

Main

Range of Product	Modicon TM5
Product or Component Type	Compact I/O expansion block

Complementary

Enclosure Material	Plastic
Color	White
Input/output number	36
For enclosure nominal dimensions	24 I + 12 O
Number of modules	Digital input 2 x 12 Relay output 2 x 6
Discrete input number	24
Discrete input voltage	24 V
Discrete input voltage type	DC
Input voltage limits	20.4...28.8 V
Discrete input logic	Sink
Discrete input current	3.75 mA
Input impedance	6.4 kOhm
Analogue input number	0
Discrete output number	12
Discrete output type	Relay
Wiring mode	1 wire discrete input
Output voltage	30 V DC 240 V AC
Output voltage limits	24...36 V DC 184...276 V AC
Discrete output function	1 NO
Discrete output logic	Source or sink
Discrete output current	2 A per output
Voltage state 0 guaranteed	<= 5 V
Voltage state 1 guaranteed	>= 15 V
Input filtering	<= 100 ms hardware <= 25 ms configurable by software
Response time	<= 12 ms from state 0 to state 1 output <= 10 ms from state 1 to state 0 output
Minimum switching current	10 mA 5 V DC
Isolation	500 Vrms AC insulation between channel and bus No insulation between channels
Mechanical durability	20000000 cycles
Current consumption	68 mA 5 V DC bus 165 mA 24 V DC input/output

Maximum power dissipation in W	4.3 W
Local signalling	For input status 24 LEDs (green) For power supply 4 LEDs (green) For power supply 4 LEDs (red) For output status 12 LEDs (yellow)
Electrical Connection	Removable spring terminal block
Marking	CE
Surge withstand	0.5 KV differential mode 24 V DC EN/IEC 61000-4-5 1 KV common mode 24 V DC EN/IEC 61000-4-5 1 KV differential mode 230 V AC EN/IEC 61000-4-5 2 kV common mode 230 V AC EN/IEC 61000-4-5
Electromagnetic compatibility	EN/IEC 61000-4-6
Disturbance radiated/conducted	CISPR 11

Environment

Standards	CSA C22.2 No 213 CSA C22.2 No 142 IEC 61131-2 UL 508
Product Certifications	CULus GOST-R CSA C-tick
Ambient air temperature for operation	14...122 °F (-10...50 °C) vertical installation) 14...140 °F (-10...60 °C) horizontal installation)
Ambient Air Temperature for Storage	-40...158 °F (-40...70 °C)
Relative Humidity	5...95 % without condensation
IP degree of protection	IP20IEC 61131-2
Pollution degree	2 IEC 60664
Operating altitude	0...6561.68 ft (0...2000 m)
Storage altitude	0.00...9842.52 ft (0...3000 m)
Vibration resistance	1 gn 8.4...150 Hz DIN rail 3.5 mm 5...8.4 Hz DIN rail
Shock resistance	15 gn 11 ms
Resistance to electrostatic discharge	4 KV on contact EN/IEC 61000-4-2 8 kV in air EN/IEC 61000-4-2
Resistance to electromagnetic fields	0.91 V/m (1 V/m) 2...2.7 GHz EN/IEC 61000-4-3 9.14 V/m (10 V/m) 80...2000 MHz EN/IEC 61000-4-3
Resistance to fast transients	1 KV EN/IEC 61000-4-4 I/O) 1 KV EN/IEC 61000-4-4 shielded cable) 2 kV EN/IEC 61000-4-4 power lines)
Mounting Support	DIN rail
Net Weight	0.57 lb(US) (0.26 kg)

Ordering and shipping details

Category	22532 - M258 PLC
Discount Schedule	PC12
GTIN	3595864074382
Nbr. of units in pkg.	1
Package weight(Lbs)	10.19 oz (289 g)
Returnability	No
Country of origin	AT

Packing Units

Unit Type of Package 1	PCE
Package 1 Height	2.82 in (7.158 cm)
Package 1 width	3.67 in (9.314 cm)
Package 1 Length	4.31 in (10.954 cm)
Unit Type of Package 2	S03
Number of Units in Package 2	36

Package 2 Weight	24.03 lb(US) (10.9 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)

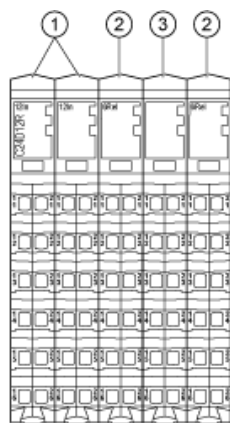
Offer Sustainability

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 cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
REACH Regulation	REACH Declaration
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
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
----------	-----------

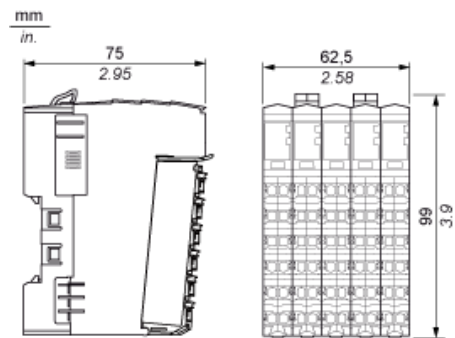
TM5 Compact I/O Module



N°	Designation
1	Input electronic module / 12 digital inputs
2	Relay output electronic module / 6 relay outputs
3	Dummy module

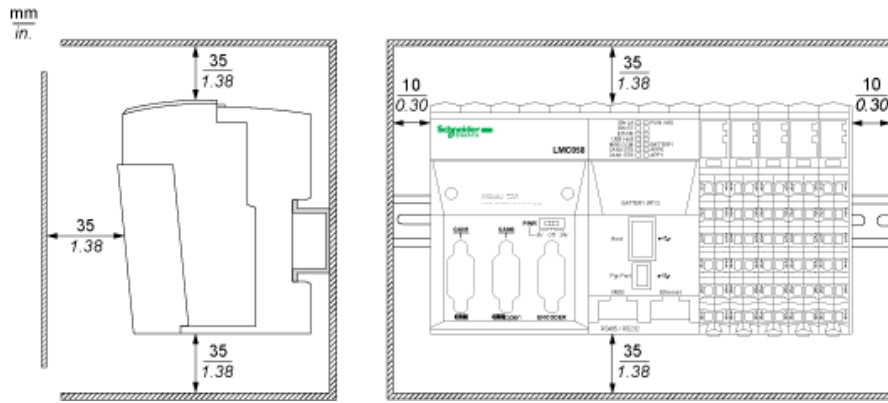
Compact I/O Module

Dimensions

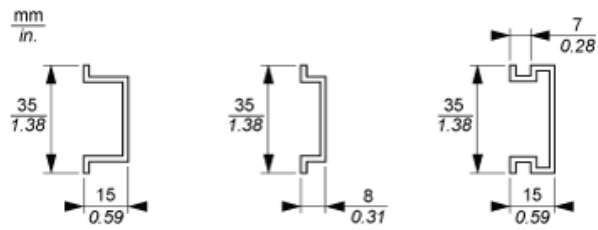


TM5 System

Spacing Requirements







Mounting on a DIN Rail



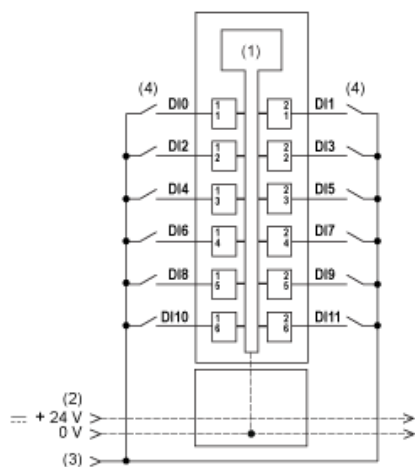
TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

mm in.				
mm ²	0,08...2,5	0,25...2,5	0,25...1,5	2 x 0,25...2 x 0,75
AWG	28...14	24...14	24...16	2 x 24...2 x 18

Digital Input 12In

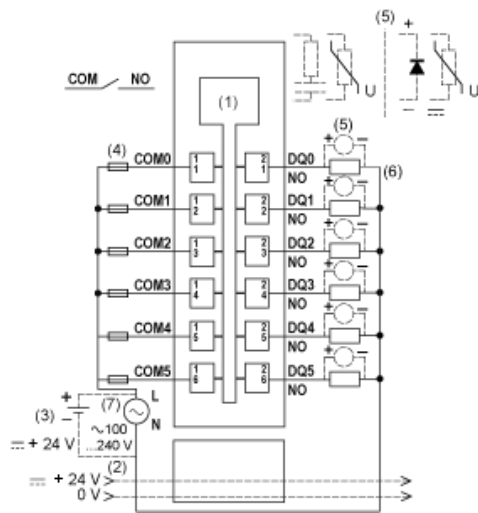
Wiring Diagram



- 1 Internal electronics
- 2 24 Vdc I/O power segment integrated into the bus bases
- 3 24 Vdc I/O power segment by external connection
- 4 2-wire sensor

Digital Output Relay 6Rel

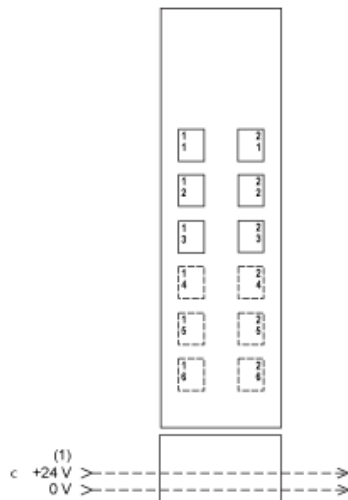
Wiring Diagram



- 1 Internal electronics
- 2 24 Vdc I/O power segment integrated into the bus bases
- 3 External isolated power supply 24 Vdc
- 4 External fuse type T slow-blow 2 A 250 V
- 5 Inductive load protection
- 6 2-wire load
- 7 External power supply 100...240 Vac

Dummy Module

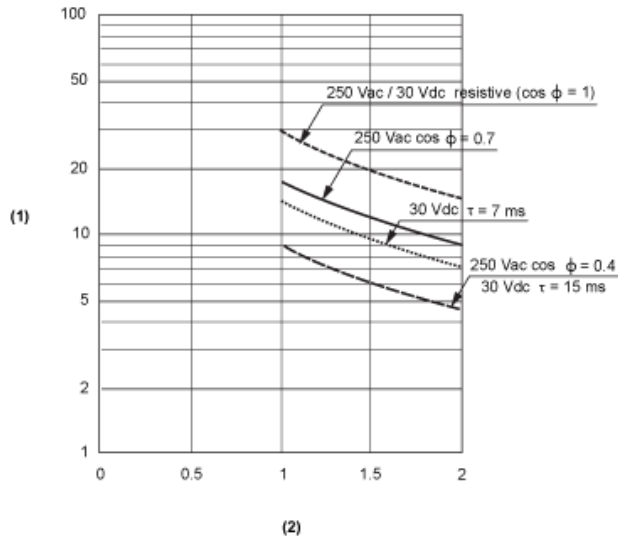
Wiring Diagram



- 1 24 Vdc I/O power segment integrated into the bus bases

Digital Output Relay Electronic Module

Electric Durability



- 1 Switching procedures ($\times 10^4$)
- 2 Switching current in A