

## iWAP103 Universal Zone 1 Access Point Enclosure



**Zone 1 Explosion Proof Wireless Access Point enclosure system to allow standard WLAN hardware to be installed in potentially explosive, harsh, wet, and corrosive environments**

**II 2 G EEx d IIC T5 Ta 55°C Max, T6/Ta 40°C Max**

**Ex tD A21 IP66 T100°C@Ta55°C Max, T85°C@Ta40°C Max**

**IP66**

**-20°C/-10°C to 40°C/55°C**

**(note this depends on the internal hardware)**

### Overview

The iWAP103 Zone 1 Universal Access Point Enclosure is designed to allow the deployment of wireless networks in hazardous areas. The concept allows installation of equipment from leading WLAN vendors such as Aeroscout, Meru, Symbol, Cisco, Firetide, Acksys and many others. Each type of Access Point or RF transmitting device is rigorously checked and tested by Extronics and/or a Notified Body to ensure conformity to the ATEX requirements. This means that the user may select the vendor of their choice when extending a WLAN to hazardous areas. However equipment not already on the list overleaf will require assessment to determine its suitability.

The Extronics iWAP103 requires one or two high quality Ex e increased safety antennas (not included) such as the Extronics iANT100 series. These will allow optimum coverage on Chemical Plants, Oil Refineries or Oil & Gas Platforms. Optional features include surge arrestors for lightning suppression in outdoor installations and fibre optic inputs for the Ethernet. Additionally the iWAP103 has optional single or dual RS232/RS485/RS422 inputs, allowing these interfaces to be transmitted over a WIFI link. Finally an optional POE supply module allows the iWAP103 to power up to two external devices such as IP cameras or additional access points.

### Features and Benefits

#### Multi Vendor Platform

Providing your preferred WLAN or RF hardware is within certain size, volumetric and power dissipating constraints we can install the hardware in our factory.

#### Rugged Enclosure

Custom enclosure with IP66 ingress protection made from LM6 marine grade aluminium, epoxy painted for installation in extremely arduous environments.

#### Future Proof Infrastructure

As new hardware becomes available it can be assessed by Extronics for compliance to the certification and the existing hardware replaced with the new version meaning the user is installing a future proof solution.

### Specification

<b>Certification Type</b>	II 2 G EEx d IIC T5 Ta 55°C Max T6/Ta 40°C Max Ex tD A21 IP66 T100°C@Ta55°C Max T85°C@Ta40°C Max
<b>Power Supply</b>	Universal 90-264VAC or IEEE802.11af POE
<b>Maximum Power Consumption</b>	Basic configuration 19W With RS485 modules 24W With POE output module 55W With heating 155W
<b>Enclosure Material</b>	LM6 marine grade alloy with epoxy paint coat
<b>Ingress Protection</b>	IP66
<b>Weight</b>	Approx 15Kg, hardware dependent
<b>Dimensions</b>	300 x 280 x 200 mm (w x h x d)
<b>Environmental</b>	Ambient temperature (T5/T6); -20°C/-10°C to 40°C/55°C (note this depends on the internal hardware used—see ordering option #2 on sheet 2) Relative humidity; 0 to 95%, non condensing
<b>Input Connections</b>	10/100BaseT Ethernet on RJ45 socket and screw terminals 115V/230VAC input option on screw terminals Multimode fibre input option on ST connectors POE output option on screw terminals and RJ45 sockets RS232/485/422 IO on screw terminals Note that connectors may be specified as an option in the ordering data
<b>Output Connections</b>	Up to four N-Type RF outputs on Ex d cable glands with optional lightning arrestors
<b>Antennas</b>	To be used with up to four Ex e antennas (not included) e.g. Extronics iANT100 series

## Ordering Information

**iWAP103 - Universal Zone 1 Access Point** iWAP103-[#1]-[#2]-[#4]-[#5]-[#6]-[#7]-[#8]-[#9]-[#10]-[#11]-[#12]

### Specify option [#1] - Wireless Network Hardware

Hardware supplied by customer*	0
Hardware supplied by Extronics	1

\*Extronics can supply the certified wireless network hardware ,alternatively you may wish to "free issue" one of the already certified solutions so that we can factory fit it (see option #2 for certified hardware list).

**Specify option [#2] - Type Of Wireless Network Hardware** (Max operating temperature listed in brackets, POE/Mains only is the iWAP103 with no additional modules attached, Mains + modules is the maximum temperature with additional modules included. The minimum temperature range is also listed, the heater option will allow the temperature range of the AP's stated as 0°C, to be operated to a temperature of -20°C.)

Cisco AP1231 Access Point	(POE/Mains Only = 45°C, Mains + Modules = 40°C)	(Min. = -20°C)	3
Cisco AP1242 Access Point	(POE/Mains Only = 45°C, Mains + Modules = 40°C)	(Min. = -20°C)	6
Cisco AP1242 LWAP Light Access Point	(POE/Mains Only = 45°C, Mains + Modules = 40°C)	(Min. = -20°C)	7
Symbol AP300 Access Port Single Radio	(POE/Mains Only = 40°C, Mains + Modules = 35°C)	(Min. = -20°C)	8
Symbol AP5131 Access Point Single Radio	(POE/Mains Only = 40°C, Mains + Modules = 35°C)	(Min. = -20°C)	9
Symbol AP300 Access Port Dual Radio	(POE/Mains Only = 40°C, Mains + Modules = 35°C)	(Min. = -20°C)	10
Symbol AP5131 Access Point Dual Radio	(POE/Mains Only = 40°C, Mains + Modules = 35°C)	(Min. = -20°C)	11
Meru AP150	(POE/Mains Only = 55°C, Mains + Modules = 50°C)	(Min. = 0°C)	14
Cisco AP1232 Access Point	(POE/Mains Only = 45°C, Mains + Modules = 40°C)	(Min. = -20°C)	15
Cisco AP1231 LWAPP Light Access Point	(POE/Mains Only = 45°C, Mains + Modules = 40°C)	(Min. = -20°C)	16
Cisco AP1232 LWAPP Light Access Point	(POE/Mains Only = 45°C, Mains + Modules = 40°C)	(Min. = -20°C)	18
AirMagnet A5020 Sensor	(POE/Mains Only = 40°C, Mains + Modules = 35°C)	(Min. = 0°C)	19
Firetide Hotpoint 4500 Access Point	(POE/Mains Only = 40°C, Mains + Modules = 35°C)	(Min. = 0°C)	22
Aruba AP60	(POE/Mains Only = 40°C, Mains + Modules = 35°C)	(Min. = 0°C)	23
Aruba AP61	(POE/Mains Only = 40°C, Mains + Modules = 35°C)	(Min. = 0°C)	24
Aruba AP70	(POE/Mains Only = 40°C, Mains + Modules = 35°C)	(Min. = 0°C)	25
Acksys WLG-LINK-OEM-RJ-EVAL Access Point	(POE/Mains Only = 55°C, Mains + Modules = 55°C)	(Min. = -20°C)	26
Mikrotik RB8000 Router and AR9220 Radio			27

### Specify option [#4] - Power Supply

Universal 90-264VAC (If heater option [#8] selected the unit is not universal voltage, either 115VAC or 230VAC)	AC
IEEE802.3af compliant Power-Over-Ethernet	POE

### Specify option [#5] - Ethernet Connection

10/100BaseT Ethernet on CAT5 copper	C
Multimode 10/100BaseFX fibre with ST connector	F

### Specify option [#6] - Antenna Lightning Protection For Option [#2]

No Lightning Protection Fitted, 2xN-Type Bulkheads fitted for antenna connection	N
2 x Lightning Protection Fitted	S

### Specify option [#7] - Additional Antenna Lightning Protection For Option [#2]

No Lightning Protection Fitted, 2xN-Type Bulkheads fitted for antenna connection	N
2 x Lightning Protection Fitted	S
Nothing Fitted	B

### Specify option [#8] - Enclosure Heating (not compatible with universal 90-264VAC or POE supplies)

No enclosure heating	N
230VAC enclosure heating	H1
115VAC enclosure heating	H2

### Specify option [#10] - Enclosure cooling (not compatible with POE supply)

No enclosure cooling	N
Enclosure cooling fitted	C

### Specify option [#11] - RS232/RS485/RS442 interface

No RS232/RS485/RS422 interface fitted	N
1 x RS232/RS485/RS422 interface fitted	1
2 x RS232/RS485/RS422 interfaces fitted	2

### Specify option [#12] - Dual IEEE802.3af POE outputs (not compatible with POE supply)

No POE outputs	N
Two POE outputs fitted	P

## Optional Extras

### Antennas

Increased Safety Omni-Directional Zone 1/21 2.4GHz & 5.8GHz WLAN antenna with RG58 Cable See iANT100  
Increased Safety Omni-Directional Zone 1/21 2.4GHz & 5.8GHz WLAN antenna with LMR400 Cable See iANT101

**iWAP103 is a flameproof / explosion-proof product and requires installation using the correct types of cable glands and stopping plugs. It is the customer's responsibility to ensure that the correct cable glands and stopping plugs are purchased for the installation.**

**Extronics can quote for cable glands if given a full cable specification. Full details on cable entries can be found in the product manual**

### Cable Glands

Recommended for iANT100  
Recommended for iANT101

CR-UB-NP/16/M20  
CR-UB-NP/20/M20

Recommended for Un-armoured Cable O/D 3.4 - 8.4  
Recommended for Un-armoured Cable O/D 4.8 - 11.7  
Recommended for Un-armoured Cable O/D 9.5 - 14.0  
Recommended for Un-armoured Cable O/D 11.7 - 20.0

CR-UB-NP-16-M20  
CR-UB-NP-20s-M20  
CR-UB-NP-20-M20  
CR-UB-NP-25-M25

Recommended for Armoured Cable O/D 9.0 - 13.5  
Recommended for Armoured Cable O/D 11.5 - 16.0  
Recommended for Armoured Cable O/D 15.5 - 21.1  
Recommended for Armoured Cable O/D 20.3 - 27.4

CR-CB-NP-16-M20  
CR-CB-NP-20s-M20  
CR-CB-NP-20-M20  
CR-CB-NP-25-M25

Recommended for Armoured Cable O/D 6.7 - 10.3  
Recommended for Armoured Cable O/D 9.4 - 12.5  
Recommended for Armoured Cable O/D 12.0 - 17.6  
Recommended for Armoured Cable O/D 16.8 - 23.9

CR-CB-R-NP-16-M20  
CR-CB-R-NP-20s-M20  
CR-CB-R-NP-20-M20  
CR-CB-R-NP-25-M25

Recommended for M20 Conduits  
Recommended for M25 Conduits

CR-SB-20-NP-M20-M20  
CR-SB-25-NP-M25-M25

Full datasheets on all the above cable glands are available to download from [www.extronics.com](http://www.extronics.com)