Product data sheet
Characteristics

OTB1C0DM9LP
I/O distributed module OTB - CANopen bus - 0..1000 m



Main

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

Complementary

Topology	Devices linked by daisy-chaining or tap junctions
Number of slave	63
Bus length	0.00…328.08 Ft (0…100 m) 0.00…32.81 ft (0…10 m), 500 kbit/s 0.00…3280.84 Ft (0…1000 m) 0.00…393.70 ft (0…120 m), 50 kbit/s 0.00…820.21 Ft (0…250 m) 0.00…32.81 ft (0…10 m), 250 kbit/s 0.00…8202.10 Ft (0…2500 m) 0.00…984.25 ft (0…300 m), 20 kbit/s 0.00…131.23 Ft (0…40 m) 0.00…19.69 ft (0…6 m), 800 kbit/s 0.00…1640.42 Ft (0…500 m) 0.00…32.81 ft (0…10 m), 125 kbit/s 0.00…16404.20 Ft (0…5000 m) 0.00…1968.50 ft (0…600 m), 10 kbit/s 0.00…65.62 ft (0…20 m), 1 Mbit/s
Number of devices per segment	0…16 672.57 ft (205 m) 0…32 606.96 ft (185 m) 0…64 524.93 ft (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
Electronic filtering time	0.035 Ms I0...I1 at state 1 0.035 Ms I6...I7 at state 1 0.04 Ms I2...I5 at state 1 0.04 Ms I8...I11 at state 1 0.045 Ms I0...I1 at state 0 0.045 Ms I6...I7 at state 0 0.15 Ms I2...I5 at state 0 0.15 ms I8...I11 at state 0
Configurable filtering time	12 ms 0 ms 3 ms
Input impedance	3.4 kOhm I2...I5 3.4 kOhm I8...I11 5.7 kOhm I0...I1 5.7 kOhm I6...I7
Discrete output voltage	24 V DC solid state 240 V AC relay 30 V DC relay

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein.
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.
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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 5 V DC at state 1) relay output 40 mA 24 V DC at state 1) relay output 5 mA 5 V DC at state 0) relay output
Output overvoltage protection	38...40 V
Maximum tungsten load	<8 W solid state
Response time	300 µs at state 0 relay 300 µs at state 1 relay 5 µs at state 0 solid state 5 µs at state 1 solid state
Minimum switchable load	0.1 mA
Contact bounce time	<= 1 ms relay
Maximum leakage current	0.1 mA at state 0 solid state
Drop-out voltage	1 V at state 1
Insulation between channel and internal logic	1500 Vrms for 1 minute relay output 500 Vrms for 1 minute input circuit 500 Vrms for 1 minute solid state output
Insulation between channels	None
Contact resistance	30 mOhm
Electrical durability	500000 Cycles AC-1 500 VA relay output 500000 Cycles AC-14 250 VA relay output 500000 Cycles AC-15 200 VA relay output 500000 Cycles DC-1 60 W relay output 500000 cycles DC-13 30 W relay output
Supply circuit type	DC
[Us] rated supply voltage	24 V
Supply voltage limits	20.4…26.2 V
Input current	700 mA 26.2 V supply circuit
Inrush current	1 A solid state output 50 A supply circuit
Power consumption in W	19 W
Maximum number of I/O expansion module	7
I/O expansion capacity	132 screw terminal discrete I/O 188 spring terminal discrete I/O 244 HE10 connector discrete I/O 7 x 8I or 7 x 2I or 7 x (4I/2O) screw terminal analogue I/O
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 relay output 1 NO) 1 relay output 2 NO) 1 relay output 3 NO) 1 input 1 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	I/O 1 LED per channel Green) PWR 1 LED Green) RUN 1 LED Green) ERR 1 LED Red)
Net Weight	0.43 lb(US) (0.195 kg)

Environment

IP degree of protection	IP20
Immunity to microbreaks	10 ms 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	32…131 °F (0…55 °C)
Ambient air temperature for storage	-13…158 °F (-25…70 °C)
Relative humidity	30…95 % without condensation
Pollution degree	2 EN 60664 2 IEC 60664
Operating altitude	0...6561.68 ft (0...2000 m)
Storage altitude	0.00…9842.52 ft (0…3000 m)
Vibration resistance	0.075 mm 10…57 Hz 35 mm symmetrical DIN rail 1 gn 57…150 Hz 35 mm symmetrical DIN rail
Shock resistance	15 gn 11 ms EN 61131 15 gn 11 ms IEC 61131
Resistance to electrostatic discharge	4 KV in contact IEC 61000-4-2 8 KV in air EN 61000-4-2 8 KV in air IEC 61000-4-2 4 kV in contact EN 61000-4-2
Resistance to radiated fields	9.14 V/M (10 V/m) 80000000…2000000000 Hz EN 61000-4-3 9.14 V/m (10 V/m) 80000000…2000000000 Hz IEC 61000-4-3
Resistance to fast transients	1 KV IEC 61000-4-4 24 V solid state I/O) 2 kV IEC 61000-4-4 24 V supply)

Ordering and shipping details

Category	18217 - ADVANTYS OTB
Discount Schedule	PC12
GTIN	00785901428718
Nbr. of units in pkg.	1
Package weight(Lbs)	0.68 lb(US) (0.31 kg)
Returnability	No
Country of origin	FR

Packing Units

Unit Type of Package 1	PCE
Package 1 Height	2.95 in (7.5 cm)
Package 1 width	4.13 in (10.5 cm)
Package 1 Length	5.12 in (13 cm)
Unit Type of Package 2	S03
Number of Units in Package 2	18
Package 2 Weight	13.35 lb(US) (6.057 kg)
Package 2 Height	11.81 in (30 cm)
Package 2 width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)

Offer Sustainability

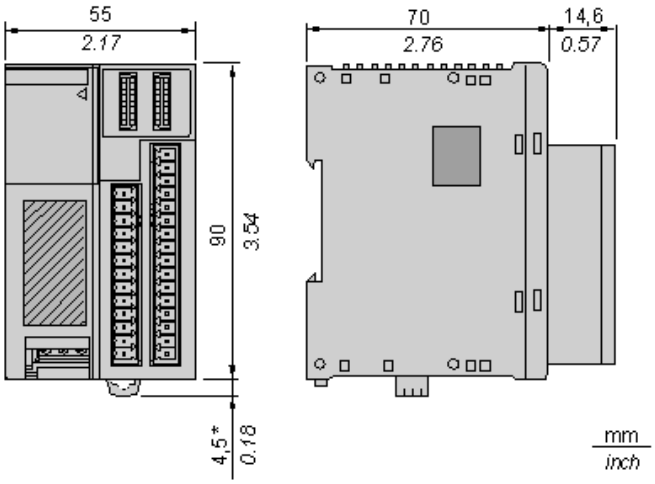
Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds which is known to the State of California to cause Carcinogen & Reproductive harm. For more information go to www.p65warnings.ca.gov
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
PVC free	Yes

Contractual warranty

Warranty	18 months

Network Interface Module

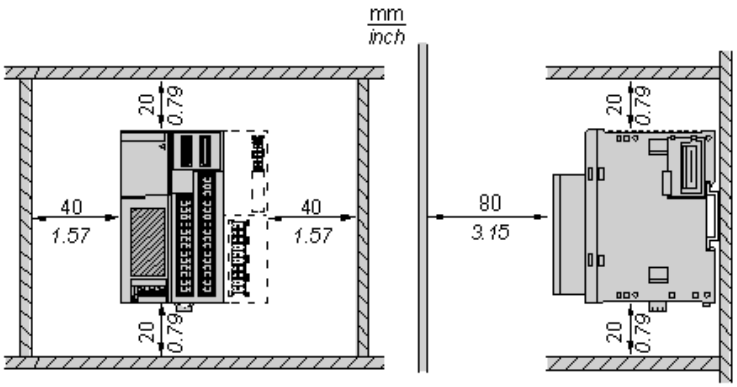
Dimensions



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

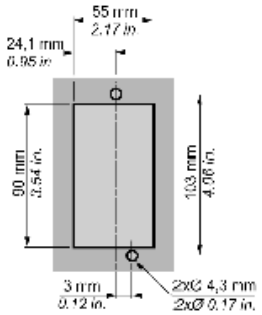
Mounting an Island on a Panel or in a Cabinet

Spacing Requirements



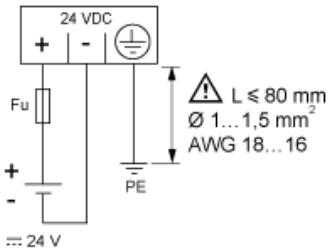
Panel Mounting

Position of the Mounting Holes for the Network Interface Module



24 Vdc Power Supply

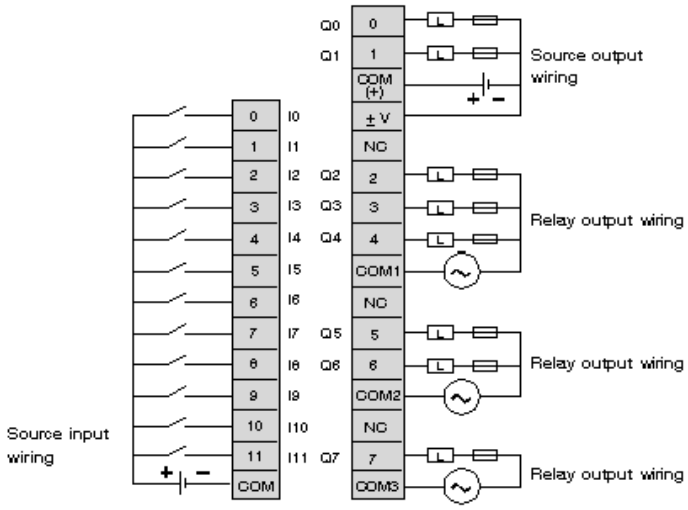
Wiring Diagram



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.