Motion control

Lexium 32i integrated drives

Catalog

June 2017

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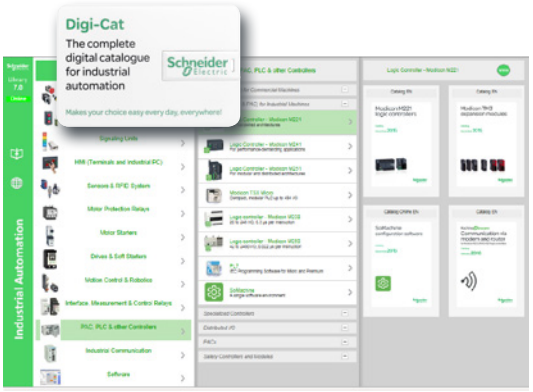

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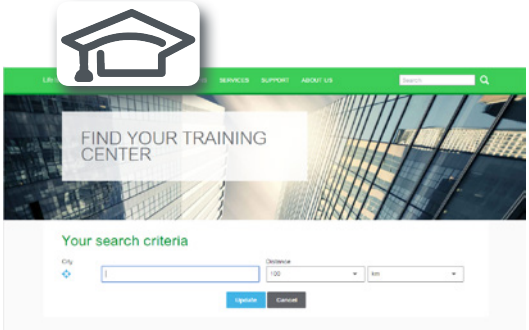

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Motion control
Lexium 32i integrated drives

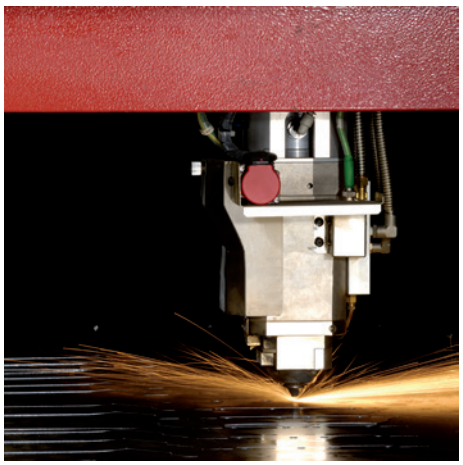
PF080934

Lexium 32i integrated drive controlling a packing line

PF513513

Lexium 32i integrated drive controlling a printing line

PF080933



Lexium 32i integrated drive controlling a materials processing machine

Presentation

The modular range of Lexium 32i integrated drives features two communication interfaces for controlling Lexium BMI servo motors. These servo motors integrate the power stage that provides a direct power supply from either a single-phase or three-phase AC supply.
The Lexium 32i thus offers optimum functionality that can adapt to the specific performance, power, and simplicity of use requirements of motion control applications.
It covers power ratings between 0.4 and 2.1 kW.

The Lexium 32i range of integrated drives is designed to simplify the life cycle of machines. SoMove setup software simplifies initial startup. The modular design facilitates installation by reducing assembly time to as little as three minutes and makes maintenance easier. Maintenance is also quicker and cheaper thanks to the new duplication and backup tools, like the memory card.

Performance is improved through optimized motor control achieved through reduced vibration with automatic parameter calculation, a speed observer, and an additional band-stop filter. This optimization helps to increase machine productivity.

The compact size of the Lexium 32i provides maximum power in minimum space, which helps to reduce the size of the enclosure required by up to 60% and the direct and indirect costs by up to 30%.

Two communication interfaces - CANopen/CANmotion and EtherCAT - allow adaptation to numerous industrial control system architectures.

The integrated Safe Torque Off function reduces system design times and makes it easier to comply with safety standards.

Applications for industrial machines

The Lexium 32i integrated drive incorporates functions that are suitable for the most common applications, including:
- printing - cutting, position-controlled machinery, etc.
- packing and wrapping - cutting to length, rotary knife, bottling, capsuling, labeling, etc.
- textiles - winding, spinning, weaving, embroidery, etc.
- material handling - conveying, palletizing, warehousing, pick-and-place, etc.
- transfer machines - gantries, hoists, etc.
- clamping
- flying shear operations - cutting, printing, marking, etc.
- materials processing, etc.

The offer

The Lexium 32i range of integrated drives covers motor power ratings between 0.4 kW and 2.1 kW with three types of power supply:
- 110…120 V single-phase, from 0.4 kW to 0.75 kW (**BMI●●●T●●●**)
- 200…240 V single-phase, from 0.7 kW to 1.3 kW (**BMI●●●T●●●**)
- 208…480 V three-phase, from 0.4 kW to 2.1 kW (**BMI●●●P●●●**)

Compliance with international standards and certifications

The entire range conforms to international standards IEC/EN 61800-5-1 and IEC/EN 61800-3, is UL *(1)* and CSA certified, and has been developed to meet the requirements of directives regarding protection of the environment (RoHS) as well as those of European directives to obtain the CE mark.

Compliance with electromagnetic compatibility (EMC) requirements

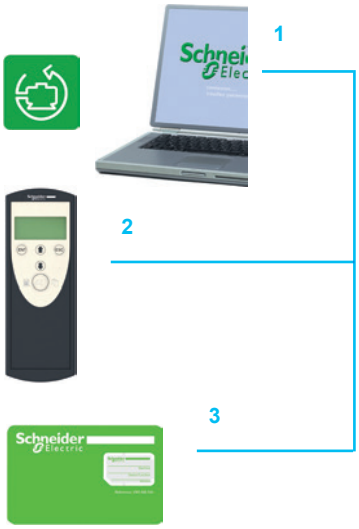
The integration of category C2 EMC filters in Lexium 32i drives and compliance with EMC simplify installation and make it very inexpensive to bring the device into conformity to obtain the CE mark.
These filters comply with standard IEC/EN 61800-3, environment 1, category C2.

Accessories and options

External accessories and options, such as braking resistors and planetary gearboxes, enhance this offer.

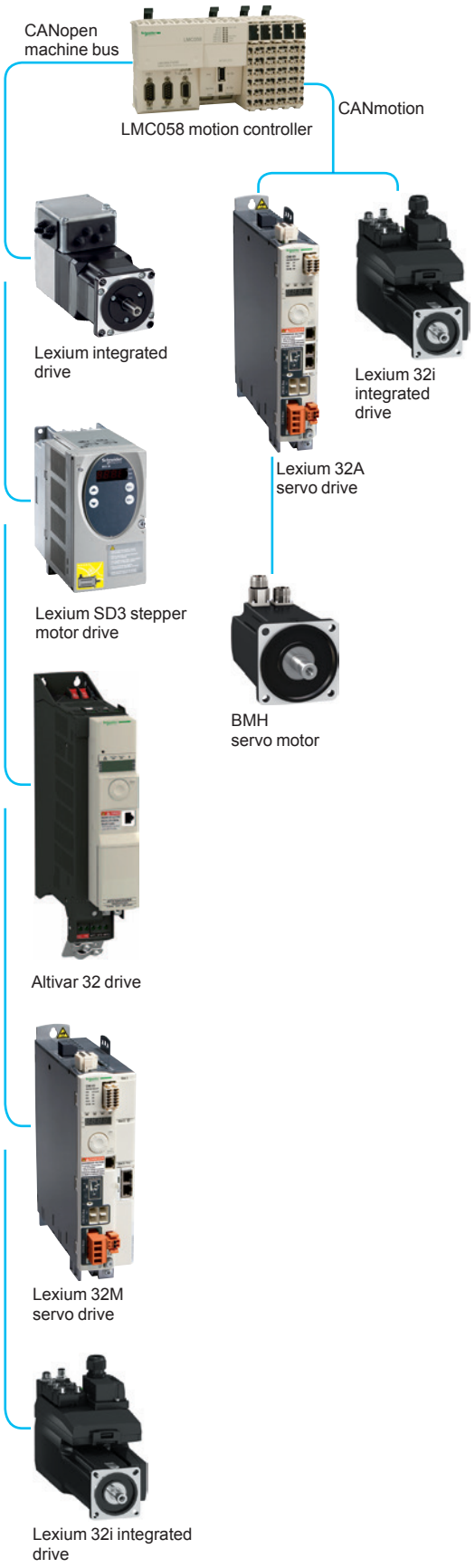
(1) Certification pending

Simplicity, from installation to maintenance



SoMove setup software 1	SoMove setup software is used in just the same way as it is on other Schneider Electric drives and starters, to configure and optimize control loops in automatic or manual mode using the Oscilloscope function and for maintenance of the Lexium 32i integrated drive. See page 14.
Multi-Loader tool 2	The Multi-Loader tool is used to copy configurations from a PC or Lexium 32i drive and load them onto another Lexium 32i. Power to the Lexium 32i drives can be on or off. See page 14.
Memory card 3	This stores the communication interface parameters. When replacing a Lexium 32i, this function helps to ensure immediate startup by removing the need to program the drive. This optimizes maintenance time and reduces costs. See page 14.
Auto-tuning	Adapted to each user, the three auto-tuning levels - automatic, semi-automatic, and expert - allow you to achieve a high level of machine performance, whatever the application.
Mounting and maintenance	The modular design and the memory card for storing configurations help to optimize mounting and maintenance procedures.

Motion control
Lexium 32i integrated drives



Example of control system architecture with CANopen and CANmotion machine bus

High performance

The following Lexium 32i offer features help to increase machine performance:
- Overload capacity: The high peak current (up to 4 times the direct current) increases the range of movement.
- Power density: The compact size of the drives offers maximum efficiency in a small space.
- High bandwidth: Better speed stability and faster acceleration improve the quality of control.
- Motor control: Less vibration, a speed observer, and an additional band-stop filter enhance the quality of control.

Design suitable for different control system structures

The versatility of the Lexium 32i range offers excellent flexibility for integration into different control system structures.

Depending on the model, the Lexium 32i has logic inputs and outputs, which can be configured according to application requirements.
It also has communication interfaces for control via:
- CANopen/CANmotion machine bus
- EtherCAT machine bus

Dedicated safety functions

The Lexium 32i range is an integral part of a control system's safety system, featuring as it does an integrated Safe Torque Off (STO) function, which helps to prevent unintended servo motor operation.
This function complies with standard IEC/EN 61508 level SIL3 governing electrical installations and the power drive systems standard IEC/EN 61800-1.
It simplifies the setup of installations requiring complex safety equipment and improves performance during maintenance operations by reducing the time required for servicing. The bus connection module with STO option is required to access this function (see page 10).

Lexium BMI servo motors - dynamic and powerful

Lexium BMI servo motors are synchronous three-phase motors. They feature a SinCos Hiperface® for automatic transmission of data from the servo motor to the communication interface and are available with or without a holding brake.

Lexium BMI servo motors provide high power density values to optimize machine compactness. Available with two flange sizes and two different lengths for each flange size, they are suitable for most applications, covering a continuous torque range from 1.7 to 7.2 Nm for speeds up to 4700 rpm. They cover the power range 0.4 to 2.1 kW.

BMI servo motors have a medium inertia motor, which means they are particularly suitable for high-load applications. They help to simplify installation and adjustment through a more robust adjustment of the movement.

Lexium BMI servo motors are UL Recognized and conform to standard UL1004 as well as to European directives (CE marking).

They are available with the following variants:
- 2 flange sizes: 70 and 100 mm/*2.76 and 3.94 in.*
- 2 degrees of protection for the shaft end: IP 54 or IP 65 in accordance with standard IEC/EN 60529 (the degree of protection of the casing is IP 65)
- with or without holding brake
- integrated single-turn or multi-turn SinCos Hiperface® encoder (standard or high resolution)
- smooth or keyed shaft end

PF112242A

Lexium BMI servo motor with power stage

Lexium BMI servo motors - dynamics and power (continued)

Specific features

Lexium BMI servo motors have been developed to comply with the following main specifications:

- The ambient operating temperature is - 0...+ 50°C/+ *32...+ 122°F*.
- The maximum operating altitude is 1000 m/*3281 ft* without derating;

2000 m/*6562 ft* with a maximum ambient temperature of 45°C/*113°F* and a continuous power reduction of 1% for every 100 m/*328 ft* above 1000 m/*3281 ft*; and 3000 m/*9842 ft* with a maximum ambient temperature of 40°C/*104°F* and a continuous power reduction of 1% for every 100 m/*328 ft* above 1000 m/*3281 ft*.

- The servo motor can withstand 5...95% relative humidity (non-condensing).
- The windings are insulation class F in accordance with standard IEC 60034-1 (maximum temperature for windings is 155°C/*311°F*).
- Thermal protection is provided and controlled by the Lexium 32i integrated drive via the motor temperature control algorithm.
- All mounting positions are permitted:
  - horizontal mounting (IMB5)
  - vertical mounting (IMV1 with shaft end at the top and IMV3 with shaft end at the bottom) in accordance with standard IEC 60034-7

Holding brake

Lexium BMI servo motors can be equipped with an electromagnetic holding brake.

⚠ **Do not use the holding brake as a dynamic brake for deceleration, as this will quickly damage the brake.**

Integrated encoder

Lexium BMI servo motors are equipped with an absolute encoder.

This encoder performs the following functions:

- It gives the absolute position of the motor so that flows can be synchronized.
- It measures the servo motor speed via the associated Lexium 32i integrated drive (this information is used by the drive's speed controller).
- It measures the position information for the Lexium 32i position controller.
- It sends data from the servo motor to the control unit, which provides automatic motor identification when the Lexium 32i starts.

4 encoder models are available:

- High resolution SinCos Hiperface® encoder:
  - single-turn (131,072 points/turn) *(1)*
  - multi-turn (131,072 points/turn x 4096 turns) *(1)*

These encoders give an angular shaft position precise to less than ± 1.3 arc minutes.

- Standard resolution SinCos Hiperface® encoder:
  - single-turn (32,768 points/turn) *(1)*
  - multi-turn (32,768 points/turn x 4096 turns) *(1)*

These encoders give an angular shaft position precise to less than ± 4.8 arc minutes.

(1) Encoder resolution given for a Lexium 32i integrated drive.

Main functions *(3)*

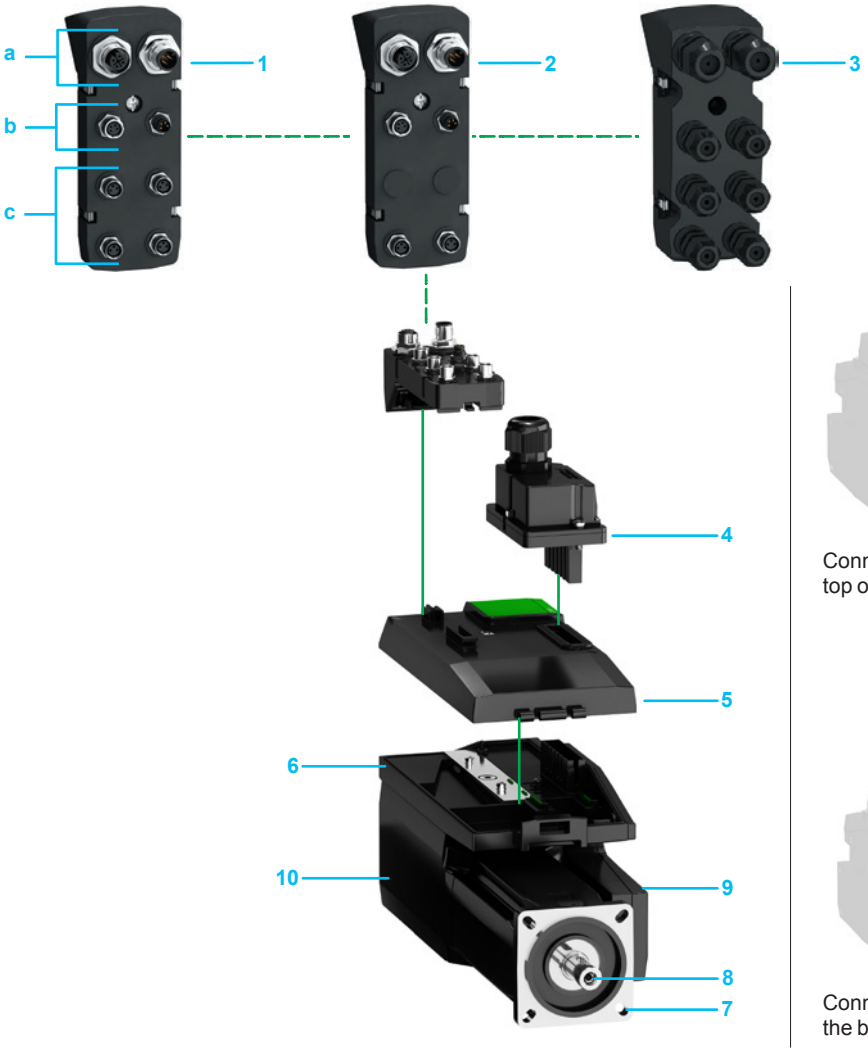
Communication interface		LXM32ICAN	LXM32IECT
Communication interface	Integrated	Integrated Modbus link CANopen/CANmotion machine bus	Integrated Modbus link EtherCAT bus
	Operating mode	Homing Manual mode (JOG) Speed control Current control Position control	
	Functions	Auto-tuning, monitoring, stopping, stop window, conversion, rapid entry of position values	
24 V ⎓ logic inputs *(1)*		4 max., reassignable	
24 V ⎓ capture inputs *(1) (2)*		2, reassignable	
24 V ⎓ logic outputs *(1)*		2, reassignable For use with the following models: VW3M9105, VW3M9110	
Integrated safety function		Safe Torque Off (STO) For use with the following models: VW3M9101, VW3M9103, VW3M9201, VW3M9203, VW3M9105,VW3M9106, VW3M9108, VW3M9206, VW3M9208, VW3M9110	
Architecture		Control via: ■ Schneider Electric or third-party PLCs via communication bus	
Drive		**BMI**	
Application		High load	
		With robust adjustment of the movement	
Flange size		70 or 100 mm/*2.76 or 3.94 in.*	
Continuous torque		1.7 to 7.2 Nm	
Encoder	Single-turn SinCos Hiperface®	■ 32,768 points/turn ■ 131,072 points/turn	
	Multi-turn SinCos Hiperface®	■ 32,768 points/turn x 4096 turns ■ 131,072 points/turn x 4096 turns	
Degree of protection	Casing	IP 65	
	Shaft end	IP 54 for horizontal mounting (IMB5) or vertical mounting with shaft end at the top (IMV1) or IP 65	

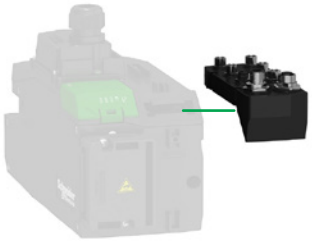
(1) Unless otherwise stated, the logic I/O can be used in positive logic (Sink inputs, Source outputs) or negative logic (Source inputs, Sink outputs).
(2) Two standard logic inputs can be used as capture inputs.
(3) Functions depend on the selected configuration (see page 9).

Motion control
Lexium 32i integrated drives

Description

Lexium 32i integrated drives comprise control electronics with an interface for a CANopen DS402/CANmotion or EtherCAT communication bus and a Lexium BMI synchronous servo motor.
They can be equipped with a single-turn or multi-turn encoder and an integrated holding brake as required.
2 types of connection are possible:
- industrial connectors (1 and 2)
- internal terminals (3)





Connection module (1, 2, 3) mounted on top of the Lexium 32i

Connection module (1, 2, 3) mounted on the back of the Lexium 32i

1 Connection module for CANopen or EtherCAT bus (depending on the model) with 4 logic inputs, M8 connectors, and STO function
  a 2 x M12 connectors for CANopen or EtherCAT bus
  b 2 x M8 connectors for STO function
  c 2 or 4 x M8 connectors for logic inputs
2 Connection module for CANopen or EtherCAT bus (depending on the model) with 2 logic inputs, M8 connectors, and STO function (connection modules with industrial connectors are also available without the STO function)
3 Connection module with internal terminals with 8 cable glands (6 x M12 and 2 x M16), 4 logic inputs, and 2 logic outputs (cable glands to be ordered separately, see page 11)
4 Power supply module available in 2 versions (for single-phase or three-phase power supply)
5 Communication interface card available in 2 versions:
- for CANopen DS402/CANmotion bus
- for EtherCAT bus

Motor section with power stage comprising:
6 Casing with RAL 9005 opaque black paint protective coating
7 A 4-point axial mounting flange available in the following sizes:
- 70 mm/*2.76 in.*
- 100 mm/*3.94 in.*

8 A smooth or keyed shaft end (depending on the model)
9 Lexium BMI servo motor comprising a three-phase stator and a 10-pole rotor with Neodymium Iron Boron (NdFeB) magnets
10 Power stage

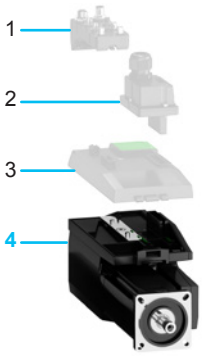
Motion control
Lexium 32i integrated drives
Drive/communication and accessories

Lexium BMI servo motor according to supply voltage

Drive	Rotor inertia without brake	Nominal operating point			Stall torque M0/Mmax *(1)*
		Nominal torque	Nominal speed	Nominal power	
	kgcm²	Nm	rpm	kW	Nm/Nm
115 V ∿ single-phase supply voltage					
BMI0702T	1.13	2.2	1700	0.4	2.3/6.6
BMI0703T	1.67	2.9	1400	0.4	3/8.6
BMI1002T	6.28	5.4	1400	0.75	5.4/14.5
230 V ∿ single-phase supply voltage					
BMI0702T	1.13	1.7	4000	0.7	2.3/6.6
BMI0703T	1.67	2.2	3200	0.7	3/8.6
BMI1002T	6.28	4.4	3000	1.3	5.4/14.5
208 V ∿ three-phase supply voltage					
BMI0702P	1.13	2.4	1800	0.4	2.5/6.8
BMI0703P	1.67	2.9	1600	0.45	3/8.6
BMI1002P	6.28	5.4	1900	1	5.4/14
BMI1003P	9.37	7.2	1500	1	7.2/19.2
400 V ∿ three-phase supply voltage					
BMI0702P	1.13	2.2	3600	0.8	2.5/6.8
BMI0703P	1.67	2.7	3300	0.9	3/8.6
BMI1002P	6.28	5.1	3800	1.9	5.4/14
BMI1003P	9.37	6.8	3000	2	7.2/19.2
480 V ∿ three-phase supply voltage					
BMI0702P	1.13	2	4400	0.9	2.5/6.8
BMI0703P	1.67	2.3	3900	0.9	3/8.6
BMI1002P	6.28	4.1	4700	1.9	5.4/14
BMI1003P	9.37	5.6	3700	2.1	7.2/19.2

(1) - M0: Continuous stall torque.
- Mmax: Peak stall torque.

Motion control
Lexium 32i integrated drives
Drive/communication and accessories



Lexium 32i:
1: Connection module
2: Power supply module
3: Communication interface
4: BMI drive

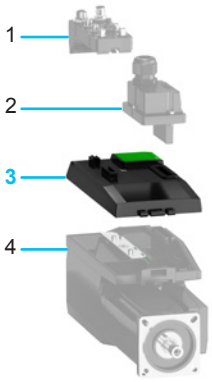
References

To order a Lexium 32i, replace the "●" with the values given in the table below.

Example: BMI0702P06A + LXM32ICAN + VW3M9108

BMI drive (Lexium BMI servo motor + power stage)				●	●	●	●	●	●	●	●
Flange size	70 mm/*2.76 in.*			0	7	0					
	100 mm/*3.94 in.*			1	0	0					
Number of stages	2 stages						2				
	3 stages						3				
Power supply	Single-phase *(1) (2)*							T			
	Three-phase *(3)*							P			
Motor shaft and degree of protection	IP54 for shaft *(4)* and IP65 for casing	Smooth							0		
		Keyed							1		
	IP65 for the unit	Smooth							2		
		Keyed							3		
Encoder type	Single-turn SinCos Hiperface® 131,072 points/turn 128 sine/cosine periods per turn									1	
	Multi-turn SinCos Hiperface® 131,072 points/turn x 4096 turns 128 sine/cosine periods per turn									2	
	Single-turn SinCos Hiperface® 32,768 points/turn 16 sine/cosine periods per turn									6	
	Multi-turn SinCos Hiperface® 32,768 points/turn x 4096 turns 16 sine/cosine periods per turn									7	
Brake	With brake										F
	Without brake										A

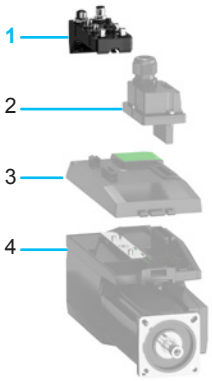
(1) Requires a single-phase power supply module for Lexium 32i, reference VW3M9001.
(2) Lexium BMI1003●●●● servo motors are only available with a three-phase power supply.
(3) Requires a three-phase power supply module for Lexium 32i, reference VW3M9002.
(4) Requires horizontal mounting (IMB5) or vertical mounting with shaft end at the top (IMV1).



Lexium 32i:
1: Connection module
2: Power supply module
3: Communication interface
4: BMI drive

Communication interface and connection modules for CANopen DS402/CANmotion machine bus *(1)*

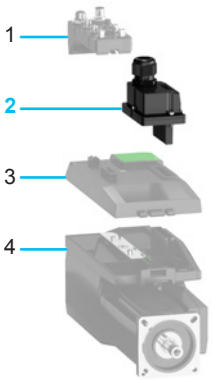
Description	Bus connector	Number of I/O	STO function	Reference	Weight kg/*lb*
Communication interface		CANopen DS402/CANmotion bus		**LXM32ICAN**	–
Connection module for connection via industrial connectors Positive logic inputs (Source)	2 x M12 connectors	4 logic inputs with M8 connectors	Yes *(2)*	**VW3M9101**	–
			–	**VW3M9102**	–
		2 logic inputs with M8 connectors	Yes *(2)*	**VW3M9103**	–
			–	**VW3M9104**	–
Connection module for connection via industrial connectors Negative logic inputs (Sink)	2 x M12 connectors	4 logic inputs with M8 connectors	Yes *(2)*	**VW3M9201**	–
			–	**VW3M9202**	–
		2 logic inputs with M8 connectors	Yes *(2)*	**VW3M9203**	–
			–	**VW3M9204**	–
Connection via internal terminals Top section with 8 cut-outs for cable glands *(3)*: 6 x M12 and 2 x M16	–	4 logic inputs 2 logic outputs	Yes	**VW3M9105**	–



Lexium 32i:
1: Connection module
2: Power supply module
3: Communication interface
4: BMI drive

Communication interface and connection modules for EtherCAT bus *(1)*

Description	Bus connector	Number of I/O	STO function	Reference	Weight kg/*lb*
Communication interface		EtherCAT bus		**LXM32IECT**	–
Connection module for connection via industrial connectors Positive logic inputs (Source)	2 x M12 connectors	4 logic inputs with M8 industrial connectors	Yes *(2)*	**VW3M9106**	–
			–	**VW3M9107**	–
		2 logic inputs with M8 industrial connectors	Yes *(2)*	**VW3M9108**	–
			–	**VW3M9109**	–
Connection module for connection via industrial connectors Negative logic inputs (Sink)	2 x M12 connectors	4 logic inputs with M8 industrial connectors	Yes *(2)*	**VW3M9206**	–
			–	**VW3M9207**	–
		2 logic inputs with M8 industrial connectors	Yes *(2)*	**VW3M9208**	–
			–	**VW3M9209**	–
Connection via internal terminals Top section with 8 cut-outs for cable glands *(3)*: 6 x M12 and 2 x M16	–	4 logic inputs 2 logic outputs	Yes	**VW3M9110**	–



Lexium 32i:
1: Connection module
2: Power supply module
3: Communication interface
4: BMI drive

Power supply

Description	Reference	Weight kg/*lb*
Single-phase power supply module for Lexium 32i	**VW3M9001**	–
Three-phase power supply module for Lexium 32i	**VW3M9002**	–

(1) For more information on connector sets, see table on page 11.
(2) Requires a cordset for the STO function (for more information, see table on page 11).
(3) To be ordered separately (see table on page 11).

VW3L5F000

VW3L5F000

Industrial connectors for communication bus and logic I/O

Description	Components	Reference	Weight kg/*lb*
Set of industrial connectors for CANopen bus	1 round A-coded male M12 connector 1 round A-coded female M12 connector 1 M12 blanking plug	**VW3L5F000**	–
Set of industrial connectors for EtherCAT bus	2 round D-coded 4-way male M12 connectors 1 M12 blanking plug	**VW3L5E000**	–
Set of industrial connectors for logic I/O	2 round 3-way M8 connectors	**VW3L50200**	–
	3 round 3-way M8 connectors	**VW3L50300**	–

DF538045

VW3M9403

Connection components for STO function

Description	Length m/*ft*	Reference	Weight kg/*lb*
Cordsets for Lexium 32i with STO function with one 4-way female M8 industrial connector at one end and flying leads at the other For use with the following models: VW3M9101, VW3M9103, VW3M9201, VW3M9203, VW3M9105, VW3M9106, VW3M9108, VW3M9206, VW3M9208, VW3M9110	3/ *9.84*	**VW3M9403**	–
	5/ *16.4*	**VW3M9405**	–
	10/ *32.81*	**VW3M9410**	–
	15/ *49.21*	**VW3M9415**	–
	20/ *65.62*	**VW3M9420**	–
Cordsets for Lexium 32i with STO function with one 4-way male M8 industrial connector and one 4-way female M8 industrial connector For use with the following models: VW3M9101, VW3M9103, VW3M9201, VW3M9203, VW3M9105, VW3M9106, VW3M9108, VW3M9206, VW3M9208, VW3M9110	3/ *9.84*	**VW3M94CR03**	–
	5/ *16.4*	**VW3M94CR05**	–
	10/ *32.81*	**VW3M94CR10**	–
	15/ *49.21*	**VW3M94CR15**	–
	20/ *65.62*	**VW3M94CR20**	–
Round 4-way male M8 connector for cordsets for STO signals	–	**VW3L50010**	–

PF112231A

VW3M9508

Separate parts

Description	Sold in lots of	Reference	Weight kg/*lb*
M12 cable gland for Lexium 32i for I/O and STO function	12	**VW3M9508**	–
M16 cable gland for Lexium 32i for fieldbus	10	**VW3M9512**	–

CANopen machine bus connection components

Connection accessories

Description	Reference	Weight kg/*lb*
Line terminator with 5-way male M12 connector	**TM7ACTLA**	–
CANopen connector 9-way female SUB-D connector with line termination switch	**VW3M3802**	–

Cordsets

Description	Length m/*ft*	Reference	Weight kg/*lb*
CANopen cordsets with 1 female M12 connector and 1 male M12 connector (straight, A-coded)	0.3/*0.98*	**TCSCCN1M1F03**	–
	1/*3.28*	**TCSCCN1M1F1**	–
	2/*6.56*	**TCSCCN1M1F2**	–
	5/*16.4*	**TCSCCN1M1F5**	–
	10/*32.81*	**TCSCCN1M1F10**	–
	15/*49.21*	**TCSCCN1M1F15**	–
CANopen cordsets with 1 female M12 connector and 1 male M12 connector (elbow, A-coded)	0.3/*0.98*	**TCSCCN2M2F03**	–
	1/*3.28*	**TCSCCN2M2F1**	–
	2/*6.56*	**TCSCCN2M2F2**	–
	5/*16.4*	**TCSCCN2M2F5**	–
	10/*32.81*	**TCSCCN2M2F10**	–
	15/*49.21*	**TCSCCN2M2F15**	–
CANopen cordsets with 1 straight A-coded female M12 connector at one end and flying leads at the other	1/*3.28*	**TCSCCN1FNX1SA**	–
	3/9.84	**TCSCCN1FNX3SA**	–
	10/32.81	**TCSCCN1FNX10SA**	–
	25/*82.02*	**TCSCCN1FNX25SA**	–
CANopen cordsets with 1 elbow A-coded female M12 connector at one end and flying leads at the other	1/*3.28*	**TCSCCN2FNX1SA**	–
	3/*9.84*	**TCSCCN2FNX3SA**	–
	10/*32.81*	**TCSCCN2FNX10SA**	–
	25/*82.02*	**TCSCCN2FNX25SA**	–
CANopen cordsets with 1 straight A-coded female M12 connector and 1 male RJ45 connector	3/*9.84*	**VW3M94CAN45R03**	–
	5/*16.4*	**VW3M94CAN45R05**	–
	10/*32.81*	**VW3M94CAN45R10**	–
	15/*49.21*	**VW3M94CAN45R15**	–
	20/*65.62*	**VW3M94CAN45R20**	
CANopen cordsets with 1 straight A-coded female M12 connector and 1 x 9-way female SUB-D connector	3/*9.843*	**VW3M94CANS9R03**	–
	5/*16.404*	**VW3M94CANS9R05**	–
	10/*32.808*	**VW3M94CANS9R10**	–
	15/*49.213*	**VW3M94CANS9R15**	–
	20/*65.617*	**VW3M94CANS9R20**	–

CANopen machine bus connection components

Connection cables

Description	Length m/*ft*	Reference	Weight kg/*lb*
CANopen cables Standard cables, CE marking Low smoke zero halogen Flame-retardant (IEC 60332-1)	50/ *164.04*	**TSXCANCA50**	4.930/ *10.869*
	100/ *328.08*	**TSXCANCA100**	8.800/ *19.401*
	300/ *984.25*	**TSXCANCA300**	24.560/ *54.145*
CANopen cables UL certification, CE marking Flame-retardant (IEC 60332-2)	50/ *164.04*	**TSXCANCB50**	3.580/ *7.893*
	100/ *328.08*	**TSXCANCB100**	7.840/ *17.284*
	300/ *984.25*	**TSXCANCB300**	21.870/ *48.215*
CANopen cables Cables for harsh environment *(1)* or mobile installation, CE marking Low smoke zero halogen Flame-retardant (IEC 60332-1)	50/ *164.04*	**TSXCANCD50**	3.510/ *7.738*
	100/ *328.08*	**TSXCANCD100**	7.770/ *17.130*
	300/ *984.25*	**TSXCANCD300**	21.700/ *47.840*

EtherCAT fieldbus connection components

Cordsets

Description	Length m/*ft*	Reference	Weight kg/*lb*
EtherCAT cordsets with 2 straight D-coded male M12 connectors	1/ *3.28*	**TCSECL1M1M1S2**	–
	10/ *32.81*	**TCSECL1M1M10S2**	–
EtherCAT cordsets with 1 straight D-coded male M12 connector and 1 male RJ45 connector	1/ *3.28*	**TCSECL1M3M1S2**	–
	3/ *9.84*	**TCSECL1M3M3S2**	–
	10/ *32.81*	**TCSECL1M3M10S2**	–
	25/ *82.02*	**TCSECL1M3M25S2**	–
	40/ *131.23*	**TCSECL1M3M40S2**	–

Note: *Pre-wired connectors and M8 connectors are available under the Telemecanique Sensors brand. For more information, refer to the website www.tesensors.com.*

(1) Harsh environment:
- resistance to hydrocarbons, industrial oils, detergents, solder splashes
- relative humidity up to 100%
- saline atmosphere
- significant temperature variations
- operating temperature between -10°C/+14°F and +70°C/+158°F

Motion control
Lexium 32i integrated drives
Documentation, Configuration tools, Memory card

PF095122

VW3A8121

PF112335A

Duplicating an application using the VW3M8705 memory card

Documentation

Description	Reference	Weight kg/*lb*
"Description of the Motion & Drives Offer" DVD-ROM *(1)* Includes: ■ technical documentation (programming manuals, installation manuals, instruction sheets) ■ catalogs ■ brochures	**VW3A8200**	0.100/ *0.220*
Lexium 32i Simplified User Manual	Available on our website www.schneider-electric.com	–

SoMove setup software

SoMove setup software is used to configure, adjust, debug, and maintain the Lexium 32i integrated drive in the same way as it is for other Schneider Electric drives and starters.

It can be downloaded from our website www.schneider-electric.com or viewed on the "Description of the Motion & Drives Offer" DVD ROM (VW3A8200).

Multi-Loader configuration tool

The Multi-Loader tool enables several configurations to be copied from a PC or a Lexium 32i integrated drive and loaded onto another integrated drive. Power to the Lexium 32i drives can be on or off.

References

Description	Reference	Weight kg/*lb*
Multi-Loader configuration tool Includes: ■ 1 cordset with 2 RJ45 connectors ■ 1 cordset with 1 type A USB connector and 1 mini B USB connector ■ 1 x 2 GB SD memory card ■ 1 female/female RJ45 adapter ■ 4 AA 1.5 V LR6 round batteries	**VW3A8121**	–

(1) The documentation is available on our website www.schneider-electric.com.

Memory card

Description	Reference	Weight kg/*lb*
Memory card This 128 KB SIM card is used to store the Lexium 32i integrated drive parameters. This means that another Lexium 32i integrated drive can be set up immediately in the event of maintenance or if the application needs to be duplicated. Refer to the User Manual for information on how to use the memory card.	**VW3M8705**	–
Pack of 25 memory cards 128 KB SIM cards	**VW3M8704**	–

PF112244B

Connection module for external braking resistor mounted on the Lexium 32i

Braking resistors

Presentation

Internal braking resistor

A braking resistor is built into the Lexium 32i to absorb the braking energy. If the internal DC bus voltage exceeds a specified value, this braking resistor is activated; the restored energy is converted into heat by the braking resistor. It enables maximum braking torque.

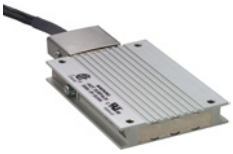
External braking resistor

When the Lexium BMI servo motor has to be braked frequently, an external braking resistor is required to dissipate the excess braking energy. In this case, the internal braking resistor must be deactivated.
Several external braking resistors can be connected in parallel. The Lexium 32i monitors the power dissipated in the braking resistor.
The degree of protection of the casing is IP 65 for VW3A7601R●● to VW3A7608R●● braking resistors and IP 20 for VW3A770● braking resistors.
The operating temperature around the unit can be between 0 and + 50°C (+ 32 and + 122°F).
An external braking resistor connection module VW3M9010 is required to use an external braking resistor with a Lexium 32i.

Applications

- High-inertia machines
- Driving loads
- Machines with fast operating cycles

PF106005



VW3A760●R●●

PF105659

VW3A770●

PF112233A

VW3M9010

PF080936

GBX planetary gearbox

PF080937

GBY angular planetary gearbox

References

Braking resistors

Ohmic value	Continuous power PPr	Peak energy EPk				Length of connection cable	Reference *(1)*	Weight
		115 V	230 V	380 V	480 V			
Ω	W	Ws	Ws	Ws	Ws	m/*ft*		kg/*lb*
10	400	18,800	13,300	7300	7700	0.75/*2.46*	**VW3A7601R07**	1.420/*3.131*
						2/*6.56*	**VW3A7601R20**	1.470/*3.241*
						3/9.84	**VW3A7601R30**	1.620/*3.571*
	1000	36,500	36,500	22,500	22,500	–	**VW3A7705**	11.000/ *24.251*
15	1000	43,100	43,100	26,500	26,500	–	**VW3A7704**	11.000/ *24.251*
27	100	4200	3800	1900	1700	0.75/*2.46*	**VW3A7602R07**	0.630/*1.389*
						2/*6.56*	**VW3A7602R20**	0.780/*1.720*
						3/9.84	**VW3A7602R30**	0.900/*1.984*
	200	9700	7400	4900	4300	0.75/*2.46*	**VW3A7603R07**	0.930/*2.050*
						2/*6.56*	**VW3A7603R20**	1.080/*2.381*
						3/9.84	**VW3A7603R30**	1.200/*2.646*
	400	25,500	18,100	11,400	10,500	0.75/*2.46*	**VW3A7604R07**	1.420/*3.131*
						2/*6.56*	**VW3A7604R20**	1.470/*3.241*
						3/9.84	**VW3A7604R30**	1.620/*3.571*
72	100	5500	3700	2500	2300	0.75/*2.46*	**VW3A7605R07**	0.620/*1.367*
						2/*6.56*	**VW3A7605R20**	0.750/*1.653*
						3/9.84	**VW3A7605R30**	0.850/*1.874*
	200	14,600	9600	6600	6000	0.75/*2.46*	**VW3A7606R07**	0.930/*2.050*
						2/*6.56*	**VW3A7606R20**	1.080/*2.381*
						3/9.84	**VW3A7606R30**	1.200/*2.646*
	400	36,600	24,700	16,200	15,500	0.75/*2.46*	**VW3A7607R07**	1.420/*3.131*
						2/*6.56*	**VW3A7607R20**	1.470/*3.241*
						3/9.84	**VW3A7607R30**	1.620/*3.571*
100	100	4400	4400	2900	2900	0.75/*2.46*	**VW3A7608R07**	0.410/*0.065*
						2/*6.56*	**VW3A7608R20**	0.560/*1.235*
						3/9.84	**VW3A7608R30**	0.760/*1.676*

Accessories

Description	Reference	Weightkg/*lb*
Connection module for braking resistor *(1)*	**VW3M9010**	–

(1) An external braking resistor connection module VW3M9010 is required to connect an external braking resistor to a Lexium 32i.
***Note**: The total continuous power dissipated in the external braking resistor(s) must be less than or equal to the nominal power of the Lexium 32i integrated drive (see page 8).*

Planetary gearboxes

Presentation

GBX and GBY optionnal for Lexium BMI servo motors: Please refer to our catalog "GBX and GBY Planetary gearboxes" on www.schneider-electric.com

Motion control
Lexium 32i integrated drives
Motor starters

+

LC1D18●●
+
BMI1002T●●●

Applications

The combinations listed below can be used to create a complete motor starter unit comprising a contactor and a Lexium 32i integrated drive.

The contactor turns on and manages any protection functions, as well as isolating the servo motor on stopping.
The Lexium 32i provides protection against short-circuits and overloads. Overload protection is provided by the integrated drive's motor thermal protection function.

Motor starters for Lexium 32i integrated drives

Lexium BMI servo motor		Max. prospective line Isc	Contactor
Reference	Nominal power		Reference *(1) (2)*
	kW	kA	
Single-phase supply voltage: 100…120 V ∿ 50/60 Hz			
BMI0702T	0.4	1	**LC1D09●●**
BMI0703T	0.4	1	**LC1D09●●**
BMI1002T	0.75	1	**LC1D18●●**
Single-phase supply voltage: 200…240 V ∿ 50/60 Hz			
BMI0702T	0.7	1	**LC1D09●●**
BMI0703T	0.7	1	**LC1D09●●**
BMI1002T	1.3	1	**LC1D18●●**
Three-phase supply voltage: 400 V ∿ 50/60 Hz			
BMI0702P	0.8	1	**LC1D09●●**
BMI0703P	0.9	1	**LC1D09●●**
BMI1002P	1.9	1	**LC1D09●●**
BMI1003P	2	1	**LC1D09●●**
Three-phase supply voltage: 480 V ∿ 50/60 Hz			
BMI0702P	0.9	1	**LC1D09●●**
BMI0703P	0.9	1	**LC1D09●●**
BMI1002P	1.9	1	**LC1D09●●**
BMI1003P	2.1	1	**LC1D09●●**

(1) Composition of contactors:
LC1D●●: 3 poles + 1 NO auxiliary contact and 1 NC auxiliary contact.
In certain situations, it is possible to use an LC1K contactor with 1 NO auxiliary contact.
(2) Replace ●● with the control circuit voltage reference given in the table below:

	Volts ∿	110	115	220	230	240
LC1D09...D150	50/60 Hz	**F7**	**FE7**	**M7**	**P7**	**U7**

For other available voltages between 24 V and 660 V, or for a DC control circuit, please contact our Customer Care Centre.

Protection using class J fuses (UL certification)

Lexium BMI servo motor		Fuse to be placed upstream
Reference	Nominal power	
	kW	A
Single-phase supply voltage: 100…120 V ∼ 50/60 Hz		
BMI0702T	0.4	8
BMI0703T	0.4	8
BMI1002T	0.75	15
Single-phase supply voltage: 200…240 V ∼ 50/60 Hz		
BMI0702T	0.7	8
BMI0703T	0.7	8
BMI1002T	1.3	15
Three-phase supply voltage: 400 V ∼ 50/60 Hz		
BMI0702P	0.8	4
BMI0703P	0.9	4
BMI1002P	1.9	8
BMI1003P	2	8
Three-phase supply voltage: 480 V ∼ 50/60 Hz		
BMI0702P	0.9	4
BMI0703P	0.9	4
BMI1002P	1.9	8
BMI1003P	2.1	8

Motion control
Lexium 32i integrated drives
Product reference index

The Next Generation

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June 2017 - V2.0

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