AXL E S3 DI8 DO8 M12 6P - Digital module

2701542

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Axioline E, Digital I/O device, Sercos, M12 fast connection technology, Digital inputs: 8, 24 V DC, connection technology: 4-conductor, Digital outputs: 8, 24 V DC, connection technology: 3-conductor, Plastic housing, degree of protection: IP65/IP67

Product description

The Axioline E device is designed for use within a Sercos® network. It is used to acquire and output digital signals.

Your advantages

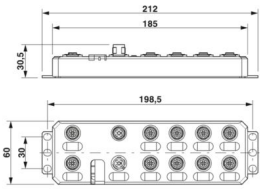
- Connection to Sercos network using M12 connectors (D-coded)
- Transmission speed of 100 Mbps with a minimum cycle time of 250 µs
- Connection of digital sensors and actuators using M12connectors (A-coded)
- Diagnostic and status indicators
- Short-circuit and overload protection of the sensor supply
- IP65/IP67 degree of protection

Commercial data

Item number	2701542
Packing unit	1 pc
Sales key	DR04
Product key	DRI7DC
Catalog page	Page 177 (C-6-2019)
GTIN	4046356763905
Weight per piece (including packing)	559.325 g
Weight per piece (excluding packing)	559.325 g
Customs tariff number	85176200
Country of origin	DE

Technical data

Dimensions

Dimensional drawing	
Width	60 mm
Height	185 mm
Depth	30.5 mm
Drill hole spacing	198.5 mm
Note on dimensions	The height is 212 mm including fixing clips.

Material specifications

Housing material	Pocan®
Color	anthracite

Interfaces

Sercos

Number of interfaces	2
No. of channels	2
Connection method	M12 fast connection technology
Note on the connection method	D-coded
Number of positions	4
Transmission speed	100 Mbps (with auto negotiation)

Sercos

Equipment type	Sercos slave
System-specific protocols	Sercos protocols Sercos
	Sercos protocols S/IP
Protocols supported	HTTP
	TFTP
	FTP
Specification	Sercos specification 1.1.2

Input data

Digital

Input name	Digital inputs
Description of the input	EN 61131-2 types 1 and 3
Number of inputs	8
Connection method	M12 connector, double occupancy

Connection technology	4-conductor
Input voltage range "0" signal	0 V ... 5 V DC
Input voltage range "1" signal	11 V DC ... 30 V DC
Nominal input voltage U_{IN}	24 V DC
Nominal input current at U_{IN}	typ. 3 mA
Sensor current per channel	typ. 75 mA (from U_S)
Total sensor current	max. 0.6 A (per device)
Input filter time	< 1000 µs
Protective circuit	Overload protection, short-circuit protection of sensor supply

Output data

Digital

Output name	Digital outputs
Connection method	M12 connector, double occupancy
Connection technology	3-conductor
Number of outputs	8
Protective circuit	Overload protection, short-circuit protection of outputs; yes
Output voltage	24 V DC
Limitation of the voltage induced on circuit interruption	-28 V ... -17 V
Maximum output current per channel	500 mA
Nominal output voltage	24 V DC (from voltage U_A)
Output voltage range	18 V DC ... 31.2 V DC
Output voltage when switched off	max. 1 V
Output current when switched off	max. 20 µA
Nominal load, inductive	12 VA (1.2 H, 48 Ω, with nominal voltage)
Nominal load, ohmic	12 W (48 Ω, with nominal voltage)
Switching frequency	max. 5500 per second (with at least 50 mA load current)
	max. 1 per second (with inductive load)
Reverse voltage resistance to short pulses	Reverse voltage proof
Behavior with overload	Auto restart
Signal delay	max. 150 µs (when switched on)
	max. 200 µs (when switched off)
Overcurrent shut-down	min. 0.7 A
Output name	Digital outputs
Connection method	M12 connector, double occupancy
Connection technology	3-conductor
Number of outputs	8
Protective circuit	Overload protection, short-circuit protection of outputs; yes
Output voltage	24 V DC
Limitation of the voltage induced on circuit interruption	-28 V ... -17 V
Maximum output current per channel	500 mA
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	max. 200 µs (when switched off)
Overcurrent shut-down	min. 0.7 A

Product properties

Product type	I/O component
Product family	Axioline E
Type	Stand-Alone
Special properties	Plastic housing

Electrical properties

Potentials

Voltage supply U_S	24 V DC
Power supply at U_S	max. 4 A
Current consumption from U_S	typ. 8 mA
	max. 1.2 A

Supply: Module electronics and sensors

Designation	Supply of module electronics and sensors (U_S)
Connection method	M12 connector (T-coded)
Number of positions	4
Supply voltage	24 V DC
Supply voltage range	18 V DC ... 31.2 V DC (including all tolerances, including ripple)
Current consumption	typ. 190 mA ±15 % (at 24 V DC)
	max. 12 A

Supply: Actuators

Designation	Supply of actuators (U_A)
Connection method	M12 connector (T-coded)
Number of positions	4
Supply voltage	24 V DC
Supply voltage range	18 V DC ... 31.2 V DC (including all tolerances, including ripple)
Current consumption	typ. 30 mA ±15 % (at 24 V DC)
	max. 12 A

Electrical isolation/isolation of the voltage ranges

Test voltage: 24 V supply (communications power and sensor supply, digital inputs)/bus connection (Ethernet 1)	500 V AC, 50 Hz, 1 min.
Test voltage: 24 V supply (communications power and sensor supply, digital inputs)/bus connection (Ethernet 2)	500 V AC, 50 Hz, 1 min.
Test voltage: 24 V supply (communications power and sensor supply, digital inputs)/FE	500 V AC, 50 Hz, 1 min.
Test voltage: Bus connection (Ethernet 1)/FE	500 V AC, 50 Hz, 1 min.
Test voltage: Bus connection (Ethernet 2)/FE	500 V AC, 50 Hz, 1 min.
Test voltage: Bus connection (Ethernet 1)/bus connection (Ethernet 2)	500 V AC, 50 Hz, 1 min.
Test voltage: 24 V supply (actuator supply, digital outputs)/24 V supply (communications power and sensor supply, digital inputs)	500 V AC, 50 Hz, 1 min.
Test voltage: 24 V supply (actuator supply, digital outputs)/bus connection (Ethernet 1)	500 V AC, 50 Hz, 1 min.
Test voltage: 24 V supply (actuator supply, digital outputs)/bus connection (Ethernet 2)	500 V AC, 50 Hz, 1 min.
Test voltage: 24 V supply (actuator supply, digital outputs)/FE	500 V AC, 50 Hz, 1 min.

Connection data

Connection method	M12 connector

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Degree of protection	IP65/IP67
Air pressure (operation)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 %
Permissible humidity (storage/transport)	5 % ... 95 %

Standards and regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)

Mounting

Mounting type	Wall mounting

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