

# Product data sheet

Specifications



## Discrete Input Module + Base, 16 In, 24V DC, Sink, 1 Wire, Modicon Edge I/O NTS

NTSDDI1602K

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

### Main

|                           |                                                                       |
|---------------------------|-----------------------------------------------------------------------|
| Range of Product          | Modicon Edge I/O NTS                                                  |
| Product or Component Type | Discrete input module kit                                             |
| Kit composition           | NTSDDI1602 module<br>NTSXBA0100H base                                 |
| Mandatory accessory       | NTSXTB18_0_H terminal block                                           |
| Product Compatibility     | NTSN.....                                                             |
| Range Compatibility       | Logic/motion controller - Modicon M262<br>Modicon M580<br>Third party |
| Device Application        | Industrial Application                                                |
| Discrete input number     | 16                                                                    |
| Group of input channels   | 1 group                                                               |
| Discrete input voltage    | 24 V DC                                                               |
| Discrete input logic      | Positive logic (sink)                                                 |
| Operating Mode            | Synchronous/Isochronous                                               |

### Complementary

|                            |                                                                                                                                                                                      |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Discrete input number      | 16 type 3 conforming to IEC 61131-2                                                                                                                                                  |
| Input wiring mode          | 1 wire                                                                                                                                                                               |
| Discrete input current     | 2.5 mA                                                                                                                                                                               |
| Voltage state 1 guaranteed | 11...30 V DC                                                                                                                                                                         |
| Voltage state 0 guaranteed | < 5 V DC                                                                                                                                                                             |
| Current state 1 guaranteed | >= 2 mA                                                                                                                                                                              |
| Current state 0 guaranteed | <= 1.5 mA                                                                                                                                                                            |
| Input impedance            | 9.6 kOhm                                                                                                                                                                             |
| Response time on input     | < 125 µs (off to on)<br>< 125 µs (on to off)                                                                                                                                         |
| Input filtering            | 0...20 ms configurable in 0.1 ms step                                                                                                                                                |
| Paralleling of inputs      | Yes                                                                                                                                                                                  |
| Input protection type      | Over voltage protection                                                                                                                                                              |
| Input diagnostic           | Power supply error per channel                                                                                                                                                       |
| Power supply type          | Bus power from power supply bus (24 Vdc)<br>Field power from common distribution module (24 Vdc)<br>Optional field power from external power supply (24 Vdc, shared 0 V with module) |

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

|                                       |                                                                                                                                                      |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated operational voltage limits      | 20.4...28.8 V DC                                                                                                                                     |
| Typical current consumption           | 40.8 mA 24 V DC on the Bus current<br>13.2 mA 24 V DC on the internal field current minimum<br>15.8 mA 24 V DC on the internal field current maximum |
| Power dissipation in W                | 2.2 W maximum at 24 V DC                                                                                                                             |
| Isolation between channels and bus    | 1500 V AC                                                                                                                                            |
| Isolation between channels and ground | 1500 V AC                                                                                                                                            |
| Hot swapping fallback                 | Yes                                                                                                                                                  |
| Local signalling                      | 1 LED (green) for module operating (RUN)<br>1 LED per channel (green) for channel diagnostic<br>1 LED (red) for module error (ERR)                   |
| Housing Colour                        | Grey                                                                                                                                                 |
| Mounting support                      | Top hat type TH35-7.5 IEC 60715<br>Top hat type TH35-15 IEC 60715                                                                                    |
| Height                                | 3.9 in (100 mm)                                                                                                                                      |
| Width                                 | 0.6 in (15 mm)                                                                                                                                       |
| Depth                                 | 3.1 in (80 mm)                                                                                                                                       |
| Net Weight                            | 0.161 lb(US) (0.073 kg)                                                                                                                              |

## Environment

|                                       |                                                                                                                                                                                                         |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP Degree of Protection               | IP20                                                                                                                                                                                                    |
| Marking                               | CE<br>UKCA<br>CULus<br>RCM                                                                                                                                                                              |
| Product certifications                | CE<br>UKCA<br>CULus<br>RCM<br>Merchant Navy - EU RO MR (pending)<br>EAC (pending)<br>ATEX Zone 2 (pending)<br>IECEx zone 2 (pending)<br>CCC Ex zone 2 (pending)                                         |
| Standards                             | EN/IEC 61131-2<br>EN 61010-2-201<br>UL 61010-2-201<br>IACS E10<br>EN/IEC 61000-6-5, interface type 1 and type 2<br>EN/IEC 61850-3, location G<br>EN/IEC 60079-0<br>EN 50155<br>EN 50121-4<br>EN 50121-5 |
| Directives                            | 2014/30/EU - electromagnetic compatibility<br>2014/34/EU - ATEX directive<br>2014/35/EU                                                                                                                 |
| Ambient air temperature for operation | -4...140 °F (-20...60 °C) derating of channel numbers above 55 °C to 12 channels for 24 vdc at 60 °C                                                                                                    |
| Ambient air temperature for storage   | -40...185 °F (-40...85 °C)                                                                                                                                                                              |
| Relative humidity                     | 5...95 % without condensation                                                                                                                                                                           |
| Operating altitude                    | 0...6561.68 ft (0...2000 m) without derating<br>2000...5000 m with derating                                                                                                                             |
| Pollution degree                      | 2                                                                                                                                                                                                       |
| Environmental characteristic          | Gas resistant C3 and G2                                                                                                                                                                                 |

|                      |                                        |
|----------------------|----------------------------------------|
| Vibration resistance | 1 g without accessory                  |
|                      | 2 g with accessory                     |
| Shock resistance     | 15 g 11 ms with and without accessory) |

## Ordering and shipping details

|                   |               |
|-------------------|---------------|
| Category          | US1PC3318214  |
| Discount Schedule | PC33          |
| GTIN              | 3606486877616 |
| Returnability     | Yes           |
| Country of origin | ID            |

## Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Nbr. of units in pkg.        | 1                       |
| Package 1 Height             | 1.600 in (4.064 cm)     |
| Package 1 Width              | 3.700 in (9.398 cm)     |
| Package 1 Length             | 4.900 in (12.446 cm)    |
| Package weight(Lbs)          | 3.520 oz (99.790 g)     |
| Unit Type of Package 2       | CAR                     |
| Number of Units in Package 2 | 16                      |
| Package 2 Height             | 5.900 in (14.986 cm)    |
| Package 2 Width              | 5.900 in (14.986 cm)    |
| Package 2 Length             | 15.600 in (39.624 cm)   |
| Package 2 Weight             | 4.019 lb(US) (1.823 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 |                                               |
|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Carbon footprint (kg CO2 eq, Total Life cycle)                                                            | 28                                            |
| Environmental Disclosure                                                                                  | <a href="#">Product Environmental Profile</a> |

Use Better

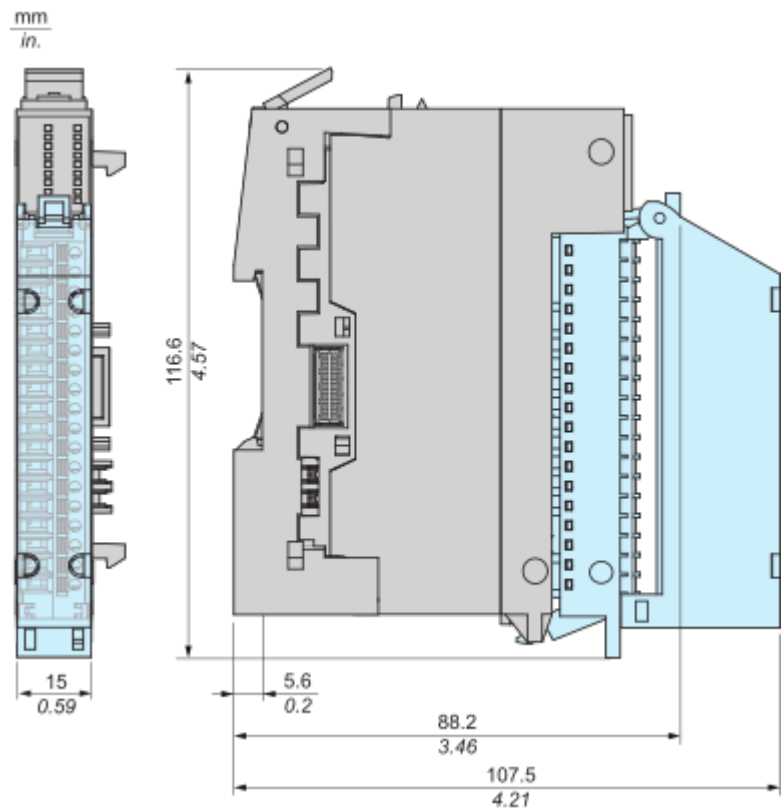
|  Materials and Substances |                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Packaging made with recycled cardboard                                                                     | No                                                                                                                                                                                                                                                                                          |
| Packaging without single use plastic                                                                       | No                                                                                                                                                                                                                                                                                          |
| <a href="#">EU RoHS Directive</a>                                                                          | Pro-active compliance (Product out of EU RoHS legal scope)                                                                                                                                                                                                                                  |
| REACH Regulation                                                                                           | <a href="#">REACH Declaration</a>                                                                                                                                                                                                                                                           |
| 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> |

Use Again

|  Repack and remanufacture |                                         |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Circularity Profile                                                                                          | <a href="#">End of Life Information</a> |
| Take-back                                                                                                    | No                                      |

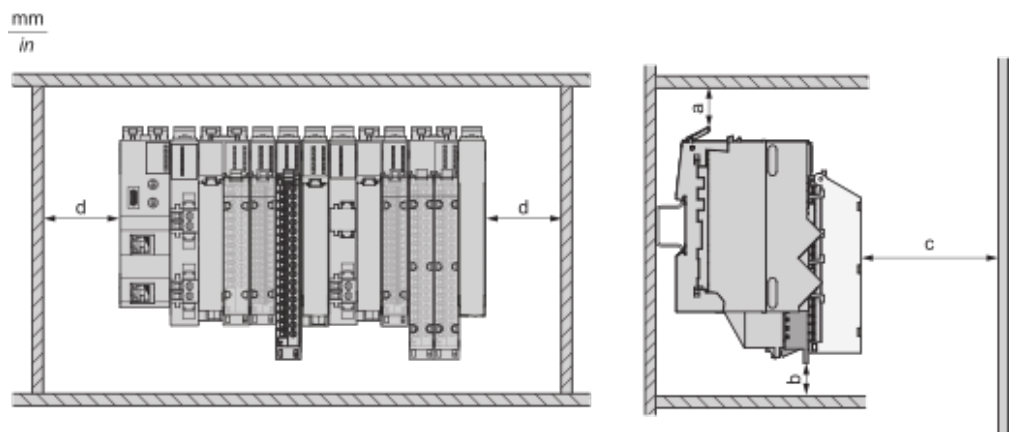
Dimensions Drawings

Dimensions



Mounting and Clearance

Minimum clearances

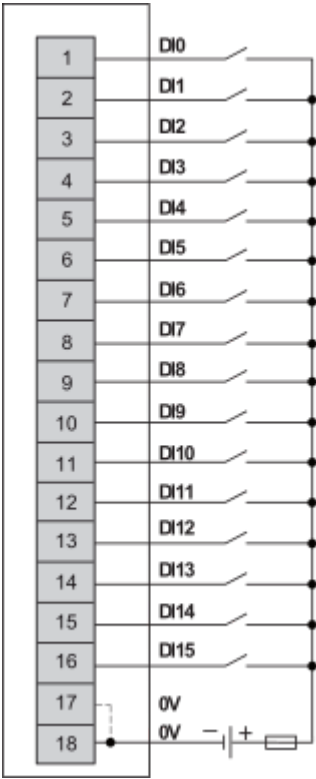


a : 50 mm (1.97 in) b : Without EMC kit: 25 mm (0.98 in), with EMC 55 kit: 55 mm (2.16 in) c : 80 mm (3.15 in ) d : 25 mm (0.98 in)

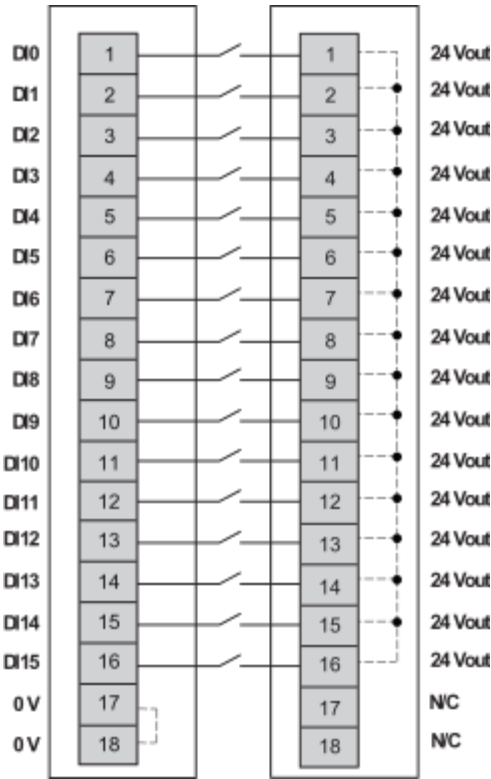
Connections and Schema

Wiring

1-wire connection (with external power supply)



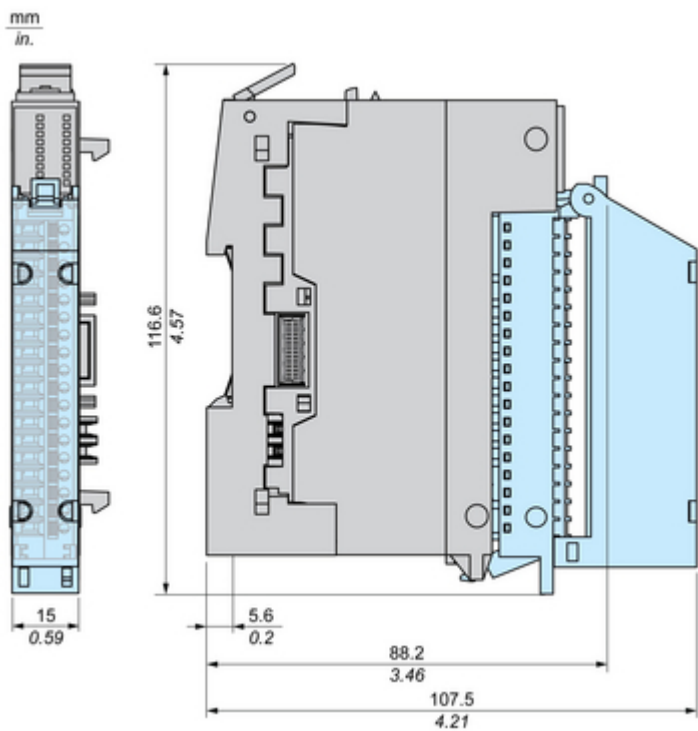
1-wire connection (with common module)





Technical Illustration

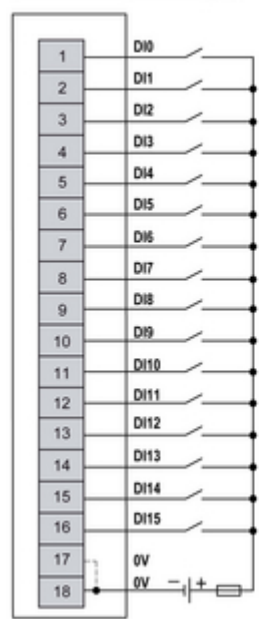
Dimensions



Technical Illustration

Wiring diagram

1-wire connection  
(with external power supply)



1-wire connection  
(with common module)

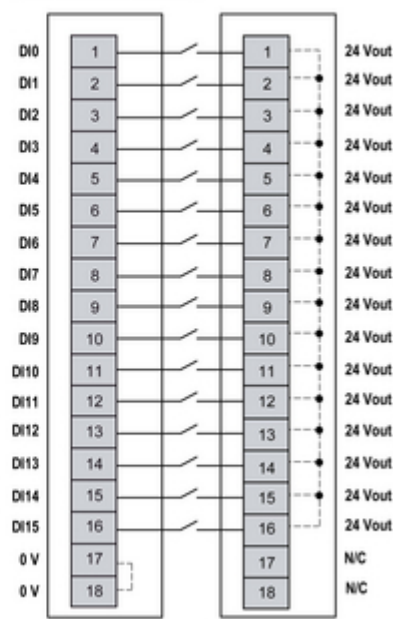
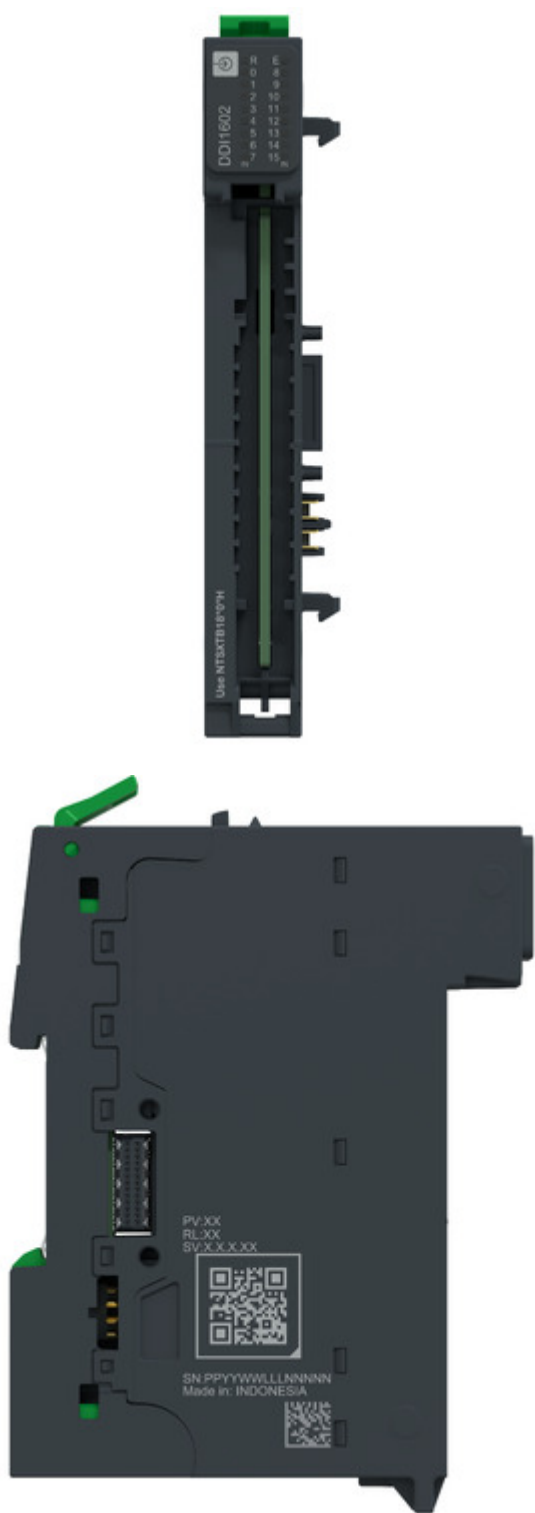


Image of product / Alternate images

Alternative

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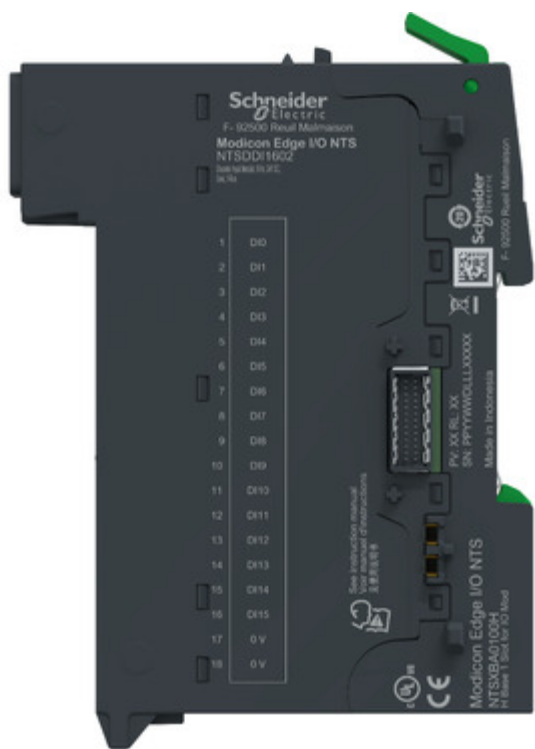




Image of product in real life situation

