

Product data sheet

Specifications



Discrete Input Module + Base, 16 In, 24V DC, Sink, 1/2/3 Wires, Hardened, Modicon Edge I/O NTS

NTSDDI1602XHK

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	NTSDDI1602XH module NTSXBA0100H base
Mandatory accessory	2x NTSXTB18_0_XH terminal block
Product Compatibility	NTSN.....
Range Compatibility	Logic/motion controller - Modicon M262 Modicon M580 Third party
Device Application	Industrial application in severe environment
Discrete input number	16
Group of input channels	4 groups of 4 channels
Discrete input voltage	24 V DC
Discrete input logic	Positive logic (sink)
Operating Mode	Synchronous/Isochronous

Complementary

Discrete input compatibility	16 type 3 conforming to IEC 61131-2
Input wiring mode	1, 2 or 3 wires
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	< 90 µs (off to on) < 60 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 Over current protection on sensor supply Reverse polarity protection
Input diagnostic	Power supply error per channel Sensor power supply error per channel

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

Power supply type	Bus power from power supply bus (24 Vdc) Field power from power supply field (24 Vdc) Optional field power from common distribution module (24 Vdc) Optional field power from external power supply (24 Vdc, shared 0 V with module)
Rated operational voltage limits	20.4...28.8 V DC
Typical current consumption	40.8 mA 24 V DC on the Bus current 14.4 mA 24 V DC on the internal field current minimum 517.3 mA 24 V DC on the internal field current maximum
Power dissipation in W	2.3 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) 1 LED per channel (green) for channel diagnostic 1 LED (red) for module error (ERR)
Housing Colour	Grey
Mounting support	Top hat type TH35-7.5 rail IEC 60715 Top hat type TH35-15 rail IEC 60715
Height	4.8 in (121 mm)
Width	1.2 in (30 mm)
Depth	3.1 in (80 mm)
Product Weight	0.293 lb(US) (0.133 kg)

Environment

IP Degree of Protection	IP20
Protective treatment	Conformal coating
Marking	CE UKCA CULus RCM
Product certifications	CE UKCA CULus RCM Merchant Navy - EU RO MR (pending) EAC (pending) ATEX Zone 2 (pending) IECEx zone 2 (pending) CCC Ex zone 2 (pending)
Standards	EN/IEC 61131-2 EN 61010-2-201 UL 61010-2-201 IACS E10 EN/IEC 61000-6-5, interface type 1 and type 2 EN/IEC 61850-3, location G EN/IEC 60079-0 EN 50155 EN 50121-4 EN 50121-5
Directives	2014/30/EU - electromagnetic compatibility 2014/34/EU - ATEX directive 2014/35/EU
Ambient air temperature for operation	-40...158 °F (-40...70 °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 2000...5000 m with derating
Pollution degree	2
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	3606486877623
Returnability	Yes
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	1.693 in (4.300 cm)
Package 1 Width	3.346 in (8.500 cm)
Package 1 Length	5.433 in (13.800 cm)
Package weight(Lbs)	5.926 oz (168.000 g)
Unit Type of Package 2	S01
Number of Units in Package 2	8
Package 2 Height	5.906 in (15.000 cm)
Package 2 Width	5.906 in (15.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	3.591 lb(US) (1.629 kg)

Contractual warranty

Warranty (in months)	18
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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	33 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	10 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.2 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	22 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.4 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile

Use Better



Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
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 Longer



Lifetime extension

Repair	No
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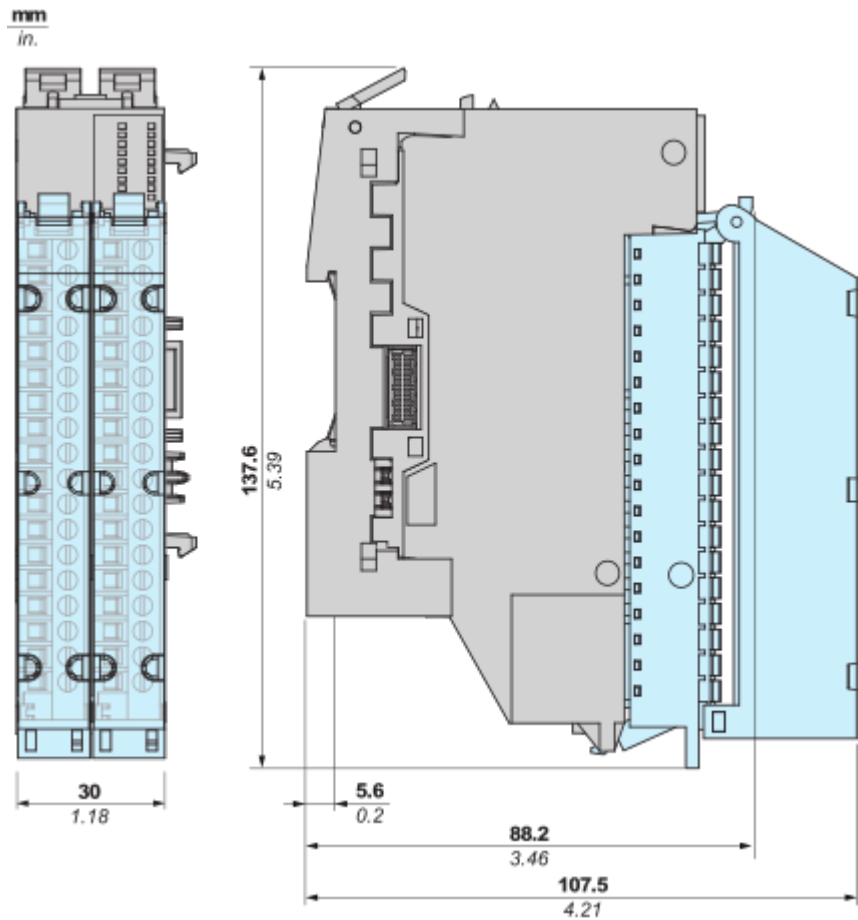
Use Again



Repack and remanufacture

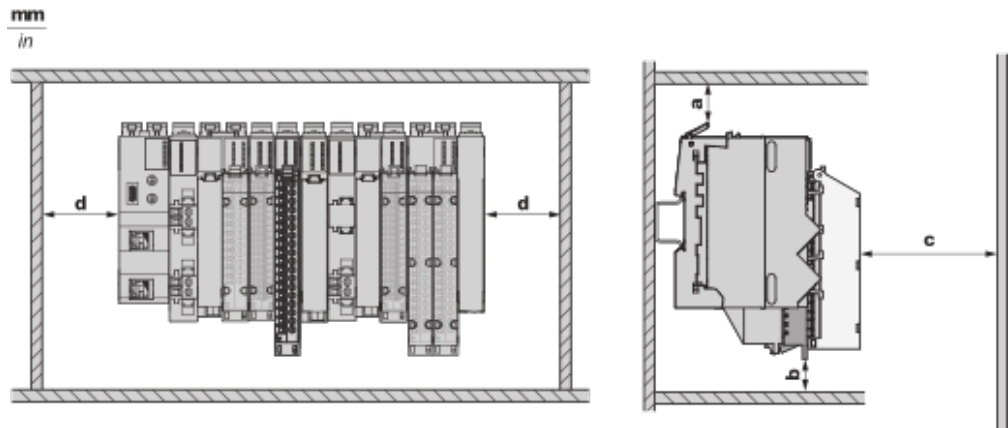
Recyclability potential, in %	0
Circularity Profile	End of Life Information
Take-back	No

Dimensions



Mounting and Clearance

Minimum clearances

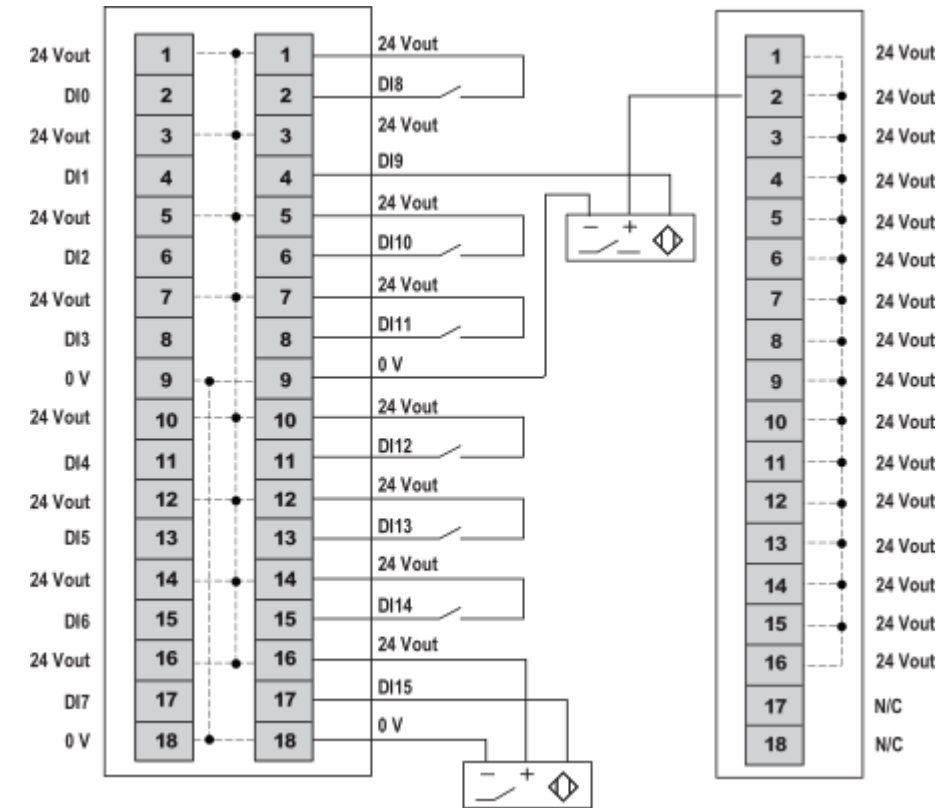


a : 50 mm (1.97 in) **b** : Without EMC kit: 25 mm (0.98 in), with EMC 55 kit: 55 mm (2.16 in) **c** : 80 mm (3.15 in) **d** : 25 mm (0.98 in)

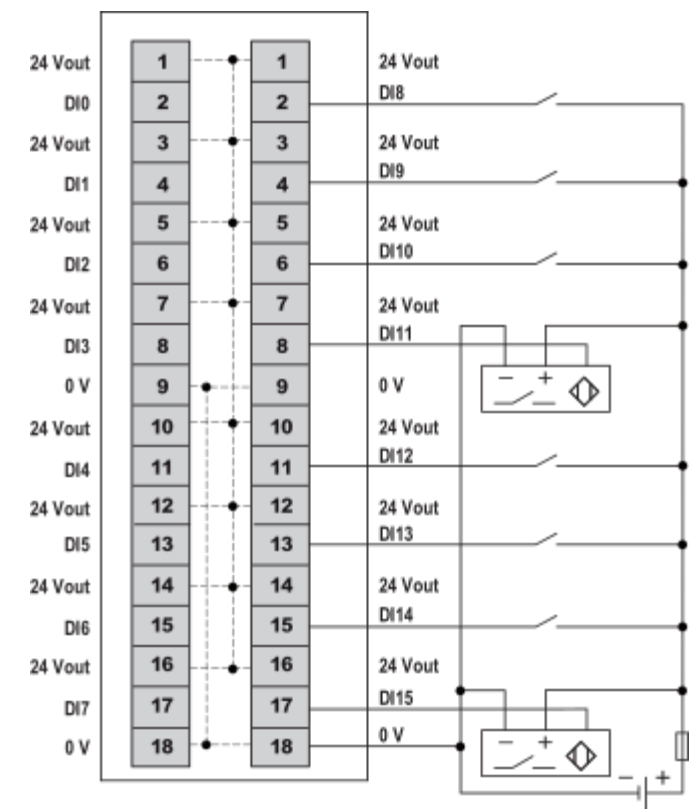
Connections and Schema

Wiring

2-wire or 3-wire connection

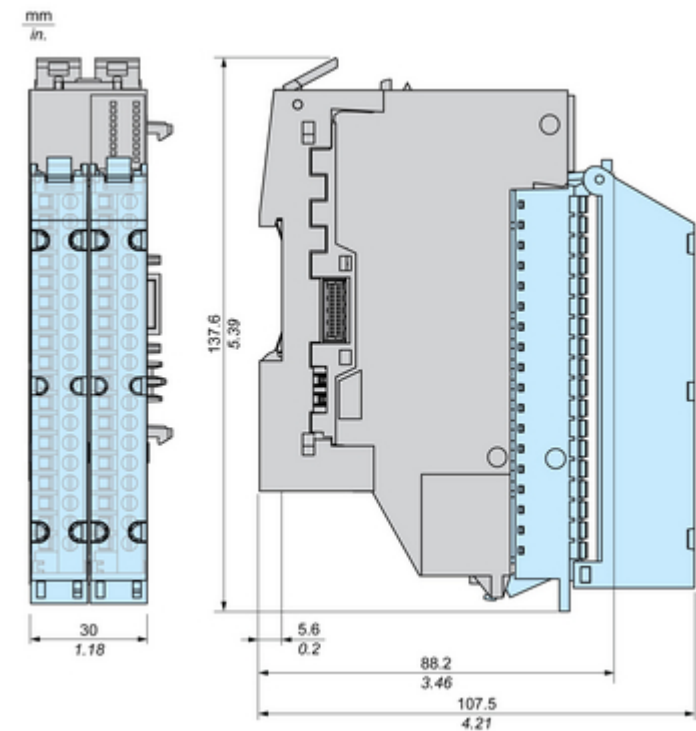


2-wire connection



Technical Illustration

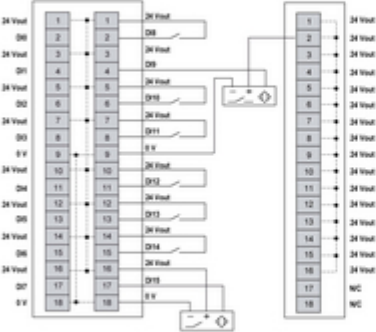
Dimensions



Technical Illustration

Wiring diagram

2-wire or 3-wire connection



2-wire connection



Image of product / Alternate images

Alternative

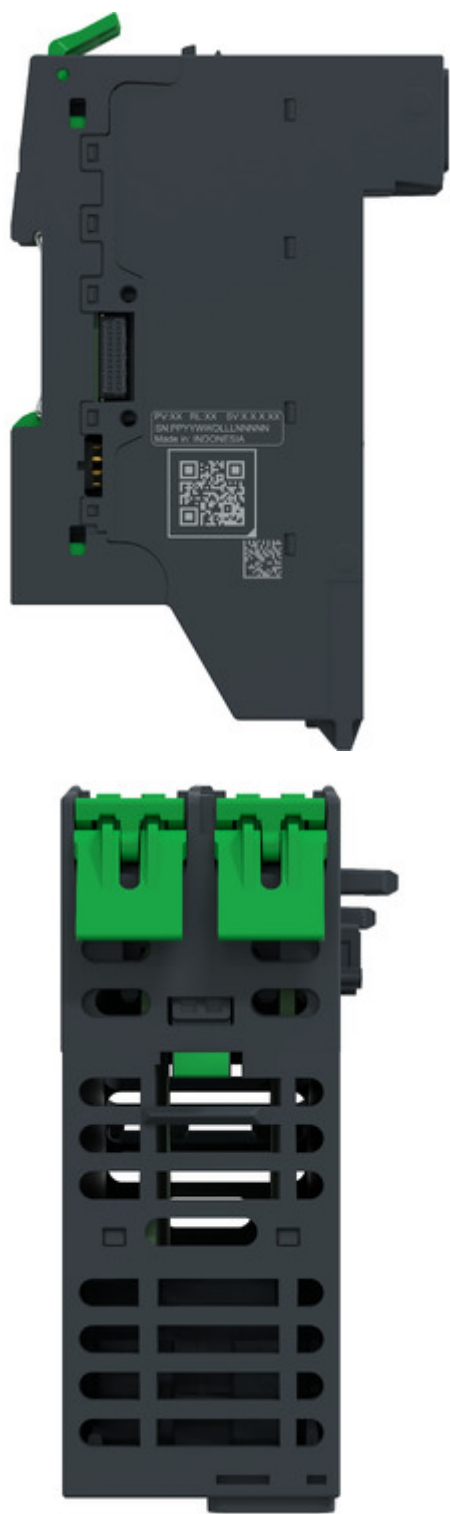






Image of product in real life situation

