1-13-010 / Intrinsically safe signals

IS-mC1 IS-minialert

The IS-mC1 is a compact combined 100dB(A) alarm sounder and L.E.D. beacon – only one Zener barrier or galvanic isolator required to run both sounder & beacon or alternatively the unit can be operated as individual signals.

Approvals include ATEX, IECEx and GOST-R for Zone 0 applications and FM approval for Class I Division 1 and Class I Zone 0 applications.

Features

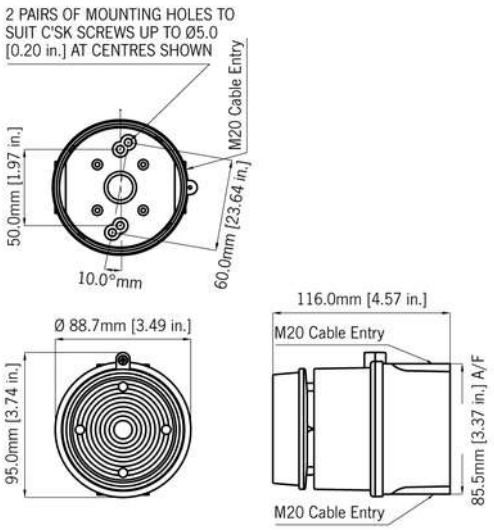
- Input overload and reverse current protection
- End of line resistor certified
- Auto synchronised sound output
- Prismatic lens optimises L.E.D effectiveness
- Available with custom tone configurations and frequencies

Approvals

- ATEX certificate: SIRA 05ATEX2084X,
  EN 60079-0 : 2012,EN 60079-11 : 2012,
  IEC 60079-26 : 2014
- IECEx certificate: IECEx SIR 06.0045X,
  IEC 60079-0 : 2011, IEC 60079-11 : 2011,
  IEC 60079-26 : 2014
- FM approved:
  Class 3600 1998, Class 3610 2010
  Class 3810 2005
- GOST-R certificate: POCC GB.JB05.B03365







Specification

Alarm sounder:	
Nominal output:	100dB(A) @ 1m +/- 3dB – Tone 2* [91dB(A) @ 10ft/3m]
No. of tones:	49 (UKOOA/PFEER compliant)
No. of stages:	3
Volume control:	Max. 100dB(A); Min. 90dB(A) – Tone 2
Effective range:	40m/131ft @ 1KHz
L.E.D. Beacon:	
Light source:	Array of 6 high intensity L.E.D's.
L.E.D. colours:	Red, Amber, Blue, Green & Clear
Flash modes:	Double flash at 2Hz and 1Hz
Effective intensity cd:	23cd* – measured ref. to I.E.S.
General:	
Voltage:	16-28vdc via Zener barrier or galvanic isolator
Combined current:	approx: 30mA typical when powered from 24v< supply via 28v 300Ohm Zener barrier.
Ingress protection:	IP65
Rating:	Continuous
Housing material:	UL94V0 & 5VA FR ABS & PC
Housing colour:	RAL3000 Red
Fixings:	Stainless Steel
Cable entries:	2 x M20 clearance gland knockouts. Custom configurations also available.
Terminals:	0.5 to 2.5mm²
Operating temp:	-40° to +60°C [-40° to +140°F]
Storage temp:	-40° to +70°C [-40° to +158°F]
Relative humidity:	90% at 20°C [68°F]

Part Codes

IS-mC1-R/[x]

ATEX / IECEx / FM
II 1G Ex ia IIC T4 Ga (-40°C <=Ta<= +60°C)
IS Class I, Division 1, Groups A, B, C, D T4
IS Class I, Zone 0, AEx ia IIC T4 Ta = +60°C

GOST-R
0ExialICT4 IP65 -40° to +60°C

[x]: Lens colour:
A: Amber
B: Blue
G: Green
R: Red
C: Clear (white LED)

Combined or Sounder only:
May be powered from any certified Zener barrier or galvanic isolator whose output parameters do not exceed :
Uo: 28vdc Io: 93mA Po: 660mW

Beacon only:
May be powered from any certified Zener barrier or galvanic isolator whose output parameters do not exceed:
Uo: 28vdc Io: 660mA Po: 1.2W

Tone table

S 1	Description	S 2	S 3
T 2	800/1000Hz @ 0.25 sec Alternating	T 17	T 5
T 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	T 2	T 5
T 4	800/1000Hz @ 1Hz Sweeping	T 6	T 5
T 5	2400Hz Continuous	T 3	T 20
T 6	2400/2900Hz @ 7Hz Sweeping	T 7	T 5
T 7	2400/2900Hz @ 1Hz Sweeping	T 10	T 5
T 8	500/1200/500Hz @ 0.3Hz Sweeping	T 2	T 5
T 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	T 15	T 2
T 10	2400/2900Hz @ 2Hz Alternating	T 7	T 5
T 11	1000Hz @ 1Hz Intermittent	T 2	T 5
T 12	800/1000Hz @ 0.875Hz Alternating	T 4	T 5
T 13	2400Hz @ 1Hz Intermittent	T 15	T 5
T 14	800Hz 0.25sec on, 1 sec off Intermittent	T 4	T 5
T 15	800Hz Continuous	T 2	T 5
T 16	660Hz 150mS on, 150mS off Intermittent	T 18	T 5
T 17	544Hz (100mS)/440Hz (400mS) - NF S 32-001	T 2	T 27
T 18	660Hz 1.8sec on, 1.8sec off Intermittent	T 2	T 5
T 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	T 2	T 5
T 20	660Hz Continuous	T 2	T 5
T 21	554Hz/440Hz @ 1Hz Alternating	T 2	T 5
T 22	544Hz @ 0.875 sec. Intermittent	T 2	T 5
T 23	800Hz @ 2Hz Intermittent	T 6	T 5
T 24	800/1000Hz @ 50Hz Sweeping	T 29	T 5
T 25	2400/2900Hz @ 50Hz Sweeping	T 29	T 5
T 26	Bell	T 2	T 15
T 27	554Hz Continuous	T 26	T 5
T 28	440Hz Continuous	T 2	T 5
T 29	800/1000Hz @ 7Hz Sweeping	T 7	T 5
T 30	300Hz Continuous	T 2	T 5
T 31	660/1200Hz @ 1Hz Sweeping	T 26	T 5
T 32	Two T chime.	T 26	T 15
T 33	745Hz @ 1Hz Intermittent	T 2	T 5
T 34	1000 & 2000Hz @ 0.5 sec Alternating - Singapore	T 38	T 45
T 35	420Hz @ 0.625 sec Australian Alert	T 36	T 5
T 36	500-1200Hz 3.75sec /0.25sec. Australian Evac.	T 35	T 5
T 37	1000Hz Continuous - PFEER Toxic Gas	T 9	T 45
T 38	2000Hz Continuous	T 34	T 45
T 39	800Hz 0.25sec on, 1 sec off Intermittent	T 23	T 17
T 40	544Hz (100mS)/440Hz (400mS) - NF S 32-001	T 31	T 27
T 41	Motor Siren - slow rise to 1200 Hz	T 2	T 5
T 42	Motor Siren - slow rise to 800 Hz	T 2	T 5
T 43	1200 Hz Continuous	T 2	T 5
T 44	Motor Siren - slow rise to 2400 Hz	T 2	T 5
T 45	1KHz 1s on, 1s off Intermittent - PFEER Gen. ...	T 38	T 34
T 46	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	T 47	T 37
T 47	1KHz 1s on, 1s off Intermittent - PFEER Gen. ...	T 46	T 37
T 48	420Hz @ 0.625 sec Australian Alert	T 49	T 5
T 49	500-1200Hz 3.75sec /0.25sec. Australian Evac.	T 26	T 37

No liability is accepted for any consequence of the use of this document. The technical specification of this unit is subject to change without notice due to our policy of continual product development. All dimensions are approximate. This unit is sold subject to our standard conditions of sale, a copy of which is available on request.