

SmartNet-100 Smoke Detector with Standard Radio Base

Part Number: S1.DTS0.RB00.1

Optical Smoke 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 Smoke Detector with radio base is for use with up to 511 other devices, serving small and large sites. It provides smoke detection and radio 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	No (see SN.DTC / SN.DTH series)
Sounder	No (see SN.DTS0.RB10.1 / RB20.1)
Visual indicator	No (see SN.DTS0.RB20.1)
Silent test	Yes
Tamper detection	Two (radio base and head)

Parameters

Dimensions (mm)	123Ø x 85h (inc smoke 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	
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 54-7:2018
- EN 54-18:2005
- EN 54-25:2008



Ordering Information

Detector Head Options	Optical Smoke Detector	SN.DTS0.1
Device Base(s) Options	Standard Radio Base (White)	S1.RB00.1

IO Functions (for EN 54-18:2005)

Inputs:

- Radio messaging from other devices
- Smoke detector
- Installation tamper switch

Outputs:

- Radio messaging to other devices