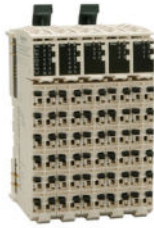


Product data sheet

Specifications



compact I/O expansion block,
Modicon TM5, 42 IO, 24 DI, 18
DO, transistor

TM5C24D18T

Main

Range Of Product	Modicon TM5
Product Or Component Type	Compact I/O expansion block

Complementary

Enclosure Material	Plastic
Colour	White
Input/Output Number	42
For Enclosure Nominal Dimensions	24 I + 18 O
Number Of Modules	Digital input 2 x 12 Digital output 3 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	18
Discrete Output Type	Transistor
Wiring Mode	1 wire discrete input 2-wire discrete output
Output Voltage	24 V DC
Output Voltage Limits	20.4...28.8 V DC
Discrete Output Logic	Source
Discrete Output Current	0.5 A per output
Peak Output Current	9 A
Voltage State 0 Guaranteed	<= 5 V
Voltage State 1 Guaranteed	>= 15 V
Input Filtering	<= 100 ms hardware <= 25 ms configurable by software
Response Time	<= 300 µs from state 0 to state 1 output <= 300 µs from state 1 to state 0 output

Maximum Leakage Current	5 µA when switched off) output
Isolation	500 Vrms AC insulation between channel and bus No insulation between channels
Maximum Voltage Drop	<0.3 V at 500 mA output
Current Consumption	70 mA 5 V DC bus 140 mA 24 V DC input/output
Max Current	9000 mA loads on I/O power segment
Maximum Power Dissipation In W	3.71 W
Local Signalling	Power supply 5 LEDs green) Power supply 5 LEDs red) Input status 24 LEDs green) Output status 18 LEDs yellow)
Electrical Connection	Removable spring terminal block
Marking	CE
Surge Withstand	0.5 kV differential mode 24 V DC IEC 61000-4-5 1 kV common mode 24 V DC IEC 61000-4-5
Electromagnetic Compatibility	EN/IEC 61000-4-6
Disturbance Radiated/Conducted	CISPR 11

Environment

Standards	IEC 61131-2 UL 508 CSA C22.2 No 213 CSA C22.2 No 142
Product Certifications	C-Tick cULus GOST-R CSA
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...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 IEC 61000-4-2 8 kV in air IEC 61000-4-2
Resistance To Electromagnetic Fields	0.91 V/yd (1 V/m) 2...2.7 GHz IEC 61000-4-3 9.14 V/yd (10 V/m) 80...2000 MHz IEC 61000-4-3
Resistance To Fast Transients	1 kV IEC 61000-4-4 I/O) 1 kV IEC 61000-4-4 shielded cable) 2 kV IEC 61000-4-4 power lines)
Mounting Support	DIN rail
Net Weight	0.53 lb(US) (0.24 kg)

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	2.95 in (7.500 cm)
Package 1 Width	3.54 in (9.000 cm)
Package 1 Length	4.33 in (11.000 cm)
Package 1 Weight	9.81 oz (278.000 g)
Unit Type Of Package 2	S03
Number Of Units In Package 2	36
Package 2 Height	11.81 in (30.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	22.06 lb(US) (10.008 kg)

Contractual warranty

Warranty	18 months
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Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency RoHS/REACH

Well-being performance

Toxic Heavy Metal Free

Mercury Free

Rohs Exemption Information [Yes](#)

Pvc Free

Certifications & Standards

Reach Regulation

[REACH Declaration](#)

Eu Rohs Directive

Pro-active compliance (Product out of EU RoHS legal scope)

China Rohs Regulation

[China RoHS declaration](#)

Environmental Disclosure

[Product Environmental Profile](#)

Weee

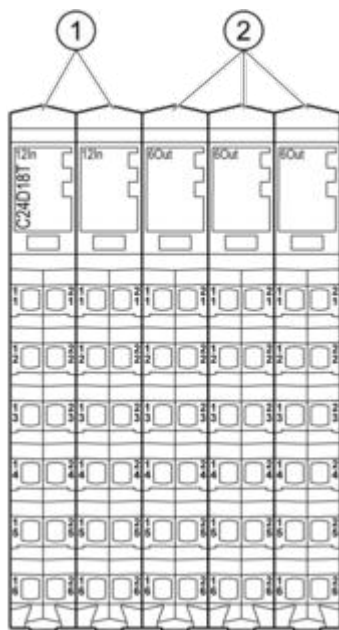
The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Circularity Profile

[End of Life Information](#)

Presentation

TM5 Compact I/O Module

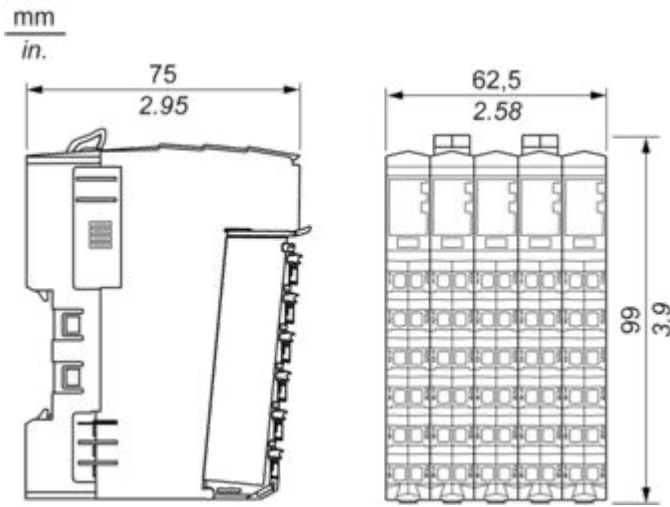


N°	Designation
1	Input electronic module / 12 digital inputs
2	Output electronic module / 6 digital outputs

Dimensions Drawings

Compact I/O Module

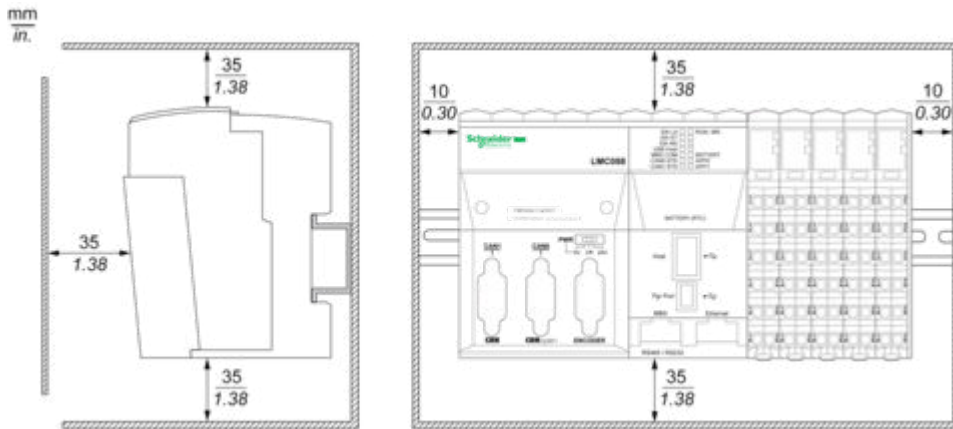
Dimensions



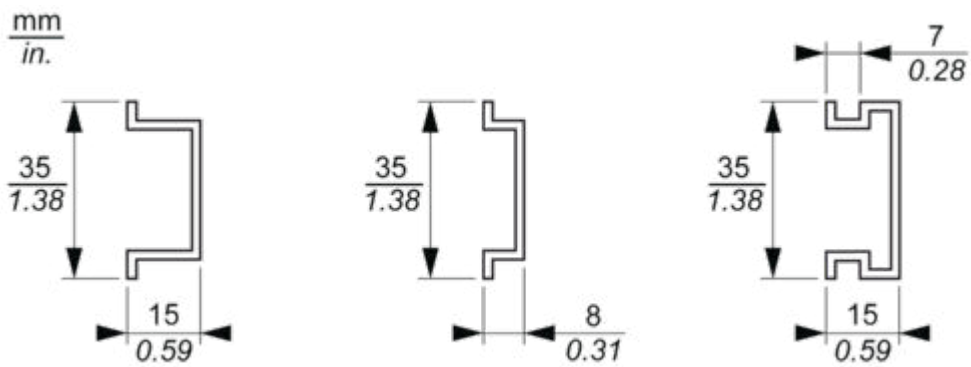
Mounting and Clearance

TM5 System

Spacing Requirements



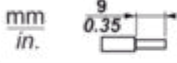




Mounting on a DIN Rail



Connections and Schema

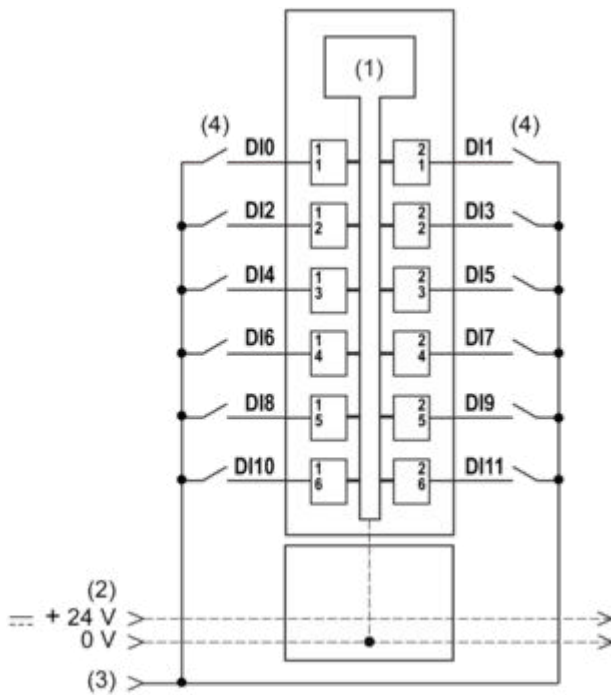
TM5 System Wiring Recommendations

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

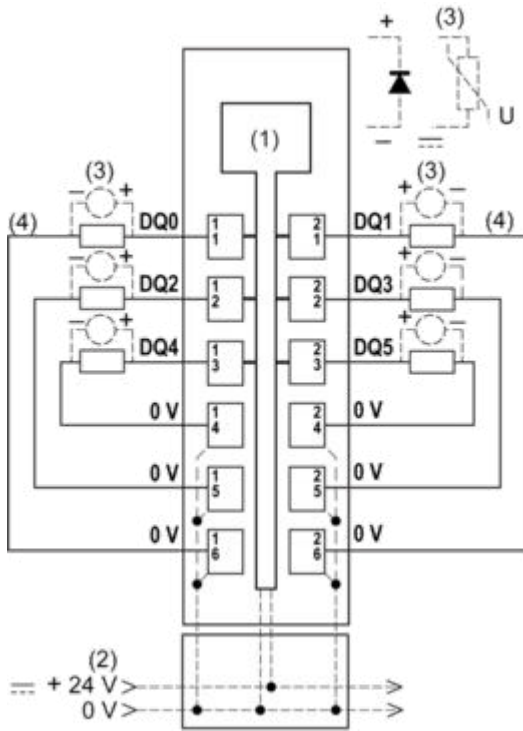
Wiring Diagram



- 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 6Out

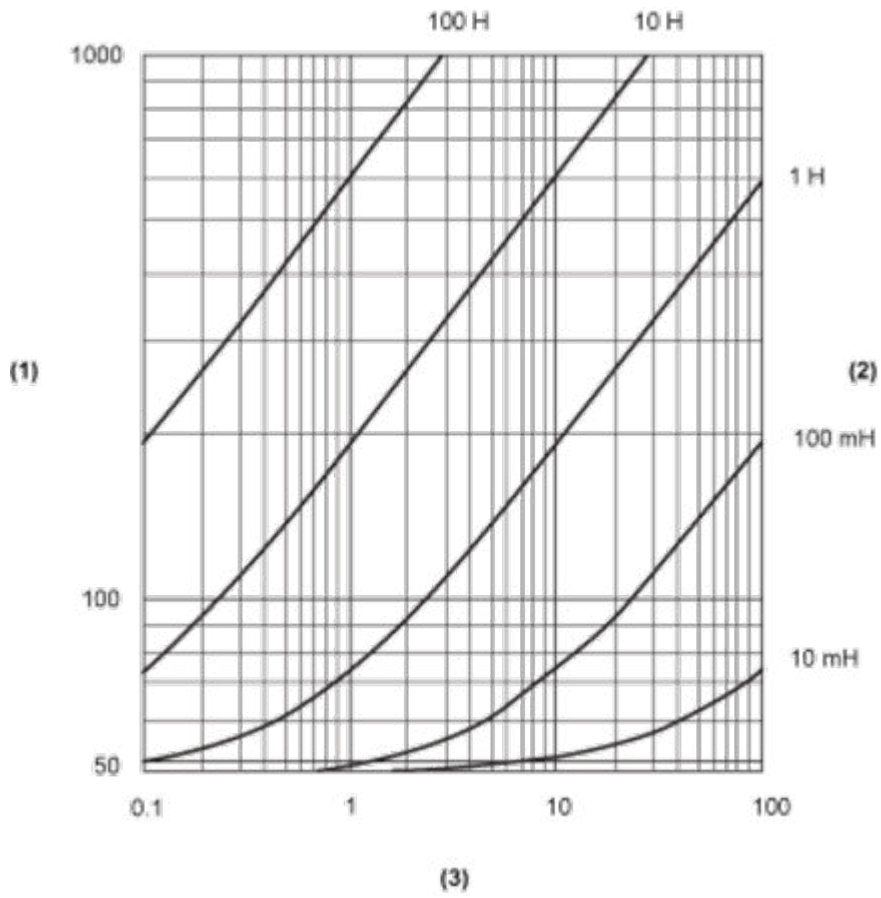
Wiring Diagram



- 1 Internal electronics
- 2 24 Vdc I/O power segment integrated into the bus bases
- 3 Inductive load protection
- 4 2-wire load

Performance Curves

Switching Inductive Load Characteristics



- (1) Load resistance in Ω
- (2) Load inductance in H
- (3) Max. operating cycles / second