

Alarm Stages

The alarm stages are set as follows:

Stage	Apply Power To	Sounder Connection	Tone
1	L & N	-	No sound
2	L & N	S0 to S1 (Factory pre-set)	Set by DIP SW1
3	L & N	S0 to S2	Set by DIP SW2
4	L & N	S0 to S1 & S2	Set by DIP SW3

DIP Switches 1, 2 & 3 are found on the pcb located in the cover of the flameproof enclosure.

Refer to Tone Selection Sheet ref: S00526 for Tone Selection, Volume Control and Cable Gland information.

7.0 End of Line Monitoring

An end of line monitoring diode or an end of line monitoring resistor can be connected across the 24V+ and 0 terminals. If an end of line monitoring resistor is used, it must have a maximum resistance value of 3k ohms and a minimum wattage of 0.5 Watts; or a minimum resistance value of 1.2k ohms and a maximum wattage of 2 Watts.

8.0 Maintenance

During working life of the product, little or no maintenance is required. GRP is resistant to most of the acids, alkalis and chemicals. If abnormal or unusual environmental conditions occur due to accident etc, visual inspection is recommended. To avoid electrostatic charge build-up, only exterior of the product can be cleaned with a damp cloth. If spare parts are required, these can be supplied by Moflash. If any failure occurs but not caused by human factor, the product can be returned to Moflash for free repair or replacement during warranty period.

9.0 Conditions for Safety Use

i) This apparatus is suitable to be used only in ambient temperature as stated below:

Type	Ambient Temp
SD150	-40°C to +70°C

ii) Other than product manufacturer, painting and surface finishing are not permitted by the third party.

iii) When used in dusty atmosphere, flameproof cable entry devices or stopping plugs have to be selected and installed carefully in order to maintain the IP rating (IP66/67) of the product.



INSTALLATION & TECHNICAL INFORMATION

PLEASE READ PRIOR TO INSTALLATION



SD150 Series - (Explosion Proof Sounder)

Glass Reinforced Polyester

AUDIBLE SIGNALLING DEVICE

APPROVALS AND CONFORMITIES



Moflash part code SD150-S00522-Issue 2

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1.0 Introduction: The SD150 Explosion Proof sounder is certified for use and installation in Zone 1 and Zone 2 areas with gases groups of IIA, IIB, IIC and temperature classification of T4~T6. It specially applies to Oil & Gas, Offshore Platform, Chemical, Petrochemical, Refinery and Marine Industries etc. Enclosure material is Stainless Steel. The sounder has 4 stage alarm tones which can be sent out. 63 tones are selectable. Users can record sounds or customize sounds into the sounder by using 5 spare tones. Tone can be present during installation.

2.0 Explosion Proof Labelling:

All products have a rating label with the following important information:
 Product order no: eg SD1501BDCNNAR (Refer to the datasheet for product order selection)
 Input voltage: ≤48v DC or 100-240v AC (50/60 Hz), ≤20W
 Code: Ex d IIC T4~ T6 Gb, Ex tb IIIC T135°C~T85°C IP66
 Nemko ATEX Certificate No: Nemko 14 ATEX 1009X
 ATEX Mark: 
 IECEX Certificate: IECEX-NEM 14.0005X
 Gas Group and Category: II 2GD
 CE Mark: Mark No: 0518
 Warning: **DO NOT OPEN WHEN AN EXPLOSIVE GAS ATMOSPHERE IS PRESENT**
 Finished product serial no (Include date of construction): ie. SD150-0201080001
SD150-Stainless Steel Sounder, Day-02, Month-01, Year-08, Product Serial Number-0001

3.0 Type Approval Standard: The SD150 series have an EC Type Examination Certificate issued by Nemko and have been approved to the following standards: EN 60079-0:2012 (IEC 60079-0:2011), EN-60079-1:2007 (IEC 60079-1:2007) and EN 60079-31:2009 (IEC 60079-31:2008).

4.0 Zones, Gas Group, Category and Temperature Classification

The SD150 series have been certified Ex d IIC T4~T6. This means that the units can be installed in locations with the following conditions:

Area Classification

Zone 1: Explosive gas air mixture likely to occur in normal operation.
Zone 2: Explosive gas air mixture not likely to occur, and if it does, it will only exist for a short time.

Gas Groupings:

Group IIA Propane Group,
 IIB Ethylene Group and
 IIC Hydrogen and Acetylene

Equipment Category: 2Gd

Temperature Range: -40°C < Ta < 70°C

5.0 Installation

General Requirement: The unit must be installed in accordance with the latest issued relevant requirements in the EN60079-0 and EN60079-1 specification or the equivalent IEC specification- Selection, Installation and Maintenance of electrical apparatus for use in potentially explosive atmosphere.

Product installation must be carried out in accordance with any local codes that may apply and should only be carried out by a competent electrical engineer.

Location:

The location of the unit should be made with due regard to the area over which the sounder warning signal must be audible. The unit should only be fixed to services that can carry the weight of the unit.

Mounting (Bracket Mounting):

The unit mounts via a ‘U’ shaped stainless steel bracket by using one 12mm diameter and two 8.5mm diameter bolt holes in the centre of the bracket (see picture 1). The alignment and positions can be adjusted by loosening the two M8 screws, which fastened the stainless steel bracket to the sounder. The sounder should be positioned such that dust, debris or water cannot enter into the horn opening.

6.0 Wiring

General Requirement: Moflash recommends that all cables and cores should be fully identified (suggest using cable from 2.0 to 2.5 mm²). Ensure that all nuts, bolts and screws are secured. Ensure that only the right and certified cable glands are used and earthed correctly. Ensure that only the right and certified stopping plugs are used to blank off unused gland entry points. In order to maintain the IP rating of the product, we recommend SS316L for this application.

Cable connection:

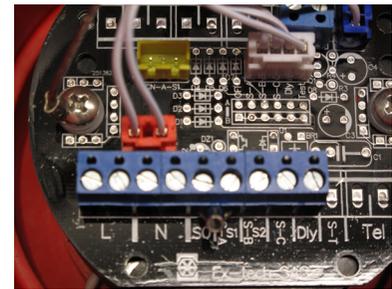
The cable connection is to terminals on the pcb located in the flameproof enclosure of the sounder. Cable connection should be carried out to in accordance with relevant technical requirement (see picture 1).

For **AC supply** - connect to terminals marked ‘L’ & ‘N’. **Picture 1**

Terminals provide loop in loop out facility.

For **DC supply** - connect ‘+’ to ‘L’ and ‘-’ (0v) to ‘N’.

Alarm stages - terminals ‘S0’ (common) ‘S1 & S2’ (refer to table overleaf).



Removal of End Cover

Unscrew the six (6) M5 retained hex socket head screws (see diagram 2). Twist the cover gently clockwise and anti-clockwise, whilst pulling away from the body, keeping the cover parallel to the body until it comes free. This will allow the cover to hang on its retaining strap.

Before replacing the cover, check the flameproof joints are clean and not damaged, the gasket is retained in its groove.

Caution: Before removing the cover ensure the power to the sounder is isolated.

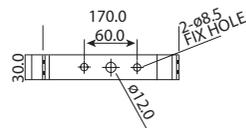
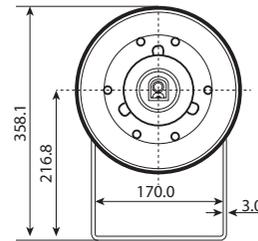
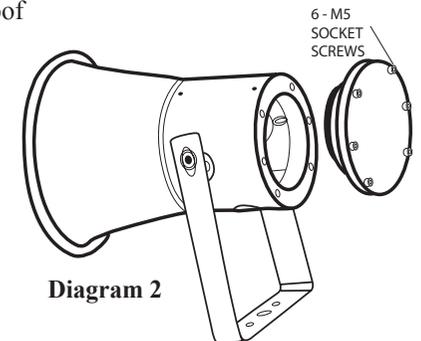


Diagram 1

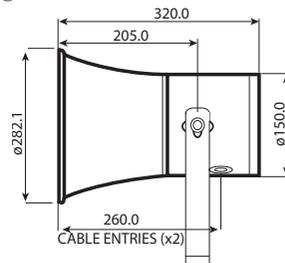


Diagram 2