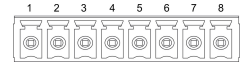
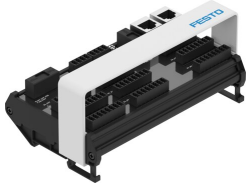


Digital input/output module CPX-AP-L-16NDI8NDO-PI

Part number: 8176415

FESTO



Data sheet

Feature	Value
Protocol	AP
Dimensions W x L x H	90 mm x 152 mm x 70 mm
Type of mounting	With DIN rail
Product weight	200 g
Ambient temperature	-20 °C...50 °C
Storage temperature	-40 °C...70 °C
Relative air humidity	5 - 95% Non-condensating
Degree of protection	IP20
Corrosion resistance class (CRC)	0 - No corrosion stress
Vibration resistance	Transport application test with severity level 1 as per FN 942017-4 and EN 60068-2-6
Shock resistance	Shock test with severity level 1 as per FN 942017-5 and EN 60068-2-27
Overvoltage category	II
Max. cable length	30 m outputs 30 m inputs 50 m system communication
Information on max. cable length	Power supply according to nominal voltage
LABS (PWIS) conformity	VDMA24364 Zone III
Cleanroom suitability, measured according to ISO 14644-14	Statically installed element, no meaningful evaluation possible according to ISO 14644-1
CE marking (see declaration of conformity)	As per EU EMC directive As per EU RoHS directive
KC characters	KC-EMV
Certification	RCM compliance mark
Note on materials	RoHS compliant Halogen-free
Diagnostics via LED	Diagnostics per module Load power supply Status per channel
Diagnose per internal communication	Load switch-off Short-circuit/overload in output signal Short circuit/overload in sensor supply Electronics/sensors overvoltage Overvoltage load

Feature	Value
	Electronics/sensors undervoltage Undervoltage load
Max. address capacity inputs	2 byte
Max. address capacity outputs	1 byte
No. of outputs	8
Communication interface, function	System communication XF10 IN / XF20 OUT
Communication interface, connection type	2x port
Communication interface, connection technology	RJ45
Communication interface, number of pins/wires	8
Communication interface, protocol	AP
Communication interface, shielding	Yes
Power supply, function	Incoming electronics/sensors and load
Power supply, type of connection	Socket
Power supply, connection technology	Push-pull according to IEC 61984
Power supply, number of pins/wires	4
Voltage forwarding, function	Outgoing electronics/sensors and load
Voltage forwarding, connection type	Socket
Voltage forwarding, connection technology	Push-pull according to IEC 61984
Voltage forwarding, number of pins/wires	4
Note regarding operating voltage	SELV/PELV fixed power supplies required Note voltage drop
Nominal operating voltage DC	24 V
Nominal operating voltage DC load	24 V
Permissible voltage fluctuations load	±25%
Nominal operating voltage DC for electronics/sensors	24 V
Permissible voltage fluctuations for electronics/sensors	±25%
Max. power supply	2 x 4 A (external fuse required)
Intrinsic current consumption at nominal operating voltage for electronics/sensors	Typically 32 mA
Intrinsic current consumption at nominal operating voltage load	typically 11 mA
Power failure buffering	10 ms
Reverse polarity protection	Yes
Electrical connection input, function	Digital input
Electrical connection input, connection type	6x port
Electrical input connection, connection technology	Push-pull according to IEC 61984
Electrical connection, input, number of pins/wires	8
No. of inputs	16
Input characteristics	As per IEC 61131-2, Type 3
Switching level	Signal 0: (PS - 5 V) to PS Signal 1: 0 V to (PS - 11 V)
Input switching logic	NPN (negative switching) 2-wire sensors as per IEC 61131-2 3-wire sensors as per IEC 61131-2
Input debounce time	0.1 ms 3 ms (standard) 10 ms 20 ms
Fuse protection inputs (short circuit)	Micro fuse
Max. residual current of inputs per module	4 A
Electrical isolation of inputs between channels	No
Digital inputs, electrical isolation of input - internal communication	No
Electrical connection output, function	Digital output
Electrical connection output, connection type	3x port
Electrical connection output, connection technology	Push-pull according to IEC 61984
Electrical output connection, number of pins/wires	8

Feature	Value
Characteristic curve outputs	As per IEC 61131-2, type 0.5
Switching logic at outputs	NPN (negative switching)
Output delay with resistive load	Signal change 0->1: < 200 µs Signal change 1->0: < 200 µs
Max. residual current of outputs per module	4 A
Electrical isolation of outputs between channels	No
Electrical isolation of outputs between channel - internal communication	Yes
Max. power supply per channel	0.5 A