OTB1C0DM9LP

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



Main Range of product Modicon OTB I/O distributed module Product or component CANopen bus SUB-D 9, transmission mode: 2 twist-Integrated connection type ed shielded pairsat 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 relay

300 mA solid state

Complementary

Topology	Devices linked by daisy-chaining or tap junctions	
Number of slave	063	
Bus length	0100 m tap-off length: 010 m, 500 kbit/s 01000 m tap-off length: 0120 m, 50 kbit/s 0250 m tap-off length: 010 m, 250 kbit/s 02500 m tap-off length: 0300 m, 20 kbit/s 040 m tap-off length: 06 m, 800 kbit/s 0500 m tap-off length: 010 m, 125 kbit/s 05000 m tap-off length: 0600 m, 10 kbit/s 020 m, 1 Mbit/s	
Number of devices per segment	016, length of segment 0205 m 032, length of segment 0185 m 064, length of segment 0160 m	
Discrete input voltage	24 V	
Discrete input voltage type	DC	
Discrete input type	NPN or PNP	
Input voltage limits	20.426.4 V	
Electronic filtering time	0.035 ms for I0I1 at state 1 0.035 ms for I6I7 at state 1 0.04 ms for I2I5 at state 1 0.04 ms for I8I11 at state 1 0.045 ms for I0I1 at state 0 0.045 ms for I6I7 at state 0 0.15 ms for I2I5 at state 0 0.15 ms for I8I11 at state 0	
Configurable filtering time	0 ms 12 ms 3 ms	
Input impedance	3.4 kOhm for I2I5 3.4 kOhm for I8I11 5.7 kOhm for I0I1 5.7 kOhm for I6I7	
Discrete output voltage	24 V DC solid state 240 V AC relay 30 V DC relay	

Output voltage limits	20.428.8 V solid state	
Output current limits	360 mA solid state	
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	3840 V	
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	
Switchable load	>= 0.1 mA	
Contact bounce time	<= 1 ms for relay	
Leakage current	<= 0.1 mA at state 0 for solid state	
Drop-out voltage	<= 1 V at state 1	
Insulation between channels 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	20.426.2 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	19 W	
Number of I/O expansion module	07	
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 input 1 for relay output(1 NO) 1 for relay output(2 NO) 1 for relay output(3 NO) 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	RPLS pulse generator output RPWM pulse width modulation	
Marking	CE	
Fixing mode	By clips on 35 mm symmetrical DIN rail By screws on panel with fixing kit By screws on solid plate with fixing kit	
Status LED	1 LED per channel, green for I/O 1 LED, green for PWR 1 LED, green for RUN 1 LED, red for ERR	
Product weight	0.195 kg	

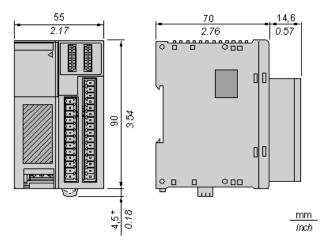
Environment

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 CSA C22.2 No. 213 (Class 1 Division 2 Groups A) CSA C22.2 No. 213 (Class 1 Division 2 Groups B) CSA C22.2 No. 213 (Class 1 Division 2 Groups C) CSA C22.2 No. 213 (Class 1 Division 2 Groups D) EN 61131-2 IEC 61131-2 UL 508
Product certifications	CULus
Ambient air temperature for operation	055 °C
Ambient air temperature for storage	-2570 °C
Relative humidity	3095 % without condensation
Pollution degree	2 conforming to EN 60664 2 conforming to IEC 60664
Operating altitude	02000 m
Storage altitude	03000 m
Vibration resistance	0.075 mm (f = 1057 Hz) on 35 mm symmetrical DIN rail 1 gn (f = 57150 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, 800000002000000000 Hz conforming to EN 61000-4-3 10 V/m, 800000002000000000 Hz conforming to IEC 61000-4-3
Resistance to fast transients	1 kV for 24 V solid state I/O conforming to IEC 61000-4-4 2 kV for 24 V supply conforming to IEC 61000-4-4
RoHS EUR status	Compliant
RoHS EUR conformity date	0908



Network Interface Module

Dimensions

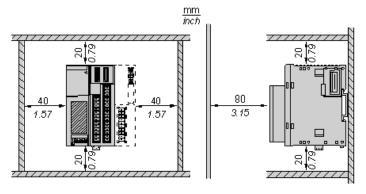


NOTE: * 8.5 mm (0.33 in) when the clamp is pulled out.

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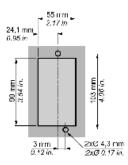
Mounting an Island on a Panel or in a Cabinet

Spacing Requirements



Panel Mounting

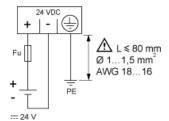
Position of the Mounting Holes for the Network Interface Module



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24 Vdc Power Supply

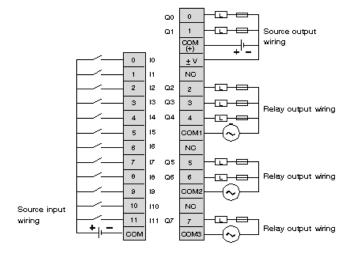
Wiring Diagram



2 A fast-blow fuse ABE7FU200 Fu

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.