1-12-010 / Intrinsically safe signals

IS-mA1 IS-minialarm

The IS-mA1 is a compact, 100dB(A) alarm sounder. 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.

The IS-mA1 is suitable for all intrinsically safe signalling applications including fire, security and process control.
The IS-mA1M version is also available for Group I mining environments.

Features

- Input overload and reverse current protection
- End of line resistor certified
- Auto synchronised sound output
- Available with custom tone configurations

Approvals

- ATEX certificate: SIRA 05ATEX2084X
- IECEx certificate: IECEx SIR 06.0045X
- FM approved
- GOST-R certificate: POCC GB.JB05.B03365



Specification

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
Voltage:	16-28vdc via Zener barrier or galvanic isolator
Current:	25mA typical when powered from 24v supply via 28v 300 Ohm Zener barrier
Ingress protection:	IP65
Rating:	Continuous
Housing material:	UL94V0 & 5VA FR ABS
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-mA1-R

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

GOST-R
0ExialICT4 IP65 -40° to +60°C

IS-mA1M-R

ATEX [Group I
I M1 Ex ia I Ma (-40ºC <=Ta<= +60°C)

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

Tone table

S 1	Description	S 2	S 3
T 1	340 Hz Continuous	T 2	T 5
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.