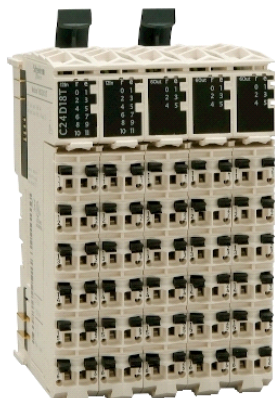


TM5C24D12R

compact I/O expansion block TM5 - 36 I/O - 24 DI - 12 DO relay



Main

Range of product	Modicon TM5
Product or component type	Compact I/O expansion block

Complementary

Enclosure material	Plastic
Colour	White
Input/output number	36
Input/output number of splitter box	24 I + 12 O
Number of modules	2 modules with 12 digital input 2 modules with 6 relay output
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	184...276 V AC 24...36 V DC
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	<= 25 ms configurable by software <= 100 ms hardware
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	No insulation between channels 500 Vrms AC insulation between channel and bus
Mechanical durability	20000000 cycles
Current consumption	68 mA 5 V DC bus 165 mA 24 V DC input/output
Power dissipation in W	<= 4.3 W

The information provided in this documentation contains general descriptions and/or technical characteristics of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Local signalling	24 LEDs green input status 4 LEDs green power supply 4 LEDs red power supply 12 LEDs yellow output status
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

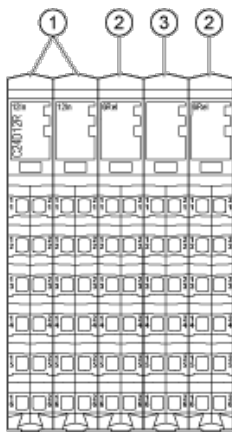
Environment

standards	CSA C22.2 No 142 IEC 61131-2 UL 508 CSA C22.2 No 213
product certifications	CSA C-Tick CULus GOST-R
ambient air temperature for operation	-10...50 °C vertical installation -10...60 °C horizontal installation
ambient air temperature for storage	-40...70 °C
relative humidity	5...95 % without condensation
IP degree of protection	IP20 IEC 61131-2
pollution degree	2 IEC 60664
operating altitude	0...2000 m
storage altitude	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	8 kV in air EN/IEC 61000-4-2 4 kV on contact EN/IEC 61000-4-2
resistance to electromagnetic fields	1 V/m 2...2.7 GHz EN/IEC 61000-4-3 10 V/m 80...2000 MHz EN/IEC 61000-4-3
resistance to fast transients	1 kV I/O EN/IEC 61000-4-4 1 kV shielded cable EN/IEC 61000-4-4 2 kV power lines EN/IEC 61000-4-4
mounting support	DIN rail
product weight	0.26 kg

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 1039 - Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Available

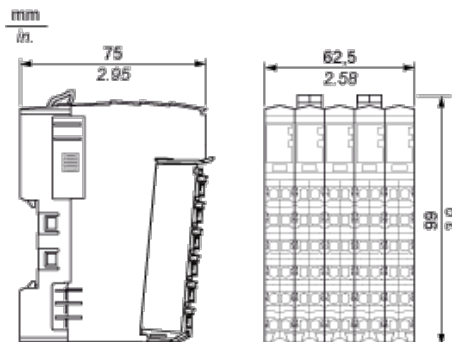
TM5 Compact I/O Module



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

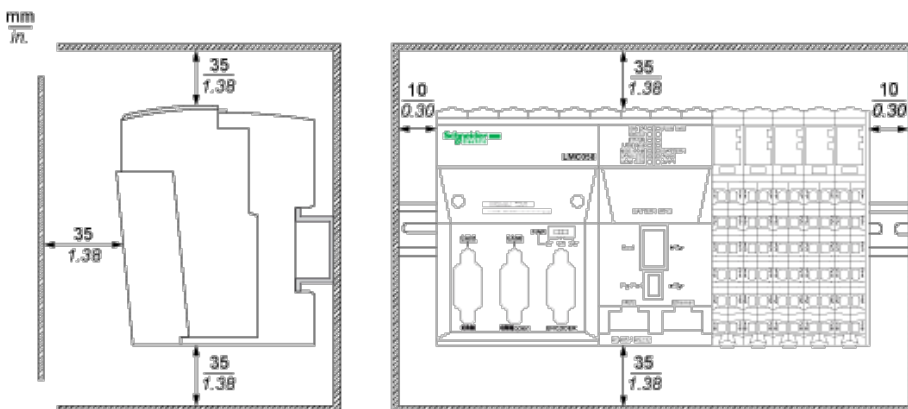
Compact I/O Module

Dimensions

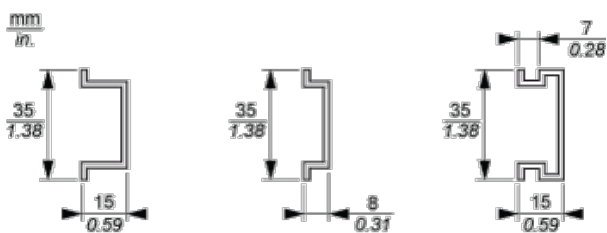


TM5 System

Spacing Requirements



Mounting on a DIN Rail



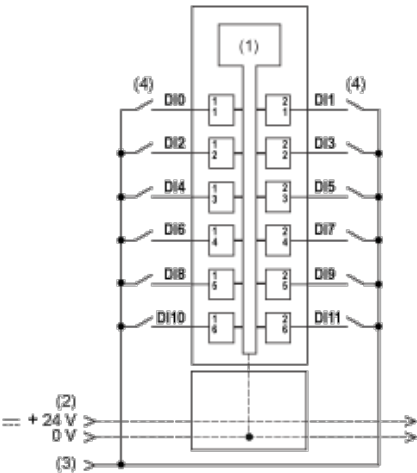
TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

$\frac{\text{mm}}{\text{in.}}$ 				
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 16

Digital Input 12In

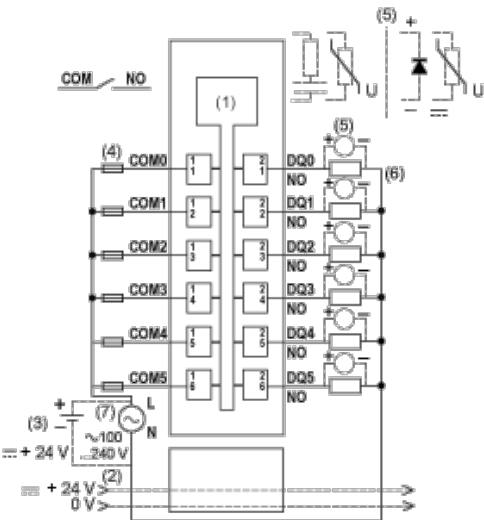
Wiring Diagram



- 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

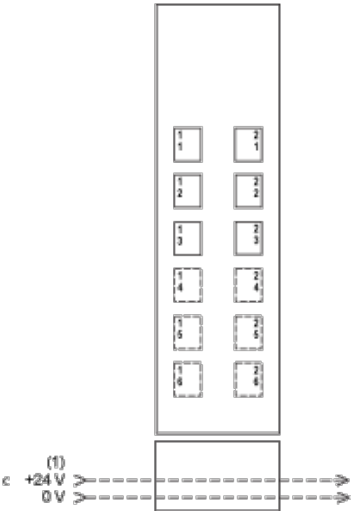
Wiring Diagram



- 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

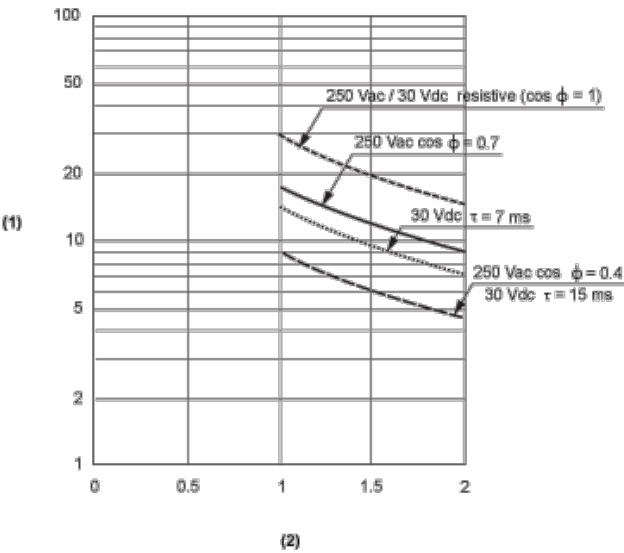
Wiring Diagram



- 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