STRIDE® MODBUS GATEWAY

- Industrial 1, 2, or 4 serial port, and 1 or 2 Ethernet port Modbus Gateways (Modbus RTU/ASCII <-> Modbus TCP)
- Automatic read function "Agent Mode"
- Ethernet ports each support up to 16 TCP devices, client or server
- Serial ports each support up to 128 slave devices or 1 master device
- DIP switch selectable termination resistor for RS-485 mode
- High Serial Isolation Voltage - 2kV
- UL61010 with Class 1 Div 2 HazLoc
- Metal housing with wide temperature rating (-40 to +75 deg C)

Stride Modbus Gateway Models			
Part Number	RJ45 10/100	Serial D-sub 9-pin	Input Power (Max.)
SGW-MB1511-T	1	1	1.8 W
SGW-MB1512-T	1	2	1.8 W
SGW-MB1524-T	2	4	3.2 W

Ethernet Interface	
Port Type	Shielded RJ45
Speed	10/100 Mbps
Protection	Built-in 1.5 kV magnetic isolation
Protocol Supported	Modbus TCP/IP Client and Server
Modbus TCP Devices Supported	16 simultaneous Modbus TCP connections per Ethernet port
Cable Type	Autodetects Ethernet cable types (MDI/MDIX)
Default IP address	192.168.0.249; 192.168.1.249 (2 port model)

Serial Interface	
Port	D-sub 9-pin male port
Interface Mode	RS-232, RS-485 and RS-422
Supported Baud Rates	300bps – 460.8 kbps
Parity	Odd, Even or None
Data Bits	7 or 8 bits
Stop Bits	1 or 2
Flow Control	RTS or None
Termination	DIP-Switch to Enable/Disable 120Ω matching resistor for RS-485
ESD Protection	15kV for all signals
Isolation Protection	2kV
Serial Devices Supported	128 slaves or 1 master per port
Protocols Supported	Modbus RTU, Modbus ASCII

Power Details	
Power Consumption	See Input Power in STRIDE Modbus Gateway Models table
Power Input	Redundant input terminals
Input Voltage	12 / 24 / 48 VDC
Max. Input Voltage Range	9.6 – 60 VDC
Appliance Class	Class III, SELV power source
Reverse Power Protection	Yes
Overload Protection	Yes

Environmental	
Operating Temperature Range	-40 to +75 °C [-40 to +167 °F]
Storage Temperature Range	-40 to +85 °C [-40 to +185 °F]
Humidity	5 to 95% RH (non-condensing)
Maximum Altitude	2000m
Environmental Air	For use in Pollution Degree 2 Environment
Protection Level	Metal case, IP40
Agency Approvals	UL61010-1, UL61010-2-201, Class I Div 2 12.12.01-2015; CSA C22.2 No. 213-16; CAN/CSA No. 61010-1-12; CAN/CSAC22.2 No. 61010-2-201:14, CE, FCC
EMI	EN 55032 Class A
	FCC Part 15 Subpart B Class A
EMS	IEC61000-4-2(ESD): ±6kV(contact),±8kV(air)
	IEC 61000-4-3(RS): 10V/m (80MHz–2GHz)
	IEC61000-4-4(EFT): Power Port:±2kV;Data Port:±1kV
	IEC61000-4-5(Surge): PowerPort: ±1kV/DM, ±2kV/CM; Data Port:±1kV
	IEC 61000-4-6 (CS): 10V(150KHz-80MHz)
Mechanical Standards	IEC60068-2-6(Vibration)
	IEC60068-2-27(Shock)
	IEC60068-2-32(Free Fall)

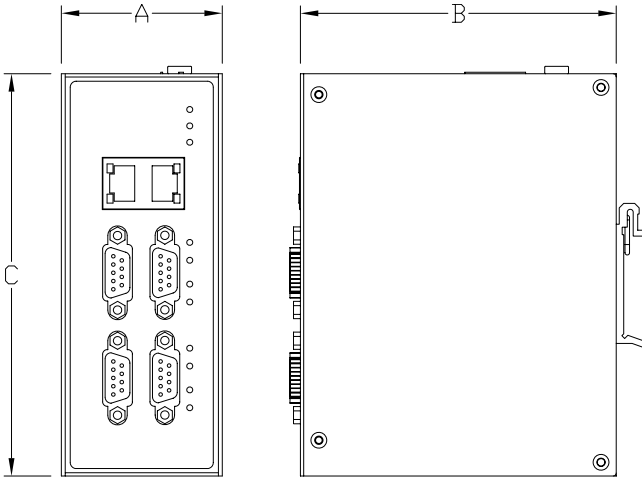| LED Status Indicators		
PWR1 (green)		LED ON indicates voltage applied to Power 1 terminals.
PWR2 (green)		LED ON indicates voltage applied to Power 2 terminals.
RUN (green)		LED ON indicates the gateway is booting. LED FLASHING indicates the gateway is functioning normally.
RJ45 Ports	Speed (yellow)	LED ON indicates Ethernet speed is 100 Mbps. LED OFF indicates Ethernet speed is 10 Mbps
	Link/Activity (green)	LED ON indicates valid link is established. LED FLASHING indicates data traffic.
Serial Ports	T, transmit (green)	LED FLASHING indicates gateway is sending data through serial port.
	R, receive (green)	LED FLASHING indicates gateway is receiving data through serial port.

Reset to Factory Defaults:

Press recessed Hardware Reset button on top of gateway housing and hold for 5 seconds to reset all settings to factory default.

NOTE: For additional product details, a user manual, SGW-USER-M, is available as a downloadable PDF file from the Online Documentation area of the AutomationDirect website.

Dimensions:

Dimensions				
Part No.	Weight	Width (A)	Depth (B)	Height (C)
		mm [inches]		
SGW-MB1511-T	0.17 kg [0.36 lb]	30.0 [1.18]	68.0 [2.68]	115.0 [4.53]
SGW-MB1512-T	0.17 kg [0.37 lb]			
SGW-MB1524-T	0.32 kg [0.71 lb]	54.0 [2.13]	106 [4.17]	135.0 [5.32]

Safety Standards:

c **UL** us   CE   **RoHS** ✓ **RoHS Compliant**

Installation – DIN Rail Mounting:

These devices are open-type and are meant to be installed in an enclosure which is only accessible with the use of a tool and suitable for the environment when installed in Class 1, Division 2 Hazardous Locations. The gateway may be used indoors only. The gateway can be snapped onto a standard 35 mm x 7.5 mm height DIN rail (Standard: CENELEC EN50022) and can be mounted either vertically or horizontally. Allow 20mm (0.79") clearance between a *STRIDE* gateway and other equipment on the DIN rail.

DIN rail mounting steps:

1. Hook top back of unit over the DIN rail.
2. Push bottom back onto the DIN rail until it snaps into place.

DIN rail removal steps:

A. Push the unit down to free the bottom of the DIN rail.
B. Rotate the bottom of the unit away from the DIN rail.
C. Unhook top of unit from DIN rail.

Mounting   **Removal**
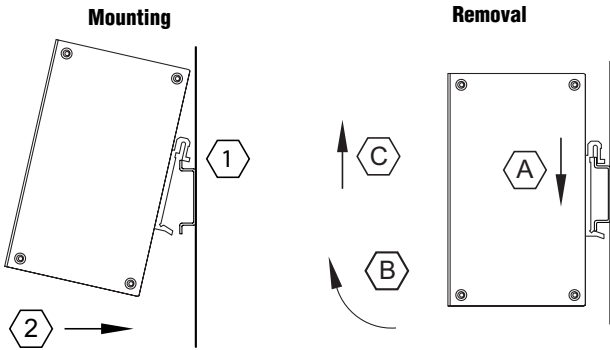
WARNING: The following information applies when operating this device in hazardous locations:

⚠️ Suitable for use in Class I, Division 2, Groups A, B, C and D Hazardous Locations, or nonhazardous locations only.

Cet appareillage est utilisable dans les emplacements de Classe I, Division 2, Groupes A, B, C et D, ou dans les emplacements non dangereux seulement.

WARNING: EXPLOSION HAZARD

• Do not disconnect equipment while the circuit is live or unless the area is known to be free of ignitable concentrations.
• Substitution of any component may impair suitability for Class I, Division 2.

AVERTISSEMENT: RISQUE D'EXPLOSION

• Avant de deconnecter l'equipement, couper le courant ou s'assurer que l'emplacement est designe non dangereux.
• La substitution de composants peut rendre ce materiel inacceptable pour les emplacements de Classe I, Division 2.

1-800-633-0405

www.AutomationDirect.com

Power Wiring:

The switch can be powered from the same DC source that is used to power your other devices. To maintain the UL listing, this must be an SELV power supply. A DC voltage in the range of 12 to 48 VDC needs to be applied between the P1+ terminal and the P1- terminal as shown below. The chassis screw terminal should be tied to panel or chassis ground. To reduce down time resulting from power loss, the switch can be powered redundantly with a second power supply as shown below. A recommended DC power supply is **AutomationDirect.com** part number PSL-24-010.

Terminal block connector is Degson 2EDGK-5.08-04P-14-1000AH or equivalent.

Maximum terminal screw torque is 4.43 lb-in (0.5 N·m).

Ferrule required for stranded wire. Wire Size Range: 26 – 12 AWG Wire Strip Length: 7mm

Redundant DC Power
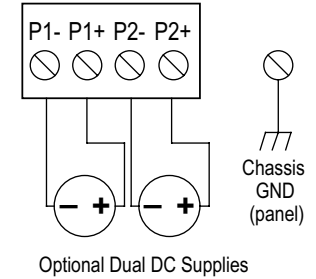
Optional Dual DC Supplies

Communication Ports Wiring:

8 pin RJ45
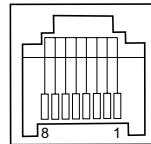
Ethernet Port		
Pin	MDI-X Signal	MDI Signal
1	Receive Data + (RD+)	Transmit Data + (TD+)
2	Receive Data – (RD–)	Transmit Data – (TD–)
3	Transmit Data + (TD+)	Receive Data + (RD+)
6	Transmit Data – (TD–)	Receive Data – (RD–)
4, 5, 7, 8	Unused	Unused
Note: + and – indicate level polarities.		

D-sub 9-pin port
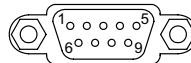
Serial Port			
Pin	RS-232	RS-422/485–4w	RS-485–2w
1	–	RXD – (B)	–
2	RXD	RXD + (A)	–
3	TXD	TXD – (Z)	Data – (B)
4	RTS	TXD + (Y)	Data + (A)
5	GND	GND	GND
6, 7, 8, 9	Unused	Unused	Unused

Additional Help and Support

• Please refer to the *STRIDE* Modbus Gateway User Manual for more detailed information.
• For additional technical support and questions, call our Technical Support team @ 770-844-4200.

04/29/2021