



# EXPLOSION PROOF CELLULAR GATEWAY WITH WIFI

The Solexy SWA/SWS D0\* is a compact, cost-effective and high-performance Cellular Dual Ethernet Gateway with WiFi for installation in harsh environments and hazardous locations.

It utilizes the cellular infrastructure to provide network access to wired or wireless devices anywhere cellular coverage is supported by a cellular carrier.

SWA/SWS D0\* supports 4G/LTE connections with blazing fast speeds.

External N or SMA/RP-SMA antenna connectors make it possible to attach desired antennas and easily find the best signal location.

With Solexy's SWA and SWS enclosures and their rugged construction combined with Atex, IECEx and North America certificates, Solexy offers a wireless device solution for installation in classified Ex areas (gas, dust and mining) and harsh environments.



## FEATURES

### ✓ OPERATING FUNCTIONS

Cellular Ethernet bridge  
Gateway service for equipment with RJ45 or WiFi interface  
WiFi access point to LAN or to 3G/4G

### ✓ DATA RATE

4G (LTE) Cat 4 up to 150 Mbps  
3G up to 42 Mbps

### ✓ WIRELESS

IEEE 802.11 b/g/n up to 150 Mbps

### ✓ VPN AND FIREWALL

VPN tunneling and customizable Firewall rules with ACL

### ✓ DATA USAGES ALERTS

via e-mail and SMS

### ✓ HEAVY DUTY CONSTRUCTION

Explosion proof enclosure made in aluminum (SWA series) or stainless steel (SWS series) weather proof IP66/68

## ■ APPROVALS

### ATEX / IECEx CERTIFICATION

Zone 1, 2, 21 & 22



I M2(M1) Ex db mb [ia Ma] I Mb (SWS only)

II 2(1) G Ex db mb [ia Ga] IIC T5 Gb

II 2(1) D Ex mb tb [ia Da] IIIC T100°C Db

### USA & CANADA CERTIFICATION

Class I, Division 1, Groups B, C and D

Class II, Division 1, Groups E, F and G

Class I, Zone 1, Groups IIB+H2 [For U.S. only]

Zone 21, Groups IIIC [For U.S. only]



# SPECIFICATIONS

## GENERAL

Power supply	7 - 30VDC or Passive PoE Reverse polarity protection		
Current Consumption (@12VDC)	Idle (LTE Connected): 93~120 mA	WiFi (AP mode+LTE): 170 mA	Max Peak: 320 mA
Approvals	FCC / IC   PTCRB   AT&T, Verizon (D01 only)		
Humidity	5-95%, non-condensing		
Ambient temp. range	<b>USA &amp; CANADA</b> SWA series -40°C (-40°F) +85°C (+185°F) SWS series -40°C (-40°F) +85°C (+185°F)	<b>ATEX &amp; IECEx</b> SWA series -40°C (-40°F) +83°C (+181°F) SWS series -40°C (-40°F) +82°C (+179°F)	
Weight	SWADxx33 & SWADxx45: 2,6 kg - SWADxx30 & SWADxx54: 2,9 kg (without antenna) SWSDxx33 & SWSDxx45: 5,3 kg - SWSDxx30 & SWSDxx54: 5,6 kg (without antenna)		

## HARDWARE

	D01	D02	D03
Cellular Supported Bands	<b>North America</b> LTE FDD (Bands 2,4,5,12/17,13) UMTS   HSPA+ (Bands 2,5) 3GPP Protocol Stack Release 9	<b>China</b> LTE FDD: B1,3,8 LTE TDD: B38,39,40,41 DC-HSPA+/HSPA+/HSPA/UMTS: B1,5,8,9 TD-SCDMA: B34,39 GSM/GPRS/EDGE: 900/1800 MHz	LTE FDD: B1,B2,B3,B4,B5,B7,B8,B12,B13, B18,B19,B20,B26,B28 TDD: B38,B39,B40,B41 WCDMA: B1,B2,B4,B5,B8,B6,B19 GSM: B2/B3/B5/B8
Cellular Data Features <i>(Module Standalone Laboratory Performance)</i>	<b>North America</b> LTE: DL 150 Mbps, UL 50 Mbps DC-HSPA+: DL 42 Mbps, UL 5.7 Mbps	<b>China</b> LTE FDD: UL 50Mbit/s, DL 150Mbit/s @20M BW LTE TDD: UL 10Mbit/s; DL 112Mbit/s @20M BW DC-HSPA+: UL 5.76 Mbit/s; DL 42 Mbit/s	LTE FDD: Up to 150 Mbps DL, 50 Mbps UL LTE TDD: Up to 130 Mbps DL, 35 Mbps UL DC-HSPA+: Up to 42 Mbps DL, 5.7 Mbps UL WCDMA: Up to 384 Kbps DL, 384 Kbps UL EDGE: Up to 296 Kbps DL, 236.8 Kbps UL GSM: Up to 107 Kbps DL, 85.6 Kbps UL
WiFi Features	802.11b/g/n (2.4GHz)		

WiFi Performance	RATE	MODE	Tx (dBm)	Rx (dBm)	RATE	MODE	Tx (dBm)	Rx (dBm)
	1 Mbps	b	30	-97 ± 1	MCS0	n (HT20)	30	-96 ± 1
11 Mbps	b	30	-92 ± 1	MCS7	n (HT20)	26	-75 ± 1	
6 Mbps	g	30	-94 ± 1	MCS0	n (HT40)	30	-94 ± 1	
54 Mbps	g	26	-75 ± 1	MCS7	n (HT40)	26	-73 ± 1	

Ethernet	2x 10/100, Auto - MDI/X IEEE 802.3		
USB	USB 2.0 Direct Connect		
Connectors	Data: 2x RJ-45 (Ethernet) 4 PIN Interlock (Vin)	USB: Micro-AB	SIM: 1.8 / 3.0V (Micro - 3FF)

## SOFTWARE

SMS	SMS to/from Ethernet via Telnet   SMS Alerts   SMS Remote Control
Carrier Connection	PAP, CHAP, ICMP Keep Alive, Traffic Watchdog, DDNS, IP pass-through
Network Protocols	TCP, UDP, TCP/IP, ARP, ICMP, DHCP, HTTP, SNMP, FTP, DNS, Serial over IP, Modbus Slave (TCP/Serial)
Security	VPN, IPSec with IKE/ISAKMP; Multiple tunnel support (16); 3DES and up to 256-bit AES Encryption, VPN Tunneling L2TP, GRE, HTTPS, RADIUS
Firewall	NAT, NAT-T VPN tunneling, Port forwarding, VPN/GRE pass-through; Access control lists , DMZ
Management	Telnet, WebUI, SNMP V1/2/3, Wireless Upgrade (HTTP/FTP), AT Command Interface (Serial/Telnet), Microhard NMS Support, Data Usage Alerts, SSH
Diagnostics	RSSI, Ec/No, Voltage, Temperature, Remote diagnostics, UDP Event Reporting, SMS Alerts, Netflow

## NOMENCLATURE

SWA	D01	33	- 42	0	X0
a	b	c	d	e	f

### a - Enclosure

SWA WA series made in aluminum  
SWS WS series made in stainless steel

### b - Device

D01 North America <sup>(1)</sup>  
D02 China  
D03 Global

### c - Antenna connection <sup>(2)</sup>

30 n° 3 RXN antenna coupler (N Female) <sup>(3)</sup>  
33 n° 2 RXN antenna coupler (N Female) <sup>(4)</sup>  
54 n° 2 RXS antenna coupler (SMA Female) for Mobile <sup>(4)</sup>  
n° 1 RXF antenna coupler (RP-SMA Female) for WiFi <sup>(4)</sup>  
45 n° 1 RXS antenna coupler (SMA Female) for Mobile <sup>(3)</sup>  
n° 1 RXF antenna coupler (RP-SMA Female) for WiFi <sup>(3)</sup>

### d - Cable entries

42 n° 4 3/4" npt-f  
44 n° 4 M25x1.5

### e - Colour - Brand

0 black polyester powder coating (WA series only)  
E electropolished (WS housings only)

### f - Approvals

X0 Atex/IECEX Gas and Dust certified <sup>(5)</sup>  
M0 Atex/IECEX Gas, Dust and mining certified <sup>(5)</sup>  
N0 QPS CL1 DIV1 and North American Zones listed

#### Notes:

<sup>(1)</sup> AT&T and Verizon approved

<sup>(2)</sup> Antenna not included

<sup>(3)</sup> Layout 4

<sup>(4)</sup> Layout 3 (consult dimensional drawings for specific layout)

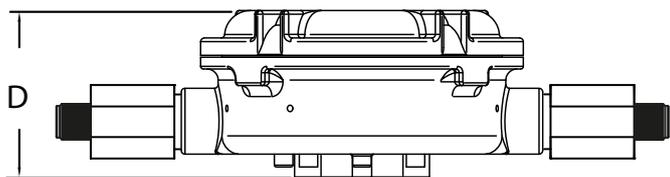
<sup>(5)</sup> Zone 1, 2, 21 & 22

## AVAILABLE ACCESSORIES

**MOUNTING BRACKET:** KM-01: mounting kit for 2" pipe  
(see dedicated data sheet) KM-02: universal mounting kit



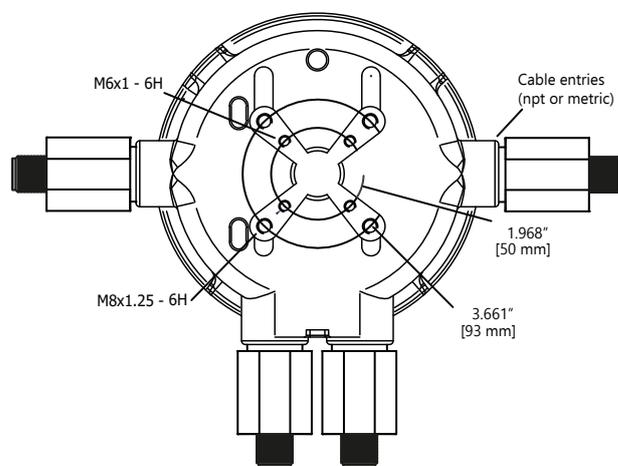
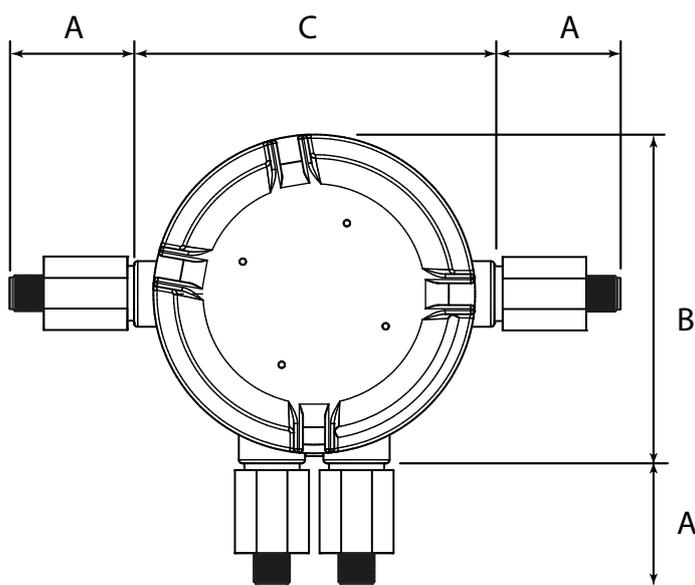
# DIMENSIONAL DRAWINGS



In order to determine overall dimension of a specific unit pls follow instructions:

1) Select the specific layout (you can find it in the product nomenclature)

2) Consider only the antenna coupler dimension (A) that you find in the layout

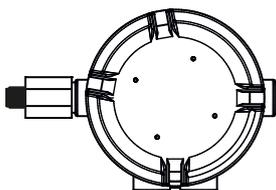


Model	A (*)	B	C	D
SWA HWA	58,5 mm [2.30"] metric coupler 70 mm [2.76"] npt coupler	179,8 mm [7.08"]	180 mm [7.09"]	89,5 mm [3.52"]
SWS HWS	58,5 mm [2.30"] metric coupler 70 mm [2.76"] npt coupler	180,5 mm [7.11"]	196 mm [7.72"]	90 mm [3.54"]

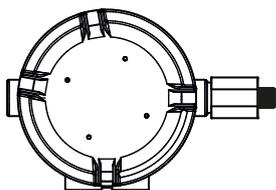
(\*) max dimension related to RX or SX coupler with N female antenna connector

## TYPICAL LAYOUTS \*\*

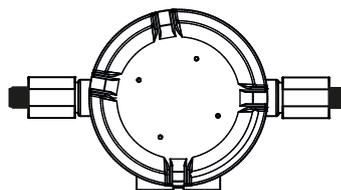
Layout 1



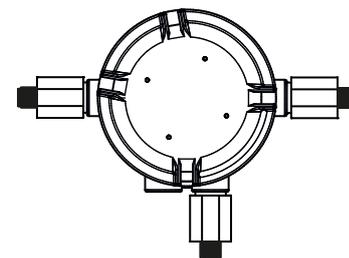
Layout 2



Layout 3



Layout 4



(\*\*) layout type specified in device datasheet

Data contained in this specification are subject to change without notice

