Product data sheet

Specifications



Discrete Input Module + Base, 4 In, 24V DC, Sink, Diagnostics, 1/2/3 Wires, Modicon Edge I/O NTS

NTSDDI0402K

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 composition	NTSDDO0402 module NTSXBA0100H base
Mandatory accessory	NTSXTB12_0_H terminal block
Product Compatibility	NTSN.....
Range Compatibility	Logic/motion controller - Modicon M262 Modicon M580 Third party
Device Application	Industrial Application
Discrete input number	4
Group of input channels	1 group
Discrete input voltage	12 V DC 24 V DC
Discrete input logic	Positive logic (sink)
Operating Mode	Synchronous/Isochronous

Complementary

Discrete input compatibility	4 configurable type 2 or type 3 conforming to IEC 61131-2
Input wiring mode	1, 2 or 3 wires
Discrete input current	2.3 mA (type 3) 6.32 mA (type 2)
Voltage state 1 guaranteed	11...30 V DC
Voltage state 0 guaranteed	< 5 V DC
Current state 1 guaranteed	>= 2 mA (type 3) >= 6 mA (type 2)
Current state 0 guaranteed	<= 1.5 mA
Input impedance	8 kOhm 3.58 kOhm
Response time on input	< 20 µs (off to on) < 10 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

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

Input diagnostic	Power supply error per channel Broken wire error per channel Short circuit error per channel Sensor power supply error per channel
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 (12/24 Vdc, shared 0 V module)
Rated operational voltage limits	20.4...28.8 V DC
Typical current consumption	27.6 mA 24 V DC on the Bus current 1.2 mA 24 V DC on the internal field current minimum 501.4 mA 24 V DC on the internal field current maximum
Electrical Connection	Screw/spring terminal block
Power dissipation in W	1.3 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	3.9 in (100 mm)
Width	0.6 in (15 mm)
Depth	2.7 in (69 mm)
Product Weight	0.099 lb(US) (0.045 kg)

Environment

IP Degree of Protection	IP20
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	-4…140 °F (-20…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 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	3606487609964
Returnability	Yes
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	1.299 in (3.300 cm)
Package 1 Width	4.685 in (11.900 cm)
Package 1 Length	3.583 in (9.100 cm)
Package weight(Lbs)	3.527 oz (100.000 g)

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	**28 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**5 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0.1 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]	**0.2 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

Use Longer

Lifetime extension

Repair	**No**

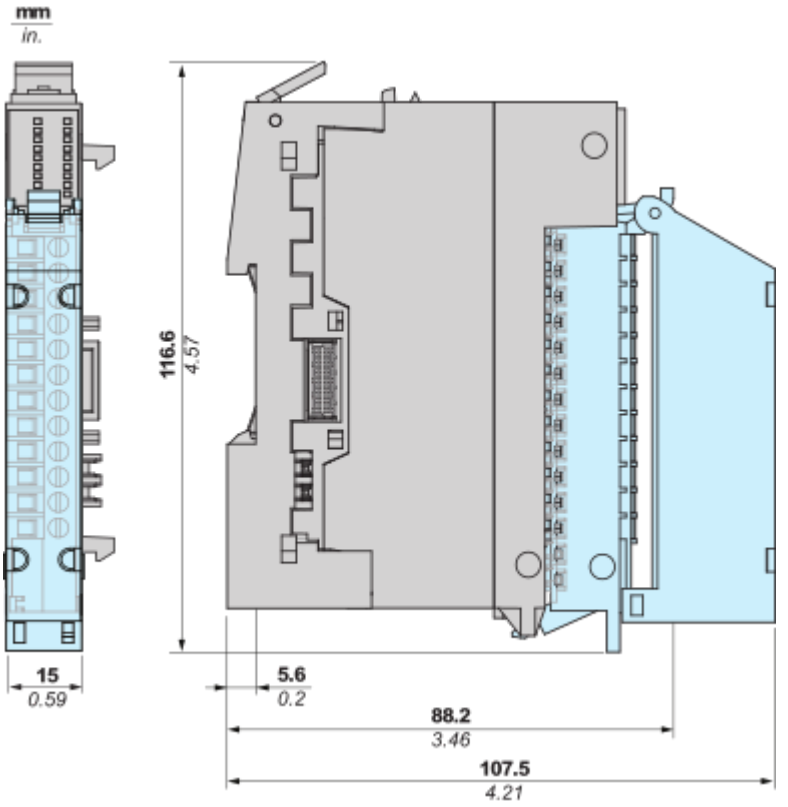
Use Again

Repack and remanufacture

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

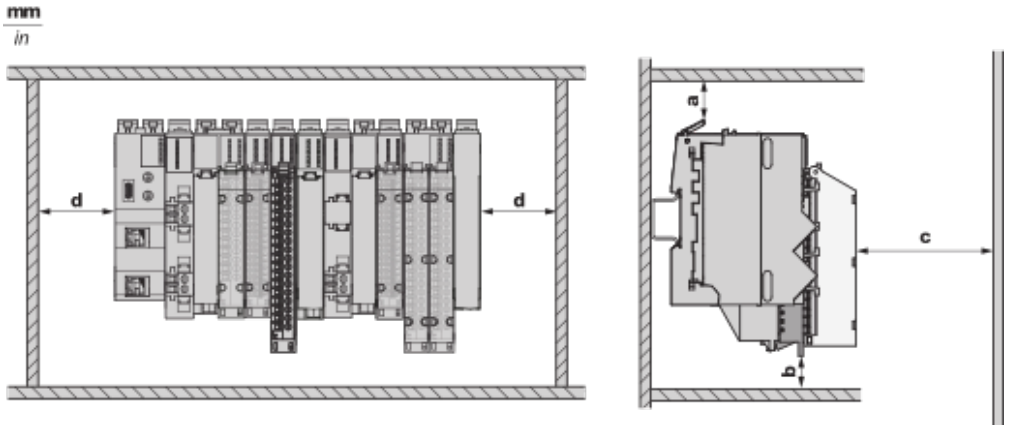
Dimensions Drawings

Dimensions



Mounting and Clearance

Minimum clearances

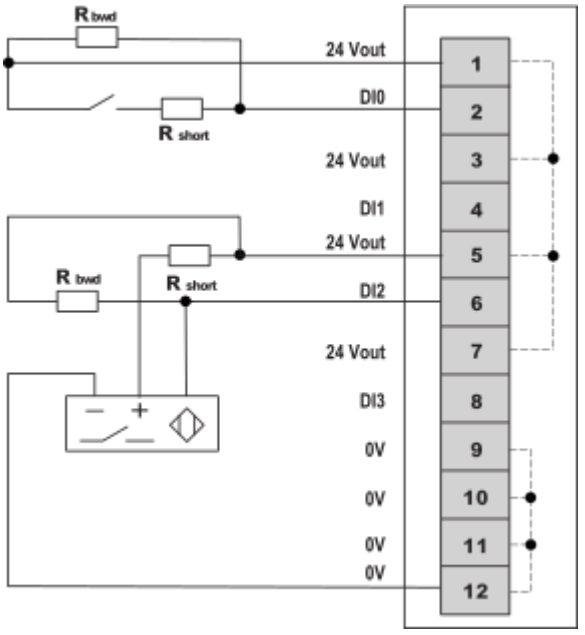


a : 50 mm (1.97 in) **b :** Without EMC kit: 25 mm (0.98 in), with EMC 55 kit: 55 mm (2.16 in) **c :** 80 mm (3.15 in) **d :** 25 mm (0.98 in)

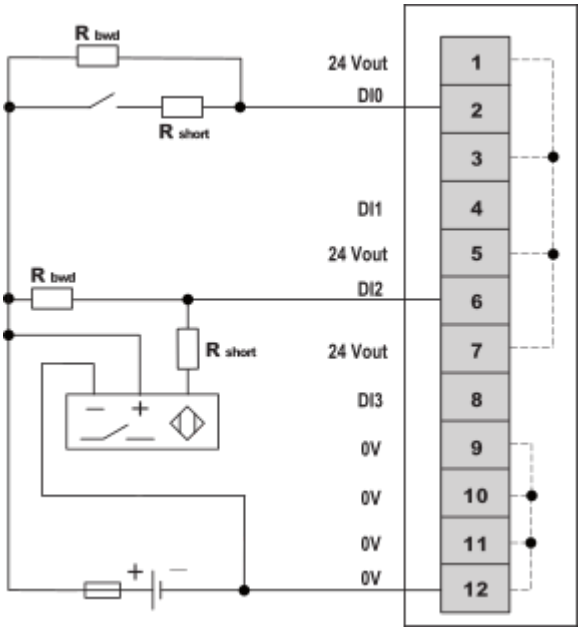
Connections and Schema

Wiring

2-wire or 3-wire connection (Sink inputs with the internal power supply)

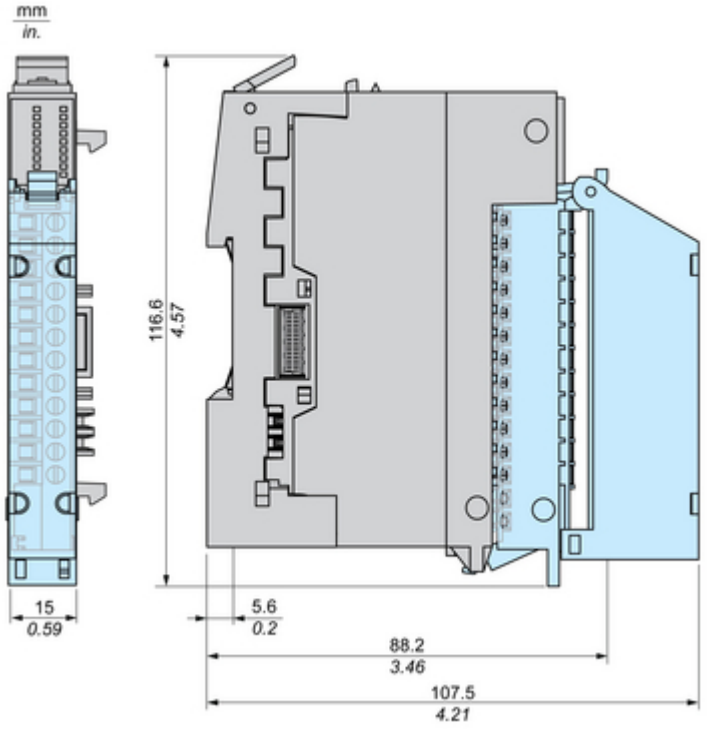


2-wire or 3-wire connection (Sink inputs with the external power supply)



Technical Illustration

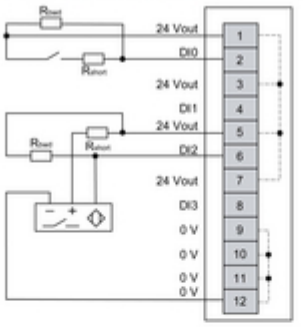
Dimensions



Technical Illustration

Wiring diagram

2-wire or 3-wire connection (Sink inputs with the internal power supply)



2-wire or 3-wire connection (Sink inputs with the external power supply)

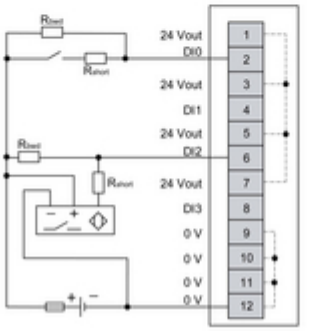
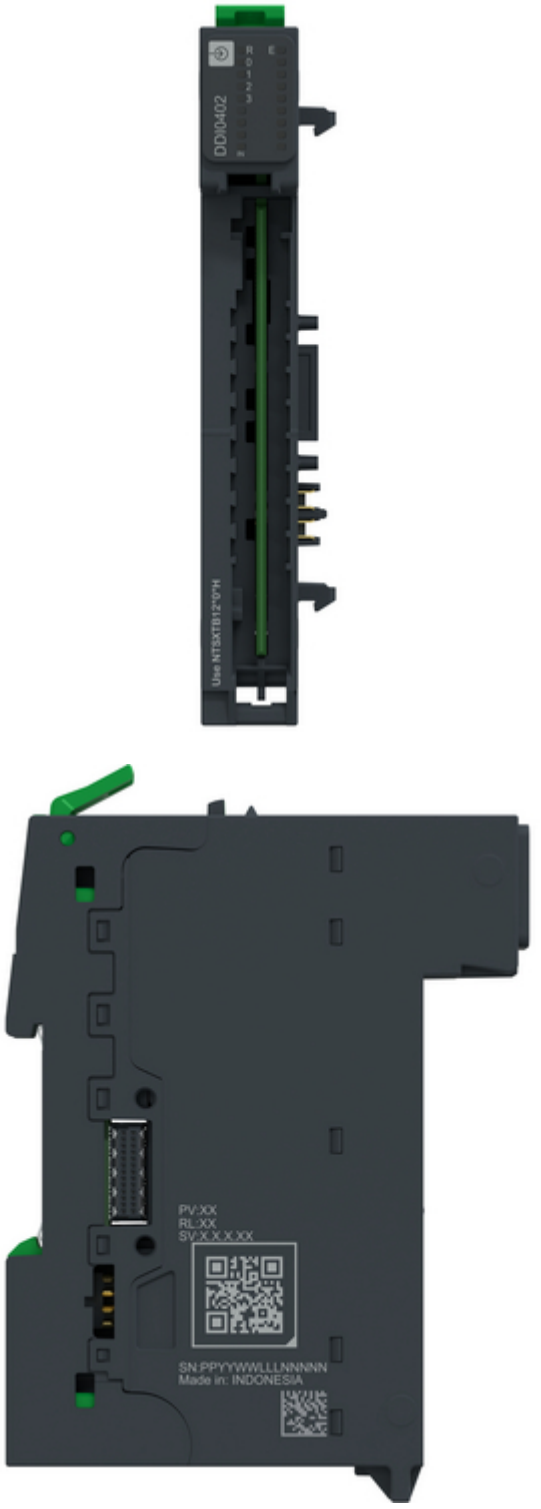
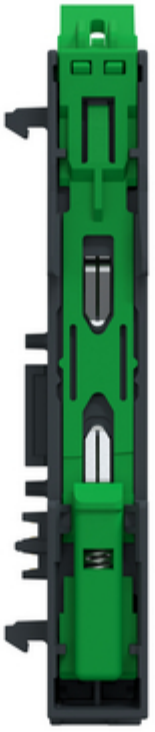


Image of product / Alternate images

Alternative









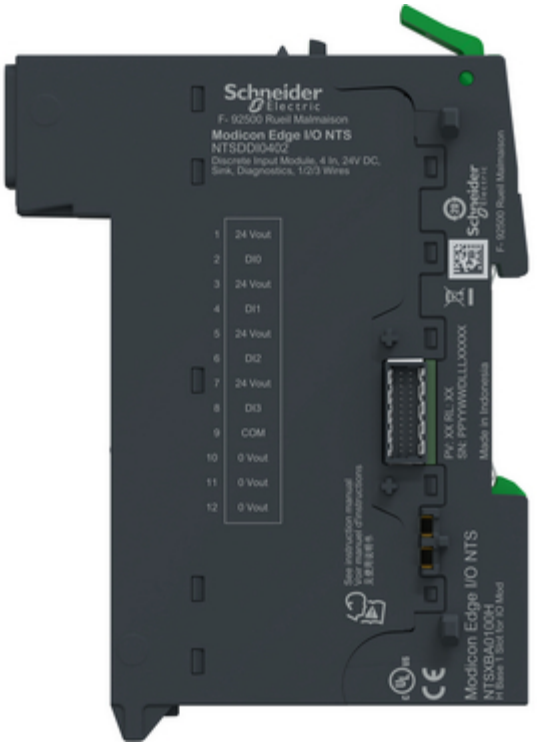

Schneider Electric
F- 92500 Rueil Malmaison
Modicon Edge I/O NTS
NTSDDI0402
Discrete Input Module, 4 In, 24V DC, Sink, Diagnostics, 1/2/3 Wires
1 24 Vout
2 DI0
3 24 Vout
4 DI1
5 24 Vout
6 DI2
7 24 Vout
8 DI3
9 COM
10 0 Vout
11 0 Vout
12 0 Vout
Made in Indonesia
Modicon Edge I/O NTS
NTSXBA0100H

Image of product in real life situation

