# OTB1S0DM9LP



#### Main

Range of product	Modicon OTB
Product or component type	I/O distributed module
Integrated connection type	Non isolated serial link 2 x RJ45 in parallel, master/slave Modbus, RTU/ASCII, transmission mode: asynchronous in baseband, RS485, transmission mode: 2 twisted shielded pairs at 1.238.4 kbit/s half duplex
Discrete input number	12 conforming to EN/IEC 61131 type 1
Discrete input logic	Sink or source
Discrete input current	5 mA for I0I1 5 mA for I6I7 7 mA for I2I5 7 mA for I8I11
Discrete output number	2 solid state PNP Q0Q1 output logic: source 6 relay Q2Q7
Discrete output current	2000 mA relay 2000 mA relay 300 mA solid state

### Complementary

Complementary		
Topology	Devices linked by daisy-chaining or tap junctions	
Bus length	032.81 ft (010 m) tap-off length: 049.21 ft (015 m)	
Number of devices per segment	032	
Data format	7 or 8 bits, 1 or 2 stop bits	
Parity	Even No Odd	
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  0 1 at state 1 0.035 ms  0 1 at state 1 0.035 ms  6 7 at state 1 0.04 ms  2 5 at state 1 0.04 ms  8 11 at state 1 0.045 ms  0 1 at state 0 0.045 ms  6 7 at state 0 0.15 ms  2 5 at state 0 0.15 ms  8 11 at state 0	
Configurable filtering time	0 ms 12 ms 3 ms	
Input impedance	3.4 kOhm for I2I5 3.4 kOhm for I2I5 3.4 kOhm for I8I11 5.7 kOhm I0I1 5.7 kOhm 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	
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	3840 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	20.426.2 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 (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 PWR 1 LED, red ERR 1 LED, yellow COM
Product weight	0.42 lb(US) (0.19 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 C CSA C22.2 No 213 Class I Division 2 Group D
product certifications	CULus
ambient air temperature for operation	32131 °F (055 °C)
ambient air temperature for storage	-13158 °F (-2570 °C)
relative humidity	3095 % without condensation
pollution degree	2 conforming to EN 60664 2 conforming to EN 60664 2 conforming to IEC 60664
operating altitude	06561.68 ft (02000 m)
storage altitude	09842.52 ft (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 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), 800000002000000000 Hz conforming to EN 61000-4-3 9.14 V/yd (10 V/m), 80000000200000000 Hz conforming to EN 61000-4-3 9.14 V/yd (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

# 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

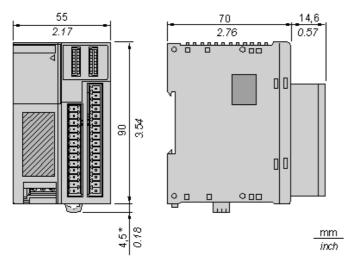
## Contractual warranty

Contraction warranty	
Warranty period	18 months

# **Network Interface Module**

**Dimensions** 

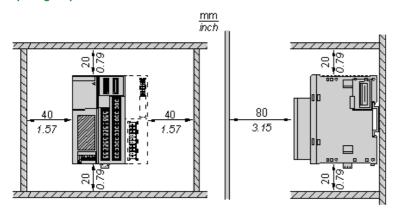




NOTE: \* 8.5 mm (0.33 in) when the clamp is pulled out.

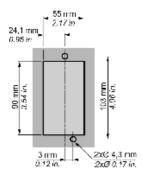
## Mounting an Island on a Panel or in a Cabinet

### **Spacing Requirements**



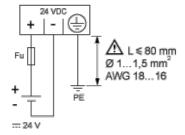
### **Panel Mounting**

#### Position of the Mounting Holes for the Network Interface Module



### 24 Vdc Power Supply

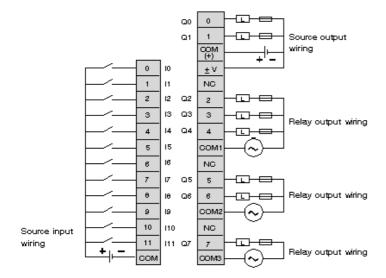
**Wiring Diagram** 



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.