

HAZ LOC RADIO SOLUTIONS

DATASHEET

EXPLOSION PROOF WIFI MIMO DUAL-RADIO ACCESS POINT



The Solexy SWA/SWS A1* is the most compact industrial WiFi MIMO 2x2 access point rated for installation in hazardous locations and harsh environments.

It is completely configurable through its ethernet port or via WiFi, using your browser or a dedicated configuration software. It offers routing, filtering and advanced security features including 802.11i.

This unit features several operating functions: WiFi access point, client, repeater, & MESH points modes. It is available with 3 radio configurations, all of them 2.4/5GHz: 802.11/n MIMO 2x2 (A10), 802.11/ac MIMO 2x2 (A11), or a unique dual radio configuration 802.11/n/ac that allows for one radio to create the MESH backbone while the other is used for local access point.

Powering can be done using POE (POE or PPOE) or direct power supply to the dedicated terminals

With Solexy's SWA and SWS enclosures and their IP66/68 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 Client, repeater & mesh (A10 and A12 only)



WIFI

A10: 802.11a/b/g/n, MIMO 2x2, 2.4/5GHz, ANI (Adaptive Noise Immunity)
A11: 802.11a/b/g/n/ac, MIMO 2x2, 2.4/5GHz, ANI
A12: 802.11a/b/g/n, MIMO 2x2, 2.4/5GHz, plus 802.11a/b/g/n/ac, MIMO 2x2, 2.4/5GHz



ETHERNET CONNECTION

1-port gigabit ethernet 10/100/1000 base TX autosensing, auto MDI/MDIX cross-over, RJ4



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 T6... T5 Gb

II 2(1) 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 rous IIIC [For U.S. only]

CONFIGURATION



SWA	A10	33	42	1	X0
a	b	c	d	e	

a - Enclosure

SWA Aluminum polyester powder coated

SWS Stainless steel AISI 316 (CF8M) electropolished

b - Device

A10 802.11n, MIMO 2x2

A11 802.11ac, MIMO 2x2

A12 802.11n, MIMO 2x2 plus 802.11ac (1 stream)

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 Cl. I Div. 1 and North American Zones listed

Notes: (1) Antenna not included

(2) Layout 4

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

(4) Zone 1, 2, 21 & 22

AVAILABLE ACCESSORIES

MOUNTING BRACKET

KM-01: mounting kit for 2" pipe

KM-02: universal mounting kit

(see dedicated data sheet)

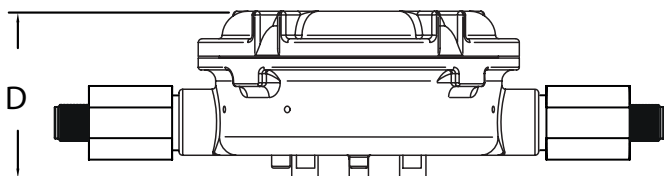


SPECIFICATIONS

GENERAL	
Ethernet interface	1-port gigabit ethernet 10/100/1000 base TX auto-sensing, auto MDI/MDIX cross-over, RJ45
WiFi interfaces	A10: 802.11a/b/g/n, MIMO 2x2, 2.4/5GHz, ANI (Adaptive Noise Immunity) A11: 802.11a/b/g/n/ac, MIMO 2x2, 2.4/5GHz, ANI A12: 802.11a/b/g/n, MIMO 2x2, 2.4/5GHz, plus 802.11a/b/g/n/ac, MIMO 2x2, 2.4/5GHz
WiFi radio data rate	A10 (WiFi 1): up to 250Mbps A11 (WiFi 2): up to 600 Mbps A12: (WiFi 1+2): up to 250 Mbps (WiFi 1) and up to 360 Mbps (WiFi 2)
Output power	A10: (WiFi 1) 2.4GHz: up to 23.5 dBm (aggregate)-5GHz: up to 21 dBm (aggregate) ±2dB A11: (WiFi 2) 2.4GHz: up to 23.5 dBm (aggregate)-5GHz: up to 21 dBm (aggregate) ±2dB A12: (WiFi 1) 2.4GHz: up to 23.5 dBm (aggregate)-5GHz: up to 21 dBm (aggregate) ±2dB, (WiFi 2) 2.4GHz: up to 20.8 dBm (aggregate)-5GHz: up to 18 dBm (aggregate) ±2dB
Security	Firewall, DoS, https, MAC filtering, WPA/WPA2-Personal & Enterprise (IEEE 802.1X/RADIUS), WEP, tunnels L2 (GRE), VPN (openVPN) SNMP V3
WiFi modes	Access point, client, MESH (IEEE 802.11s) infrastructure, AD-HOC, fast roaming (less than 30 ms), WMM QoS
Ethernet networking	Frames filtering, bridging, repeater, STP/RSTP, VLAN, DHCP (server & client), DNS relay
Ethernet routing	Multicast (PIM), IP redundancy (VRRP), static routes, NAT router, router
Administration	http, https, SNMP agent (V1, V2C, V3), WaveManager administration software
Power supply	18-60 VDC Power method: dedicated terminals or POE or PPOE (Passive Power Over Ethernet)
Power consumption	8W
Ambient temperature range	USA & CANADA SWA series -40°C (-40°F) +70°C (+158°F) SWS Series -40°C (-40°F) +70°C (+158°F) ATEX & IECEx SWA series -40°C (-40°F) +60°C (+140°F) SWS Series -40°C (-40°F) +50°C (+122°F)
Weight	SWAA10 & SWAA11: 2,6 Kg - SWAA12: 2,9 Kg (without antenna) SWSA10 & SWSA11: 5,3 Kg - SWSA12: 5,6 Kg (without antenna)

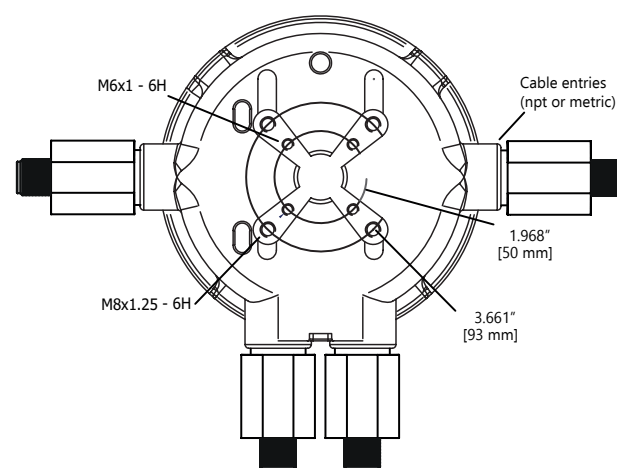
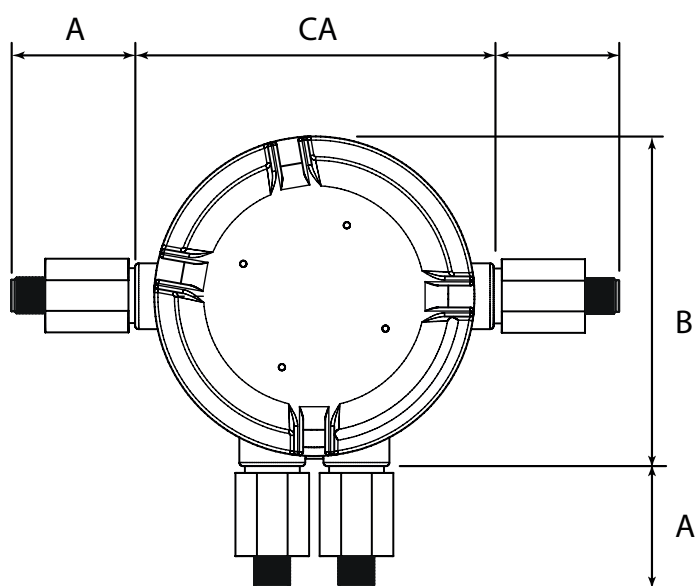
Data contained in this specification are subject to change without notice





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

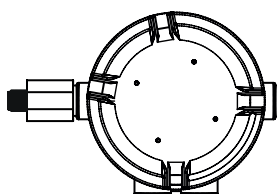


MODEL	A (*)	B	C	D
SWA HWA	58,5 mm [2.30"] metric coupler 70 mm [2.76"] npt coupler	179,8 mm [7.08"]	180 mm [7.09"]	89,5 mm [3.52"]
SWS HWS	58,5 mm [2.30"] metric coupler 70 mm [2.76"] npt coupler	180,5 mm [7.11"]	196 mm [7.72"]	90 mm [3.54"]

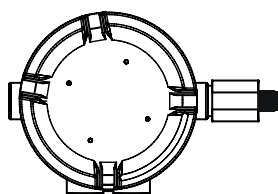
(*) max dimension related to RX or SX coupler with N female antenna connector

TYPICAL LAYOUTS **

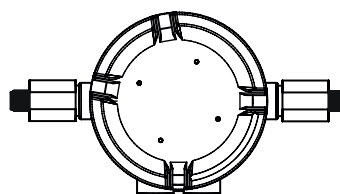
Layout 1



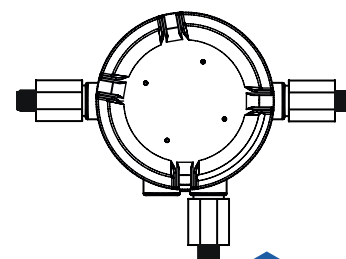
Layout 2



Layout 3



Layout 4



(**) layout type specified in device datasheet





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