

Product datasheet

Specifications



I/O distributed module OTB - CANopen bus - 0..1000 m

OTB1C0DM9LP

⚠ Discontinued on: 5 Sept 2022

EAN Code: 3595863824339

⚠ Discontinued

Main

Range of product	Modicon OTB
Product or component type	I/O distributed module
Integrated connection type	CANopen bus SUB-D 9, transmission mode: 2 twisted shielded pairs at 10 kbit/s...1 Mbit/s
Bus type	CANopen S20, profile: DS 401 V2.1, method of access: CSMA/MA multimaster with priority conforming to DR303-2 CANopen S20, profile: DS 401 V2.1, method of access: CSMA/MA multimaster with priority conforming to DS301 V4.02
Discrete input number	12 conforming to EN/IEC 61131 type 1
Discrete input logic	Sink or source
Discrete input current	5 mA for I0...I1 5 mA for I6...I7 7 mA for I2...I5 7 mA for I8...I11
Discrete output number	2 solid state PNP for Q0...Q1 output logic: source 6 relay for Q2...Q7
Discrete output current	2000 mA for relay 300 mA for solid state

Complementary

Topology	Devices linked by daisy-chaining or tap junctions
Number of server device(s)	63
Bus length	0...100 m tap-off length: 0...10 m, 500 kbit/s 0...1000 m tap-off length: 0...120 m, 50 kbit/s 0...250 m tap-off length: 0...10 m, 250 kbit/s 0...2500 m tap-off length: 0...300 m, 20 kbit/s 0...40 m tap-off length: 0...6 m, 800 kbit/s 0...500 m tap-off length: 0...10 m, 125 kbit/s 0...5000 m tap-off length: 0...600 m, 10 kbit/s 0...20 m, 1 Mbit/s
Number of devices per segment	0...16, length of segment <205 m 0...32, length of segment <185 m 0...64, length of segment <160 m
Discrete input voltage	24 V
Discrete input voltage type	DC
Discrete input type	NPN or PNP
Input voltage limits	20.4...26.4 V

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

Electronic filtering time	0.035 ms for I0...I1 at state 1 0.035 ms for I6...I7 at state 1 0.04 ms for I2...I5 at state 1 0.04 ms for I8...I11 at state 1 0.045 ms for I0...I1 at state 0 0.045 ms for I6...I7 at state 0 0.15 ms for I2...I5 at state 0 0.15 ms for I8...I11 at state 0
Configurable filtering time	12 ms 0 ms 3 ms
Input impedance	3.4 kOhm for I2...I5 3.4 kOhm for I8...I11 5.7 kOhm for I0...I1 5.7 kOhm for I6...I7
Discrete output voltage	24 V DC solid state output(s) 240 V AC relay output(s) 30 V DC relay output(s)
Output voltage limits	20.4...28.8 V solid state
Maximum output current	360 mA, solid state
Maximum current per output common	8 A relay 0.72 A solid state
Current consumption	30 mA at 5 V DC (at state 1) relay output 40 mA at 24 V DC (at state 1) relay output 5 mA at 5 V DC (at state 0) relay output
Output overvoltage protection	38...40 V
Maximum tungsten load	<8 W for solid state
Response time	300 µs at state 0 for relay 300 µs at state 1 for relay 5 µs at state 0 for solid state 5 µs at state 1 for solid state
Minimum switchable load	0.1 mA
Contact bounce time	<= 1 ms for relay
Maximum leakage current	0.1 mA at state 0 for solid state
Drop-out voltage	1 V at state 1
Insulation between channel and internal logic	1500 Vrms for 1 minute for relay output 500 Vrms for 1 minute for input circuit 500 Vrms for 1 minute for solid state output
Insulation between channels	None
Contact resistance	30 mOhm
Electrical durability	500000 cycles AC-1 with 500 VA load for relay output 500000 cycles AC-14 with 250 VA load for relay output 500000 cycles AC-15 with 200 VA load for relay output 500000 cycles DC-1 with 60 W load for relay output 500000 cycles DC-13 with 30 W load for relay output
Supply circuit type	DC
[Us] rated supply voltage	24 V
Supply voltage limits	20.4...26.2 V
Input current	700 mA at 26.2 V for supply circuit
Inrush current	1 A for solid state output 50 A for supply circuit
Power consumption in W	19 W
Maximum number of I/O expansion module	7

I/O expansion capacity	132 with screw terminal discrete I/O module(s) 188 with spring terminal discrete I/O module(s) 244 with HE10 connector discrete I/O module(s) 7 x 8I or 7 x 2I or 7 x (4I/2O) with screw terminal analogue I/O module(s)
Insulation resistance	>= 10 MOhm between I/O and earth terminals >= 10 MOhm between power supply and earth
I/O connection	Removable screw terminal block
Number of common point	1 for relay output (1 NO) 1 for relay output (2 NO) 1 for relay output (3 NO) 1 for input 1 for solid state output
Counting input number	2
Counting capacity	32 bits
Counting frequency	20000 Hz 5000 Hz
Pulse generator number	2
Pulse generator frequency	7 kHz
Pulse generator function	RPWM pulse width modulation RPLS pulse generator output
Marking	CE
Fixing mode	By clips (35 mm symmetrical DIN rail) By screws (panel with fixing kit) By screws (solid plate with fixing kit)
Status LED	1 LED per channel (green) I/O 1 LED (green) PWR 1 LED (green) RUN 1 LED (red) ERR
Net weight	0.195 kg

Environment

IP degree of protection	IP20
Immunity to microbreaks	10 ms for supply circuit
Dielectric strength	500 V between I/O and earth terminals 500 V between power supply and earth
Standards	CSA UL 508 EN 61131-2 CSA C22.2 No 213 Class I Division 2 Group D CSA C22.2 No 213 Class I Division 2 Group B CSA C22.2 No 213 Class I Division 2 Group A IEC 61131-2 CSA C22.2 No 213 Class I Division 2 Group C
Product certifications	cULus
Ambient air temperature for operation	0...55 °C
Ambient air temperature for storage	-25...70 °C
Relative humidity	30...95 % without condensation
Pollution degree	2 conforming to EN 60664 2 conforming to IEC 60664
Operating altitude	0...2000 m
Storage altitude	0...3000 m
Vibration resistance	0.075 mm at 10...57 Hz on 35 mm symmetrical DIN rail 1 gn at 57...150 Hz on 35 mm symmetrical DIN rail

Shock resistance	15 gn for 11 ms conforming to EN 61131 15 gn for 11 ms conforming to IEC 61131
Resistance to electrostatic discharge	4 kV in contact conforming to IEC 61000-4-2 8 kV in air conforming to EN 61000-4-2 8 kV in air conforming to IEC 61000-4-2 4 kV in contact conforming to EN 61000-4-2
Resistance to radiated fields	10 V/m, radio frequency fields = 80000000...2000000000 Hz conforming to EN 61000-4-3 10 V/m, radio frequency fields = 80000000...2000000000 Hz conforming to IEC 61000-4-3
Resistance to fast transients	1 kV (24 V solid state I/O) conforming to IEC 61000-4-4 2 kV (24 V supply) conforming to IEC 61000-4-4

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	7.5 cm
Package 1 Width	10.5 cm
Package 1 Length	13.0 cm
Package 1 Weight	308.0 g
Unit Type of Package 2	S03
Number of Units in Package 2	18
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	6.057 kg

Contractual warranty

Warranty	18 months
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.



[Environmental Data explained >](#)

[How we assess product sustainability >](#)

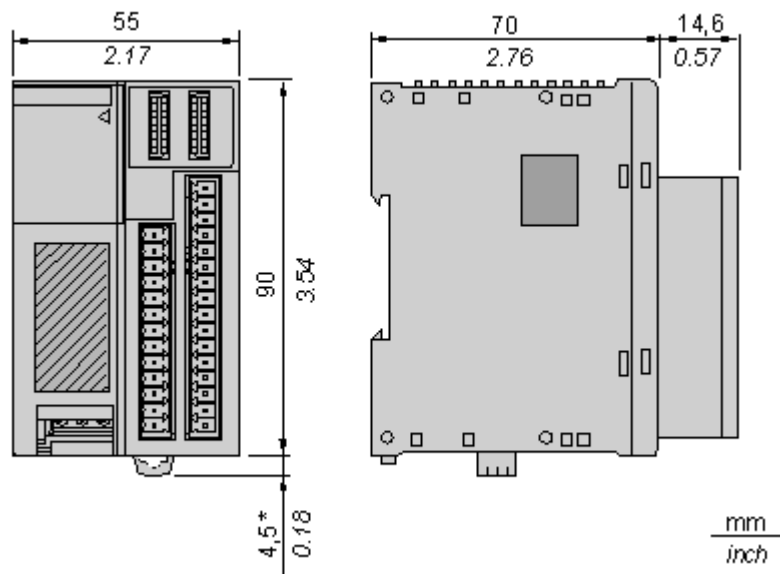
Use Better

 Materials and Substances	
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
PVC free	Yes

Use Again

 Repack and remanufacture	
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions

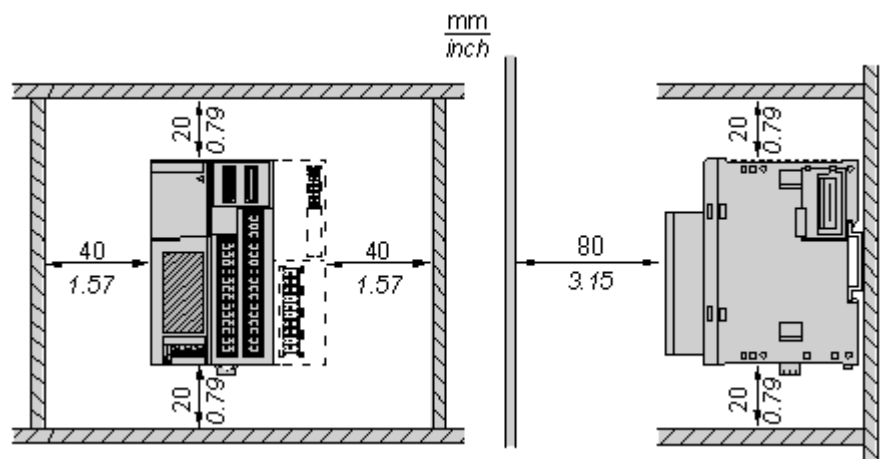


NOTE: * 8.5 mm (0.33 in) when the clamp is pulled out.

Mounting and Clearance

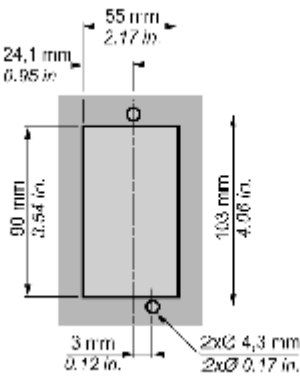
Mounting an Island on a Panel or in a Cabinet

Spacing Requirements



Panel Mounting

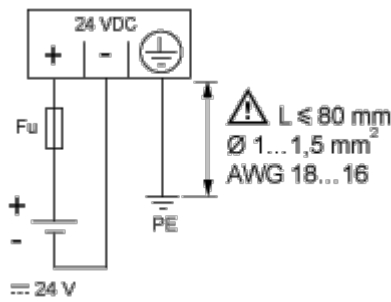
Position of the Mounting Holes for the Network Interface Module



Connections and Schema

24 Vdc Power Supply

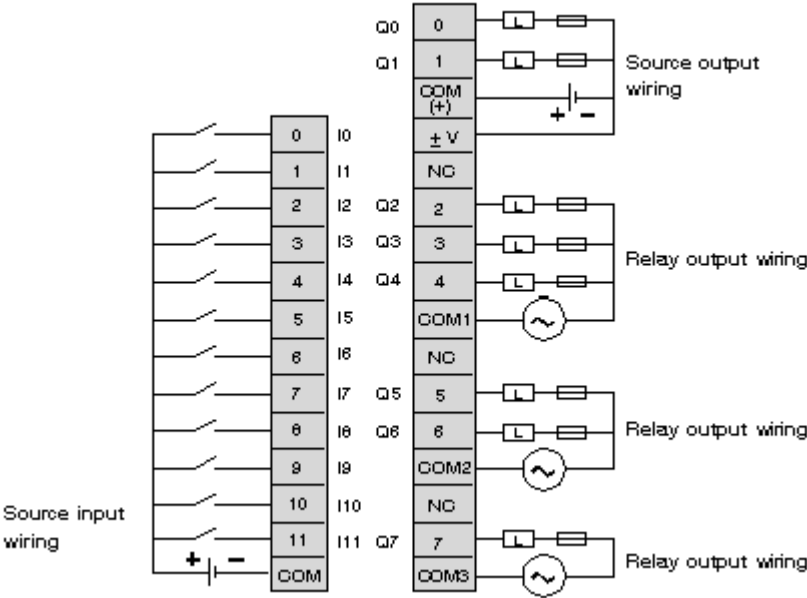
Wiring Diagram



Fu 2 A fast-blow fuse ABE7FU200

Network Interface Module

Wiring Diagram



- Output points 0 and 1 are source transistor outputs, all other output points are relay.
- The COM terminals are **not** connected together internally.
- Connect an appropriate fuse for the load.