

# TM7BAI4PLA

Analog I/O expansion block, Modicon TM7, IP67,  
4 TC inputs, M12 connector



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

Price\*: 1287.00 USD



## Main

|                                     |                                |
|-------------------------------------|--------------------------------|
| Range of product                    | Modicon TM7                    |
| Product or Component Type           | Analog I/O expansion block     |
| Range Compatibility                 | Modicon M258<br>Modicon LMC058 |
| Enclosure Material                  | Plastic                        |
| Bus type                            | TM7 bus                        |
| Input/output number                 | 4                              |
| Input/output number of splitter box | 4 I                            |

## Complementary

|                           |                                 |
|---------------------------|---------------------------------|
| Analogue input number     | 4                               |
| Analogue Input Type       | Thermocouple J, K, S<br>Voltage |
| Analogue input range      | 0...65536 $\mu$ V               |
| Analogue input resolution | 16 bits                         |
| Operating position        | Any position                    |
| Fixing Mode               | By 2 screws                     |
| Product Weight            | 0.44 Lb(US) (0.2 kg)            |

## Environment

|                                       |                                                      |
|---------------------------------------|------------------------------------------------------|
| Standards                             | IEC 61131-2                                          |
| Product Certifications                | CURus<br>GOST-R<br>ATEX II 3g EEx nA II T5<br>C-tick |
| Marking                               | CE                                                   |
| Ambient Air Temperature for Operation | 14...140 °F (-10...60 °C)                            |
| Ambient Air Temperature for Storage   | -13...185 °F (-25...85 °C)                           |
| Operating altitude                    | 0...6561.68 ft (0...2000 m)                          |
| Storage altitude                      | 0.00...9842.52 Ft (0...3000 m)                       |

|                                |                  |
|--------------------------------|------------------|
| Electromagnetic compatibility  | EN/IEC 61000-4-6 |
| Disturbance radiated/conducted | CISPR 11         |

## Ordering and shipping details

|                       |                  |
|-----------------------|------------------|
| Category              | 22532 - M258 PLC |
| Discount Schedule     | PC12             |
| GTIN                  | 3595864092966    |
| Nbr. of units in pkg. | 1                |
| Package weight(Lbs)   | 8.04 Oz (228 g)  |
| Returnability         | No               |
| Country of origin     | AT               |

## Packing Units

|                        |                 |
|------------------------|-----------------|
| Unit Type of Package 1 | PCE             |
| Package 1 Height       | 1.97 In (5 cm)  |
| Package 1 width        | 2.36 In (6 cm)  |
| Package 1 Length       | 4.33 In (11 cm) |

## Offer Sustainability

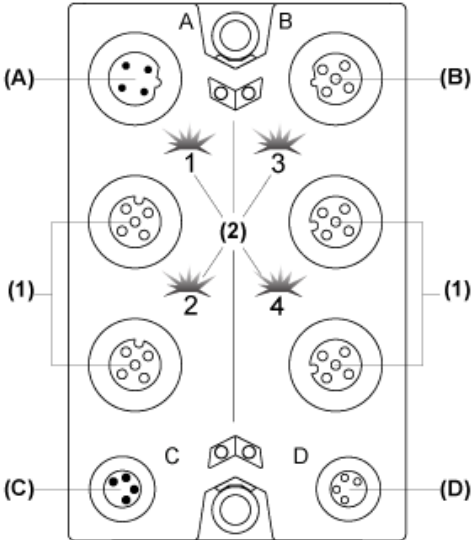
|                            |                                                                                                                                                                                                                                                                                             |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 |
|----------|-----------|

Analog Temperature Input Block

Description



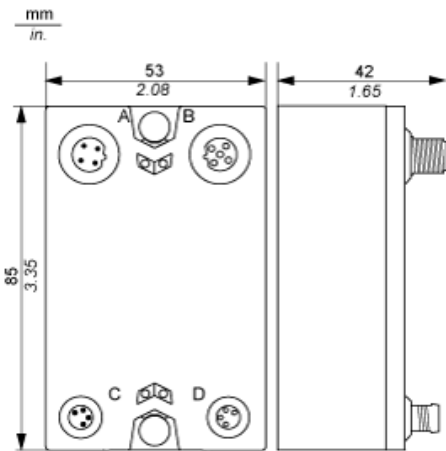
- (A) TM7 bus IN connector
- (B) TM7 bus OUT connector
- (C) 24 Vdc power IN connector
- (D) 24 Vdc power OUT connector
- (1) Input connectors
- (2) Status LEDs

Connector and Channel Assignments

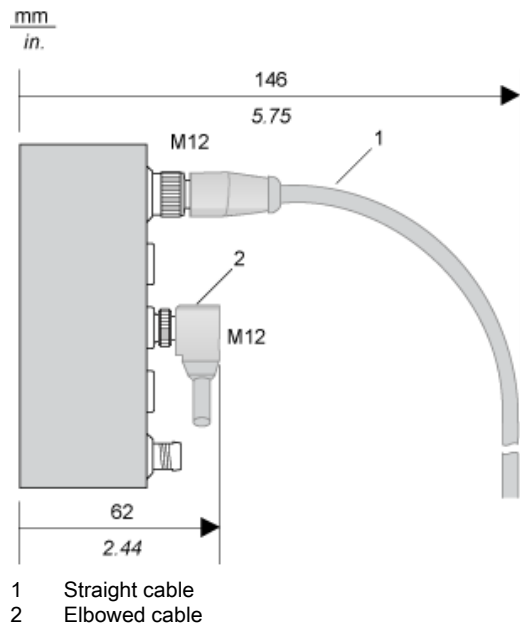
| Input connectors | Channel type | Channels |
|------------------|--------------|----------|
| 1                | Input        | I0       |
| 2                | Input        | I1       |
| 3                | Input        | I2       |
| 4                | Input        | I3       |

TM7 Block, Size 1

Dimensions

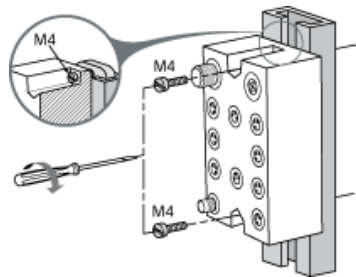


## Spacing Requirements



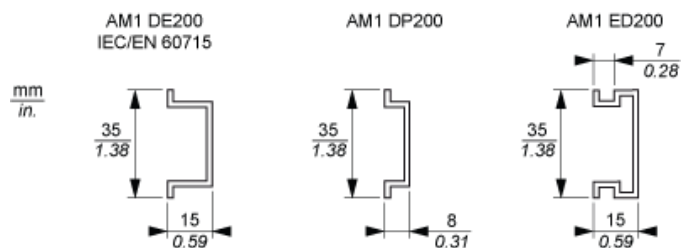
## Installation Guidelines

### TM7 Block on an Aluminium Frame



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

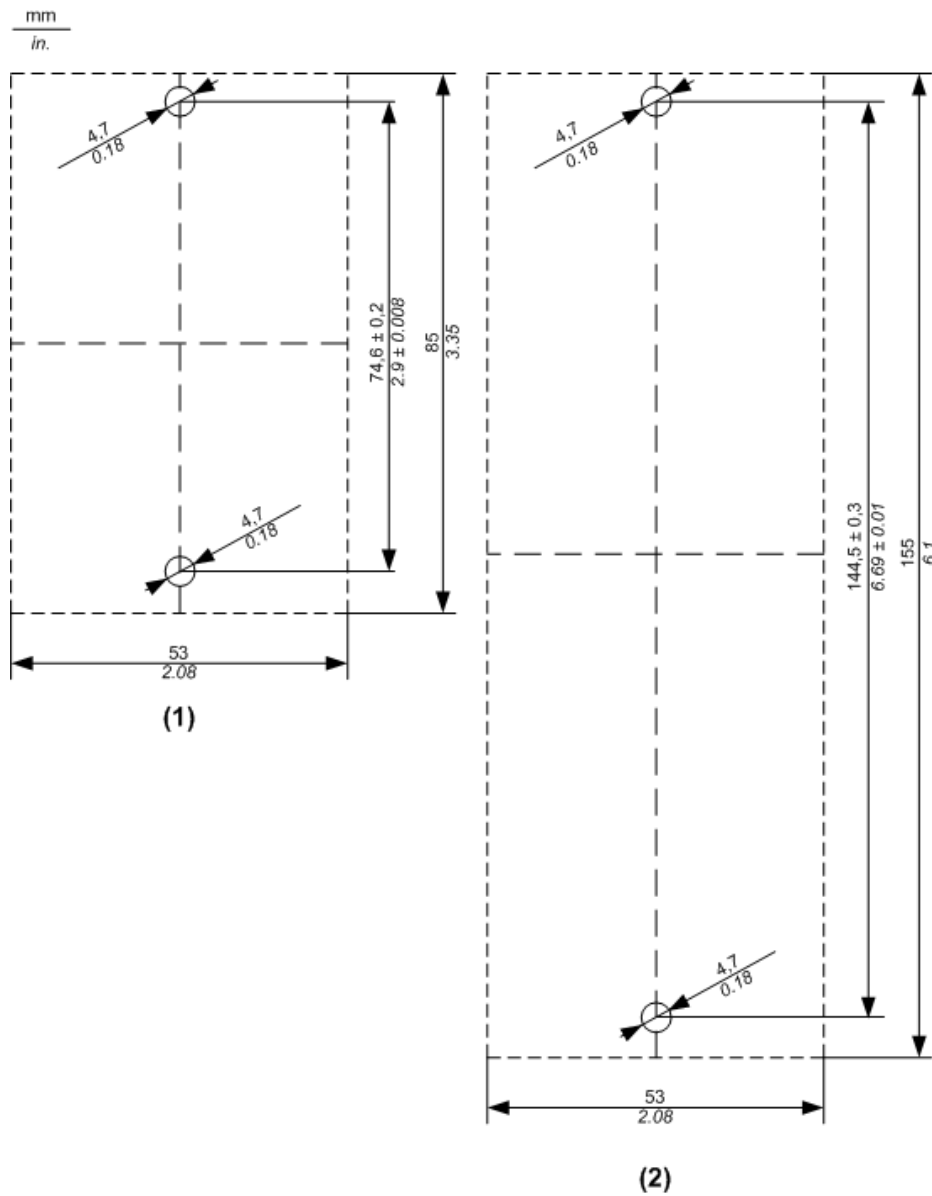
### TM7 Block on a DIN Rail



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

## TM7 Block Directly on the Machine

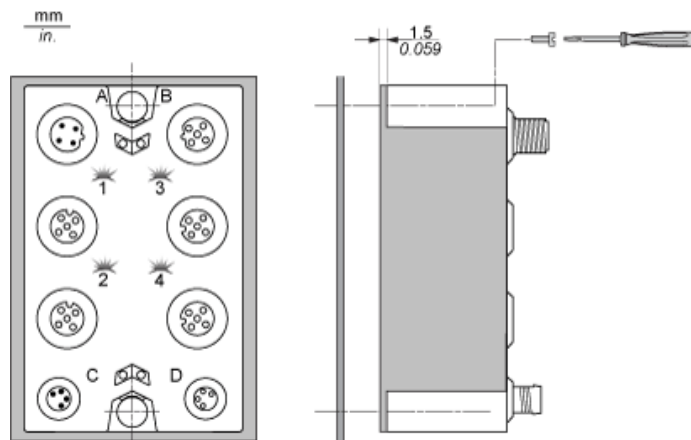
Drilling template of the block:



(1) Size 1

(2) Size 2

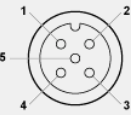
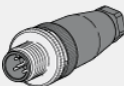
The thickness of the base plate should be taken into consideration when defining the screw length.



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

Wiring Diagram

Pin Assignments

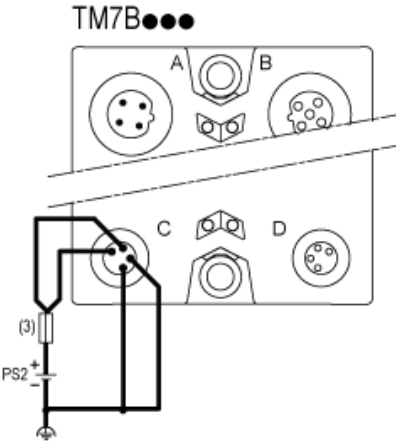
| Pin | M12 input connectors                                                              | TM7ACTHA thermocouple plug                                                        |
|-----|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|     |  |  |
| 1   | N.C.                                                                              | Temperature compensation input                                                    |
| 2   | Analog input +                                                                    | Analog input +                                                                    |
| 3   | 0 Vdc                                                                             | 0 Vdc                                                                             |
| 4   | Analog input -                                                                    | Analog input -                                                                    |
| 5   | Shield                                                                            | Shield                                                                            |

The TM7ACTHA thermocouple plug is used for compensation of the temperature at measurements points. The sensor to measure the terminal temperature is integrated in the thermocouple plug.

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

Product Life Status : Commercialised