



### Main

Range of product	Modicon TM7
Product or component type	Discrete I/O expansion block
Range compatibility	Modicon LMC058 Modicon M258
Enclosure material	Plastic
Bus type	TM7 bus
[Ue] rated operational voltage	24 V DC
Input/Output number	8
Input/Output number of block	8 O

### Complementary

Discrete output number	8 output(s) at <= 2 A with transistor protection
Discrete output voltage	24 V
Discrete output voltage type	DC
Sensor power supply	24 V, 500 mA for all channels with overload, short-circuit and reverse polarity protection
Electrical connection	1 female connector M8 - 3 ways for actuator 1 female connector M8 - 4 ways for power OUT 1 male connector M8 - 4 ways for power IN 1 female connector M12 - B coding - 4 ways for bus OUT 1 male connector M12 - B coding - 4 ways for bus IN
Local signalling	2 LEDs for sensor power supply diagnostics 2 LEDs for bus diagnostic
Operating position	Any position
Fixing mode	By 2 screws
Product weight	0.185 kg

### Environment

Standards	IEC 61131-2
Product certifications	C-Tick CURus GOST-R ATEX II 3g EEx nA II T5
Marking	CE
Ambient air temperature for operation	-10...60 °C
Ambient air temperature for storage	-25...85 °C
Relative humidity	5...95 % without condensation or dripping water
Pollution degree	2 conforming to IEC 60664
IP degree of protection	IP67 conforming to IEC 61131-2
Operating altitude	0...2000 m
Storage altitude	0...3000 m
Vibration resistance	4 gn constant acceleration (f = 200...500 Hz) conforming to IEC 60721-3-5 Class 5M3 2 gn constant acceleration (f = 8...200 Hz) conforming to IEC 60721-3-5 Class 5M3 7.5 mm constant amplitude (f = 2...8 Hz) conforming to IEC 60721-3-5 Class 5M3

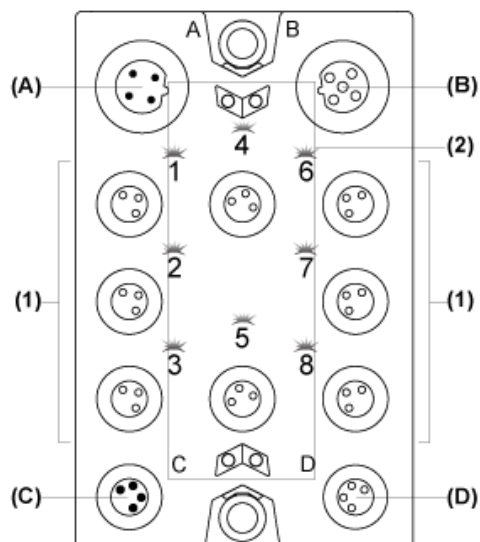
Shock resistance	30 gn for 11 ms conforming to IEC 60721-3-5 Class 5M3
Electromagnetic compatibility	<p>Conducted and radiated emissions conforming to CISPR 11</p> <p>Conducted RF disturbances conforming to EN/IEC 61000-4-6</p> <p>1.2/50 µs shock waves immunity test (level: 1 kV - shielded links (differential mode)) conforming to EN/IEC 61000-4-5</p> <p>1.2/50 µs shock waves immunity test (level: 0.5 kV - shielded links (common mode)) conforming to EN/IEC 61000-4-5</p> <p>1.2/50 µs shock waves immunity test (level: 1 kV - unshielded links (differential mode)) conforming to EN/IEC 61000-4-5</p> <p>1.2/50 µs shock waves immunity test (level: 0.5 kV - unshielded links (common mode)) conforming to EN/IEC 61000-4-5</p> <p>1.2/50 µs shock waves immunity test (level: 1 kV - power supply (differential mode)) conforming to EN/IEC 61000-4-5</p> <p>1.2/50 µs shock waves immunity test (level: 0.5 kV - power supply (common mode)) conforming to EN/IEC 61000-4-5</p> <p>Electrical fast transient/burst immunity test (level: 1 kV - shielded cable) conforming to EN/IEC 61000-4-4</p> <p>Electrical fast transient/burst immunity test (level: 1 kV - input/output) conforming to EN/IEC 61000-4-4</p> <p>Electrical fast transient/burst immunity test (level: 2 kV - power supply) conforming to EN/IEC 61000-4-4</p> <p>Susceptibility to electromagnetic fields (level: 10 V/m - 80...2000 MHz) conforming to EN/IEC 61000-4-3</p> <p>Susceptibility to electromagnetic fields (level: 1 V/m - 2...2.7 GHz) conforming to EN/IEC 61000-4-3</p> <p>Electrostatic discharge immunity test (level: 8 kV - in air) conforming to EN/IEC 61000-4-2</p> <p>Electrostatic discharge immunity test (level: 4 kV - on contact) conforming to EN/IEC 61000-4-2</p>

## Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 1039 - <a href="#">Schneider Electric declaration of conformity</a>
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available <a href="#">Download Product Environmental</a>
Product end of life instructions	Available <a href="#">Download End Of Life Manual</a>

Digital Output Block

Description



- (A) TM7 bus IN connector
- (B) TM7 bus OUT connector
- (C) 24 Vdc power IN connector
- (D) 24 Vdc power OUT connector
- (1) Output connectors
- (2) Status LEDs

Connector and Channel Assignments

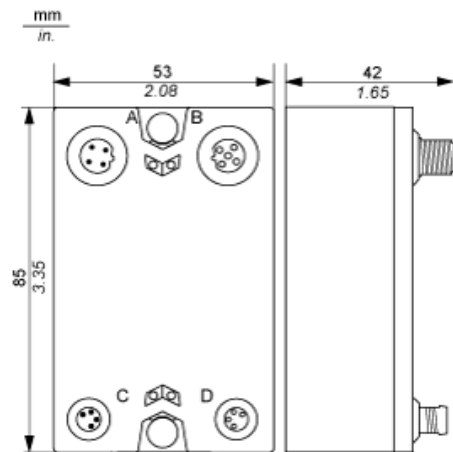
Output connectors	Channel type	Channels
1	Output	Q0
2	Output	Q1
3	Output	Q2
4	Output	Q3
5	Output	Q4
6	Output	Q5
7	Output	Q6
8	Output	Q7

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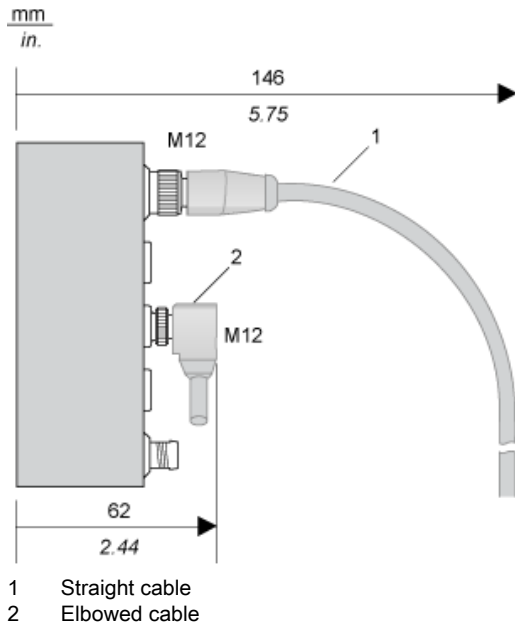
TM7 Block, Size 1

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Dimensions

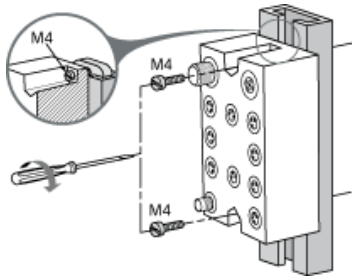


Spacing Requirements



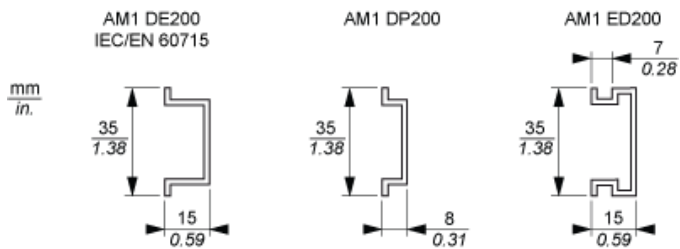
Installation Guidelines

TM7 Block on an Aluminium Frame



NOTE: Maximum torque to fasten the required M4 screws is 0.6 N.m (5.3 lbf-in).

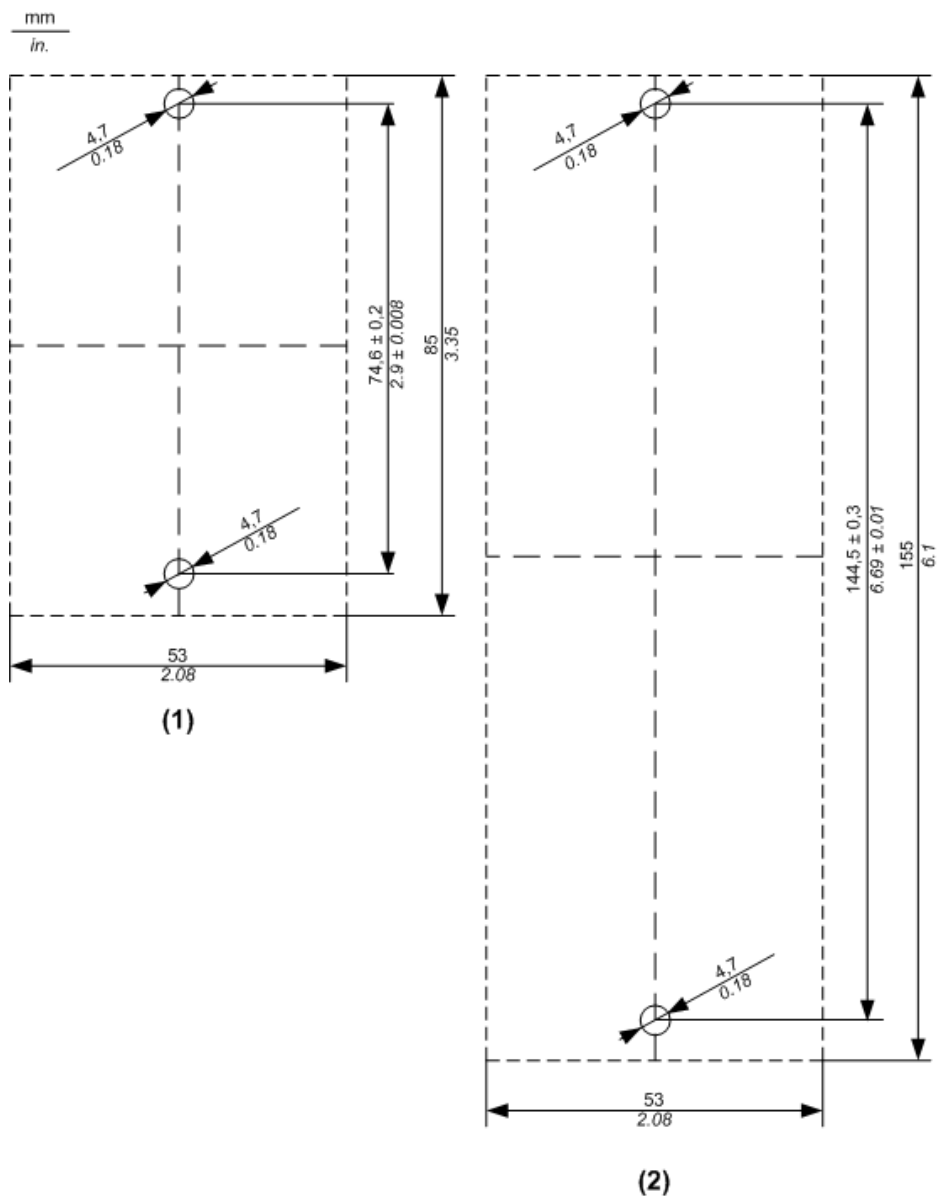
TM7 Block on a DIN Rail



NOTE: Only size 1 (smallest) blocks can be installed on DIN rail with the TM7ACMP mounting plate.

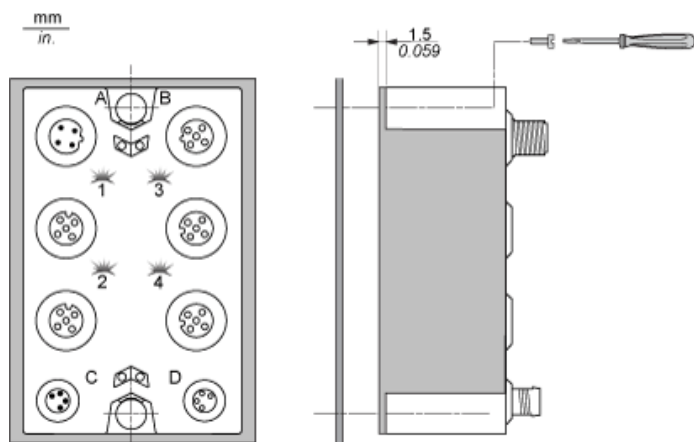
## TM7 Block Directly on the Machine

Drilling template of the block:



- (1) Size 1
- (2) Size 2

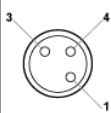
The thickness of the base plate should be taken into consideration when defining the screw length.



NOTE: Maximum torque to fasten the required M4 screws is 0.6 N.m (5.3 lbf-in).

Wiring Diagram

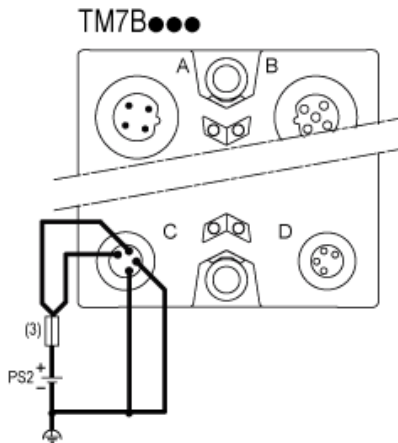
Pin Assignments for Output Connectors

Connection	Pin	M8 Output
	1	24 Vdc actuator supply
3	0 Vdc	
4	DO: output signal	

Wiring the Power Supply

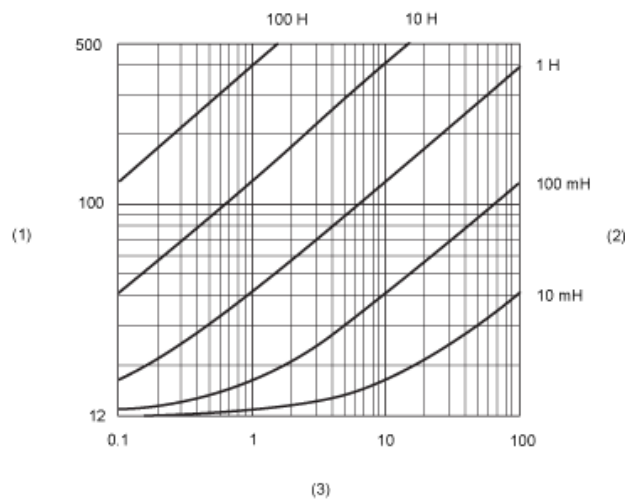
When you provide power to a TM7 I/O block using the 24 VDC Power OUT connector of the preceding I/O block, both blocks occupy the same 24 Vdc I/O power segment. However, if you connect an external isolated power supply to the 24 Vdc Power IN connector of a TM7 I/O block, you establish a new 24 Vdc I/O power segment beginning with that I/O block.

I/O block wired with one external 24 Vdc power supply:



- (3) External fuse, Type T slow-blow, 8 A max., 250 V
- PS2 External isolated I/O power supply, 24 Vdc

Switching Inductive Load Characteristics



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