

HAZ LOC RADIO SOLUTIONS

DATASHEET

B00021-05

EXPLOSION PROOF CELLULAR ROUTER AND ACCESS POINT



The Solexy SWA/SWS R** is a compact, cost-effective and secure industrial 4G/LTE and 5G Red Cap router for installation in harsh environments and hazardous locations. It is used to provide connection through a WiFi hotspot or ethernet port based on the cellular network. External N type or SMA/RP-SMA antenna connectors make it possible to connect desired antennas and easily find the best signal location.

SWA/SWSR** Industrial routers have industry leading security features and widely used for 4G/5G backup, Remote Connection, Out-of-Band Management, Advanced VPN and tunneling services in IoT networking solutions.

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, as zone 1, class 1, div 1.



FEATURES



OPERATING FUNCTIONS

WiFi access point (WiFi to LAN or to 2G/3G/4G/5G Redcap)
WiFi client (LAN to WiFi)



DATA RATE

5G (RedCap) up to 223 Mbps
4G (LTE) Cat 4 up to 150 Mbps
3G up to 42 Mbps and 2G up to 236.8 kbps



WIRELESS

IEEE 802.11 b/g/n Access Point (AP) and Station (STA)



SMS TOOLS

SMS status, SMS configuration, send/ read SMS via HTTP POST/GET



HEAVY DUTY CONSTRUCTION

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



5G REDCAP

Unit available with 5G RedCap cellular connectivity

APPROVALS



ATEX / IECEx CERTIFICATION



Zone 1, 2, 21 & 22

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

I Mb (SWS only)

II 2(I) G Ex db mb [ia Ga] IIC T6... T5 Gb

II 2(I) D Ex mb tb [ia Da] IIIC T80°C... 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, G groups IIIC [For U.S. only]

AVAILABLE ACCESSORIES

MOUNTING BRACKET

KM-01: mounting kit for 2" pipe

KM-02: universal mounting kit

(see dedicated data sheet)



CONFIGURATION



SWA	R13	33	- 42	1	X0	
a	b	c	d	e	f	

a - Enclosure

SWA Aluminum polyester powder coated

SWS Stainless steel AISI 316 (CF8M) electropolished

b - Device

R13 Global

R19 North America (AT&T, Verizon, T-Mobile)

R30 5G RedCap unit Global

R** Special code for national telecom certification.

Contact Solexy to obtain the right code

c - Antenna connection ⁽¹⁾

30 n° 3 UXN antenna coupler (N Female) ⁽²⁾

33 n° 2 UXN antenna coupler (N Female) ⁽³⁾

d - Cable entries

42 n° 4 3/4" npt-f

44 n° 4 M25x1.5

e - Approvals

X0 Atex/IECEx Gas and Dust certified ⁽⁴⁾

M0 Atex/IECEx Gas, Dust and mining certified ⁽⁴⁾

N0 QPS CLI DIV1 and North American Zones listed

f - Extension

-29 only cellular/no WiFi (available only for SW*R**33...)

-52 e-Sim version

Notes: (1) Antenna not included

(2) Layout 4

(3) Layout 3 (consult dimensional drawings for specific layout)

(4) Zone 1, 2, 21 & 22



GENERAL	
Power supply	9 - 30 VDC, Passive PoE
Power consumption	5W
Ambient temp. range	USA & CANADA ATEX & IECEX SWA series -40°C (-40°F) +75°C (+167°F) SWS series -40°C (-40°F) +75°C (+167°F) SWA series -40°C (-40°F) +71°C (+159°F) SWS series -40°C (-40°F) +66°C (+150°F)
Weight	SWARxx33 & SWARxx45: 2,6 kg - SWARxx30 & SWARxx54: 2,9 kg (without antenna) SWSRxx33 & SWSRxx45: 5,3 kg - SWSRxx30 & SWSRxx54: 5,6 kg (without antenna)

HARDWARE	
CPU	Atheros Hornet, MIPS 24Kc, 580 MHz
Memory	RAM 128MB, DDR2, Flash 16MB SPI
I/O	1 x Digital Input, 1 x Digital Output
Ethernet	2 x RJ45 ports, 10/100 Mbps
Network connection	4G Cat 4 up to 150 Mbps 3G Up to 42 Mbps 2G Up to 236.8 kbps
Supported bands*	4G (LTE-FDD) B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B26, B28 4G (LTE-TDD) B38, B39, B40, B41 3G B1, B2, B4, B5, B6, B8, B19 2G B2, B3, B5, B8
WiFi	802.11 b/g/n - Up to 50 simultaneous connections

SOFTWARE	
Operating system	RutOS (OpenWrt based Linux OS)
Mobile features	Auto APN, Band lock
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, PPPoE, DHCP, Telnet
Network	Failover (Network backup), VLAN, QoS, Load Balancing
Security	DDOS prevention (SYN flood protection, SSH attack prevention, HTTP/HTTPS attack prevention), Port scan prevention (SYN-FIN, SYN-RST, X-mas, NULL flags, FIN scan attacksw
VPN and tunneling	OpenVPN, IPsec, GRE, PPTP, L2TP, Stunnel, DMVPN, SSTP
Monitoring and management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Connection monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solution	RMS, FOTA, Telenor, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
SMS features	SMS status, SMS configuration, Send/Read SMS via HTTP POST/GET, EMAIL to SMS, SMS to Email, SMS to HTTP, SMS to SMS, scheduled SMS, SMS autoreply, SMPP
Services	DDNS, VRRP, Wake On Lan (WOL), WEB filter, UPNP, Traffic Logging





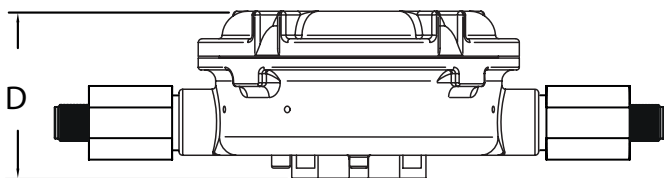
GENERAL	
Power supply	9 - 30 VDC, Passive PoE
Power consumption	Idle < 1.5W, Max 3W
Ambient temp. range	USA & CANADA ATEX & IECEx SWA series -40°C (-40°F) +75°C (+167°F) SWS series -40°C (-40°F) +75°C (+167°F) SWA series -40°C (-40°F) +71°C (+159°F) SWS series -40°C (-40°F) +66°C (+150°F)
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Network connection	5G RedCap up to 223 Mbps 4G Up to 150 Mbps
Supported bands*	5G NR SA n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n20, n40, n41, n48, * in function of device installed 4G (LTE-FDD) B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B30, B66, B70, B71 4G (LTE-TDD) B34, B38, B39, B40, B41, B42, B43, B48
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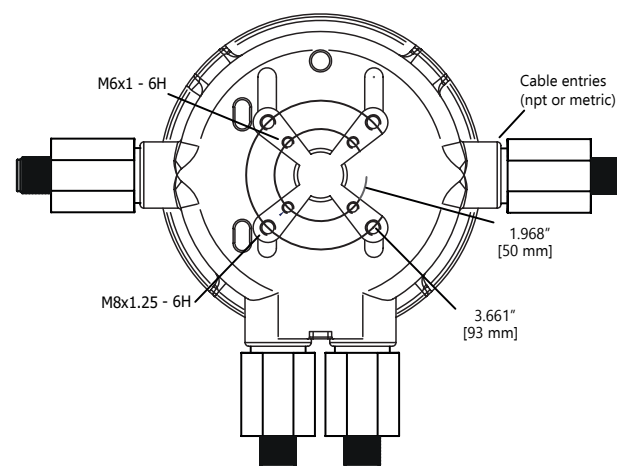
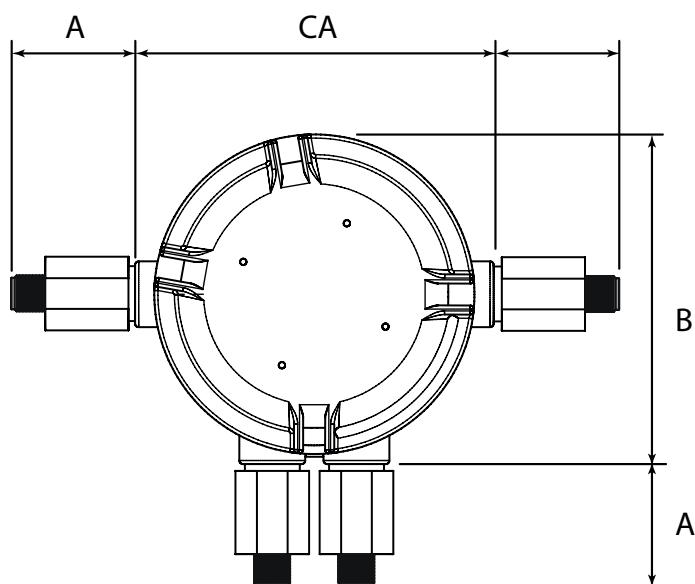
Data contained in this specification are subject to change without notice





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

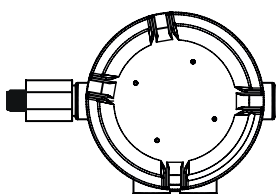


MODEL	A (*)	B	C	D
SWA HWA	58,5 mm [2.30"] metric coupler 70 mm [2.76"] npt coupler	179,8 mm [7.08"]	180 mm [7.09"]	89,5 mm [3.52"]
SWS HWS	58,5 mm [2.30"] metric coupler 70 mm [2.76"] npt coupler	180,5 mm [7.11"]	196 mm [7.72"]	90 mm [3.54"]

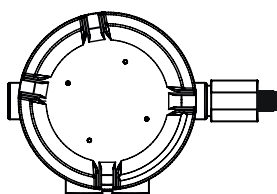
(*) max dimension related to RX or SX coupler with N female antenna connector

TYPICAL LAYOUTS **

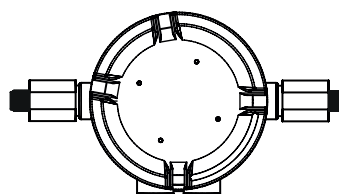
Layout 1



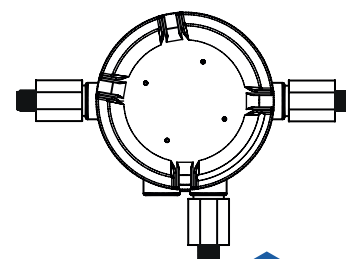
Layout 2



Layout 3



Layout 4



(**) layout type specified in device datasheet



