

# Product datasheet

Specifications



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

OTB1C0DM9LP

⚠ Discontinued on: Sep 7, 2022

⚠ End-of-service on: Sep 8, 2022

⚠ Discontinued - Service only

### 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

<b>I/O Expansion Capacity</b>	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)
<b>Insulation Resistance</b>	>= 10 MOhm between I/O and earth terminals >= 10 MOhm between power supply and earth
<b>I/O Connection</b>	Removable screw terminal block
<b>Number Of Common Point</b>	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
<b>Counting Input Number</b>	2
<b>Counting Capacity</b>	32 bits
<b>Counting Frequency</b>	20000 Hz 5000 Hz
<b>Pulse Generator Number</b>	2
<b>Pulse Generator Frequency</b>	7 kHz
<b>Pulse Generator Function</b>	RPWM pulse width modulation RPLS pulse generator output
<b>Marking</b>	CE
<b>Fixing Mode</b>	By clips (35 mm symmetrical DIN rail) By screws (panel with fixing kit) By screws (solid plate with fixing kit)
<b>Status Led</b>	1 LED per channel (green) I/O 1 LED (green) PWR 1 LED (green) RUN 1 LED (red) ERR
<b>Net Weight</b>	0.195 kg

## Environment

<b>Ip Degree Of Protection</b>	IP20
<b>Immunity To Microbreaks</b>	10 ms for supply circuit
<b>Dielectric Strength</b>	500 V between I/O and earth terminals 500 V between power supply and earth
<b>Standards</b>	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
<b>Product Certifications</b>	cULus
<b>Ambient Air Temperature For Operation</b>	0...55 °C
<b>Ambient Air Temperature For Storage</b>	-25...70 °C
<b>Relative Humidity</b>	30...95 % without condensation
<b>Pollution Degree</b>	2 conforming to EN 60664 2 conforming to IEC 60664
<b>Operating Altitude</b>	0...2000 m
<b>Storage Altitude</b>	0...3000 m
<b>Vibration Resistance</b>	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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# 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<sub>2</sub> products.

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

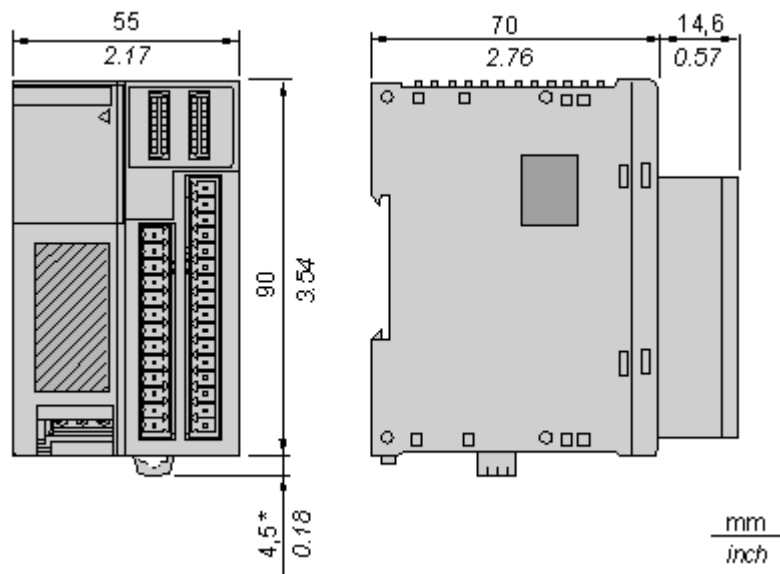
[Learn more about Green Premium >](#)

[Guide to assess a product’s sustainability >](#)

## Well-being performance

 Mercury Free	
 Rohs Exemption Information	<a href="#">Yes</a>
 Pvc Free	
Reach Regulation	<a href="#">REACH Declaration</a>
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	<a href="#">China RoHS declaration</a>
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions

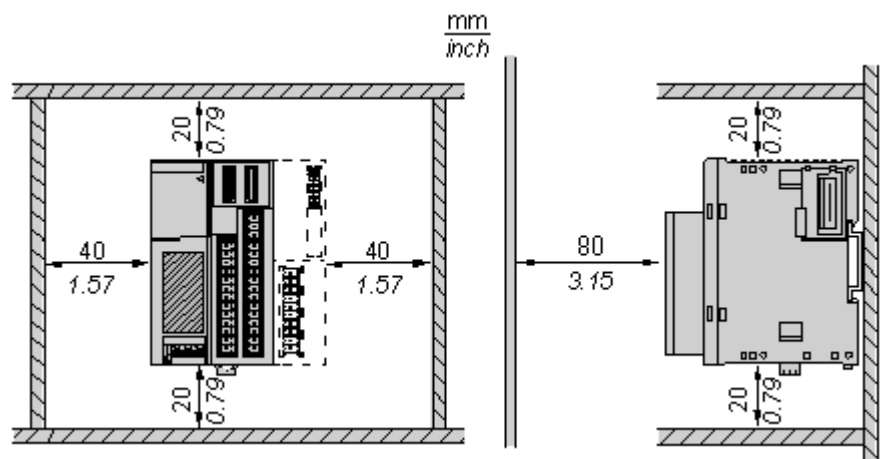


NOTE: \* 8.5 mm (0.33 in) when the clamp is pulled out.

Mounting and Clearance

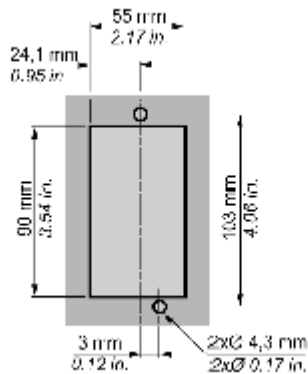
Mounting an Island on a Panel or in a Cabinet

Spacing Requirements



Panel Mounting

Position of the Mounting Holes for the Network Interface Module

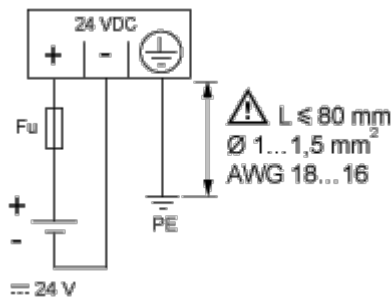




Connections and Schema

24 Vdc Power Supply

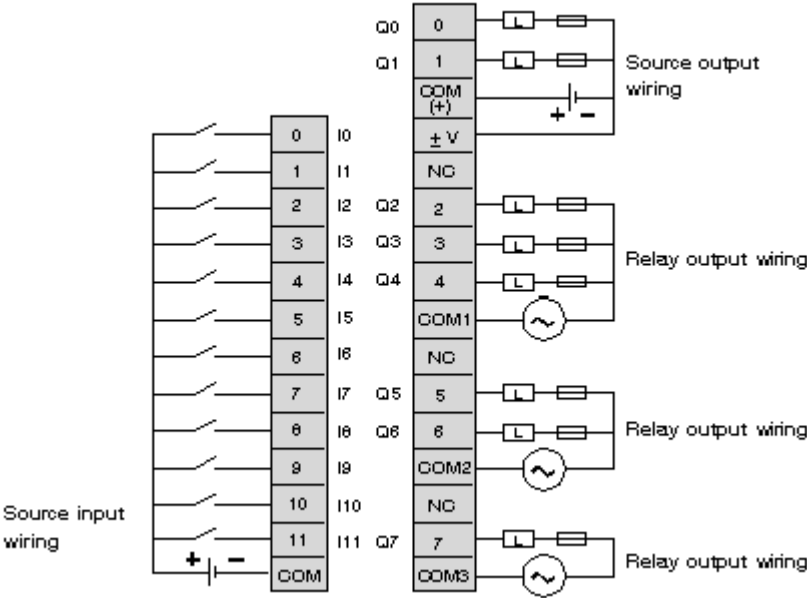
Wiring Diagram



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.