

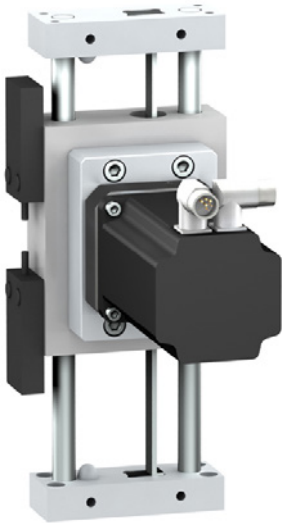


To order a Lexium CAS 4 cantilever axis, complete each reference by replacing the “●” (2):

CAS 4 • B • M • • • • • 3 • • (2)/

+

(3) Possible motor drive configurations and orientation (view from motor/gearbox towards the axis or from motor towards the gearbox):



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.

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, and anti-static toothed belt (see page 12).

Schneider Electric offers a number of drive elements that can be used to drive Lexium CAS 3 cantilever axes (2) (see pages 4 and 13).

Third-party drive elements can also be used under certain conditions. Contact our Customer Care Center for further details.

Applications

Applications with the following requirements:

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

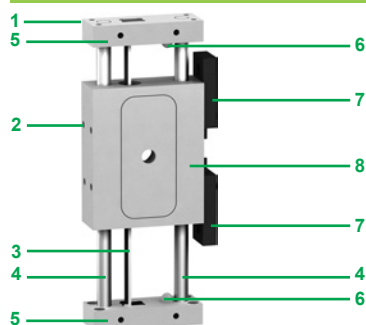
Special product features

- 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 in various lengths available per millimeter

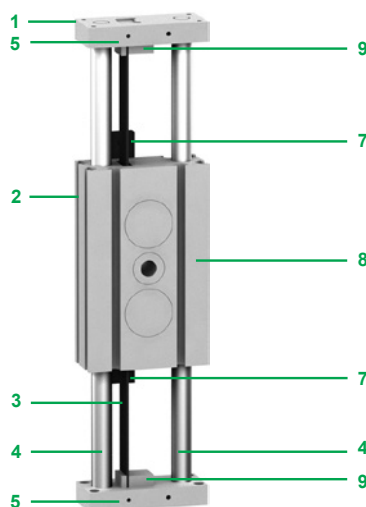
(1) All technical data (characteristics, dimensions, etc.) for Lexium CAS 3 cantilever axes is available on our website www.schneider-electric.com

(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 CAS30R, CAS31B



Lexium CAS32B, CAS33B, CAS34B

- 1 Lexium CAS3●● cantilever axis
- 2 Tapped holes or T-slots for mounting the axis
- 3 Rack or toothed belt
- 4 Tubes providing mobile structure and guide method
- 5 End blocks with centering tapped holes for mounting the load (these blocks also act as detection plates for sensors)
- 6 Buffers
- 7 Sensors
- 8 Drive block
- 9 Tensioner for toothed belt

Technical data (1)

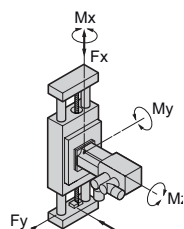
Force and torque (Fy, Fz, Mx, My, Mz) are calculated for a service life of 15,000 km/9,321 miles

Type of cantilever axis		CAS30RC	CAS31BC	CAS32BC	CAS33BC	CAS34BC
Type of drive		Rack	Toothed belt			
Type of guide		Linear ball bearing				
Constant feed rate	mm/U	50	75	100	100	100
Max. driving force (Fx) (3)	N	80	125	435	535	705
Max. speed	m/s/ft/s	3/9.84				
Max. acceleration	m/s ² /ft/s ²	20/65.62				
Max. driving torque	Nm	0.6	1.5	7	8.5	11.5
Max. force (Fy) (3)	N	160	210	290	460	950
Max. force (Fz) (3)	N	130	180	250	400	820
Max. torque (Mx) (3)	Nm	1.9	5.1	9	16	45
Max. torque (My) (3)	Nm	2.8	6.7	21	34	85
Max. torque (Mz) (3)	Nm	3.5	7.8	25	39	100
Min. ... Max. stroke (4)	mm/in.	8 ... 150	8 ... 200	10 ... 300	12 ... 400	14 ... 500
Repeatability	mm/in.	± 0.05/0.002				
Profile cross-section (width x height)	mm/in.	65 x 23/2.56 x 0.91	79 x 29/3.11 x 1.14	99 x 39/3.90 x 1.54	119 x 49/4.69 x 1.93	159 x 49/6.26 x 1.93
Typical payload (5)	kg/lb	1	3	5	10	18

(1) All technical data (characteristics, dimensions, etc.) for Lexium CAS 3 cantilever axes is available on our website www.schneider-electric.com.

(2) Description of a Lexium CAS 3 cantilever axis; the configuration options selected will determine whether or not certain components are included.

(3) Forces and moments acting on the cantilever axis Lexium CAS 3. If there are several forces and moments acting at the same time, refer to the manufacturer's documentation.



(4) Larger strokes at the ball guides on request.

(5) Values can also be exceeded. Refer to max. force (Fz) value and manufacturer's documentation.

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 13

		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 CAS30)		R									/
	Toothed belt (for CAS31, 32, 33, 34)		B									/
Type of guide for mobile axis structure	Ball			C								/
Feed per revolution	50 mm/revolution (for CAS30)				M							/
	75 mm/revolution (for CAS31)				M							/
	100 mm/revolution (for CAS32, 33, 34)				M							/
Stroke	Maximum 150 mm (for CAS30)					●●●●						/
	Maximum 200 mm (for CAS31)					●●●●						/
	Maximum 300 mm (for CAS32)					●●●●						/
	Maximum 400 mm (for CAS33)					●●●●						/
	Maximum 500 mm (for CAS34)					●●●●						/
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 CAS31, 32, 33, 34)									C		/
	With anti-static toothed belt									A		/
	Anti-corrosion version/with anti-static toothed belt (only for CAS31, 32, 33, 34)									E		/
	Without option									N		/
Interface for the drive element (6)	Drive element mounted 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

(2) For the second part of the reference, see page 13.

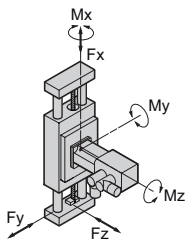
(3) Supplied with a 0.2 m/0.66 ft cable equipped with an M8 connector.

(4) Supplied with a 5 m/16.40 ft cable with flying leads at one end.

(5) Please refer to our website www.schneider-electric.com.

(6) Drive element mounted on right-hand side:

CAS3●●CM●●●●●1●R/...



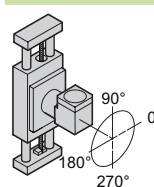
To order a Lexium CAS 3 cantilever axis, complete each reference by replacing the “●” (2):

CAS 3 ● ● C M ● ● ● ● 1 ● R (2)/ ● ● ● ● ●

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	+	...
---	---	---	-----

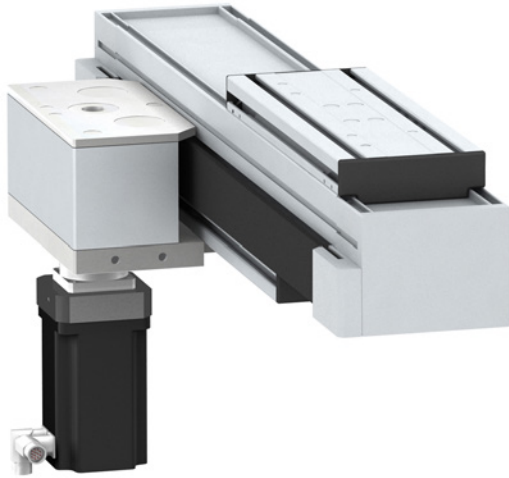
(3) Possible motor drive configurations and orientation (view from motor/gearbox towards the axis or from motor towards the gearbox):

CAS3.../3.A.XXX



Lexium Cartesian Robots

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 design of the mobile structure is based on a very strong profile made of anodized aluminum. 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 CAS24BB axes, with a ball guide, are particularly suitable for applications requiring high forces and significant torque.

The rollers on Lexium CAS24BR 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, and a choice between 2 carriage types of different sizes (see page 16).

Schneider Electric offers a number of drive elements that can be used to drive Lexium CAS 2 cantilever axes (2) (see pages 4 and 17).

Third-party drive elements can also be used under certain conditions. Contact our Customer Care Center for further details.

Applications

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

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

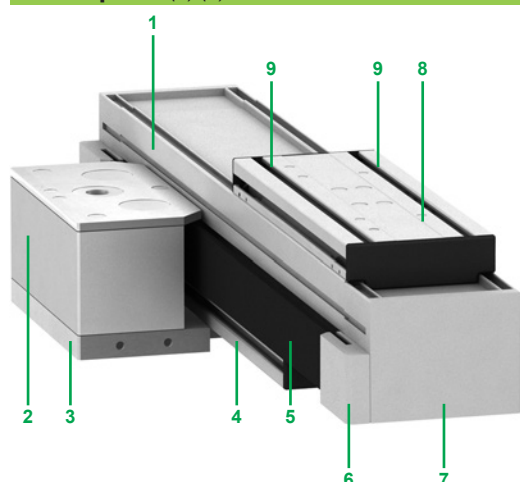
Special product features

- Excellent rigidity with light travel weight
- Carriage with T-slots for easy load mounting
- Compact
- Stroke in various lengths available per millimeter

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

(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)



- 1 Lexium CAS24B telescopic axis
- 2 Drive block
- 3 Adapter plate for drive unit
- 4 Chariage for mounting the axis
- 5 Toothed belt for driving mobile axis structure
- 6 Bracket for toothed belt driving mobile axis structure
- 7 End plate
- 8 Carriage to support load
- 9 Slots for load mounting

Lexium CAS24B

Technical data (1)

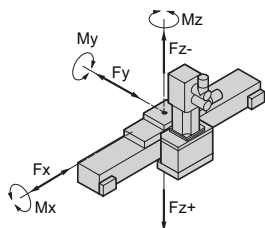
Force and torque (F_y , F_z , M_x , M_y , M_z) are calculated for a service life of 30,000 km/18,641 miles

Type of cantilever axis		CAS24BR	CAS24BB
Type of drive		Toothed belt	
Type of guide		Rollers	Ball
Constant feed rate	mm/U	300	
Max. driving force (F_x) (3)	N	1,500	
Maximum speed	m/s/ft/s	3/9.84	
Maximum acceleration	m/s ² /ft/s ²	20/65.62	
Maximum driving torque	Nm	36	
Maximum force (F_y) (3)	N	1,810	2,460
Maximum force (F_z , F_z) (3)		N	+1,070
		N	-1,070
Maximum torque (M_x) (3)	Nm	52	70
Maximum torque (M_y) (3)	With carriage type 1	Nm	106
	With carriage type 2	Nm	148
Maximum torque (M_z) (3)	With carriage type 1	Nm	219
	With carriage type 2	Nm	308
Min. ... Max. stroke	mm/in.	175 ... 2,400/6.89...94.49	13...2,400/0.51...94.49
Repeatability	mm/in.	$\pm 0.1/0.004$	
Profile cross-section	Width x height	120 x 95	
Typical payload (4)	kg/lb	25/55.12	35/77.16

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

(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 moments acting on the telescopic axis Lexium CAS 2. If there are several forces and moments acting at the same time, refer to the manufacturer's documentation.



(4) Values can also be exceeded. Refer to max. force (F_z) value and manufacturer's documentation.

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 17

		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	2,400 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	/
	Anti-corrosion version											C	/
Interface for the drive element (6)	Drive element mounted 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.

(2) For the second part of the reference, see page 17.

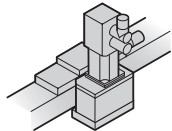
(3) Supplied with a 0.2 m/0.66 ft cable equipped with an M8 connector.

(4) Supplied with a 5 m/16.40 ft cable with flying leads at one end.

(5) See characteristics and dimensions on our website www.schneider-electric.com.

(6) Drive element mounted on right-hand side:

CAS24B●M●●●●●NR/...



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

CAS 24 B • M • • • • • N R (2)

+ PLE80 3:1 + BMH 0702P01A2A

(3) Possible motor drive configurations and orientation (view from motor/gearbox towards the axis or from motor towards the gearbox):

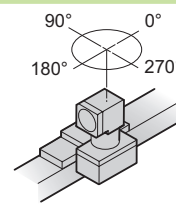
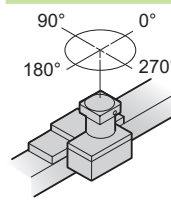
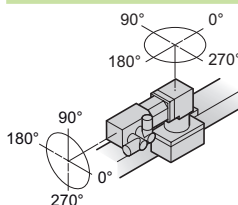
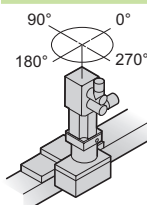
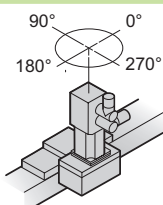
CAS2●B.../1XXX●●●

CAS2●B.../2●G●●●●

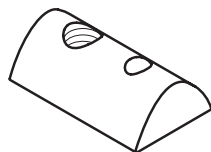
CAS2●B.../2●A●●●●

CAS2●B.../3●G●XXX

CAS2●B.../3●A●XXX



DF539872

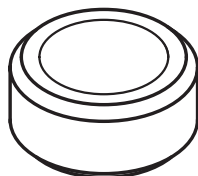


VW33MF010T●●●

T-slot nuts (1)

Description	For Lexium linear axes	T-slot width and retaining screw Ø	Reference
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)	CAS41 CAS42 CAS31	Width: 5 M5 screw	VW33MF010T5N5
	CAS43	Width: 6 M6 screw	VW33MF010T6N6
	CAS44 CAS24 CAS33	Width: 8 M6 screw	VW33MF010T8N6
		Width: 8 M8 screw	VW33MF010T8N8

DF539874

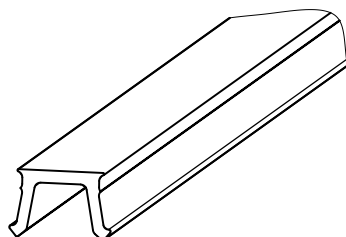


VW33MF020LD10●

Adapters (1)

Description	For Lexium linear axes	Reference
Adapters These help to 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)	CAS30 CAS31 CAS41 CAS42	VW33MF020LD01
	CAS32 CAS33 CAS43	VW33MF020LD02
	CAS34 CAS44	VW33MF020LD03

DF539876

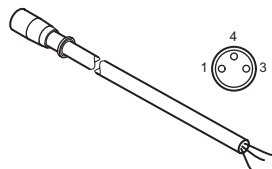


VW33MC05A00●●

Protective covers for T-slots (1)

Description	For Lexium linear axes	Reference
Protective covers for T-slots These help to protect the profile T-slots. Length 2 m/6.56 ft (sold in lots of 5)	CAS41	VW33MC05A05
	CAS42	VW33MC05B05
	CAS43	VW33MC05A06
	CAS44	VW33MC05A08

DF539877

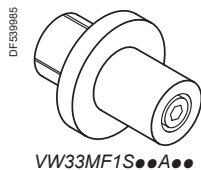


VW32SBCBGA●●●

Extension cables for sensor (1)

Description	For Lexium linear axes	Length m/ft	Reference
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.	CAS4●	5/16.40	VW32SBCBGA050
		10/32.81	VW32SBCBGA100
		20/65.62	VW32SBCBGA200

(1) All technical data for accessories is available on our website www.schneider-electric.com.



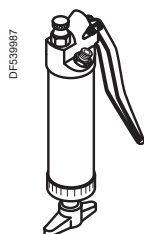
VW33MF1S●●A●●

Shaft journals (1)

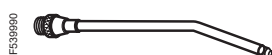
Description	For Lexium linear axes	Maximum radial force N	Moment of inertia kgcm ²	Maximum driving torque N.m/lbf.in	Reference
Shaft journals Coupled to the axis, these can be used, via a mechanical adapter (not supplied), to connect: An encoder indicating the axis position A third-party application-specific drive	CAS41	230	0.002	7.7 N.m/ 68.14 lbf.in	VW33MF1S12A12
	CAS42	400	0.05	35.7 N.m/ 315.93 lbf.in	VW33MF1S27A20
	CAS43	700	0.16	82 N.m/ 725.66 lbf.in	VW33MF1S32A25
	CAS44	1,300	0.54	182 N.m/ 1,610.62 lbf.in	VW33MF1S37A32



VW33MAP01



VW33MAP02



VW33MAT02

Lubrication accessories (1)

Description	For Lexium linear axes	Nozzle angle	Reference
High-pressure grease pump (2) This is used to lubricate axes with ball guides: Grease capacity: 120 cm ³ Flow rate: 0.5 cm ³ /pressure	CAS4●BB	—	VW33MAP01
High-pressure oil pump (2) This is used to lubricate axes with roller guides: Oil capacity: 120 cm ³ Flow rate: 0.5 cm ³ /pressure	CAS4●BR	—	VW33MAP02
D6 rigid nozzles These are mounted on VW33MAP01 and VW33MAP02 high-pressure pumps to lubricate the Lexium axes	CAS4●B●	20°	VW33MAT02
	CAS24	20°	VW33MAT03

(1) All technical data for accessories is available on our website www.schneider-electric.com.

(2) Requires a D type nozzle, to be ordered separately.

C	
CAS24BB	15
CAS24BR	15
CAS30RC	11
CAS31BC	11
CAS32BC	11
CAS33BC	11
CAS34BC	11
CAS41BR	7
CAS42BB	7
CAS42BR	7
CAS43BB	7
CAS43BR	7
CAS44BB	7

V	
VW32SBCBGA050	18
VW32SBCBGA100	18
VW32SBCBGA200	18
VW33MAP01	19
VW33MAP02	19
VW33MAT02	19
VW33MAT03	19
VW33MC05A05	18
VW33MC05A06	18
VW33MC05A08	18
VW33MC05B05	18
VW33MF010T5N5	18
VW33MF010T6N6	18
VW33MF010T8N6	18
VW33MF010T8N8	18
VW33MF020LD01	18
VW33MF020LD02	18
VW33MF020LD03	18
VW33MF1S12A12	19
VW33MF1S27A20	19
VW33MF1S32A25	19
VW33MF1S37A32	19

The Next Generation



Schneider Electric Industries SAS

Head Office
35, rue Joseph Monier
F-92500 Rueil-Malmaison
France

www.schneider-electric.com/msx

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Design: Schneider Electric
Photos: Schneider Electric