

# Product data sheet

## Characteristics

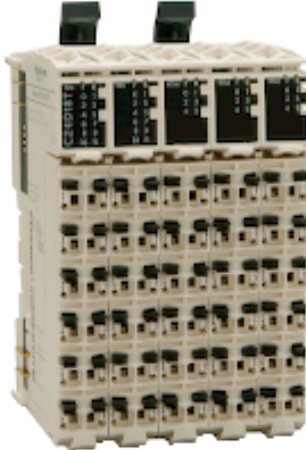
# TM5C24D12R

Compact I/O expansion block, Modicon TM5, 36  
24 DI, 12 DO relay



Product availability: Non-Stock - Not normally stocked in distribution facility

Price\*: 670.00 USD



### 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
Input/output number of splitter box	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 for 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	03595864074382
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)

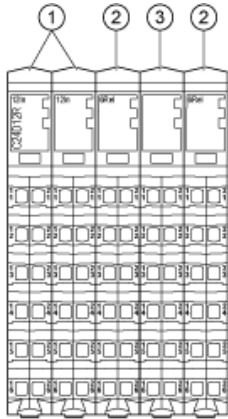
## Offer Sustainability

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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>
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
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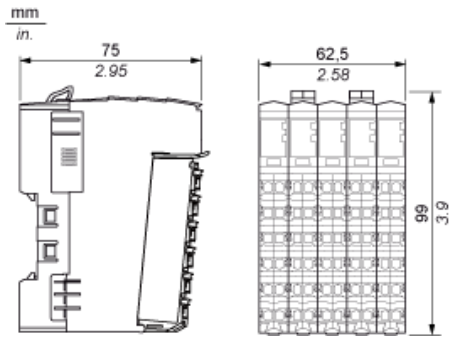
TM5 Compact I/O Module



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

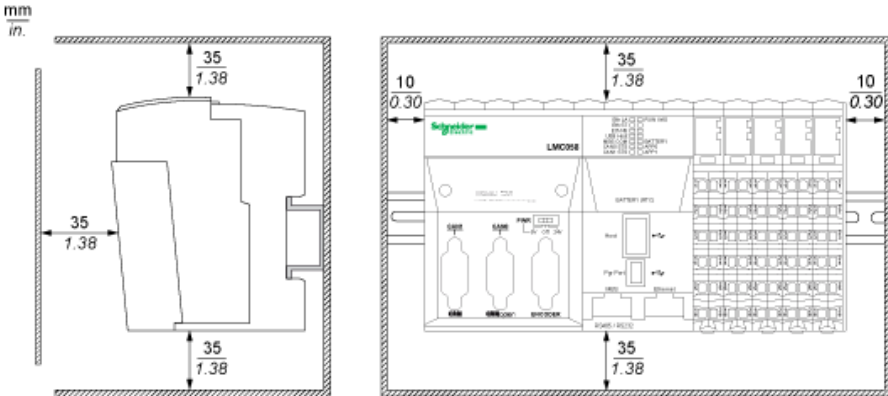
Compact I/O Module

Dimensions

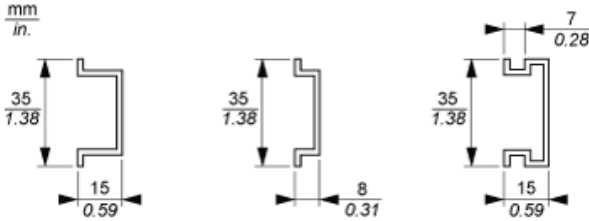


TM5 System

Spacing Requirements







Mounting on a DIN Rail



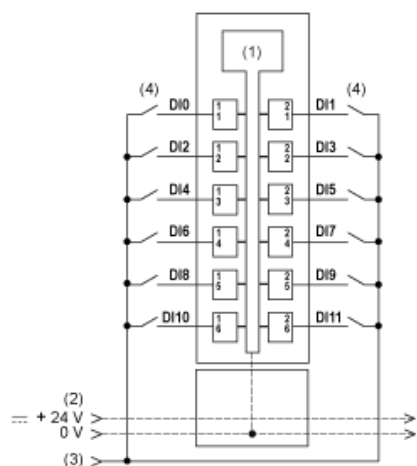
TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

mm in.				
mm <sup>2</sup>	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

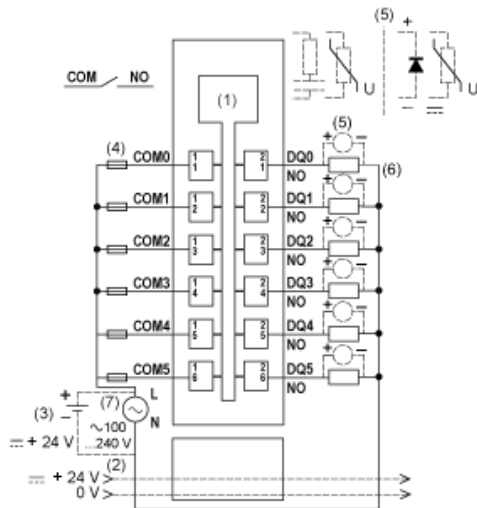
Wiring Diagram



- 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

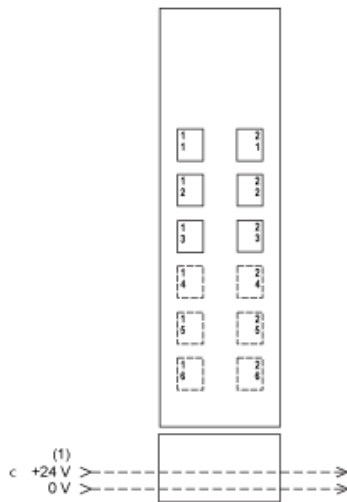
## Wiring Diagram



- 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

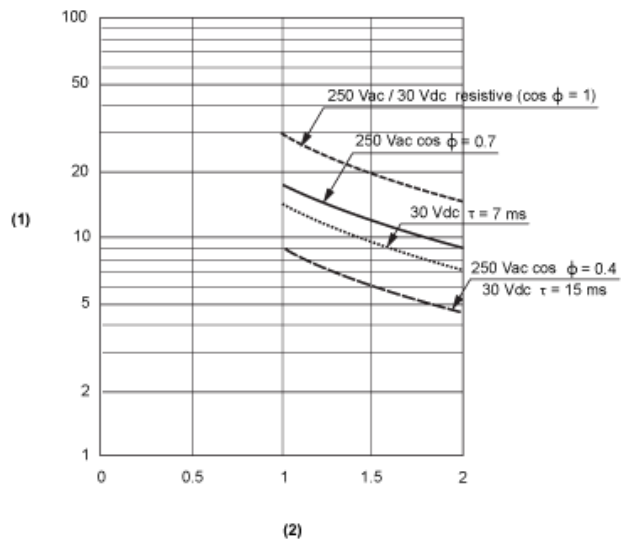
## Wiring Diagram



- 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

Product Life Status : **Commercialised**