

Product datasheet

Specifications



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

NTSSDI1602K

EAN Code: 3606486877616

Main

Range of product	Modicon Edge I/O NTS
Product or component type	Discrete input module kit
Kit composition	NTSSDI1602 module NTSXBA0100H base
Mandatory accessory	NTSXTB18_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	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) < 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) 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 at 24 V DC on the Bus current 13.2 mA at 24 V DC on the internal field current minimum 15.8 mA at 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) 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 conforming to IEC 60715 Top hat type TH35-15 conforming to IEC 60715
Height	100 mm
Width	15 mm
Depth	80 mm
Net weight	0.073 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	-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...85 °C
Relative humidity	5...95 % without condensation
Operating altitude	0...2000 m without derating 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 for 11 ms (with and without accessory)

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.064 cm
Package 1 Width	9.398 cm
Package 1 Length	12.446 cm
Package 1 Weight	99.790 g
Unit Type of Package 2	CAR
Number of Units in Package 2	16
Package 2 Height	14.986 cm
Package 2 Width	14.986 cm
Package 2 Length	39.624 cm
Package 2 Weight	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

Total lifecycle Carbon footprint	28 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Carbon footprint of the manufacturing phase [A1 to A3]	6 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.

Use Better



Materials and Substances

Packaging made with recycled cardboard	No
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	5a785ec0-e294-4431-913e-044e6ca891df
REACH Regulation	REACH Declaration

Use Longer



Lifetime extension

Repair	No
--------	----

Use Again

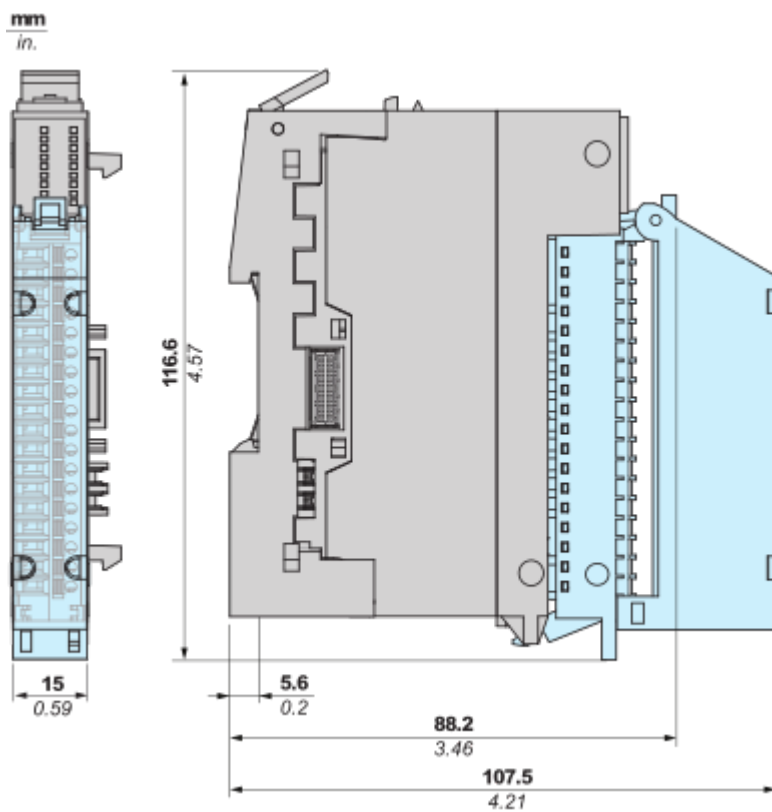


Repack and remanufacture

Recyclability potential, in %	0
End of life manual availability	End of Life Information
Take-back	No

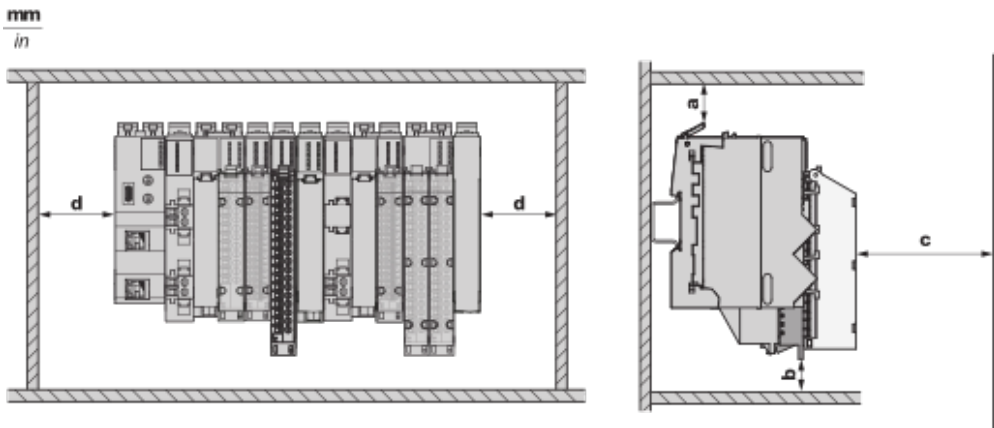
Dimensions Drawings

Dimensions



Mounting and Clearance

Minimum clearances

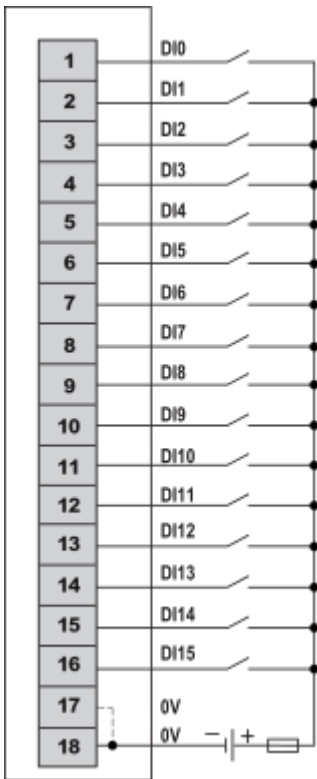


a : 50 mm (1.97 in) **b** : Without EMC kit: 25 mm (0.98 in), with EMC 55 kit: 55 mm (2.16 in) **c** : 80 mm (3.15 in) **d** : 25 mm (0.98 in)

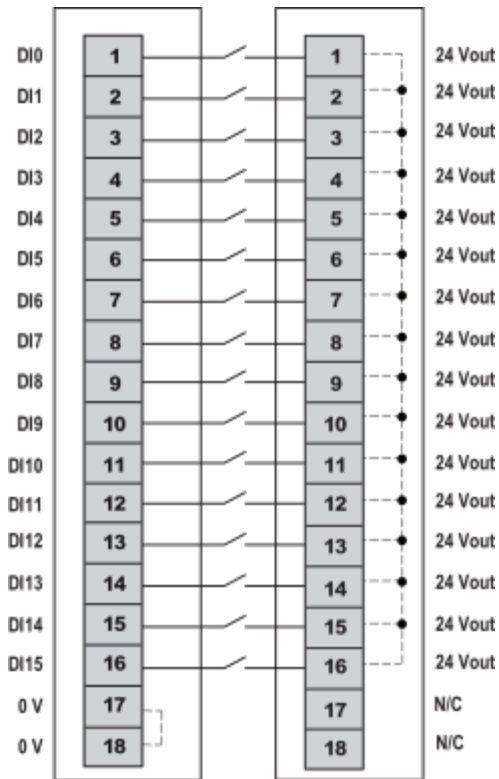
Connections and Schema

Wiring

1-wire connection (with external power supply)

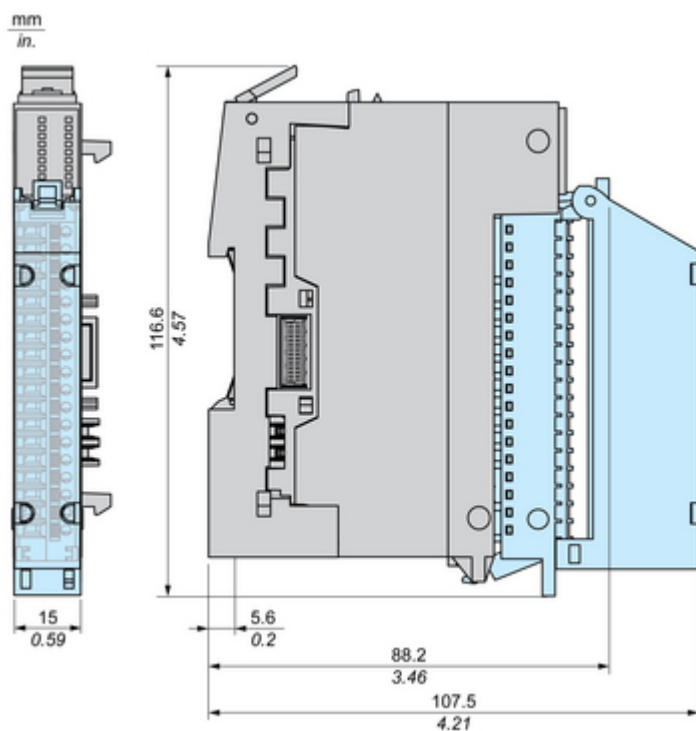


1-wire connection (with common module)



Technical Illustration

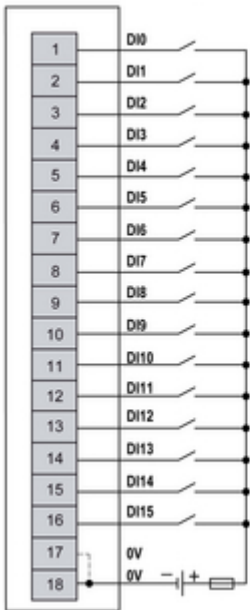
Dimensions



Technical Illustration

Wiring diagram

1-wire connection
(with external power supply)



1-wire connection
(with common module)

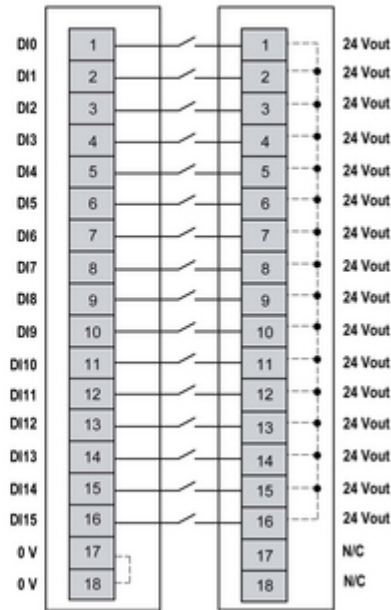


Image of product / Alternate images

Alternative



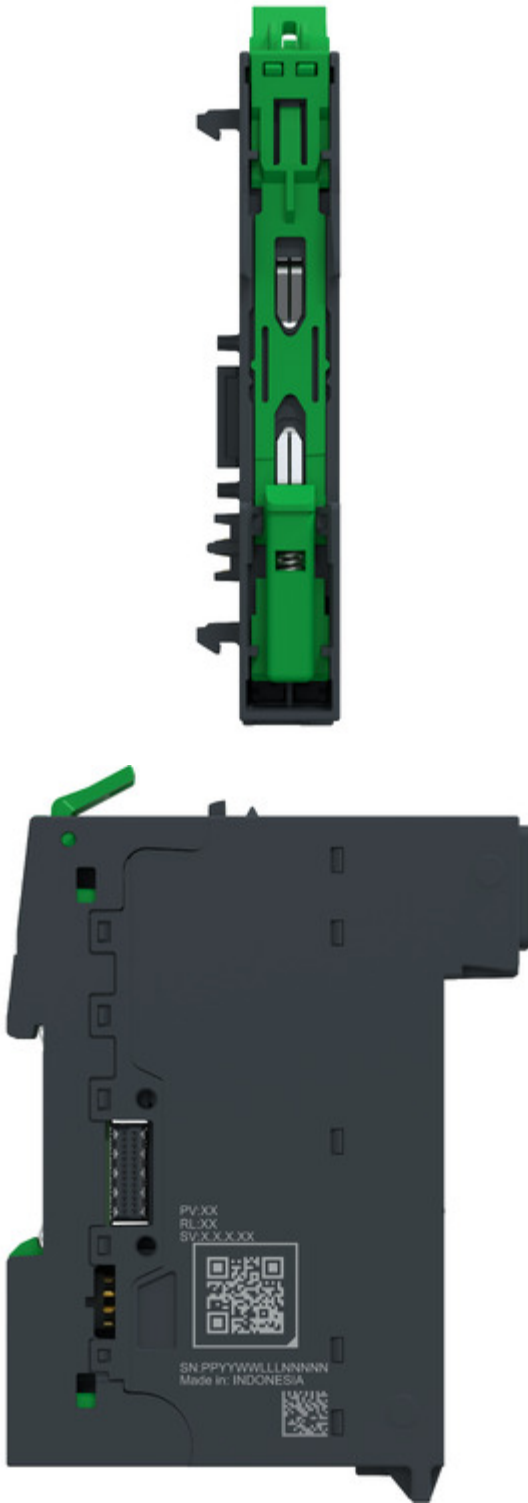




Image of product in real life situation

