

SmartNet-100 Smoke & Heat Combi-Detector with Standard Radio Base

Part Number: S1.DTC0.RB00.1

Optical Smoke & Heat A1R Detector with Standard 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 is for use with up to 511 other devices, serving small and large sites. It provides smoke and heat detection 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	No (see SN.DTC0.RB10.1 / RB20.1)
Visual indicator	No (see SN.DTC0.RB20.1)
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

Compliance

Current:

- 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 54-5:2017+A1:2018
- EN 54-7:2018
- EN 54-18:2005
- EN 54-25:2008



Ordering Information

Detector Head Options	Blanking Plate (White)	SN.DTC0.1
Device Base(s) Options	Standard Radio Base (White)	S1.RB00.1

IO Functions (for EN 54-18:2005)

Inputs:

- Radio messaging from other devices
- Combi Heat A1R & Smoke detector
- Installation tamper switch

Outputs:

- Radio messaging to other devices