Product datasheet
Characteristics

OTB1E0DM9LP

Main

Range of product	Modicon OTB
Product or component type	I/O distributed module
Integrated connection type	Ethernet TCP/IP RJ45, transmission mode: 1 twisted pair at 10/100 Mbit/s, web server transparent ready class A10
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 Q0...Q1 output logic: source 6 relay Q2...Q7
Discrete output current	2000 mA relay 2000 mA relay 300 mA solid state

Complementary

Concept	Transparent Ready
Port Ethernet	10BASE-T/10BASE-TX
Bus length	0...328.08 ft (0...100 m), copper
Number of devices per segment	0...256
Communication service	Modbus messaging
Web services	No standard Web server
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 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	0 ms 12 ms 3 ms
Input impedance	3.4 kOhm for I2...I5 3.4 kOhm for I2...I5 3.4 kOhm for 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
Output voltage limits	20.4...28.8 V solid state
Maximum output current	360 mA solid state
Current per output common	8 A relay 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

Tungsten load	8 W for solid state
Response time	300 µs at state 0 relay 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
Switchable load	>= 0.1 mA
Contact bounce time	<= 1 ms relay
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 relay output 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 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 <= 1 A for solid state output <= 50 A for supply circuit
Power consumption in W	19 W
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 power supply and earth >= 10 mOhm between I/O and earth terminals
I/O connection	Removable screw terminal block
Number of common point	1 input 1 solid state output 1 relay output (1 NO) 1 relay output (1 NO) 1 relay output (2 NO) 1 relay output (3 NO)
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 I/O 1 LED per channel, green I/O 1 LED, green 10T 1 LED, green PWR 1 LED, yellow 100T 1 LED, yellow STAT
Product weight	0.41 lb(US) (0.185 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 I/O and earth terminals 500 V between power supply and earth
standards	CSA EN 61131-2 IEC 61131-2 UL 508 CSA C22.2 No 213 Class I Division 2 Group A CSA C22.2 No 213 Class I Division 2 Group B CSA C22.2 No 213 Class I Division 2 Group C CSA C22.2 No 213 Class I Division 2 Group D
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 conforming to EN 60664 2 conforming to EN 60664 2 conforming to IEC 60664
operating altitude	0...6561.68 ft (0...2000 m)
storage altitude	0...9842.52 ft (0...3000 m)
vibration resistance	0.075 mm (f = 10…57 Hz) on 35 mm symmetrical DIN rail 1 gn (f = 57...150 Hz) on 35 mm symmetrical DIN rail
shock resistance	15 gn 11 ms conforming to EN 61131 15 gn 11 ms conforming to EN 61131 15 gn 11 ms conforming to IEC 61131
resistance to electrostatic discharge	8 kV in air conforming to IEC 61000-4-2 4 kV in contact conforming to IEC 61000-4-2 8 kV in air conforming to EN 61000-4-2 4 kV in contact conforming to EN 61000-4-2
resistance to radiated fields	9.14 V/yd (10 V/m), 80000000...2000000000 Hz conforming to EN 61000-4-3 9.14 V/yd (10 V/m), 80000000...2000000000 Hz conforming to EN 61000-4-3 9.14 V/yd (10 V/m), 80000000...2000000000 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

Offer Sustainability

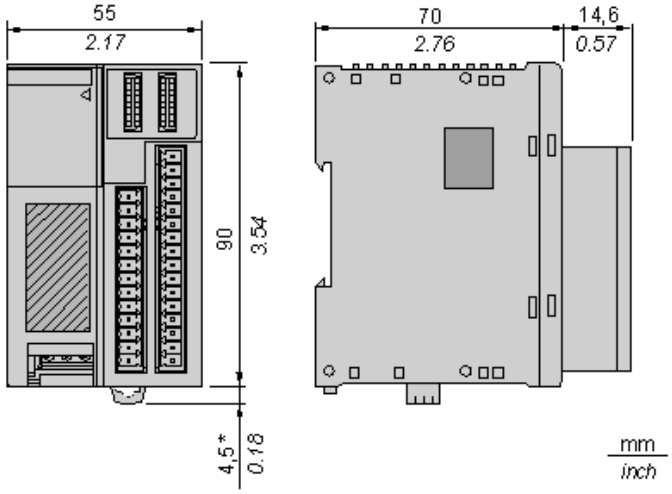
WARNING: This product can expose you to chemicals including:	WARNING: This product can expose you to chemicals including:
Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm.	Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm.
For more information go to www.p65warnings.ca.gov	For more information go to www.p65warnings.ca.gov

Contractual warranty

Warranty period	18 months

Network Interface Module

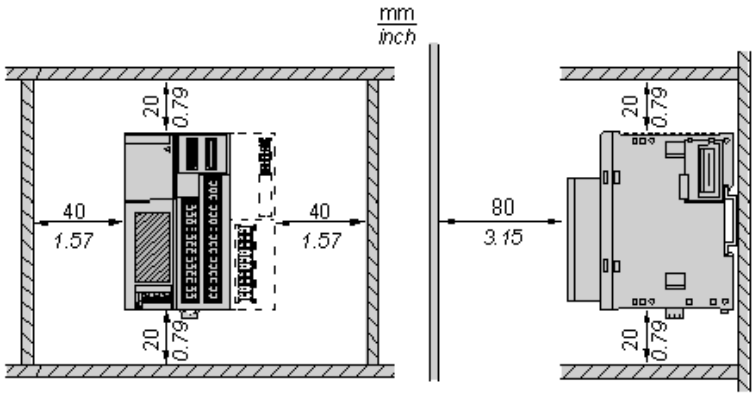
Dimensions



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

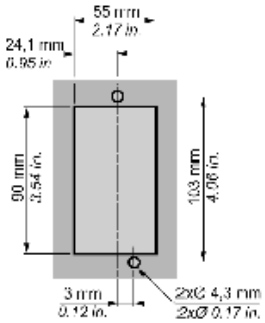
Mounting an Island on a Panel or in a Cabinet

Spacing Requirements



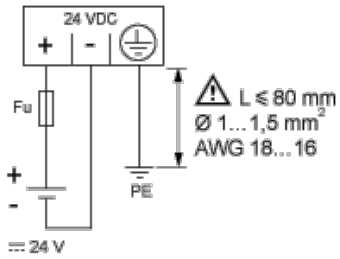
Panel Mounting

Position of the Mounting Holes for the Network Interface Module



24 Vdc Power Supply

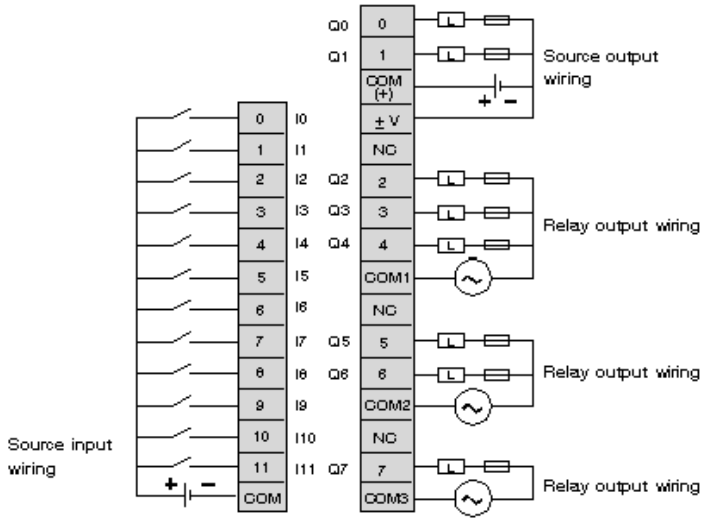
Wiring Diagram



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.