Product data sheet
Characteristics

NTSDDI1602X
Discrete Input Module, 16 In, 24V DC, Sink, 1/2/3 Wires, Modicon Edge I/O NTS



Main

Range of product	Modicon Edge I/O NTS
Product or component type	Discrete input module
Mandatory accessory	NTSXBA0200H base 2x NTSXTB18_0_XH 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	4 groups of 4 channels
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, 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
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 at 24 V DC on the Bus current 14.4 MA at 24 V DC on the internal field current minimum 517.3 MA at 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	Base
Height	121 Mm
Width	30 Mm
Depth	69 Mm
Net weight	0.084 Kg

Environment

IP degree of protection	IP20
Marking	CE UKCA CULus RCM
Product certifications	CE[RETURN]UKCA[RETURN]CULus[RETURN]RCM[RETURN]Merchant Navy - EU RO MR (pen
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
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
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	13.7 Cm
Package 1 Width	8.3 Cm
Package 1 Length	4 Cm
Package 1 Weight	108 G
Unit Type of Package 2	S01
Number of Units in Package 2	6
Package 2 Height	15 Cm
Package 2 Width	15 Cm
Package 2 Length	40 Cm
Package 2 Weight	648.2 G

Offer Sustainability

Recyclability potential, in %	0
Total lifecycle Carbon footprint	29 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	6.53909640857326
Carbon footprint of the manufacturing phase [A1 to A3]	7 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.13206711764906573
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.00020461731623481758
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	22.232195016127704
Carbon footprint of the use phase [B2, B3, B4, B6]	22 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	0.25539441758518355
Carbon footprint of the end-of-life phase [C1 to C4]	0.3 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	29
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, w
End of life manual availability	End Of Life Information
Take-back	No

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised