Product datasheet

Specifications

Lexium motion servo drive Controller - 24 V DC - 0.5 A

LMC20A1307

Main

Range Of Product	Lexium Controller
Product Or Component Type	Motion servo drive controllers
Component Name	LMC
Type Of Polarization	10 kOhm for Modbus protocol

Complementary

Power Supply Voltage	24 V
Power Supply Circuit Type	DC
Power Supply Voltage Limits	19…30 V
Maximum Supply Current	0.5 A
Inrush Current	10 A for 0.2 ms
Discrete Input Number	1 master encoder discrete input(s) 2 event-triggered discrete input(s) 2 touch probe discrete input(s) 8 discrete discrete input(s)
Discrete Input Type	12 mA master encoder input for 2 kOhm 7 mA discrete input for 3 kOhm 7 mA event-triggered input for 3 kOhm 7 mA touch probe input for 3 kOhm
Discrete Input Voltage	5.5 V DC for master encoder input 24 V DC (voltage limits: 19...30 V) for discrete input 24 V DC (voltage limits: 19...30 V) for event-triggered input 24 V DC (voltage limits: 19...30 V) for touch probe input
Discrete Input Logic	Positive logic (source) for discrete input
Electrical Connection	1 HE-10 connector discrete input 1 HE-10 connector event-triggered input 1 HE-10 connector touch probe input 1 high density 15-way female SUB-D connector master encoder input
Filter Time	0.5 µs at state 0 for touch probe input(s) 1 µs at state 1 for touch probe input(s) 15 µs at state 1 for discrete input(s) 15 µs at state 1 for event-triggered input(s) 70 µs at state 0 for discrete input(s) 70 µs at state 0 for event-triggered input(s)
Insulation	Discrete input for between input channels with internal logic via optical coupler Event-triggered input for between input channels with internal logic via optical coupler Logic output for between output channels with internal logic via optical coupler Master encoder input for 2500 V Touch probe input for between input channels with internal logic via optical coupler
Input Compatibility	Encoder with open collector output, 5 V power supplied for master encoder Encoder with push-pull output, 5 V power supplied for master encoder Encoder with RS422 compatible differential outputs, 5 or 24 V power supplied for master encoder Universal encoder with SSI output, 24 V power supplied for master encoder

Disclaimer: 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

Discrete Output Number	8
Discrete Output Logic	2 positive logic (source)
Discrete Output Voltage	24 V DC 19...30 V
Discrete Output Current	200 mA
Maximum Output Short-Circuit Current	1 A
Response Time	150 µs at state 1 for logic output 250 µs at state 0 for logic output
Memory Type	Flash EPROM 1 MB application NVRAM 60 kB data storage RAM 1 MB application
Realtime Clock	Built-in for 20 days
Application Structure	2 event-triggered tasks 1 auxiliary task 1 master task
Cycle Time	2 ms for 4 synchronized axes 4 ms for 8 synchronized axes
Exact Time For 1 Kinstruction	< 120 µs (in structured language, 60 % Boolean, 20 % numerical, 20 % floating point)
Communication Port Protocol	CANopen Motionbus Modbus TCP network CANopen machine bus Profibus DP fieldbus Modbus protocol
Connector Type	1 RJ45 for Modbus protocol 1 RJ45 for Modbus TCP network 9-way male SUB-D connector for CANopen machine bus 9-way male SUB-D connector for CANopen Motionbus 9-way male SUB-D connector for Profibus DP fieldbus
Physical Interface	2-wire RS 485 for Modbus protocol 2-wire RS 485 for Modbus TCP network Ethernet 2 for Modbus TCP network
Exchange Mode	Half duplex and full duplex Modbus TCP network
Communication Data Link	LLC : IEEE 802.2 for Modbus TCP network MAC : IEEE 802.3 for Modbus TCP network
Communication Network Type	ICMP IP conforming to RFC791
Communication Transport Type	TCP conforming to RFC793 UDP
Mode Of Transmission	RTU for Modbus protocol
Transmission Rate	1 Mbps for bus length of 15 m for CANopen machine bus 1 Mbps for bus length of 15 m for CANopen Motionbus 10/100 Mbps, autodetected for Modbus TCP network 19.6 kbps or 38.4 kbps for Modbus protocol 250 kbps for bus length of 250 m for CANopen Motionbus 50 kbps for bus length of 1000 m for CANopen machine bus 500 kbps for bus length of 80 m for CANopen Motionbus Autodetected for Profibus DP fieldbus
Method Of Access	Master CANopen machine bus Master CANopen Motionbus Slave Modbus protocol
Data Format	8 bits, no parity, 1 stop for Modbus protocol
Number Of Addresses	1…32 for CANopen machine bus 1…247 for Modbus protocol 1…126 for Profibus DP fieldbus
Installed Device	8 Lexium 05 or Lexium 15 servo drives or SD3 28A stepper drives for CANopen Motionbus
Web Server	Class C20, Modbus TCP network

Communication Service	10 PDOs per slave for CANopen machine bus 2 SDOs per cycle for CANopen machine bus CiA DSP 301 V4.02 for CANopen machine bus CiA DSP 405 for CANopen machine bus Note guarding, heartbeat for CANopen machine bus 2 PDOs per slave (1 transmit and 1 receive) for CANopen Motionbus 2 SDOs per cycle (1 read and 1 write) for CANopen Motionbus CiA DSP 301 V4.02 for CANopen Motionbus CiA DSP 405 for CANopen Motionbus Emergency for CANopen Motionbus Note guarding, heartbeat for CANopen Motionbus Configurable time out for Modbus protocol Diagnostics (08) for Modbus protocol Read device identification (43) for Modbus protocol Read holding registers (03), 121 words maximum for Modbus protocol Write multiple registers (16), 121 words maximum for Modbus protocol Write single register (06) for Modbus protocol BOOTP for Modbus TCP network DHCP for Modbus TCP network Diagnostics (08) for Modbus TCP network FTP for web server for Modbus TCP network Monitoring inhibitable for Modbus TCP network Read device identification (43) for Modbus TCP network Read holding registers (03), 121 words maximum for Modbus TCP network SNMP for Modbus TCP network Time out adjustable from 0.5...60 s for Modbus TCP network Write multiple registers (16), 121 words maximum for Modbus TCP network Write single register (06) for Modbus TCP network 5 PPOs for Profibus DP fieldbus Monitoring inhibitable for Profibus DP fieldbus PKW service for Profibus DP fieldbus PZD service for Profibus DP fieldbus Time out can be set for Profibus DP fieldbus
Local Signalling	1 LED - activity for CANopen machine bus 1 LED - activity for CANopen Motionbus 1 LED - activity for Modbus protocol 1 LED - activity for Modbus TCP network 1 LED - activity for Profibus DP fieldbus
Marking	CE
Net Weight	1.076 kg

Environment

Electromagnetic Compatibility	Electrostatic discharge level 3 conforming to EN/IEC 61000-4-2 Immunity to electrical transients level 4 conforming to EN/IEC 61000-4-4 Immunity to radiated radio-electrical interference level 3 conforming to EN/IEC 61000-4-3 Voltage/current impulse level 3 conforming to EN/IEC 61000-4-5
Standards	EN/IEC 61800-5-1 EN/IEC 61800-3 environment 1 EN/IEC 61800-3 environment 2
Product Certifications	GOST CSA UL CCC C-Tick
Ip Degree Of Protection	IP20
Vibration Resistance	1 gn (f= 13…200 Hz) conforming to EN/IEC 60068-2-6 1.5 mm (f= 5…13 Hz) conforming to EN/IEC 60068-2-6
Shock Resistance	15 gn for 11 ms conforming to EN/IEC 60068-2-27
Relative Humidity	10…95 % for operation, without condensation 5…95 % for storage, without condensation conforming to IEC 61131-2
Ambient Air Temperature For Operation	0…50 °C
Ambient Air Temperature For Storage	-25…70 °C conforming to IEC 61131-2
Operating Altitude	0...2000 m

Contractual warranty

Warranty	18 months

Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO_2 products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >

RoHS/REACh

Well-being performance

Mercury Free

Rohs Exemption Information	Yes

Certifications & Standards

Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
China Rohs Regulation	China RoHS declaration
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins