# Product data sheet

Specifications



## distributed analog input Modicon Momentum - 16 Input

170AAI14000

**Product availability: Stock - Normally stocked in distribution facility**

## Main

| | |
|---|---|
| **Range of Product** | Modicon Momentum automation platform |
| **Product or Component Type** | Analogue input base |
| **Analogue input number** | 16 |
| **Type of filter** | Low pass input filter 10 kHz |

## Complementary

| | |
|---|---|
| **Data format** | Full 16 bits signed |
| **Absolute accuracy error** | +/- 0.15 % of full scale 77 °F (25 °C) +/- 10 V<br>+/- 0.15 % of full scale 77 °F (25 °C) +/- 5 V<br>+/- 0.25 % full scale 77 °F (25 °C) 4...20 mA<br>+/- 0.25 % full scale 140 °F (60 °C) +/- 10 V<br>+/- 0.25 % full scale 140 °F (60 °C) +/- 5 V<br>+/- 0.45 % full scale 140 °F (60 °C) 4...20 mA |
| **Full scale** | 10 V +/- 10 V<br>16 mA 4...20 mA<br>5 V +/- 5 V |
| **Update time** | 25 ms |
| **Permissible common mode voltage** | 100 V 47...63 Hz DC between channels to ground<br>250 V 47...63 Hz AC between channels to ground |
| **External power requirement** | +/- 30 V DC |
| **Reverse polarity protection** | Internal |
| **Analogue input type** | Single ended 4...20 mA<br>Single ended +/- 10 V<br>Single ended +/- 5 V |
| **Analogue input resolution** | 12 bits 4...20 mA<br>12 bits + sign +/- 10 V<br>12 bits + sign +/- 5 V |
| **Input impedance** | < 0.25 Ohm<br>> 2200 kOhm |
| **Temperature drift** | 30 %oFS/°C +/- 10 V<br>60 %oFS/°C 4...20 mA |
| **Typical current consumption** | 305 mA 24 V DC |
| **Power dissipation in W** | 5.55 W |
| **Isolation between channels and ground** | 1780 V AC |
| **Electrical connection** | 2 connectors for removable terminal blocks |
| **Protection type** | Internal 2 A slow-blow |
| **Associated fuse rating** | 500 mA, fast blow |
| **Local signalling** | 16 LEDs channel status |

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: 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

| | |
|---|---|
| **Height** | 4.9 in (125 mm) |
| **Width** | 5.6 in (141.5 mm) |
| **Depth** | 1.9 in (47.5 mm) |
| **Net Weight** | 0.474 lb(US) (0.215 kg) |

## Environment

| | |
|---|---|
| **Protective treatment** | TC |
| **Marking** | CE |
| **Product certifications** | UL<br>FM Class 1 Division 2<br>CSA |
| **Ambient air temperature for operation** | 32…140 °F (0…60 °C) |
| **Ambient air temperature for storage** | -40…185 °F (-40…85 °C) |
| **Relative humidity** | 0…95 % without condensation |
| **Operating altitude** | <= 16404.2 ft (5000 m) |

## Ordering and shipping details

| | |
|---|---|
| **Category** | US1PC3118206 |
| **Discount Schedule** | PC31 |
| **GTIN** | 3595861147690 |
| **Returnability** | Yes |
| **Country of origin** | ID |

## Packing Units

| | |
|---|---|
| **Unit Type of Package 1** | PCE |
| **Nbr. of units in pkg.** | 1 |
| **Package 1 Height** | 2.165 in (5.500 cm) |
| **Package 1 Width** | 7.087 in (18.000 cm) |
| **Package 1 Length** | 10.236 in (26.000 cm) |
| **Package weight(Lbs)** | 13.545 oz (384.000 g) |
| **Unit Type of Package 2** | S03 |
| **Number of Units in Package 2** | 10 |
| **Package 2 Height** | 11.811 in (30.000 cm) |
| **Package 2 Width** | 11.811 in (30.000 cm) |
| **Package 2 Length** | 15.748 in (40.000 cm) |
| **Package 2 Weight** | 8.488 lb(US) (3.850 kg) |

## Contractual warranty

| | |
|---|---|
| **Warranty (in months)** | 18 |

## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

### Environmental footprint

| | |
|---|---|
| Total lifecycle Carbon footprint | **266 kg CO2 eq.** |
| Carbon footprint of the manufacturing phase [A1 to A3] | **124 kg CO2 eq.** |
| Carbon footprint of the distribution phase [A4] | **0.1 kg CO2 eq.** |
| Carbon footprint of the installation phase [A5] | **0.2 kg CO2 eq.** |
| Carbon footprint of the use phase [B2, B3, B4, B6] | **141 kg CO2 eq.** |
| Carbon footprint of the end-of-life phase [C1 to C4] | **0.5 kg CO2 eq.** |
| Environmental Disclosure | **Product Environmental Profile** |

## Use Better

### Materials and Substances

| | |
|---|---|
| Packaging made with recycled cardboard | **Yes** |
| Packaging without single use plastic | **No** |
| SCIP Number | **441d5619-6318-4bbf-ac83-96d05888ee7e** |
| EU RoHS Directive | **Compliant By Exemption** |
| REACh Regulation | **Reference contains Substances of Very High Concern above the threshold** |
| 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 www.P65Warnings.ca.gov** |

## Use Again

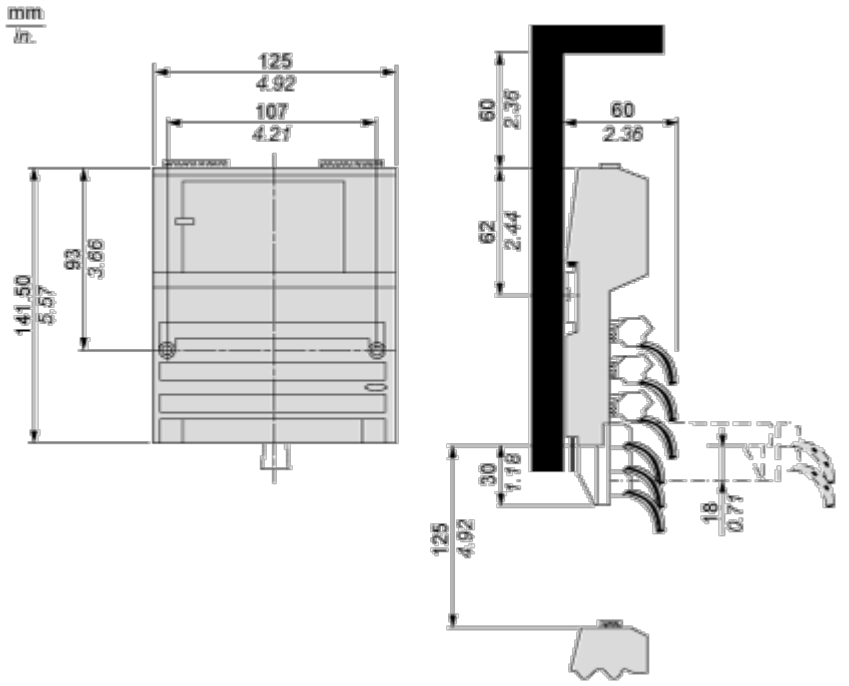
### Repack and remanufacture

| | |
|---|---|
| Recyclability potential, in % | **4** |
| Circularity Profile | **End of Life Information** |
| Take-back | **No** |

Dimensions Drawings

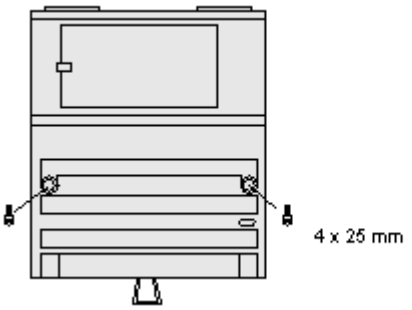
## Standard Adapter on a Typical Base

### Dimensions



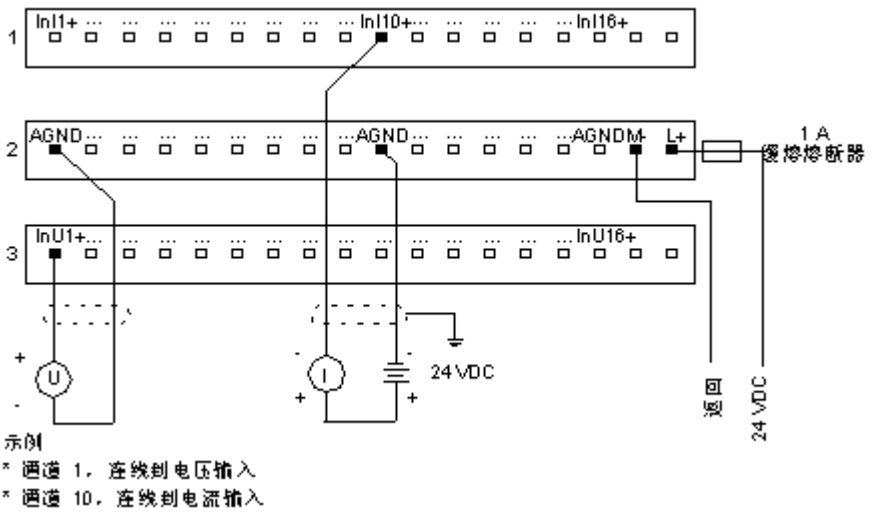
Mounting and Clearance

## Mounting on a Wall



Connections and Schema

**External Wiring Diagram**



## Internal Pin Connections

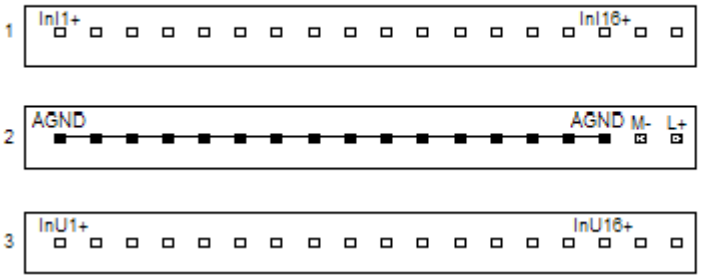
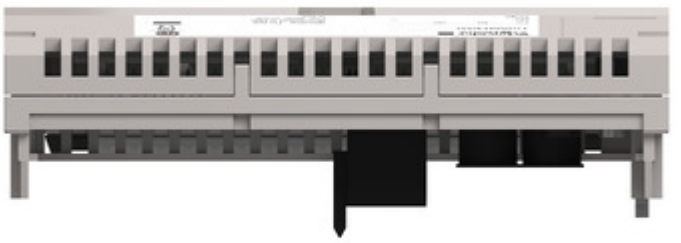
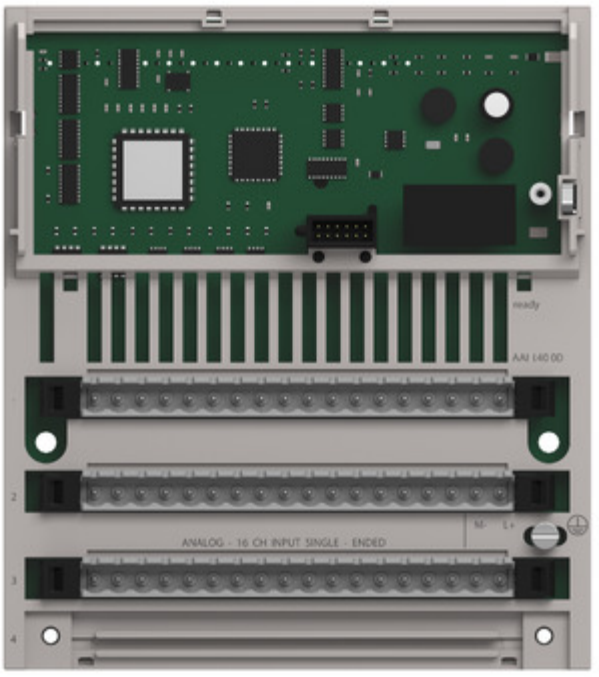


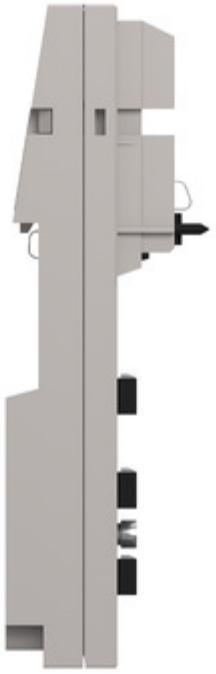
Image of product / Alternate images

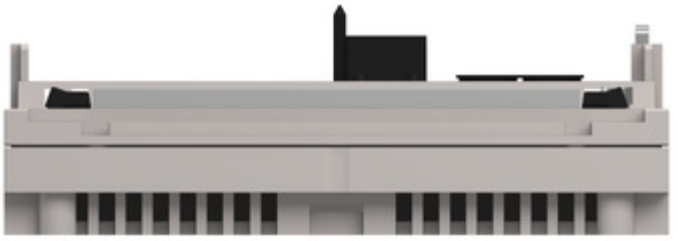
**Alternative**

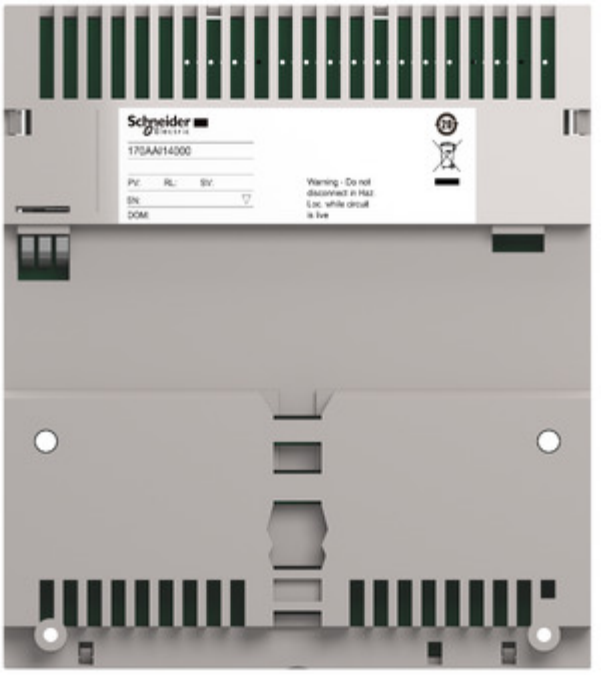





ready
AAI 140 00
ANALOG - 16 CH INPUT SINGLE - ENDED






Schneider Electric
170AAI14000
Warning - Do not disconnect in Haz. Loc. while circuit is live