



HAZ LOC RADIO SOLUTIONS CATALOGUE



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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 rousps 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

R1E Global e-Sim

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 CL1 DIV1 and North American Zones listed

f - Extension

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

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)
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, NOR Flash 256MB
I/O	1 x Digital Input, 1 x Digital Output
Ethernet	2 x RJ45 ports, 10/100 Mbps
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
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

Data contained in this specification are subject to change without notice



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] IIC 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, 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 **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 CL1 DIV1 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



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



HAZ LOC RADIO SOLUTIONS

DATASHEET

B00035-00

EXPLOSION PROOF LTE CAT 6 CELLULAR ROUTER WITH WIFI

The Solexy S WA/SWS R** is a compact, cost-effective and secure industrial 4G/LTE CAT6 router for installation in harsh environments and hazardous locations. It is used to create a WiFi hotspot based on a cellular connectivity. External N or SMA/RP-SMA antenna connectors make it possible to connect desired antennas and easily find the best signal location.

SWA/SWSR** Industrial router have industry leading security features and widely used for 4G backup, Remote Connection, Out-of-Band Management, Advanced VPN and tunneling services in IoT networking solutions. With Solexy's S WA and SWS enclosures and their rugged construction combined with Atex and IECEx certificates, Solexy offers a wireless device solution for installation in classified Ex areas (gas, dust and mining) and harsh environments.



FEATURES



OPERATING FUNCTIONS

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



DATA RATE

4G (LTE) Cat 6 up to 300 Mbps
3G up to 42 Mbps



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

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

NOMENCLATURE



SWA	R40	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

R40 Europe, The Middle East, Africa, Australia, New Zealand

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⁾

f - Extensions

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

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)



GENERAL	
Power supply	9 - 30 VDC, Passive PoE
Power consumption	Idle <2W, max<6,5W
Ambient temp. range	ATEX & IECEx SWA series -40°C (-40°F) +66°C (+150°F) T5 SWS series -40°C (-40°F) +56°C (+132°F) T5
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	Mediatek, MIPS 24KEc, 580 MHz
Memory	RAM 128MB, DDR2, 16MB SPI Flash
I/O	1 x Digital Input, 1 x Digital Output
Ethernet	2 x RJ45 ports, 10/100 Mbps
Network connection	4G Cat 6 up to 300 Mbps 3G Up to 42 Mbps
Supported bands*	4G (LTE-FDD): B1, B3, B5, B7, B8, B20, B28, B32 4G (LTE-TDD): B38, B40, B41, B42, B43 3G: B1, B3, B5
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





EXPLOSION PROOF BLUETOOTH SERIAL ADAPTER

The Solexy SWA/SWS B** is a compact and cost-effective solution for serial data transmission in hazardous location, where plugging or un-plugging to a serial port is usually impossible.

Available with RS232 and RS485/422 serial port, making it a flexible solution for M2M applications, allowing the creation of a virtual cable to connect EX laptop or smartphones to a serial port wirelessly.

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

RS232 and RS485/422 serial cable substitution



BLUETOOTH

V2.0+EDR

Supports up to 4 multiple simultaneous connections. Supports Bluetooth profiles SPP (serial port profile).

Interoperability with PDA, laptops, etc...



CONFIGURATION

Easy to use windows configuration tool available (no external drivers required)



HEAVY DUTY CONSTRUCTION

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



COVERAGE

The class 1 Bluetooth radio can reach wireless transmission distances of 100 mt (328 ft).

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 roups IIIC [For U.S. only]

CONFIGURATION



SWA **B13** **03** - **42** **1** **X0**
a b c d e

a - Enclosure

SWA Aluminum polyester powder coated

SWS Stainless steel AISI 316 (CF8M) electropolished

b - Device

B10 RS232 Bluetooth serial adapter

B13 RS232/485/422 Bluetooth serial adapter

c - Antenna connection ⁽¹⁾

03 n° 1 UXN antenna coupler (N Female) ⁽²⁾

d - Cable entries

42 n° 4 3/4" npt-f

44 n° 4 M25x1.5

e - Approvals

X0 Atex/IECEx Gas and Dust certified ⁽³⁾

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

N0 QPS CL1 DIV1 and North American Zones listed

Notes: (1) Antenna not included
(2) Layout 1
(3) Zone 1, 2, 21 & 22

AVAILABLE ACCESSORIES

MOUNTING BRACKET

KM-01: mounting kit for 2" pipe

KM-02: universal mounting kit

KM-04: magnetic mounting kit

(see dedicated data sheet)



SPECIFICATIONS

GENERAL	
Power supply	5 - 12 VDC
Power consumption	min 2 mA - Max 80 mA
Ambient temp. range	USA & CANADA ATEX & IECEX SWA series -40°C (-40°F) +85°C (+185°F) SWS series -40°C (-40°F) +85°C (+185°F) SWA series -40°C (-40°F) +83°C (+181°F) SWS series -40°C (-40°F) +82°C (+179°F)
Weight	SWABxx03: 2,3 kg (without antenna) SWSBxx03: 4,9 kg (without antenna)

SERIAL INTERFACE	
Serial speed	Up to 921.6kbps
CTR/RTS & DTR/DSR	CTR/RTS flow control DTR/DSR for loop-back & full transfer (RS232 only)

RADIO	
Max TX power	+18 dBm
Max EDR transmit power	+6dBm
Receiver sensitivity	-88 dBm

BLUETOOTH INTERFACE	
Bluetooth	v2.0 + EDR
Class	1
Profile	SPP

Data contained in this specification are subject to change without notice





EXPLOSION PROOF SERIAL TO WIFI CONVERTER

The Solexy SWA/SWS C14 is a compact industrial serial to WiFi converter rated for installation in hazardous locations and harsh environments.

It provides an RS232/RS485/RS422 to Ethernet/WiFi interface for web connectivity by enabling any device. The SW*C14 integrates a TCP/IP controller, memory, 10/100 Mbps Ethernet transceiver, high-speed serial port, and integrates a fully developed TCP/IP stack and ECos operating system. It also includes a built-in Web server used to configure, monitor, or troubleshoot the connected device.

With Solexy's SWA and SWS enclosures and their IP66/68 rugged construction combined with Atex, IECEx certificates, Solexy offers a wireless device solution for installation in classified Ex areas (gas, dust and mining) and harsh environments, as zone 1/21.



FEATURES



SERIAL PORT

Support RS232/RS422/RS485 , serial speed up to 230400 bps



WIFI

802.11 b/g/n, 2.4GHz.
Up to 20dBm



ETHERNET CONNECTION

1-port ethernet 10/100 base-T RJ45
Auto-negotiation



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

AVAILABLE ACCESSORIES

MOUNTING BRACKET

KM-01: mounting kit for 2" pipe

KM-02: universal mounting kit
(see dedicated data sheet)



CONFIGURATION



SWA	C14	03	- 42	1	X0
a	b	c	d	e	

a - Enclosure

SWA Aluminum polyester powder coated

SWS Stainless steel AISI 316 (CF8M) electropolished

b - Device

C14 Serial to Ethernet/WiFi gateway

c - Antenna connection ⁽¹⁾

03 n° 1 UXN antenna coupler (N Female) ⁽²⁾

d - Cable entries

42 n° 4 3/4" npt-f

44 n° 4 M25x1.5

e - Approvals

X0 Atex/IECEx Gas and Dust certified ⁽³⁾

M0 Atex/IECEx Gas, Dust and mining certified ⁽³⁾

Notes: (1) Antenna not included
(2) Layout 2
(3) Zone 1, 2, 21 & 22

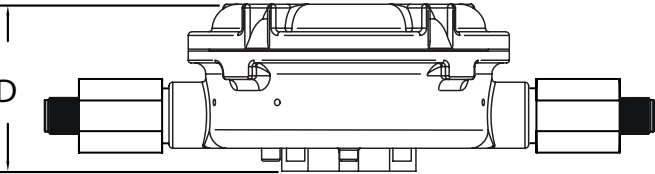


SPECIFICATIONS

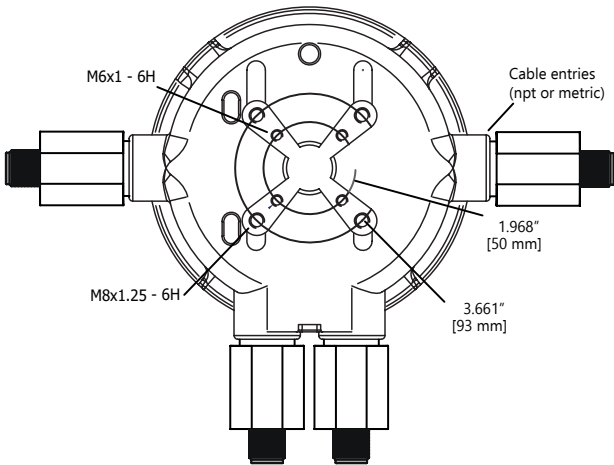
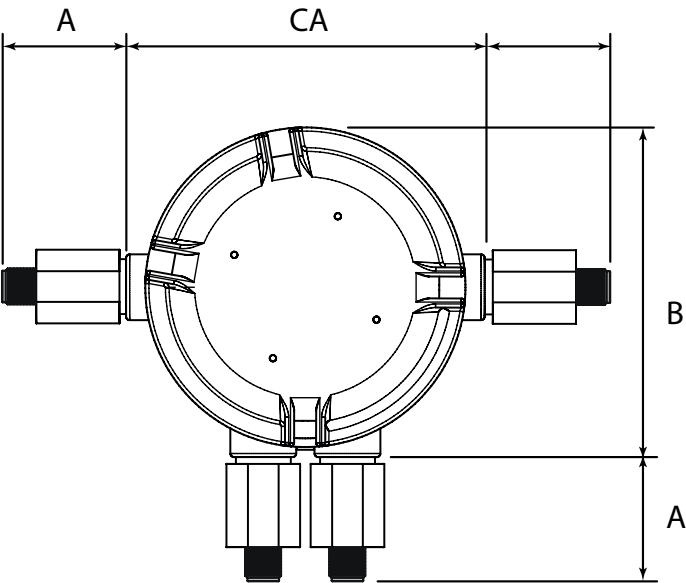
GENERAL	
Ethernet interface	1-port ethernet 10/100 base-T Auto-Negotiation, RJ45
WiFi interface	802.11 b/g/n, 2.4GHz,
Output power	802.11b: +20dBm (Max.) 802.11g: +18dBm (Max.) 802.11n: +15dBm (Max.)
Encryption	WEP64/WEP128/TKIP/ AES
Security	WEP/WPAPSK/WPA2PSK
WiFi modes	STA/AP/STA+AP
Ethernet networking	IP, TCP, UDP, DHCP, DNS, HTTP Server/Client, ARP, BOOTP, AutoIP, ICMP, Web socket, Telnet, uPNP, NTP, Modbus TCP
Serial port	1 RS232/RS485/RS422
Baud Rate	TTL: 2400 bps~230400 bps
Power supply	5-36 VDC
Power consumption	<700 mW
Ambient temperature range	ATEX & IECEx SWA series -25°C +84°C SWS Series -25°C +83°C
Weight	SWAC14: 2,3 Kg (without antenna) SWSC14: 5 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

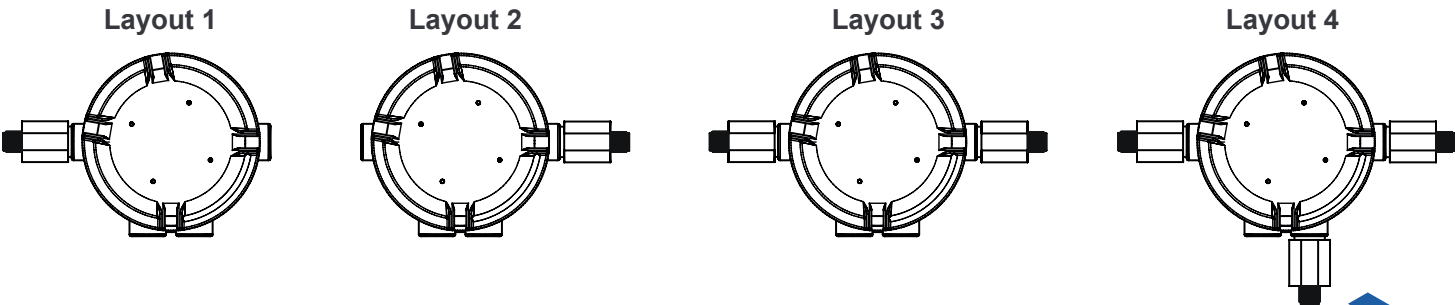


Data contained in this specification are subject to change without notice

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 type specified in device datasheet





EXPLOSION PROOF AC/DC CONVERTER

The Solexy S WA/SWS E** is a compact, cost-effective AC/DC converter for installation in harsh environments and hazardous locations. It is used to transform AC power available in the field to power up devices that require DC power.

The heavy duty and weatherproof enclosure, available in both aluminium and stainless steel, makes this unit ideal for use in outdoor and sea application, like on oil rig.

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



SPECIFICATIONS

GENERAL	
Input voltage	85-264 VAC
Output voltage	24 VDC
Power consumption	300 mW Max.
Ambient temp. range	SWA series -40°C (-40°F) +74°C (+165°F) SWS series -40°C (-40°F) +68°C (+154°F)
Weight	SWAExx: 2,1 kg SWSExx: 4,7 kg

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... T4 Gb

II 2(1) D Ex mb tb [ia Da] IIIC T110°C... T140°C Db

NOMENCLATURE



SWA **E10** **00** - **42** **1** **X0**

a **b** **c** **d**

a - Enclosure

SWA Aluminum polyester powder coated

SWS Stainless steel AISI 316 (CF8M) electropolished

b - Device

E10 24W, Input 85-264 VAC, Output 24 VDC

c - Cable entries

42 n° 4 3/4" npt-f

44 n° 4 M25x1.5

d - Approvals

X0 Atex/IECEx Gas and Dust certified ⁽¹⁾

M0 Atex/IECEx Gas, Dust and mining certified ⁽¹⁾

Notes: (1) 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)



SW RADIO SOLUTION ANTENNA KIT

Standard antenna to use in combination with Solexy radio solution

Explosion proof WiFi MIMO dual radio access point

Device	Antenna Kit	Solexy antenna
SW_A__33	KA-A33U	ANH92-CNRU (2pcs)
SW_A1230	KA-A30U	ANH92-CNRU (2pcs), ANH92-CNSU (1pcs)

Explosion proof cellular router

Device	Antenna Kit	Solexy antenna
SW_R__33	KA-R33U	ANH73-CNRU (1pcs), ANHC2-CNRS (1 pcs)
SW_R__30	KA-R30U	ANH73-CNSU (1pcs), ANHC2-CNRS (2 pcs)
SW_R__33...-29	KA-R30U-29	ANHC2-CNRS (2 pcs)

Explosion proof Serial to Bluetooth

Device	Antenna Kit	Solexy antenna
SW_B__03	KA-B03U	ANH73-CNRU (1pcs)

Explosion proof Serial to WiFi

Device	Antenna Kit	Solexy antenna
SW_C__03	KA-B03U	ANH73-CNRU (1pcs)

HEAVY DUTY ANTENNA DIPOLE ANH SERIES



The range and performance of a RF link is critically dependent upon the antenna and it is one of the most complex aspects of RF design.

Solexy's heavy duty antenna is designed for use in rough environments, meeting the demands of tough applications while being affordable yet durable.

Perfect in combination with our series of antenna barrier, our antennas are now well known throughout the Oil & Gas industry for its quality and performances.

An antenna can make or break a wireless network. The proper antenna can optimize the range, reliability and performances of a radio network.

FEATURES

DIPOLE DESIGN

This antenna has the signal dependability of a Dipole antenna for application at different frequencies

SIMPLE APPARATUS

All our ANH and ANF have been evaluated and are provided with declaration of being simple apparatus, making them perfect for application in hazardous location with IS radio output

DUAL BAND VERSION

Available for dual band WiFi working at 2.4 and 5 GHz in a single antenna

ANH HEAVY DUTY DESIGN

Rugged construction allows the use of our antennas in hostile environments where weather and abuse are a factor

FREQUENCY

Available for 868 MHz, 915 MHz and 2.4/5 GHz.

N CONNECTOR

Available with N type connector both Male and Female, and with vertical and 90° mounting

CONFORMITY



Simple apparatus statement of conformity

statement n° FIDI 21.035

The ANH and ANF series satisfy requirements of standards: EN IEC 60079-0:2018 EN 60079-11:2012 for simple apparatus given in clause 5.7 of EN 60079-11 for:

- Gas group IIC, temperature class T6 and EPL Gb
 - Dust group IIIC, maximum surface temperature T80°C and EPL Db
- And for ambient temperature range: -40°C to +80°C

CONFIGURATION



ANH **5** **2** - **C** **N** **S** **U**
a b c

a - Frequency

4	868 MHz
5	915 MHz
7	2.4 GHz
9	2.4-5 GHz

b - Antenna connection

C	N Male
3	N Female

c - Antenna mounting

S	Straight (vertical)
R	Elbow (90°)

AVAILABLE ACCESSORIES

WALL MOUNTING BRACKET

Antenna wall bracket for remote mounting

COAX CABLE EXTENSIONS

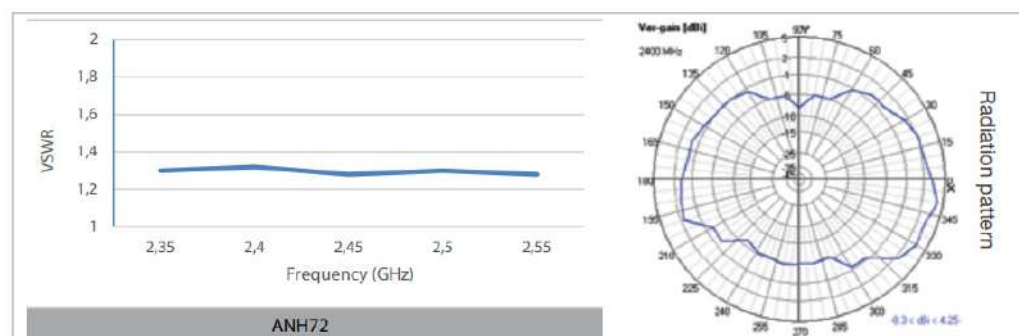
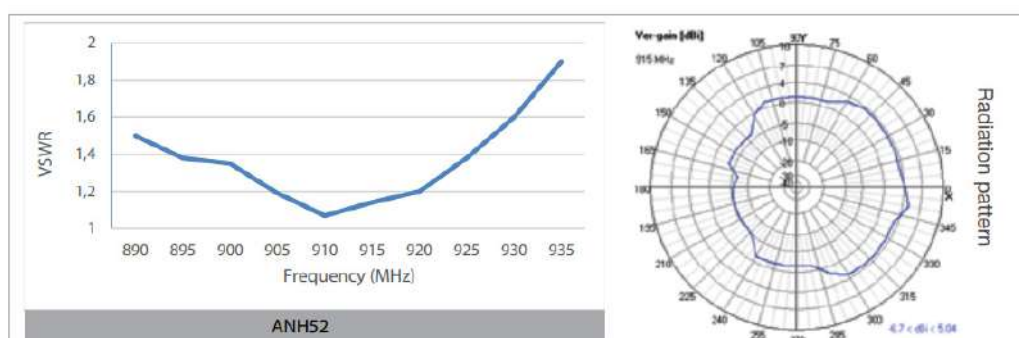
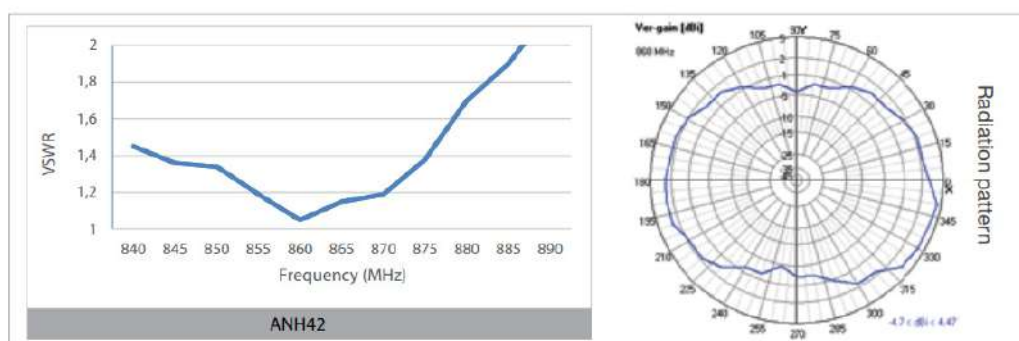
Coax cable with custom connectors and length to connect antenna to barrier



SPECIFICATIONS

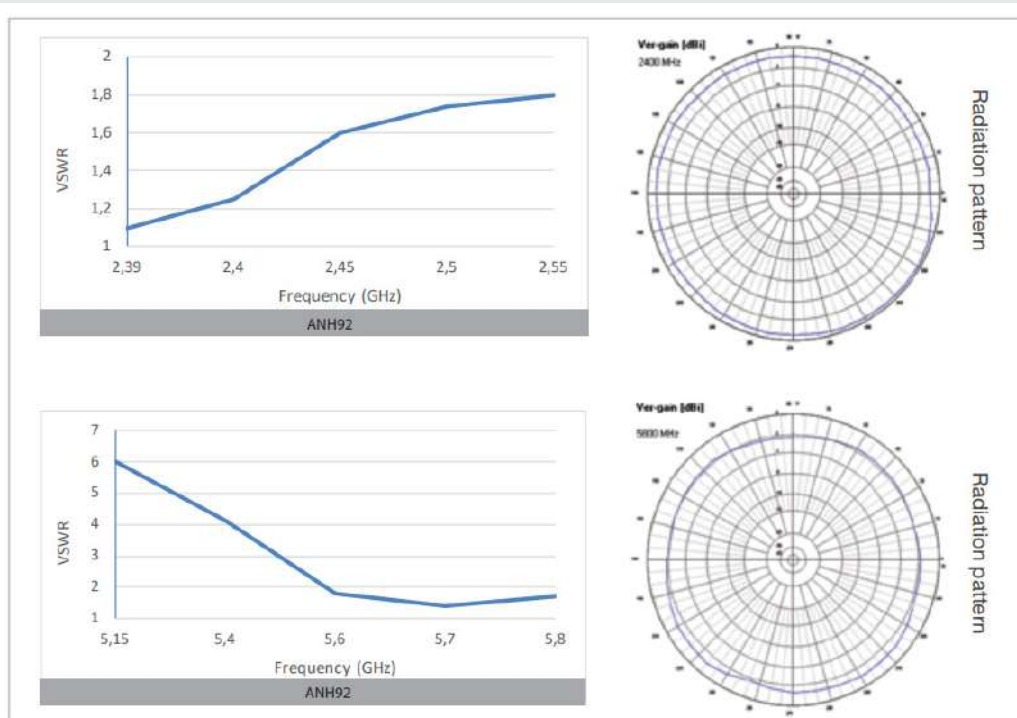
GENERAL	
Radiation	Omni
Polarization	Vertical
Wave	1/2
Connector	N type brass nickel-plated
Material	UV resistant ABS
Temperature range	-40°C (-40°F) to +80°C (+176°F)

	ANH 42	ANH 52	ANH 72	ANH 92
Frequency	885-883 MHz	902-928 MHz	2.35-2.55 GHz	2.4-2.485 GHz 5.15-5.875 GHz
Impedance (nominal)	50Ω @ 868 MHz	50Ω @ 915 MHz	50Ω @ 2.45 GHz	50Ω @ 2.4 GHz 50Ω @ 5 GHz
VSWR (average)	1.14 : 1	1.14 : 1	1.14 : 1	1.7 : 1 @ 2.4 GHz 2 : 1 @ 5GHz
Gain max	2.00 dBi	2.00 dBi	2.00 dBi	4.7 dBi @ 2.4 GHz 3.4 dBi @ 5 GHz

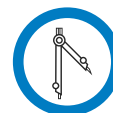


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DIMENSIONAL DRAWINGS



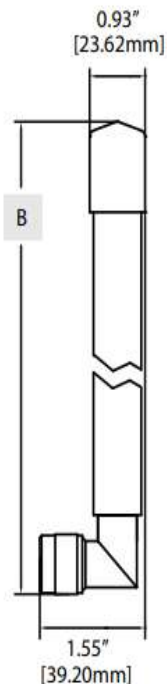
Models

ANH42-CNSU
ANH52-CNSU
ANH72-CNSU
ANH92-CNSS



Models

ANH42-CNRU
ANH52-CNRU
ANH72-CNRU
ANH92-CNRS



Model

A inch [mm]

ANH42-CNSU	9.05 [230]
ANH52-CNSU	9.05 [230]
ANH72-CNSU	4.92 [125]
ANH92-CNSS	9.05 [230]

Model

B inch [mm]

ANH42-CNRU	9.44 [240]
ANH52-CNRU	9.44 [240]
ANH72-CNRU	5.31 [135]
ANH92-CNRS	9.44 [240]

INSTALLATION EXAMPLE

The antenna has being designed to be mounted directly on our antenna barrier, and thanks to the N type connector to ensure reliability in the harshest environment



HEAVY DUTY ANTENNA J-POLE ANH SERIES



The range and performance of a RF link is critically dependent upon the antenna and it is one of the most complex aspects of RF design.

Solexy's heavy duty antenna is designed for use in rough environments, meeting the demands of tough applications while being affordable yet durable.

Perfect in combination with our series of antenna barrier, our antennas are now well known throughout the Oil & Gas industry for its quality and performances.

An antenna can make or break a wireless network. The proper antenna can optimize the range, reliability and performances of a radio network.

FEATURES

DIPOLE DESIGN

This highly stable, higher gain antenna covers distances in a smaller package compared to other high gain antennas.

With higher ground plane it is less sensitive to its installation environment ensuring stable communication covering longer distances

SIMPLE APPARATUS

All our ANH and ANF have been evaluated and are provided with declaration of being simple apparatus, making them perfect for application in hazardous location with IS radio output

DUAL BAND VERSION

Available for dual band WiFi working at 2.4 and 5 GHz in a single antenna

ANH HEAVY DUTY DESIGN

Rugged construction allows the use of our antennas in hostile environments where weather and abuse are a factor

FREQUENCY

Available for 868 MHz, 915 MHz and 2.4/5 GHz.

N CONNECTOR

Available with N type connector both Male and Female, and with vertical and 90° mounting

CONFORMITY



Simple apparatus statement of conformity

statement n° FIDI 21.035

The ANH and ANF series satisfy requirements of standards: EN IEC 60079-0:2018 EN 60079-11:2012 for simple apparatus given in clause 5.7 of EN 60079-11 for:

- Gas group IIC, temperature class T6 and EPL Gb
 - Dust group IIIC, maximum surface temperature T80°C and EPL Db
- And for ambient temperature range: -40°C to +80°C

CONFIGURATION



ANH **5** **3** - **C** **N** **S** **U**
a **b** **c**

a – Frequency

4	868 MHz
5	915 MHz
7	2.4 GHz

b – Antenna connection

C	N Male
3	N Female

c – Antenna mounting

S	Straight (vertical)
R	Elbow (90°)

AVAILABLE ACCESSORIES

WALL MOUNTING BRACKET

Antenna wall bracket for remote mounting

COAX CABLE EXTENSIONS

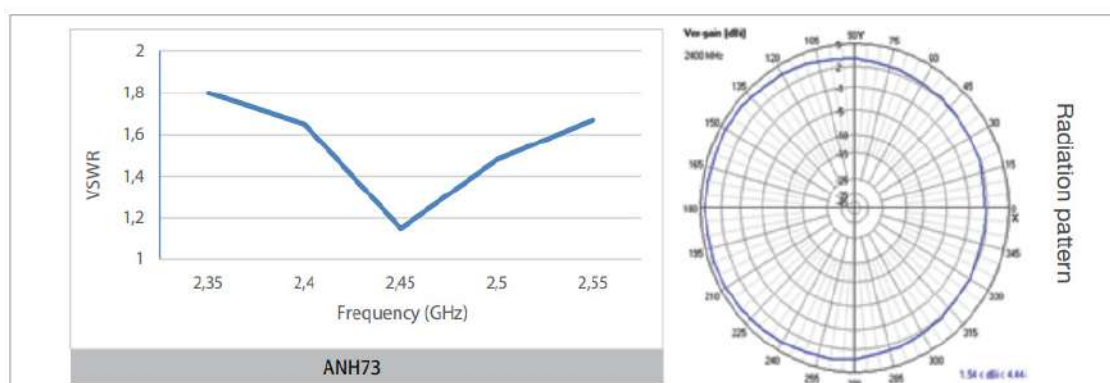
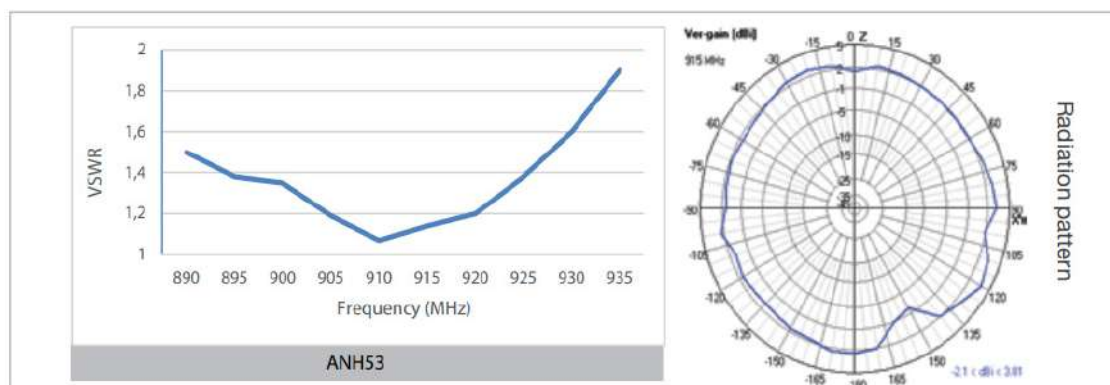
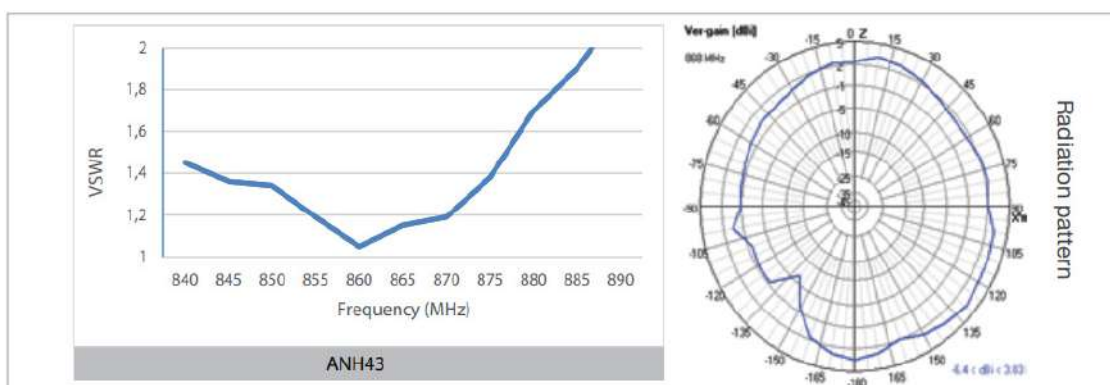
Coax cable with custom connectors and length to connect antenna to barrier



SPECIFICATIONS

GENERAL	
Radiation	Omni
Polarization	Vertical
Wave	J-pole configuration
Connector	N type brass nickel-plated
Material	UV resistant ABS
Temperature range	-40°C (-40°F) to +80°C (+176°F)

	ANH 43	ANH 53	ANH 73
Frequency	855-883 MHz	890-935 MHz	2.35-2.55 GHz
Impedance (nominal)	50Ω @ 868 MHz	50Ω @ 915 MHz	50Ω @ 2.45 GHz
VSWR (average)	1.4 : 1	1.4 : 1	1.4 : 1
Gain max	3.00 dBi	3.00 dBi	4.35 dBi



Data contained in this specification are subject to change without notice

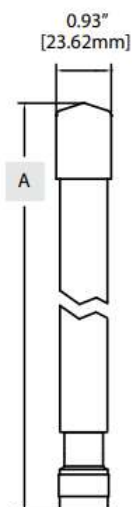


DIMENSIONAL DRAWINGS



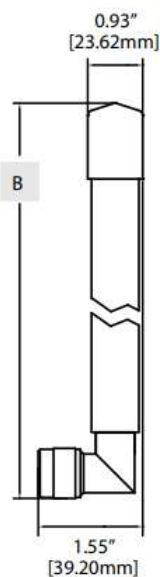
Models

ANH43-CNSU
ANH53-CNSU
ANH73-CNSU



Models

ANH43-CNRU
ANH53-CNRU
ANH73-CNRU



Model

ANH43-CNSU
ANH53-CNSU
ANH73-CNSU

A inch [mm]

13.55 [344.20]
13.55 [344.20]
7.49 [190.20]

Model

ANH43-CNRU
ANH53-CNRU
ANH73-CNRU

B inch [mm]

13.95 [354.30]
13.95 [354.30]
7.89 [200.30]

INSTALLATION EXAMPLE

The antenna has being designed to be mounted directly on our antenna barrier, and thanks to the N type connector to ensure reliability in the harshest environment



Data contained in this specification are subject to change without notice





HEAVY DUTY ANTENNA CELLULAR ANH SERIES

The range and performance of a RF link is critically dependent upon the antenna and it is one of the most complex aspects of RF design.

Solexy's heavy duty antenna is designed for use in rough environments, meeting the demands of tough applications while being affordable yet durable.

Perfect in combination with our series of antenna barrier, our antennas are now well known throughout the Oil & Gas industry for its quality and performances.

An antenna can make or break a wireless network. The proper antenna can optimize the range, reliability and performances of a radio network.

MULTIBAND CELLULAR ANTENNA

Suitable for use in GSM, 3G (UMTS) and 4G-LTE bands applications

SIMPLE APPARATUS

All our ANH and ANF have been evaluated and are provided with declaration of being simple apparatus, making them perfect for application in hazardous location with IS radio output

ANH HEAVY DUTY DESIGN

Rugged construction allows the use of our antennas in hostile environments where weather and abuse are a factor

N CONNECTOR

Available with N type connector both Male and Female, and with vertical and 90° mounting

CONFORMITY



Simple apparatus statement of conformity

statement n° FIDI 21.035

The ANH and ANF series satisfy requirements of standards: EN IEC 60079-0:2018 EN 60079-11:2012 for simple apparatus given in clause 5.7 of EN 60079-11 for:

- Gas group IIC, temperature class T6 and EPL Gb
 - Dust group IIIC, maximum surface temperature T80°C and EPL Db
- And for ambient temperature range: -40°C to +80°C

CONFIGURATION



ANH **C**2 - **C**N**S**S
a b c

a - Frequency

c GSM, 3G (UMTS), 4G-LTE

b - Antenna connection

C N Male

3 N Female

c - Antenna mounting

S Straight (vertical)

R Elbow (90°)

AVAILABLE ACCESSORIES

WALL MOUNTING BRACKET

Antenna wall bracket for remote mounting

COAX CABLE EXTENSIONS

Coax cable with custom connectors and length to connect antenna to barrier



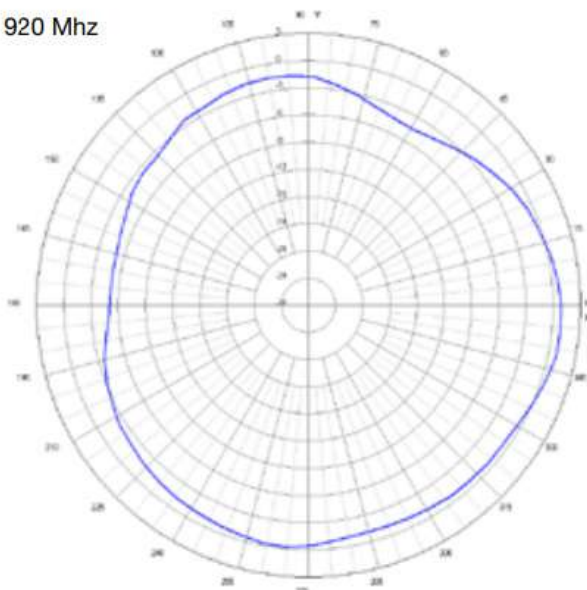
SPECIFICATIONS

GENERAL	
Radiation	Omni
Polarization	Vertical
Wave	1/2
Connector	N type brass nickel-plated
Material	UV resistant ABS
Temperature range	-40°C (-40°F) to +80°C (+176°F)

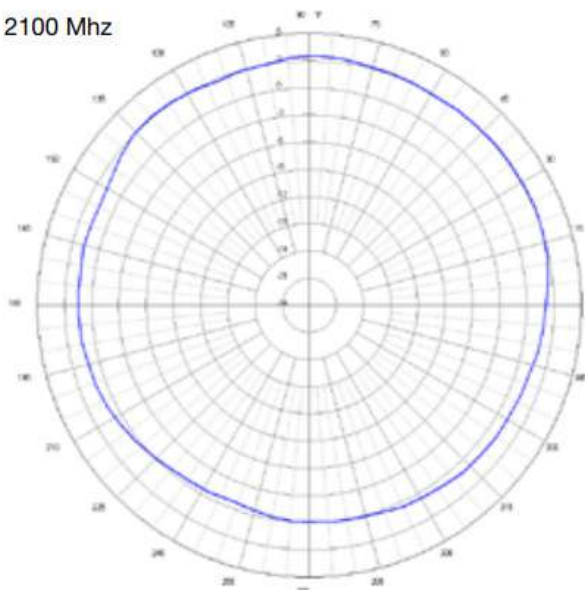
	ANH C2
Frequency	GSM (850/900/1800/1900) 3G (UMTS) (800-2100) 4G-LTE (Bands 1, 2, 3, 4, 7, 10, 23, 25, 30, 33, 34, 35, 36, 37, 38, 39, 40, 41, 65, 66)
Impedance (nominal)	50Ω
VSWR (average)	<4 : 1
Gain max	2.00 dBi

Radiation pattern

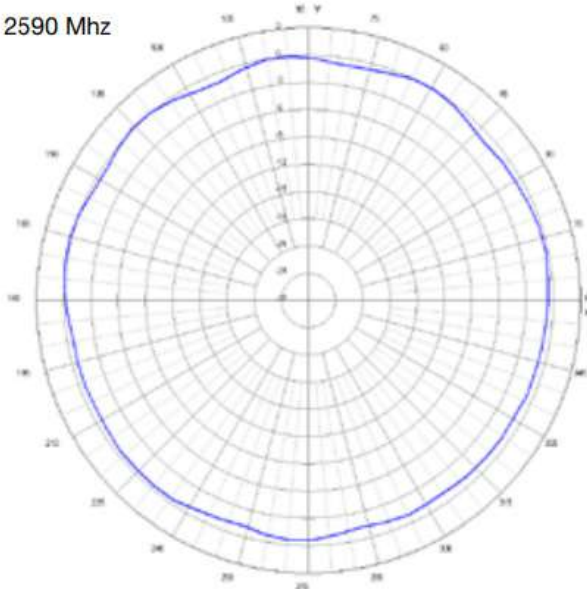
920 Mhz



2100 Mhz



2590 Mhz



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DIMENSIONAL DRAWINGS



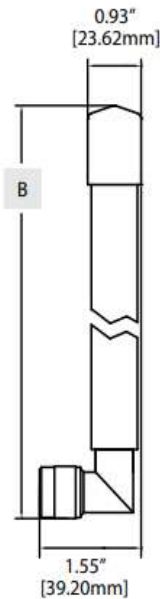
Models

ANH2-CNSS



Models

ANH2-CNRS



Model

ANH2-CNSS

A inch [mm]
13.55 [344.20]

Model

ANH2-CNRS

B inch [mm]
13.95 [354.30]

Data contained in this specification are subject to change without notice

INSTALLATION EXAMPLE

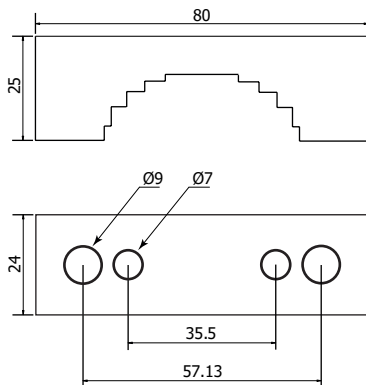
The antenna has being designed to be mounted directly on our antenna barrier, and thanks to the N type connector to ensure reliability in the harshest environment



SW ENCLOSURE MOUNTING KIT

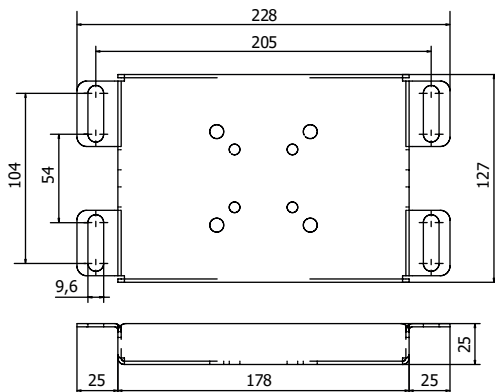
Stainless steel pole mounting kit (Max diameter 2", 50mm)

KM-01



Stainless steel wall mounting kit

KM-02





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