Weidmüller

Hardware Installation Guide

Industrial Security Router

IE-SR-2TX-WL (Part No. 2682590000)
IE-SR-2TX-WL-4G-EU (Part No. 2682560000)
IE-SR-2TX-WL-4G-US-V (Part No. 2682580000)

1. Introduction

Ethernet Security Routers from Weidmüller are designed for industrial applications and fitted with a robust housing. To ensure reliable, error-free operation, and to prevent damage or injury, please read the operating instructions, all safety information provided in this document and any other safety information that were supplied with the product.

2. Safety notice

⚠	The device heats up during operation. Allow the unit to cool down or use protection gloves when carrying out any work.
⚠	The device may only be connected to the supply voltage shown on the product label. Higher voltage than specified will destroy the device. The device must be supplied by a SELV source as defined in the Low Voltage Directive 2014/35/EU and 2014/30/EU.
⚠	Installation, commissioning and maintenance may only be performed by qualified electricians.
⚠	Observe the operating instructions.

⚠	• Indoor use and pollution degree II, it must be wiped with a dry cloth for clean up the device and label. ○ Utilisation en intérieur et degré de pollution II, il faut l'essuyer avec un chiffon sec pour nettoyer l'appareil et son étiquette. • Do not block air ventilation holes. ○ Ne bouchez pas les orifices de ventilation. • If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired. ○ Si l'appareil est utilise d'une maniere non specifiee par le fabricant, la protection qu'il apporte peut se voir diminuee. • Shall be mounted in the Industrial Control Panel and ambient temperature is not exceed 75 degrees C. ○ Doit être monté dans le panneau de commande industriel et la température ambiante ne doit pas dépasser 75 degrés C.

Intended use
The device is intended for the realization of communication networks within an industrial environment, it is intended to be used in a restricted access location. The device may only be used within the scope of the specified technical data. The device is intended to be mounted to a well-grounded mounting surface, such as a metal panel. Any other use may result in unintentional malfunction and damage. Observing the documentation is part of the intended use.

Environmental conditions
This equipment is intended to be used in a restricted access location.
When planning the installation site make sure that the ambient temperature during operation will not exceed the temperature given in the technical data.
Also make sure that the air flow will not be compromised by other devices.
Ensure that the mounted and wired device is not exposed to any mechanical stress.
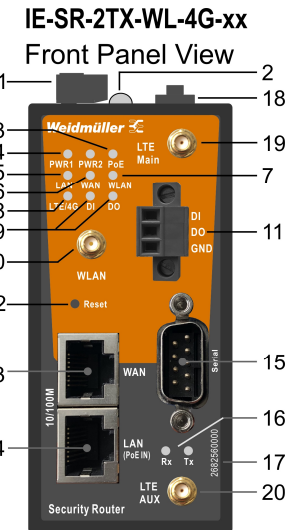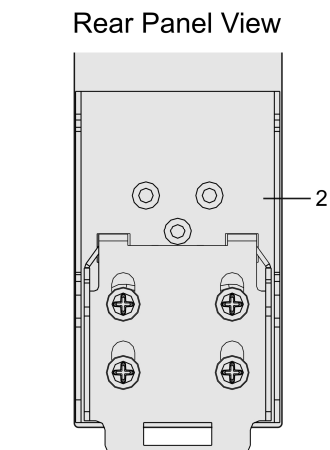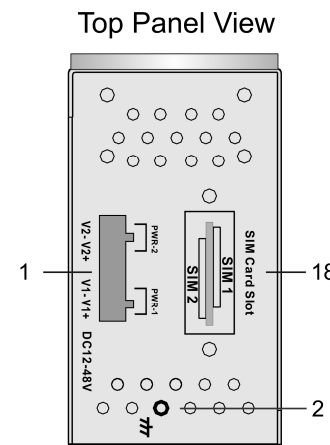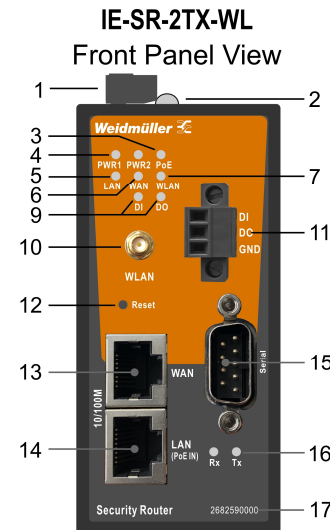
FCC compliance
This device complies with part 15 of FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

3. Package Checklist

Your package is shipped with the following items:
1 x Router
1 x Hardware Installation Guide (printed)
1 x 3-Pin Terminal connector
1 x 4-Pin Terminal connector
1 x WLAN Antenna
2 x LTE Antenna (LTE/4G model)
1 x SIM card adapter set (nano/micro)
2 x Dust caps for RJ45 ports
1 x Wall mounting kit
3 x Dust caps for antenna ports
1 x Screw tool packet

4. Panel Layouts

IE-SR-2TX-WL
Front Panel View

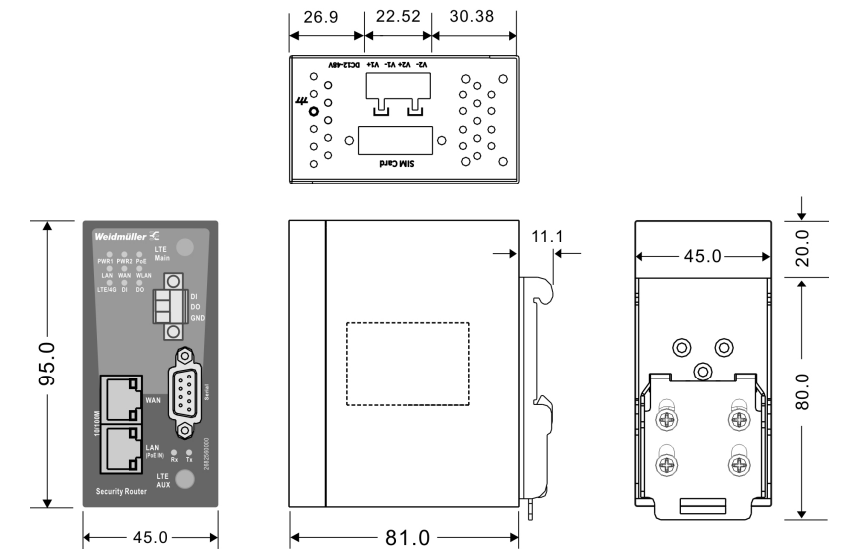### IE-SR-2TX-WL-4G-xx
Front Panel View

Top Panel View

Rear Panel View

1. 4-Pin Terminal block power input PWR1 / PWR2
2. Grounding screw / Frame ground (Note: The shielding ground of LAN and WAN port is electrically connected to the grounding screw)
3. PoE Indicator (powered via PoE)
4. Power input LEDs (PWR1 / PWR2)
5. LAN port Link/Activity LED
6. WAN port Link/Activity LED
7. WLAN Link/Activity LED
8. LTE/4G Connection Status LED (only LTE/4G models)
9. Digital I/O ports Status LEDs (ON/OFF)
10. WLAN antenna connector (**RP-SMA female**)
11. Terminal block for Digital Input and Output
12. Reset Button
13. WAN Port 10/100Base-T(X)
14. LAN port 10/100Base-T(X) / **PoE P.D.**
15. Serial Port (RS 232 connector)
16. LEDs TX/RX Status of Serial Port
17. Article Number
18. Slot for 2 SIM Cards with **format Mini SIM** (only LTE/4G models)
19. Main Antenna LTE/4G Interface (**SMA-female**)
20. AUX Antenna LTE/4G Interface (**SMA-female**)
21. DIN-rail Clip

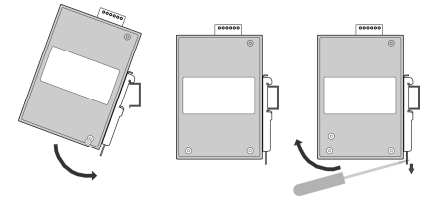## 5. Mounting Dimensions

(units = mm)

6. DIN-Rail Mounting

Slide the device onto DIN-rail and make sure that the Din-rail clip clicks into the rail firmly.
STEP 1: Place the mounting clip from above onto the mounting rail.

STEP 2: Press the device against the DIN rail until the fastening element engages on the mounting rail.

To remove the Ethernet Switch from the DIN-rail pull down the latch with a screwdriver then move the device away from the DIN rail and lift it up.

7. Grounding

⚠	**ATTENTION** - Grounding and wire routing help limit the effects of noise due to electromagnetic interference (EMI). - Do the ground connection from the ground screw to the grounding surface prior to connecting devices. - This product is intended to be mounted to a well-grounded mounting surface, such as a metal panel. - The shielding ground of the RJ45 ports are electrically connected to the ground connection (screw).

8. SIM card installation (LTE/4G models)

- Ensure that the device is powered-off.
- Remove cover from SIM card slot on top of the housing.
- Insert SIM card(s) with Mini format as illustrated.

Note: For using SIM cards with format Nano or Micro use a frame from attached SIM card adapter set.

9. Wiring Redundant Power Inputs and DI / DO

The Router supports redundant power supply inputs and provides 1 digital input and 1 digital output. Refer to illustration below for correct wiring.

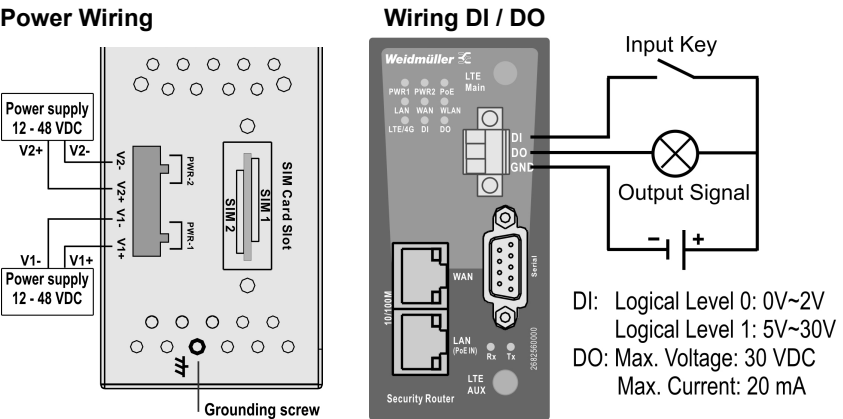| ⚠️	**Warning / Avertissement**
	• Take into consideration the following guidelines before wiring the device ○ Tenez compte des directrices suivantes avant de câbler l'appareil. • Terminal block is mating with Plug and suitable for 12-24AWG. Torque value 4.5 lb-in. ○ Le bornier est compatible avec les connecteurs et convient pour 12-24AWG. Valeur de couple 4,5 lb-in. • The temperature rating of the input connection cable should higher than 105°C. ○ La température de service nominale du câble d'entrée doit être supérieure à 105 °C. • Supplied by SELV source evaluated by UL 61010-1 or 61010-2-201 power supply only. ○ Fourni par la source SELV évaluée uniquement par l'alimentation UL 61010-1 ou 61010-2-201.

Power Wiring   **Wiring DI / DO**

DI: Logical Level 0: 0V~2V
Logical Level 1: 5V~30V
DO: Max. Voltage: 30 VDC
Max. Current: 20 mA

10. Communication Connections

Dependent on the model the Routers are equipped with:
1 x LAN Port (10/100Base-T(X) / Auto MDI-X, PoE Powered Device)
1 x WAN Port (10/100Base-T(X) / Auto MDI-X)
1 x WLAN Interface IEE802.11 b/g/n
1 x Serial Interface (DB9 connector)
1 x Digital Input / 1 x Digital Output
1 x Cellular Interface (only LTE/4G models)

Please use for RJ45-Ports only cables suitable for the respective type of communication and ensure that signals are protected from possible interference.

10.1 10/100Base T(X) RJ45 Ports

The 10/100BaseT(X) ports are used to connect to Ethernet-enabled devices. Below table shows pinouts for both MDI (NIC-type) ports and MDI-X (HUB/Switch-type) ports. Auto MDI-X ensures that both wiring-schemes are supported (Automatic crossover).

10/100Base T(X) RJ45 Pinouts

MDI Port Pinouts		MDI-X Port Pinouts		8-pin RJ45
Pin	Signal	Pin	Signal	
1	Tx+	1	Rx+	
2	Tx-	2	Rx-	
3	Rx+	3	Tx+	
6	Rx-	6	Tx-	

10.2 Serial Interface DB-9 Connector

Pinouts DB-9 Connector (male)

Pin #	RS-232 (DTE Device)	RS-422	RS-485(4-wire)	RS-485 (2-wire)	
1	DCD	TX-	TX-	DATA-	
2	RXD	TX+	TX+	DATA+	
3	TXD	RX+	RX+	---	
4	DTR	RX-	RX-	---	
5	GND	GND	GND	GND	
6	DSR	---	---	---	
7	RTS	---	---	---	
8	CTS	---	---	---	
9	RI	---	---	---	

11. Management Access (Login to Web Interface)

By factory default, the Router only can be accessed by HTTPS-secured Web interface via the **wired LAN Port.** All other access modes (HTTP, Telnet, SSH) and any access from other interfaces are not allowed by default.

Web interface Access (HTTPS):
IP Address: **192.168.1.110 / 255.255.255.0**
Username: **admin**
Password: **Weidmueller**

Connect the PC to wired LAN port and configure the PC's IP address to a free one of range 192.168.1.0 / 255.255.255.0. Start a web browser and enter the IP address into the browser's address line (https://192.168.1.110). After prompt appearance enter username and password. After confirmation with "OK" the home page will be displayed.

12. Factory Default Settings

LAN port:	192.168.1.110 / 255.255.255.0 (static)
WAN port:	DHCP
Wireless LAN:	Disabled
Mobile Interface:	Disabled (only available for LTE/4G models)
Username:	admin
Password:	Weidmueller
Web Access:	HTTPS via LAN port

13. Reset Button

- Pressing < 5 seconds: Reboots the device (Warm Start) and sets IP of LAN port to Factory Default IP.
- Pressing >= 5 seconds: Resets the device completely to factory default settings.

14. LED Indicators

Description of Router's front panel LED indicators:

LED	Color	Status	Description
PWR1	Green	On	Power is being supplied to power input PWR1.
PWR2	Green	On	Power is being supplied to power input PWR2.
PoE	Green	On	The device is powered via PoE.
LAN / WAN	Green	On	LAN/WAN Port Link / Activity LED
		Blinking	Data is transmitted.
WLAN	Green	On	Linked to a Wireless network (Client Mode)
	Green	Blinking	Operating in mode Access Point
LTE/4G	Green	On	Mobile connection established (Online)
DI / DO	Green	On	Input / Output status set to logical 1
		Off	Input / Output status set to logical 0

15. Disposal Information

	Observe the notes for proper disposal of the product. You can find the notes here: www.weidmueller.com/disposal.	

16. Specifications (Overview)

Technology	
Ethernet Standards	IEEE 802.3 for 10BASE-T IEEE 802.3u for 100BASE-TX IEEE 802.3af for Power-over-Ethernet IEEE 802.11b/g/n for Wireless LAN
Interfaces	
RJ45 Ports	10/100BASE-T(X) auto negotiation speed, F/H duplex mode and auto MDI/MDI-X connection
Serial Port	1x DB9 connector
Cellular Interface	2G (GSM / GPRS / EGPRS / EDGE), 3G (WCDMA / HSDPA / HSUPA), 4G/LTE
WLAN Interface	IEEE802.11b/g/n
SIM-Card slots	2x Mini-SIM (ID-000 format)
Connector for antennas	1x RP-SMA female 2x SMA female (LTE/4G models only)
DI/DO (Dry Contact)	1x DI (1: 5~30V, 0: 0~2V), 1x DO (Max.: 30V / 20 mA)
LED Indicators	PWR1, PWR2, PoE (active), LAN/WAN Port Link / Activity, WLAN Link, LTE/4G Link, DI / DO Status; Serial Port Data Transmitting
Power supply	
Input Voltage	24 V DC (12 to 48 V DC), 2 redundant inputs or 48 V DC Power-over-Ethernet on LAN Port (IEEE802.3af compliant)
Input Power	5.5 W (typical)
Connection	One removable 4-pin terminal block, Wiring cable 12-24AWG
Overload Current Protection	Present
Reverse Polarity Protection	Present
Physical Characteristics	
Housing	IP30 protection, metal
Dimension (W x H x D)	45 x 95 x 81 mm (1.77 x 3.74 x 3.19 inch)
Weight	395 g
Installation	DIN-rail
Environmental conditions	
Operating Temperature	-25 to 70°C (-13 to 158°F)
Storage Temperature	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Altitude	up to 2000 m
Regulatory Approvals	
Safety	UL 61010-1; UL 61010-2-201; EN 62311
EMC	EN 55032, EN 55024, FCC Part 15 Subpart B Class A, IEC 61000-4-2 ESD IEC 61000-4-3 RS IEC 61000-4-4 EFT IEC 61000-4-5 Surge IEC 61000-4-6 CS
Radio	EN 301 489-1/-17; EN 300 328, EN 301 511; EN 301 908-1
Shock	IEC 60068-2-27
Free Fall	IEC 60068-2-31
Vibration	IEC 60068-2-6
MTBF	
Time	IE-SR-2TX-WL: 381.084 hrs IE-SR-2TX-WL-4G-EU: 355.921 hrs IE-SR-2TX-WL-4G-US: 353.679 hrs
Database	Telcordia SR332
Warranty	
Time Period	5 years

Contact Information

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