REACH Wireless®
Loop-Interface

Technical data

All data is supplied subject to change without notice. Specifications are typical at 24 V, 25°C and 50% RH unless otherwise stated.

Communication Range between Loop-Interface and Devices	100 m (in open space)
Maximum Number of Connected Devices	32
Flash Rate	0.5 Hz
Field Device Radio Frequency Channel Pairs	22 pairs
Available Protocol Addresses	126 (XP95)
	Loop Interface requires a loop address. Configured during setup.
Radiated Power	14 dBm (25 mW)
Line Voltage	17 V - 35 V (typical 24 V)
Current Consumption	40 mA peak @24 V
Operating Temperature	-20°C to +70°C
Maximum Relative Humidity (non-condensing)	95%
IP Rating	IP 65
Standards and approvals	EN54-17, EN54-18, EN54-25
Dimensions	236 mm diameter x 100 mm height x 70 mm depth
Weight (including base and batteries)	700 g

Product overview

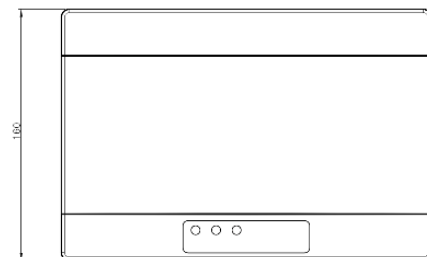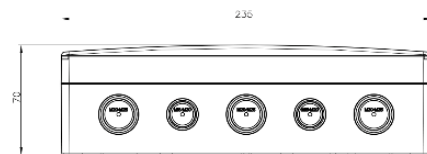|	
Product	**REACH Wireless Loop-Interface**
Part No.	**RW1700-030APO**
Digital Communication	**XP95 native (mimics XPander)**
	Device will present as a zone monitor to the fire panel

Approvals

CE

UK CA

Product information

The RW1700-030APO is a wired loop interface that bridges REACH Wireless radio-frequency products to an Apollo wired loop. Communication between the wireless products are translated to Apollo wired protocol for operation via the wired fire panel.

- Built-in LCD Display
- Physical Navigation Buttons
- 3x Status LEDs: Fault, Configuration, and Power
- Loop-powered
- Built-in Isolator
- Bi-directional wireless communication
- Dual channel redundancy
- Five year product warranty

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Status LED

When one or more faults are present in the system they are shown on the LCD and the fault LED is switched on yellow. LCD is ON only when the tamper switch is not activated (cover open) regardless of the configuration of the translator tamper fault.

For a table of fault codes & LED meanings, see table 1.

No. of Loop-interfaces

No. of Loop-interfaces per loop is determined by the following limits:

• Available RF channel Pairs. There are 22 available for 868Mhz region usage. 1 RF channel pair is required per loop-interface (for communicating to devices). 100m spacing between loop-interfaces is required before repeating RF channel usage (we recommend contacting Apollo customer support before attempting this).

• Available loop current. 40mA is required per loop-interface (@24V). Apollo recommends only loading a wired loop to 80% of theoretical max e.g. 80% of 500mA = 400mA/40mA = 10 loop-interfaces maximum per loop (assumes no other wired devices or voltage droop).

• Available Protocol Addresses. XP95 protocol supports up-to 126 addresses. Although the Loop-interface does not use an address, the REACH wireless devices do so this may limit how many loop-interfaces can be installed with the maximum number of wireless devices connected (32 devices per loop-interface). Every REACH part number takes one address, including AV bases.

Examples:

• 3 Loop-interfaces with 32 wireless devices each (XP95 protocol address limit reached)

• 10 Loop-interfaces with 12 wireless devices each (available loop-current limit REACHed)

Device Addressing

RW1700-030APO allow REACH Wireless devices to be soft-addressed via the LCD display, during commissioning.

Devices are soft-addressed automatically when pairing with the Loop Interface and can be changed manually. Hard-addressing using Apollo XPert cards are not supported.

Communication

REACH Wireless Devices use 'radio-frequency' wireless communication to connect to the Loop-Interface.

The Loop-Interface (RW1700-030APO) translates the wireless communication into wired Apollo protocol communication, with each device addressable individually by the fire panel. See datasheets for the Loop-Interface for more information.

Tamper detection

REACH Wireless devices contain an anti-tamper mechanism. In the event of removal from its base, it sends a tamper detection message to the Loop-Interface.

Tampering detection is not signalled visually by the device LED.

EMC Directive 2014/30/EU

REACH Wireless Loop-Interface complies with the essential requirements of the EMC Directive 2014/30/EU, provided that it is used as described in this datasheet.

A copy of the Declaration of Conformity is available from Apollo on request.

Conformity of the REACH Wireless Loop-Interface with the EMC Directive does not confer compliance with the directive on any apparatus or systems connected to it.

Construction Products Regulation (EU) 305/2011

The REACH Wireless Loop-Interface complies with the essential requirements of the Construction Products Regulation (EU) 305/2011

A copy of the Declaration of Performance is available from Apollo on request.

Table 1: REACH Wireless Fault Table

Type of Fault	Fault Description	Note
LINK	No valid supervision is received from the device by the link fault timeout	Fault LED blinking. Link fault timeout is configured with teh keyboard/LCD interface
TAMP	Device is in tamper fault	Fault LED blinking
FAULT	Generic device fault (transceiver error, FW incoherence, etc)	Fault LED blinking
JAMMING	Noise on field communication channels	Fault LED blinking
START UP	During low current consumption start-up phase	Fault LED blinking 1s ON / 2s OFF
ISOLATORS	Isolators open	Fault LED steady on
BRIGDE FAULT	Communications error between internal micros	Fault LED steady on