LECOM-AB (RS232/485)

LECOM-AB (RS232/485)	**Order ref.**	**EMF2102IB-V001** [1]
LECOM-B (RS485)	**Order ref.**	**EMF2102IB-V002** [1]

The communication modules enable the inverter to support the LECOM-AB V2.0 communication profile. The Lenze LECOM profile is completely open. Components which support this protocol are available for various systems (e.g. Simatic S5) in order to facilitate integration into a control system.

The LECOM-B communication module has an RS485 interface. In addition to the RS485 interface (see LECOM-B for data and operating conditions), the LECOM-AB communication module has an RS232 interface with a 9-pin SUB-D socket. Three LEDs are located on the communication modules to indicate the communication status.

General data and application conditions

Communication medium	RS485 (LECOM-B)	RS232 (LECOM-A)
Communication protocol	LECOM A/B V2.0	
Transfer character format	7E1: 7-bit ASCII, 1 stop bit, 1 start bit, 1 parity bit (even)	
Baud rate [Bit/s]	1200, 2400, 4800, 9600, 19200	
LECOM-B device	Slave	-
Network topology	Without repeater: line With repeaters: line or tree	Point-topoint
Max. number of devices	32 (= 1 bus segment) including host system With repeaters: 90 slaves	1
Max. cable length	1000 m per bus segment (depending on baud rate and cable type used)	15 m
Electrical connection	Screw-type terminals	SUB-D socket (9-pin)
DC supply	• Internal • External – required if bus devices are to be disconnected from the mains but communication with the master must be maintained – supply via separate mains supply – +24 V DC ± 10%, max. 60 mA per module (LECOM-AB: max. 80 mA)	
Insulation voltage to reference earth/PE	50 V AC	
Ambient temperature	Operation: 0 ... +55°C Transport: –25 ... +70°C Storage: –25 ... +60°C	
Climatic conditions	Class 3K3 to EN 50178 (without condensation, average relative humidity 85%)	

[1] Descendant product EMF2102IBCV001, EMF2102IBCV002 currently being developed

LECOM-LI (optical fibres)

LECOM-LI	Order ref.	EMF2102IB-V003 [1]
RS232/optical fibre converter Normal output power (0...40 m)	Order ref.	EMF2125IB
RS232/optical fibre converter High output power (10…66 m)	Order ref.	EMF2126IB

The communication module enables the inverter to support the LECOM-AB V2.0 communication module and interfaces the inverter with the host computer via an optical fibre converter.

Three LEDs are located on the communication module to indicate the communication status.

General data and application conditions

Communication medium	Optical fibres
Communication protocol	LECOM A/B V2.0
Transfer character format	7E1: 7-bit ASCII, 1 stop bit, 1 start bit, 1 parity bit (even)
Baud rate [Bit/s]	1200, 2400, 4800, 9600, 19200
LECOM-LI device	Slave
Network topology	Ring
Max. number of devices	52
Max. cable length per bus segment	0...40 m (normal output power)/10...66 m (high output power)
Electrical connection	Screw-type terminal and screw-type crimp connections
DC supply	• Internal • External – required if bus devices are to be disconnected from the mains, but communication with the master must be maintained – supply via separate mains supply – +24 V DC ± 10%, max. 70 mA per module
Insulation voltage to reference earth/PE	50 V AC
Ambient temperature	Operation: 0 ... +55°C Transport: –25 ... +70°C Storage: –25 ... +60°C
Climatic conditions	Class 3K3 to EN 50178 (without condensation, average relative humidity 85%)

[1] Descendant product EMF2102IBCV003currently being developed