Product datasheet

Specifications



Temperature Input Module + Base, 6 Differential In, RTD, Thermistor, 2/3 Wires, Modicon Edge I/O NTS

NTSART0603K

EAN Code: 3606486877470

Main

Range of product	Modicon Edge I/O NTS
Product or component type	Temperature input module kit
Kit composition	NTSART0603 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
Analogue input number	6
Operating mode	Asynchronous

Complementary

Analogue input type	RTD Ni 100/Ni 1000 RTD Pt 100/Pt 1000 RTD Cu 10/50/100 RTD JPt 100/1000 RTD high precision Cu50/100, Ni100/1000, Pt100/1000 Resistor 100 Ohm...32 kOhm Thermistor PTC 100 Ohm...10 kOhm Thermistor NTC 100 Ohm...200 kOhm
input signal type	Differential
Input wiring mode	2, 3 or 4 wires for RTD and resistance inputs 2-wire for thermistor NTC/PTC inputs
Analogue input resolution	16 bits with overflow
Permitted overload on inputs	+/- 2.4 % over voltage range
Input impedance	1 MOhm typical
Sampling duration	60 ms at 50Hz rejection per channel 60 ms at 60Hz rejection per channel 40 ms channel switch time with short time sampling 140 ms channel switch time with long time sampling
Input protection type	Over voltage protection
Input diagnostic	Underflow error per channel Overflow error per channel Broken wire error per channel Hardware error per channel Calibration error per channel Internal field power supply error per channel
Type of cable	Shielded cable
Temperature drift	± 0.003 % FS/ °C

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

Measurement error	<= 0.08 % FS 25 °C (short time sampling) <= 0.05 % FS 25 °C (long time sampling) <= 0.14 % FS -20...60 °C (short time sampling) <= 0.10 % FS -20...60 °C (short time sampling)
Non-linearity	<= 0.01 % FS, analogue input type: voltage/resistive input <= 0.01 % FS, analogue input type: thermistor <= 0.01 % FS, analogue input type: RTD
Common mode rejection	100 dB
Power supply type	Bus power from power supply bus (24 Vdc) Field power from power supply field (24 Vdc)
Rated operational voltage limits	20.4...28.8 V DC
Typical current consumption	36 mA at 24 V DC on the Bus current 25.2 mA at 24 V DC on the internal field current minimum 30.2 mA at 24 V DC on the internal field current maximum
Power dissipation in W	1.6 W maximum at 24 V DC
Maximum cable distance between devices	Shielded cable: <200 m
Isolation between channels and bus	1500 V AC
Isolation between channels and field pwr	1000 V AC
Isolation between field power and bus	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 conforming to IEC 60715 Top hat type TH35-15 rail conforming to IEC 60715
Height	116.6 mm
Width	15 mm
Depth	81 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 EN/IEC 61850-3 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 2000...5000 m with derating
Pollution degree	2
Environmental characteristic	Gas resistant C3 and G2 Salt spray resistant
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	3.000 cm
Package 1 Width	8.500 cm
Package 1 Length	12.000 cm
Package 1 Weight	105.000 g
Unit Type of Package 2	S01
Number of Units in Package 2	16
Package 2 Height	15.000 cm
Package 2 Width	15.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	1.960 kg

Logistical informations

Country of origin	ID

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.**
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	**No**
Packaging without single use plastic	**No**
EU RoHS Directive	Compliant By Exemption
REACh Regulation	Reference contains Substances of Very High Concern above the threshold

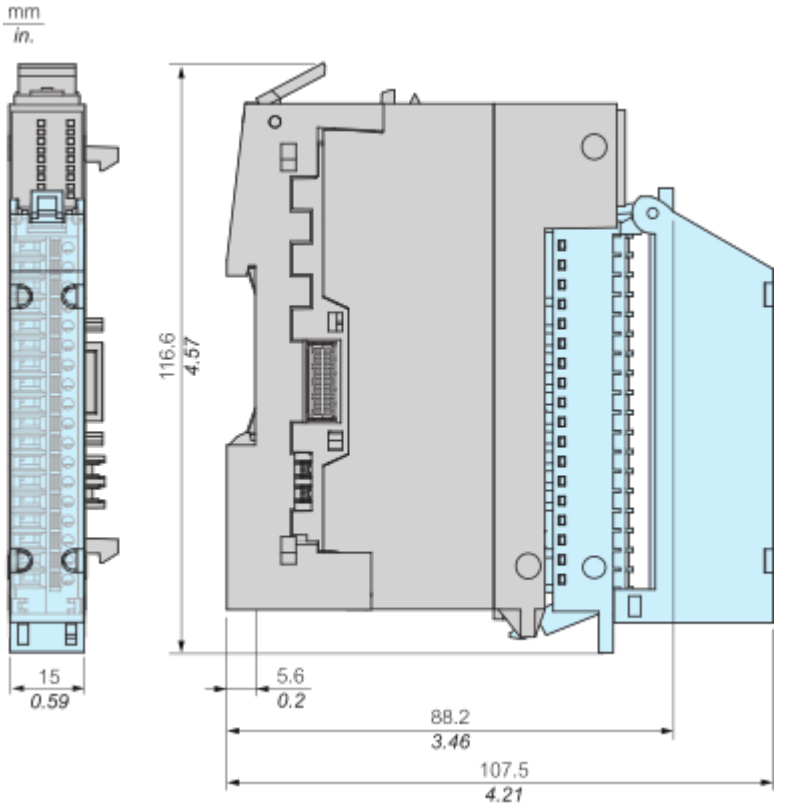
Use Again

Repack and remanufacture

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

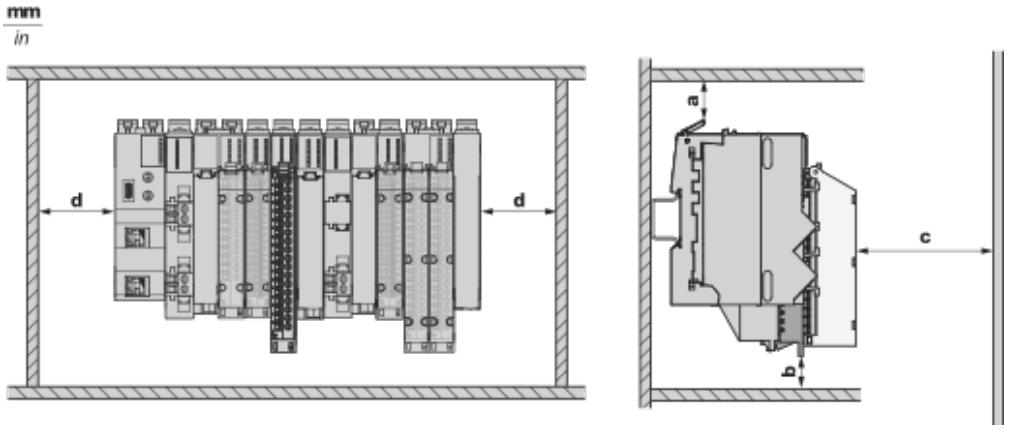
Dimensions Drawings

Dimensions



Mounting and Clearance

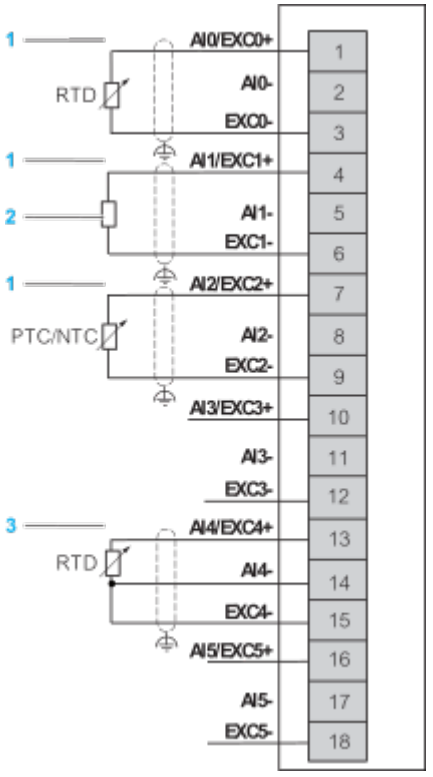
Minimum clearances



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

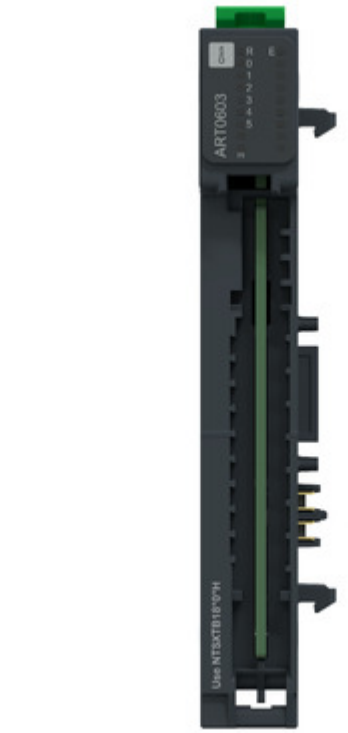
Wiring



1 : 2-wire connection
2 : Resistance
3 : 3-wire connection

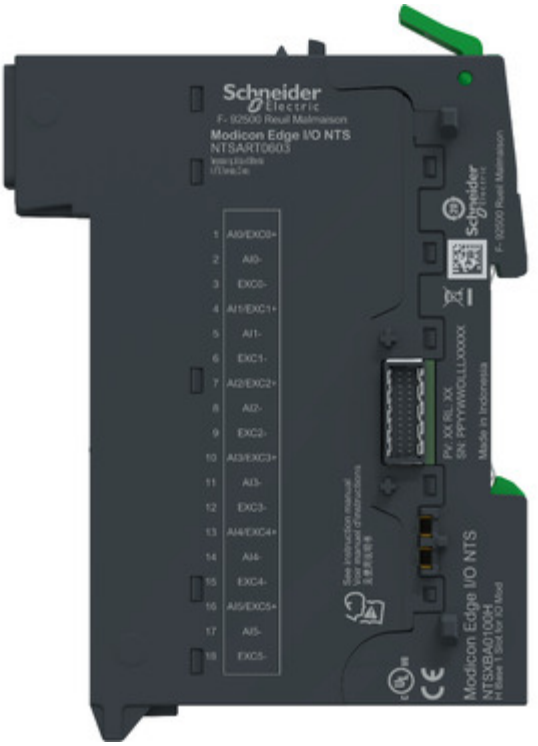
Image of product / Alternate images

Alternative








Schneider Electric
F- 92500 Rueil Malmaison
Modicon Edge I/O NTS
NTSART0603
1 AI0/EXC0+
2 AI0-
3 EXC0-
4 AI1/EXC1+
5 AI1-
6 EXC1-
7 AI2/EXC2+
8 AI2-
9 EXC2-
10 AI3/EXC3+
11 AI3-
12 EXC3-
13 AI4/EXC4+
14 AI4-
15 EXC4-
16 AI5/EXC5+
17 AI5-
18 EXC5-
Modicon Edge I/O NTS
NTSXBA0100H

