

SmartNet-Pro Smoke & Heat Combi-Detector with Sounder & Visual Indicator Radio Base

Part Number: SN.DTCO.RB20.1 /
SN.DTCO.RB20.1A

Optical Smoke & Heat A1R Combi-Detector with Sounder & Visual Indicator Radio Base

The Cygnus SmartNet wireless fire detection and alarm system is a network of battery powered, wireless fire detection and alarm products suitable for permanent installations, commercial premises and HMOs.

The Combi-Detector with Sounder and Visual Indicator ring is for use with up to 511 other devices, serving small and large sites. It provides smoke and heat detection with sounder and visual indication in a single device.

Other products in the range include Smoke and Heat Detectors, Manual Call Points, First Aid Alarms, Alarm Interface Unit and Control Panel.



Overview

- Reliable wireless mesh radio technology
- Completely wireless – no cables required
- Sensitive radio with up to 350m range
- 868MHz radio (915MHz also available)
- 3+ year battery life
- Designed to be EN 54 compliant
- Certified by Intertek
- Easy configuration via the Windows based CygnusConfig application
- Compatible with other Cygnus SmartNet devices

Features

Smoke detector	Optical
Heat detector	Type A1R (rate of rise)
Sounder	Built into radio base (3 volume settings)
Visual indicator	Visual indicator ring around radio base
Silent test	Yes
Tamper detection	Two (radio base and head)

Parameters

Dimensions (mm)	123Ø x 101h (inc combi-detector head)
Weight	550g
Operating temperature	-10°C to +55°C
Storage temperature	-10°C to +55°C
IP rating	IP21C, Type A (Indoor)
Relative humidity	>95% @ 25°C to 55°C

Power	
Operating voltage range	2.5 to 3.8V (from lithium batteries)
Main battery	3x ER26500 Li-SOCl ₂ (lithium thionyl chloride)
Backup battery	1x CR123 (must be fitted)
Battery Voltages	ER26500 = 3.6V nom. CR123 = 3.0V nom.
Power consumption	3mW
Battery life	Min 3 years (normal operation)

Radio	
Radio operating frequency	865 to 868 MHz
Radio category	Category 1
Channels	10 (with channel hopping algorithm)
Bandwidth	250kHz
Channel spacing	300kHz
Transmit power	10mW (maximum)
Duty cycle	<0.1%
Protocol	Cygnus mesh protocol
Encryption	TDES (64-bit payload, 192-bit encryption key)
Self-forming	Cygnus self-forming algorithm
Self-healing	Cygnus self-healing algorithm

Additional Information	
Heat detector setpoint	Type A1R: 55°C (EN 54-5)
Smoke nominal response threshold value	0.12 dB/m (EN 54-7) TBC
Visual Indicator Ring Colour	RB20.1 = White ring. RB20.1A = Red ring

Compliance	Sounder	
<p>Current:</p> <ul style="list-style-type: none"> ETSI EN 300 220-1 V3.1.1 (2017-02) ETSI EN 301 489-1 V2.2.2 (2019-09) ETSI EN 301 489-3 V2.1.1 (2019-03) EN61000-6-3:2007 +A1:2011 EN50130-4:2011 +A1:2014 EN61000-3-2:2014 EN61000-3-3:2013 EN 54-3:2001+A1:2002+A2:2006 EN 54-5:2017+A1:2018 EN 54-7:2018 EN 54-18:2005 EN 54-25:2008 	Sounder Output (configurable)	80 to 98dB(A) at 1m
	Volume Settings	3 levels
	Number of Tones	36 configurable tones (10 certified to EN 54)



Ordering Information

Detector Head	Combi Sensor Optical Smoke & A1R Heat	SN.DTC0.1
Device Base(s) Options	Sounder VID Radio Base (White) White VID Ring	SN.RB20.1
	Sounder VID Radio Base (White) Red VID Ring	SN.RB20.1A