



G002280

Conventional Intrinsically Safe Optical Smoke Detector

Salwico EVC-PY-IS

Part no. N1144

System: All Salwico fire alarm systems

General description

Salwico EVC-PY-IS is an intrinsically safe Evolution conventional optical smoke detector.

The detector is equipped with an optical sensor with improved sensitivity to black smoke.

The detector is designed for use in areas with high explosion risk. It is connected to the fire alarm system via an intrinsically safe interface.

To avoid the possible risk of electrostatic charge, the unit must not be cleaned with solvents or charged by rubbing.

Data

Nominal voltage	24 VDC
Working voltage	10–32 VDC
Working current	< 50 µA
Alarm current	50 mA
Ingress protection	Depending on base
Relative humidity	≤ 95% RH Non-condensing
Temperature range	-20°C to +50°C
Classification	EN54-7:2000
Certification	IECEX ITS 12.0074X ITS09ATEX26418X
Certified according to	 2531/yyyy yyyy = year of production
Cover material	ABS
Colour	White
Weight	120 g ± 5%

For information about suitable base plates, see separate document "Base Matrix".



NOTE!

Do not remove the dust cover from the detector until all polluting (dusty) activities are finished and the area has been cleaned.

Safety data

Max input voltage (U_i)	28 V
Max input current (I_i)	93.3 mA
Max input power (P_i)	0.66 W
Max internal capacitance (C_i)	1 nF
Max internal inductance (L_i)	Negligible
Ex class	 II 1 G

Ex ia IIC T4 Ga
-20°C ≤ T_a ≤ +50°C

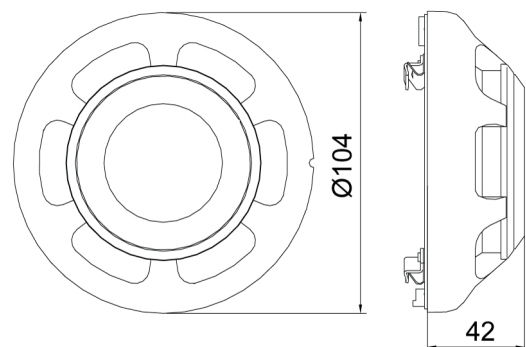


WARNING!

Potential electrostatic charging hazard

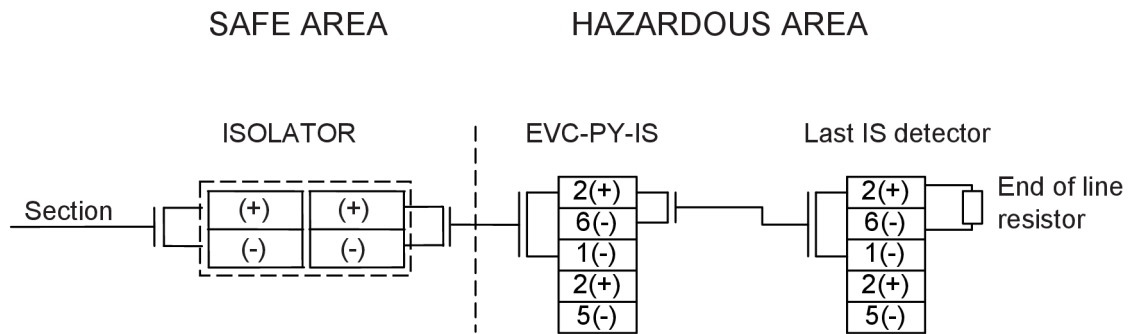
- Do NOT clean with solvents.
- Do NOT charge by rubbing.
- Clean ONLY with a damp cloth.

Dimensions (mm)

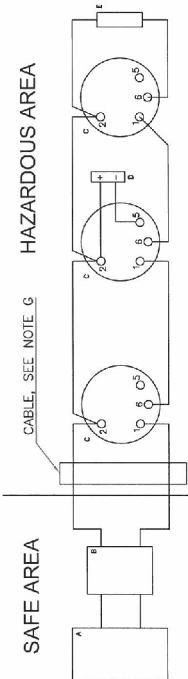
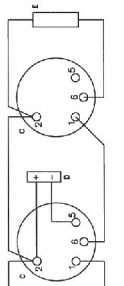


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Connection



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NITTAN NITTAN (UK) LTD, HIPLEY STREET, OLD WOKING, SURREY, ENGLAND. TEL: +44 (0) 1483 769555 FAX: +44 (0) 1483 756686 E-MAIL: sales@nittan.co.uk WEBSITE: www.nittan.co.uk		UB-4-IS & EV-SPB-IS BASE INSTALLATION INSTRUCTION SHEET																					
SAFE AREA 		HAZARDOUS AREA 																					
A) Apparatus which is unsupervised except that it must not be supplied from nor contain in normal or abnormal conditions a source of potential with respect to earth in excess of 250 volts d.c. B) Any single channel shunt-zero diode safety barrier or single channel of a dual shunt zero safety barrier identified by any EEC Approved Certification Board to (ATEX to IEC having the following or lower output parameters:- Lo = 28V U₀ = 28V EI = 93.3mA Io = 93.3mA PI = 0.6W LI = negligible Po = 0.66W CI = 1mF In any safety barrier used the output current must be limited by a resistor 'R' such that Io = Uz/R or One of the following isolators:- 1) MTL5061 DC Isolator (BAS01ATEX7160) 2) MTL4061 Two channel 1 wire & Smoke detector interface (BAS01ATEX7176) 3) KFD0-CS-E4L54 Isolator (BAS00ATEX7087X) 4) KFD0-CS-E4L54 Isolator (BAS00ATEX7087X) 5) KFD0-CS-E4L54 Isolator (BAS00ATEX7087X) 6) KFD0-CS-E4L54 Isolator (BAS00ATEX7087X) 7) KFD0-CS-E4L54 Isolator (BAS00ATEX7087X) C) Up to 20 Type EVC-PY-IS optical smoke detectors and type UB-4-IS or EV-SPB-IS Bases (Certificate No. ITS09ATEX26418X). D) An optional RIL circuit, comprising an LED, two diodes and a resistor, may be connected to terminals 2 and 5 of a smoke detector and mounting base. The surface area of the RIL circuit components must be greater than 20mm. The RIL circuit may be considered to		E) The electrical circuit in the hazardous area must be capable of withstanding an a.c. test voltage of 500V rms to earth or frame of the apparatus. F) The installation must comply with the European Harmonised Standard EN60079 Part 14: 2008. G) The capacitance and inductance or inductance to resistance (L/R) ratio of the hazardous area cable must not exceed the values in the table below:- <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>GROUP</th> <th>CAPACITANCE IN pF</th> <th>INDUCTANCE IN mH</th> <th>OR</th> <th>L/R RATIO IN μH/Ohm</th> </tr> </thead> <tbody> <tr> <td>IIC</td> <td>0.083</td> <td>3.05</td> <td></td> <td>46</td> </tr> <tr> <td>IIB</td> <td>0.650</td> <td>9.15</td> <td></td> <td>200</td> </tr> <tr> <td>IIA</td> <td>2.15</td> <td>24.4</td> <td></td> <td>360</td> </tr> </tbody> </table> H) A durable label as shown below, to be affixed at the interface of the IS and non-IS circuits. Exia IIC T4 Tg = 100°C  I) The electrical circuit in the hazardous area must be capable of withstanding an a.c. test voltage of 500V rms to earth or frame of the apparatus.		GROUP	CAPACITANCE IN pF	INDUCTANCE IN mH	OR	L/R RATIO IN μH/Ohm	IIC	0.083	3.05		46	IIB	0.650	9.15		200	IIA	2.15	24.4		360
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© NITTAN (UK) LTD. SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. EVC-PY-IS BASE CONNECTIONS (SEE TABLE 1) (SEE TOP OF 1) Description: Base for use with intrinsically safe EVC-PY-IS Smoke detector		Part No. 102251 DRG. NO. 102251 TITLE EVC-PY-IS SYSTEM CONNECTION DIAGRAM																					
MATERIAL SPEC DRAWING: A-210-2 APPROV: M.V. Schreier FILE REF: 102251		CURRENT ISSUE 1 REMOVE ALL BURRS DIMMS IN MM SCALE TOLERANCES UNLESS OTHERWISE STATED DECIMALS ±0.1 ANGLES ±0.5°																					
DATE 04/03/10 ISSUE 1 N/A		NITTAN (UK) LTD.																					

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