

# Product datasheet

Specifications



## standard analog input kit STB - 0..20 mA - 2 I - 12 bits

Local distributor code: 389838540    STBACI1230K

### Main

|                           |                                                                                                                                      |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Range of product          | Modicon STB distributed I/O solution                                                                                                 |
| Product or component type | Standard analog input kit                                                                                                            |
| Kit composition           | STBACI1230 module<br>STBXBA1000 base<br>STBXTS2100, 6-terminal spring clamp connector<br>STBXTS1100, 6-terminal screw type connector |
| Analogue input type       | Current 0...20 mA                                                                                                                    |
| Analogue input number     | 2                                                                                                                                    |
| Analogue input resolution | 12 bits                                                                                                                              |
| Type of filter            | Single low pass input filter 25 Hz                                                                                                   |

### Complementary

|                                            |                                                       |
|--------------------------------------------|-------------------------------------------------------|
| Absolute maximum input                     | 25 mA/50 V DC                                         |
| Response time                              | 5 ms                                                  |
| Cold swapping                              | Yes                                                   |
| Hot swapping fallback                      | Yes for standard NIMs                                 |
| Fallback status                            | State 0 basic NIMs<br>User configurable standard NIMs |
| Data format                                | EN 61131-2<br>IEC 61131-2                             |
| Update time                                | 10 ms                                                 |
| Integral linearity                         | +/- 0.1 %FS                                           |
| Differential linearity                     | Monotonic                                             |
| Input impedance                            | <= 300 Ohm                                            |
| Maximum supply current for sensors         | 100 mA per input channels                             |
| Protection type                            | Short-circuit protection                              |
| Absolute accuracy error                    | +/- 0.5 % of full scale 25 °C                         |
| Temperature drift                          | +/-0.01 %/°C                                          |
| Insulation between channels and logic bus  | 1500 V for 1 minute                                   |
| Insulation between channels and sensor bus | 30 V                                                  |

|                           |                                                                       |
|---------------------------|-----------------------------------------------------------------------|
| Addressing requirement    | 4 input words                                                         |
| Product compatibility     | Power distribution module STBPDT3100/3105<br>Mounting base STBXBA1000 |
| [Us] rated supply voltage | 24 V DC                                                               |
| Supply                    | Power distribution module                                             |
| Current consumption       | 30 mA at 5 V DC for logic bus                                         |
| Marking                   | CE                                                                    |
| Overvoltage category      | II                                                                    |
| Status LED                | 1 LED (green) module status (RDY)<br>1 LED (red) module error (ERR)   |
| Depth                     | 70 mm                                                                 |
| Height                    | 13.9 mm                                                               |
| Width                     | 128.3 mm                                                              |
| Net weight                | 0.116 kg                                                              |

## Environment

|                                       |                                                                                                                                               |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Product certifications                | C-Tick<br>UL<br>CSA<br>FM Class 1 Division 2<br>ATEX Cat 3G                                                                                   |
| Pollution degree                      | 2 conforming to IEC 60664-1                                                                                                                   |
| Operating altitude                    | <= 2000 m                                                                                                                                     |
| IP degree of protection               | IP20 conforming to EN 61131-2 class 1                                                                                                         |
| Ambient air temperature for operation | -25...70 °C                                                                                                                                   |
| Ambient air temperature for operation | 32...140 °F without derating                                                                                                                  |
| Ambient air temperature for storage   | -40...85 °C without derating                                                                                                                  |
| Ambient air temperature for storage   | -40...185 °F without derating                                                                                                                 |
| Relative humidity                     | 95 % at 60 °C without condensation                                                                                                            |
| Vibration resistance                  | +/-0.35 mm at 10...58 Hz<br>3 gn at 58...150 Hz on 35 x 7.5 mm symmetrical DIN rail<br>5 gn at 58...150 Hz on 35 x 15 mm symmetrical DIN rail |
| Shock resistance                      | 30 gn for 11 ms conforming to IEC 88 reference 2-27                                                                                           |

## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Weight             | 120.0 g   |
| Package 1 Height             | 2.685 cm  |
| Package 1 width              | 8.118 cm  |
| Package 1 Length             | 13.189 cm |
| Unit Type of Package 2       | S02       |
| Number of Units in Package 2 | 28        |
| Package 2 Weight             | 4.43 kg   |
| Package 2 Height             | 15 cm     |
| Package 2 width              | 30 cm     |

|                  |       |
|------------------|-------|
| Package 2 Length | 40 cm |
|------------------|-------|

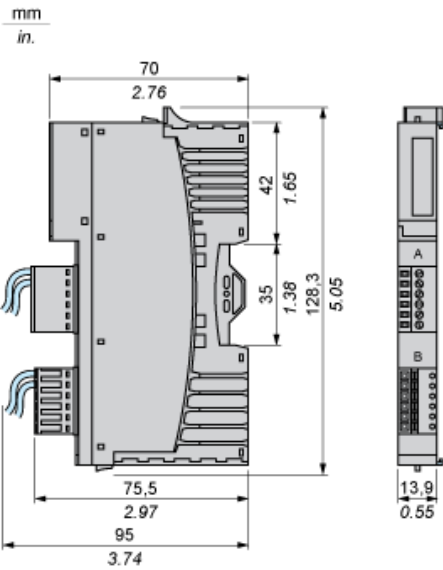
Offer Sustainability

|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                       |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                           |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)<br><a href="#">EU RoHS Declaration</a>                           |
| 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 |

Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

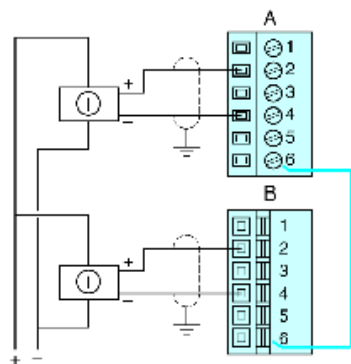
Dimensions



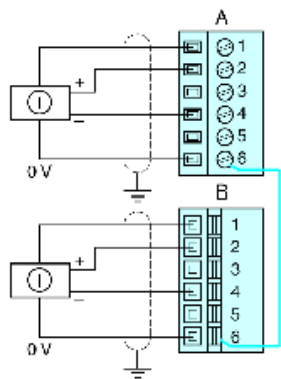
Wiring Diagrams

Examples

2 isolated analog sensors, external 24 VDC power supply



2 non-isolated analog sensors, 24 VDC supplied by the PDM



| Pin | Top Connections                                           | Bottom Connections                                        |
|-----|-----------------------------------------------------------|-----------------------------------------------------------|
| 1   | +24 VDC from field power bus for field device accessories | +24 VDC from field power bus for field device accessories |
| 2   | input from sensor 1                                       | input from sensor 2                                       |
| 3   | no connection                                             | no connection                                             |
| 4   | analog input return                                       | analog input return                                       |
| 5   | no connection                                             | no connection                                             |
| 6   | field power return (to the module)                        | field power return (to the module)                        |