

TN-5300A 系列

EN 50155 5/8 埠非網管型乙太網路交換器



特色與優點

- 堅固耐用的壓鑄設計，適用於嚴苛環境
- 隔離式電源輸入範圍介於 24 至 110 VDC
- 符合所有 EN 50155 規範強制性測試項目¹
- -40 至 70°C 大範圍溫度設計

認證



簡介

ToughNet TN-5300A 系列 M12 非網管型乙太網路交換器 專為工業應用的嚴苛環境所設計。TN-5300A 系列交換器使用 M12 街頭，確保緊密且堅固 的連線，並保證在不受環境的干擾（像是衝擊 或震動）下，依然能夠穩定地操作。TN-5300A 系列乙太網路 交換器提供 5 或 8 個快速乙太網路 M12 連接埠，以 10/100M 支援 IEEE 802.3/802.3u/802.3x、全/半雙工、MDI/MDI-X 自動感測功能，為您的工業級乙太網路提供經濟實惠的解決方案。

TN-5300A 系列所有型號均支援 -40 至 70°C 的寬溫操作範圍。TN-5300A 系列也符合 EN 50155 標準的所有強制性 要求，包括操作溫度、電源輸入電壓、浪湧 防護、ESD 及振動，使其成為鐵路車輛及 其他各種工業應用的理想選擇。

TN-5300A 系列採用單一 電源輸入設計，並內建過載保護、反接保護及突波電流防護功能。此外，TN-5308A PoE 型號還提供 8 個符合 IEEE 802.3af/at 標準的 PoE 埠。這些交換器被歸類為供電來源設備 (PSE)，每個連接埠提供高達 30 瓦的電源，並有 50.2 瓦的 PoE 電源總預算。

規格

Ethernet Interface	
10/100BaseT(X) Ports (M12 D-coded 4-pin female connector)	TN-5305A Series models: 5 TN-5308A Series non-PoE models: 8
PoE Ports (10/100BaseT(X), M12 D-coded 4-pin female connector)	TN-5308A Series PoE models: 8
Standards	All models: IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) IEEE 802.3x for flow control TN-5308A Series PoE models only: IEEE 802.3af/at for PoE/PoE+
LED Interface	
LED Indicators	PWR, Ethernet ports, PoE ports
Switch Properties	
Packet Buffer Size	768 kbits
MAC Table Size	2 K

1. 此產品適用於符合 EN 50155 標準所定義的所有軌道車輛應用。按此處取得更詳細內容：www.moxa.com/doc/specs/EN_50155_Compliance.pdf

Power Parameters

Input Current	TN-5305A Series models: max. 0.1 A @ 24 VDC TN-5308A Series non-PoE models: max. 0.1 A @ 24 VDC TN-5308A Series PoE models: max 3.2 A @ 24 VDC
Input Voltage	24/36/48/72/96/110 VDC
Max. PoE Power Output per Port	TN-5308A Series PoE models: 30 W
Total PoE Power Budget	50.2 W
No. of Power Inputs	1
Operating Voltage	16.8 to 137.5 VDC
Power Connector	M12 A-coded male connector
Overload Current Protection	Supported
Reverse Polarity Protection	Supported

Physical Characteristics

Housing	Metal
IP Rating	IP54
Dimensions	TN-5305A Series models: 62.4 x 125.4 x 37.5 mm (2.46 x 4.94 x 1.48 in) TN-5308A Series non-PoE models: 62.4 x 190.4 x 37.5 mm (2.46 x 7.50 x 1.48 in) TN-5308A Series PoE models: 72.4 x 190.4 x 50.0 mm (2.85 x 7.50 x 1.97 in)
Weight	TN-5305A models: 315 g (0.69 lb) TN-5308A non-PoE models: 455 g (1.00 lb) TN-5308A PoE models: 765 g (1.69 lb)
Installation	Wall mounting DIN-rail mounting (with optional kit)
Protection	TN-5300A Series -CT models: PCB conformal coating

Environmental Limits

Operating Temperature	-40 to 70°C (-40 to 158°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Altitude	3000 m

Standards and Certifications

EMC	EN 55032/35
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 20 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Radio Frequency	FCC
Environmental Testing	IEC 60068-2-1, EN 50155 IEC 60068-2-14, EN 50155 IEC 60068-2-2, EN 50155 IEC 60068-2-30, EN 50155 IEC 60068-2-78

Railway	EN 50121-4 EN 50155 IEC 60571
Railway Fire Protection	EN 45545-2
Safety	IEC 62368-1 UL 62368-1 EN 62368-1
Salt Spray Test	EN 50155
Shock	IEC 60068-2-27, IEC 61373, EN 50155
Vibration	IEC 60068-2-64, IEC 61373, EN 50155
Package Vibration Test	ISTA 1A
Package Drop Test	ISTA 1A

Declaration

Green Product	RoHS, CRoHS, WEEE
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MTBF

Time	TN-5305 models: 6,612,892 hrs TN-5308 non-PoE models: 5,260,454 hrs TN-5308 PoE models: 1,816,546 hrs
Standards	Telcordia SR332 Issue 4

Warranty

Warranty Period	5 years
Details	See www.moxa.com/tw/warranty

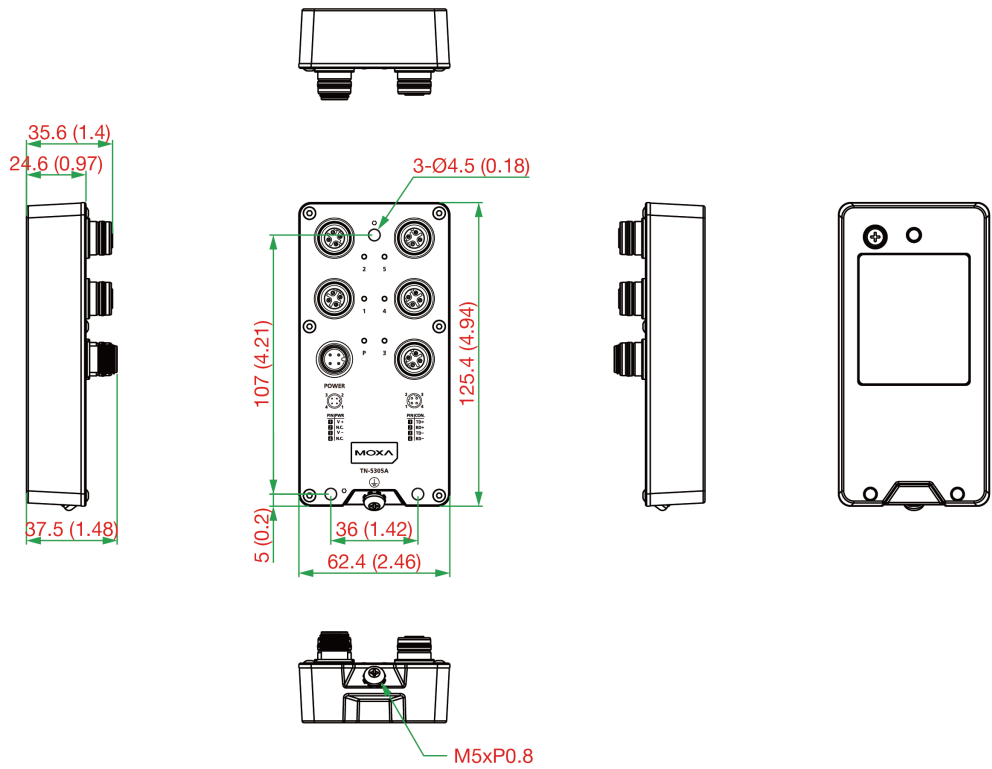
Package Contents

Device	1 x TN-5300A Series switch
Installation Kit	1 x wall-mounting kit (3 mounting screws included) 2/4 x caps, male, metal, for M12 Ethernet ports (pre-installed on switch)
Documentation	1 x quick installation guide 1 x warranty card

尺寸

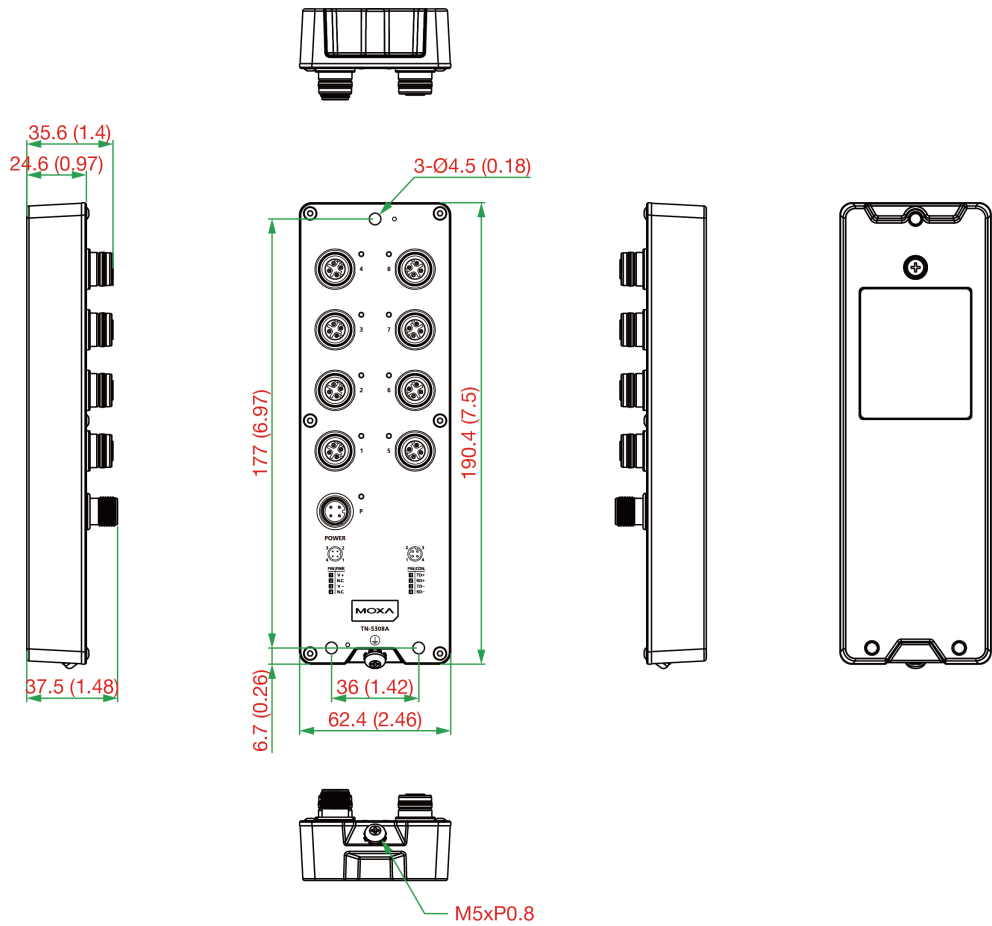
TN-5305A 系列型號

單位：公釐（英吋）



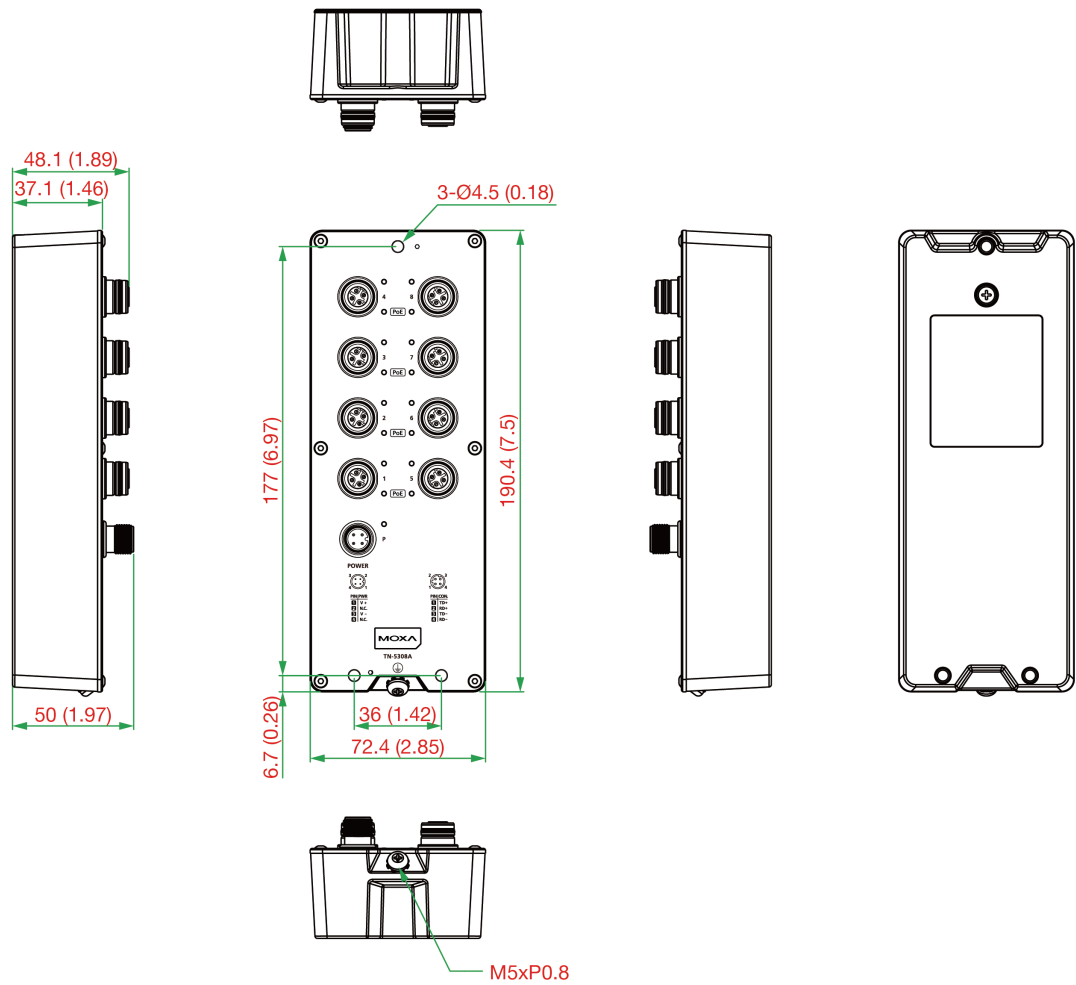
TN-5308A 系列非 PoE 型號

單位：公釐（英吋）



TN-5308A 系列 PoE 型號

單位：公釐（英吋）



訂購資訊

Model Name	10/100BaseT(X) Ports, M12 D-coded 4-pin Female Connector	10/100BaseT(X) PoE Ports, M12 D-coded 4-pin Female Connector	Conformal Coating
TN-5305A-WV-T	5	–	–
TN-5305A-WV-CT-T	5	–	P
TN-5308A-WV-T	8	–	–
TN-5308A-WV-CT-T	8	–	P
TN-5308A-8PoE-WV-T	–	8	–
TN-5308A-8PoE-WV-CT-T	–	8	P

配件（選購）

Cables

CBL-M12DMM4PM12DMM4P-BK-100-IP67	D-coded male M12-to-D-coded female M12 Ethernet cable, black, IP67-rated, 1 m
CBL-M12D(MM4P)/RJ45-100 IP67	D-coded male M12-to-RJ45 Ethernet cable, black, IP67-rated, 1 m
CBL-M12(FF4P)/Open-BK-100-IP68	A-coded female M12-to-4-pin open cable, black, IP68-rated, 1 m

M12 Connector Caps

A-CAP-M12M-M	Metal cap for M12 male connector
A-CAP-M12F-M-PP	Metal cap for M12 female push-pull connector

Connectors

M12D-4P-IP68	Solder type M12 connector, male 4-pin, D-coded, IP68-rated
M12D-4PMM-IP67	IDC type M12 connector, male 4-pin, D-coded, IP67-rated
M12A-5PFF-IP67-HTG (5 Pin)	Crimp type M12 connector, female 5-pin, A-coded, IP67-rated
M12A-5P-IP68	Solder type M12 connector, female 5-pin, A-coded, IP68-rated

DIN-Rail Mounting Kits

DK-TN-5305A	DIN-rail mounting kit with 1 plate, 3 screws for the TN-5305A Series
DK-TN-5308A	DIN-rail mounting kit with 1 plate, 3 screws for the TN-5308A non-PoE Series
DK-TN-5308A-PoE	DIN-rail mounting kit with 1 plate, 3 screws for the TN-5308A PoE Series

Wall-Mounting Kits

WK-TN-5308A	Transition wall-mounting kit with 1 plate (197 x 60 x 4 mm) for the TN-5308A Series to adapt to the existing TN-5308 Series mounting holes
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