LioN-Power Distributed Control Unit - LDmicro (Ladder Logic)

Product Description			
Туре	0980 ESL 393-121-DCU1		
	EtherNet/IP EtherCAT LDmicro		
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Description	LioN-P Distributed Control Unit, LDmicro Programmable (Ladder), Multi-protocol (PROFINET, EtherNet/IP or EtherCAT device), 8 digital input a		
.	8 digital output channels with galvanic isolation, M12 LAN connection, 4-poles, D-coded, M12 L-coded power supply, 5-poles		
Order No.	934879005		
Technical Data			
Protection Degree	IP65, IP67, IP69K (only if mounted and locked in combination with Hirschmann/Lumberg connector)		
Ambient Temperature (Operation)	-20 °C to +70 °C		
Dimensions (W x H x D)	59.6 x 30.7 x 200 (mm)		
Weight Housing Motorial	500 g		
Housing Material Control System	Metal, Zinc Die-cast		
Programming Tool	L dmicro: Laddor programming tool (LAD)		
Programming Language	Ldmicro: Ladder programming tool (LAD)		
Program Deployment	LAD: Ladder Logic		
Realtime Clock	via Webserver No		
Performance	min. 10 ms		
Program Memory	max. 99 Rungs/max. 99 Bit Variables/max. 99 Integer Variables		
Flash Memory	16 MB		
	No		
Persistent Memory Processor	200 MHz RISC CPU		
Operation Modes	Standalone, Slave/Device, Mixed		
Communication Interfaces	Eternet/TCP		
Webserver	Integrated		
Bus System	integrated		
Protocol	PROFINET /EtherNet/IP/EtherCAT I/O Device		
Connection			
Transmission Rate	M12 LAN connection, 4-poles, D-coded Fast Ethernet (10/100 Mbit/s), Full Duplex		
Rotary Address Switches	Yes, 3x		
Power Supply	100, 07		
Nominal Voltage	24 V DC (SELV/PELV)		
Nominal Voltage Range	18 to 30 V DC		
Connection			
Current Carrying Capacity of Connector	M12, L-coded, 5-poles 16 A		
Current Consumption (typ.)	160 mA (+/-20% at 24 V DC)		
On-Board Input Channels	100 IIIA (17 2070 dt 24 9 20)		
Number of Channels	8		
Connection	M12, 5-poles, A-coded		
Channel Type	Type 3 acc. to IEC 61131-2		
Nominal Voltage	24 V DC via US (system power supply)		
Sensor Current Supply	24 V DC VIA DS (system power suppry) 200 mA per Port		
Sensor Type	PNP		
On-Board Output Channels			
Number of Channels	8		
Connection	M12, 5-poles, A-coded		
Channel Type	p-switching		
Nominal Voltage	24 V DC via Uaux (actuator power supply)		
Output Current per Channel	max. 2 A		
Output Current per Module	max. 9 A		
Protective Circuit	Electronicaly: Overload protection, short-circuit protection		
Galvanically Isolated	Yes		



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Diagnostic Indication | 0980 ESL 393-121-DCU1

18 A Yellow Channel status 18 DIA A Red Periphery error 18 B White Channel status 18 DIA B Red Periphery error 18 DIA C Green Connection to an Ethernet device 0ff Offer No connection to an other device P2 Lnk/Act Green O Connection to an other device 0ff No connection to another device 0ff No connection to another device 0ff No connection to another device 0ff No error message DIA Red Common indicator for periphery errors Red Dilnking Firmware update 0ff No error message DIA Green Dilnking Self test is numing Red Dilnking Firmware update 0ff Paddress is available Green Dilnking Firmware update 0ff Paddress is available Green Dilnking Fire adultable Green Dilnking Paddress is available Red Oilnking Device is in state PRE-OPERATIONAL Red G	LED	Indicator	Condition	
18 B White Channel status 18 DIA B Red Periphery error P1 Lnk/Act Green Connection to an Ethernel device Cff No connection to an Other device P2 Lnk/Act Green Connection to an Other device P3 E Red Bus error, no data exchange with I/O controller Off No connection to another device DIA Red Common indicator for periphery errors Red blinking Firmware update Device is ready for operating Off Ne error message Device is ready for operating Green blinking Firmware update Paddress is available NS (Module status) Green blinking IP address is available Cornection to master is available Cornection to master is available NS (Network status) Green blinking Paddress is available Creen blinking Paddress is available Cornection to master is available Creen blinking Green blinking Device is in state OPERATIONAL Green blinking Green blinking Device is in state PRE-OPERATION	18 A	Yellow	Channel status	
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Yellow blinking Off U/O device exchanging data No connection to another device BF Red Off Bus error, no data exchange with I/O controller Off No error message DIA Red blinking Off Common indicator for periphery errors Red blinking Off No error message MS (Module status) Green Dinking Green Dinking Red Jinking Device is ready for operating Green Dinking Red Jinking Self test is running Periphere update NS (Network status) Green Dinking Red Jinking IP address is available Green Connection to master is available Green Blinking Paddress is available Red Dinking Paddress is available Red Self test is running Off Paddress is available Connection to master is available Green Connection to master is available Green Self test is running Off Device is switched off/device has no IP address Paddress EtherCAT Green Device is in state OPERATIONAL Green flickerng Device is in state BOTSTRAP Off Device is in state BOTSTRAP Off Device is in state BOTSTRAP Red double flash An application vatchdog timeout has occurred. Red blinking Force mode is activated Force mode not active/DCU program passed DCU <t< td=""><td>P1 Lnk/Act</td><td>Green blinking</td><td colspan="2">I/O device exchanging data</td></t<>	P1 Lnk/Act	Green blinking	I/O device exchanging data	
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Red Us Voltage < 19 V or Us > 30 V UL Green Voltage 19 V <= UL <= 30 V	DCU	Blue Red	Device has stopped DCU mode (STOP) Device has detected a program error (ERROR)	
	Us		Voltage 19 V <= Us <= 30 V Us Voltage < 19 V or Us > 30 V	
	UL			

Pin Assignment

M12 I/O Port, A-coded	M12 Power Supply, L-coded	M12 LAN Connection, D-coded
$ \begin{array}{c} 3 \\ \circ \\ \circ \\ 2 \\ \circ \\ \circ$	$ \begin{array}{c} 1 \\ 5 \\ 6 \\ 4 \\ 4 \\ 3 \\ 4 \\ 5 \\ 5 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6$	3 - 4 = TD + 2 = RD + 3 = TD - 2 - 1 4 = RD - 3



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Technical Drawing 0980 ESL 393-121-DCU1 59,6 30 4,5 17,6 ۲ M12 10 Function 24V In/Out B GND 0V In/Out A FE 79 0000 ۲ PD max. SA P 24V --- 120mA 24V --- 200mA 24V --- 2A per Part 70°C Made in Germany ۲ System Power Supply. Input Power Supply. Output Power Supply. Max. Amblert Temp : P 27 200 191,8 190,3 چ FM UL US On of the second C ¢¢ 3000 1 april 1 Bus Function Plin TD+ 1 RD+ 2 TD- 3 RD- 4 M 12 x1 80000 Pewer Function Per *24V 1 GND UL 2 GND 4V 3 *24V UL 4 FE 5 **µDCU** 27 P a 60 ٢ • 🛞 11.5 20 3 30,7

