



Explosion and Hazardous Area Industrial Signals - Fire

COOPER Notification





A BEST-IN-CLASS PARTNER

The broadest line of harsh and hazardous signaling, alarm and communication products available to maximize safety and standardization

Superior enclosure materials providing unmatched ingress protection and corrosion resistance from the harshest conditions

A unique signaling product offering integral visual and audible signaling capability pre-wired for simultaneous output activation

Process Shutdown

Alarm and Emergency Signaling

Condition Signaling

Security Alert

Equipment Obstruction Warning

Individual Building Notification

General Alarm

System Status/General Warning

When you are working on a project, you need a partner that can provide you with proven reliability and expertise, tried-and-tested products and support. Cooper Notification offers a comprehensive range of innovative industrial signaling solutions designed for potentially explosive atmospheres and harsh industrial and marine environments.

Proven solutions for harsh and hazardous environments

Cooper Notification's MEDC branded products, backed by more than 35 years of experience, are specifically designed for harsh environmental conditions and where there is a risk of explosion due to the presence of flammable atmospheres both offshore and onshore. The extensive range of manual, visual, audible alarms and loudspeakers has been developed in close collaboration with customers to deliver the best combination of performance and safety. Meeting a multitude of standards, MEDC products provide a vast array of solutions for industries including oil & gas, petrochemical, marine and mining.

Technical solutions and superior performance

MEDC products utilize glass reinforced polyester (GRP) in explosion-proof products to deliver solutions with reduced maintenance, extended lifetime and lower cost of ownership. Since 1975, the oil and gas industry has counted on MEDC products for the most reliable and highly respected alarms and loudspeakers in the industry.

Extensive quality certifications include ATEX, CQST, UL, ULC, CSA, GOST R, GOST K, IECEx and Inmetro.



Cooper Notification MEDC hazardous products include:

Manual alarm call points - designed for the purpose of raising an alarm manually by operating the push button or break glass the alarm signal can be raised.

Strobes - including flashing, steady-state indicators and rotating units.

Sounders and Horns - featuring a variety of tone settings, voice messaging or traditional bells.

Combination Units - designed for the purpose of alerting audio and visual awareness to an emergency situation.

Speakers - featuring heavy duty, industrial design to meet the requirements for public address, voice evacuation and background music.



Strobes and Warning Lights

Range of signals for warning of potential hazards, indication of plant item status, gas and oil leaks, evacuation alerts and other items in explosive areas.

SM87 Strobe



Stainless Steel or Marine Grade Alloy
NEMA 4x & 6, IP66 & 67
Certified temperature: -67°F to 158°F
4 wire monitored connection
24 & 48 VDC or 110-254 VAC
UL, cUL for Class I, Div 1, Groups C & D, CSA Certified

XB11 Strobe



Corrosion resistant GRP
NEMA 4x & 6, IP66 & 67
Certified temperature: -67°F to 158°F
4 wire monitored connection
24 VDC or 110 & 120 VAC
29 candela
UL, cUL for Class I, Div 2, Groups C&D

XB12 Strobe



Corrosion resistant GRP
NEMA 4x & 6, IP66 & 67
Certified temperature: -67°F to 158°F
4 wire monitored connection
24 & 48 VDC or 110 & 240 VAC
355 candela
UL, cUL for Class I, Div 2, Groups C&D

XB15 Strobe



Corrosion resistant GRP
Pipe or direct mount enclosure
NEMA 4x & 6, IP66 & 67
Certified temperature: -67°F to 158°F
4 wire monitored connection
24-48 VDC or 110-240 VAC
330 candela
UL, cUL for Class I, Div 2, Groups A-D

XB16 Warning Light



GRP enclosure with polycarbonate lens
NEMA 4x & 6, IP66 & 67
Certified temperature: -67°F to 158°F
4 wire monitored connection
24-48 VDC or 110-254 VAC
285 candela
UL, cUL for Class I, Div 2, Groups A-D
UL 1971 version available

XB4 Strobe



Stainless Steel or Marine Grade Alloy
NEMA 4x & 6, IP66 & 67
Certified temperature: -67°F to 158°F
4 wire monitored connection
24 & 48 VDC or 110 & 240 VAC
355 candela
UL, cUL for Class I, Div 1, Groups C&D

Horns, Speakers, Call Points and Combo Units

Variety of speakers and horns used to warn of potentially dangerous situations or to relay instructions and call points designed for the purpose of raising an alarm.

DB1 Horn



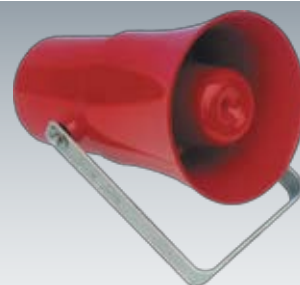
Light weight, flameproof horn
 NEMA 4x, IP66
 Up to 103dBA output @ 10 ft.
 Certified temperature: -13°F to 158°F
 27 output tones, user selectable
 UL, cUL for Class I, Div 1, Groups C&D, NFPA 72 Compliant

DB3 Horn



Corrosion resistant GRP
 High ingress protection
 NEMA 4x, IP66 & 67
 Up to 108dBA output @ 10 ft.
 Certified temperature: -67°F to 158°F
 27 output tones, user selectable
 UL, cUL for Class I, Div 2, Groups A-D

DB4 Speaker



Corrosion resistant GRP
 NEMA 4x & 6, IP66 & 67
 109dBA output at 25 watts @ 10 feet
 Certified temperature: -67°F to 158°F
 8, 15 and 25 watt versions
 UL, cUL for Class I, Div 2, Groups A-D

Combo Unit



Mounted on sturdy, drilled, painted stainless plate
 Single input operates both horn and strobe
 IP 66 & 67
 Strobe available as Xenon, filament, fluorescent or LED
 Horn: Up to 115dBA output at 1 meter

PB & PG Call Points



NEMA 4x & 6, IP66 & 67
 Certified temperature: -13°F to 131°F
 In line and end of line resistors fitted
 Retained stainless steel cover screws
 UL, for Class I, Div 2, Groups A-D, Class 1, Zone 2 and Class II, Div 2, Groups F&G, CSA

SM87 PBL Call Point



Easy to install and maintain
 NEMA 4x & 6, IP66 & 67, NFPA 72 Compliant
 Certified temperature: -67°F to 158°F
 Marine grade alloy
 Robust yet lightweight
 UL Listed, CSA Certified, Class I, Div 1, Group C&D, Class I, Zone 1

Hazardous Area Guide

This information is intended as a guide only and further expert guidance should be sought before placing into service, maintaining or repairing any item of equipment in a potentially explosive atmosphere. Where comparisons are shown between, for example, European and North American practice this may be an approximation and individual standards/codes of practice should be consulted for precise details.

Definition:

Potentially Explosive Atmospheres exist where there is a risk of explosion due to mixtures of gas/air, vapor/air, dust/air or other flammable combinations. Where electrical equipment has to be used in these areas, it must be so designed and constructed such that it does not create sources of ignition capable of igniting these mixtures.



Area Classification:

Process plants are divided into Zones (European and IEC method) or Divisions (North American method) according to the likelihood of a Potentially Explosive Atmosphere being present. Note: North American legislation now allows Zones to be used to classify areas, where this practice is used it follows the IEC Zone method.

Definition of zone or division	North American Classification	European & IEC Classification
An area in which an explosive mixture is continuously present or present for long periods	Class I Division 1 (gases) Class II Division 1 (dusts)	Zone 0 (gases) Zone 20 (dusts)
An area in which an explosive mixture is likely to occur in normal operation	Class I Division 1 (gases) Class II Division 1 (dusts)	Zone 1 (gases) Zone 21 (dusts)
An area in which an explosive mixture is not likely to occur in normal operation and if it occurs it will exist only for a short time	Class I Division 2 (gases) Class II Division 2 (dusts) Class III Division 1 (fibres) Class III Division 2 (fibres)	Zone 2 (gases) Zone 22 (dusts)

Gas Groups (plus dusts and fibers):

Group I (Mining only) - Concerned only with underground mining where methane and coal dust are present.

Group II (Surface Industries) - Gases occurring in surface industries, are sub-grouped according to their volatility. This enables electrical equipment to be designed to less onerous tolerances if it is to be used with the least volatile gases.

Typical Gas/ Material	North American Gas Group	European & IEC Gas Group
Methane	-	I
Acetylene	A	IIC
Hydrogen	B	IIC
Ethylene	C	IIB
Propane	D	IIA
Metal Dust	E	-
Coal Dust	F	-
Grain Dust	G	-



Ingress Protection:

2 digits are used to denote the level of ingress protection that a piece of apparatus enjoys:



Solids		Liquids	
0	No protection	0	No protection
1	Protected against solid objects up to 55mm, e.g. hands	1	Protected against vertically falling drops of water.
2	Protected against solid objects up to 12 mm, e.g. fingers	2	Protected against water spray up to 15 degrees from vertical.
3	Protected against solid objects up to 2.5mm, e.g. tools	3	Protected against water spray up to 60 degrees from vertical
4	Protected against solid objects over 1mm, e.g. wires	4	Protected against water sprays from all directions.
5	Protected against dusts (no harmful deposits)	5	Protected against water jets from all directions
6	Totally protected against dust	6	Protected against strong water jets from all directions, e.g. offshore
		7	Protected against immersion between 15cm and 1m in depth
		8	Protected against long immersion under pressure



NEMA Standards:

North American practice is to use NEMA standards to describe ingress protection.

NEMA 3 is similar to IP 54
NEMA 4 is similar to IP 55

NEMA 4X is similar to IP 56
NEMA 6 is similar to IP 67

North American Certification:

MEDC equipment is tested in accordance with the relevant standards for explosion protection and also for general electrical requirements. After successful testing, a listing is issued and the product is marked with the certification details such as the gas groups A,B,C,D and the area of use e.g. Class I, Division 1. Refer to individual product specifications sheets for complete approval listings.

Applicable UL, cUL, ULC, CSA Certifications:

UL1638 Visual Signaling Appliances—Private-mode emergency and general utility signaling.

ULC S526-02—Visual signal devices for fire alarm systems.

UL1971—Listed for signaling devices for the hearing impaired.

ULC S526-02—Visual signal devices for fire alarm systems.

UL464—Audible signal appliances.

ULC S525-99—Audible signal devices for fire alarm systems

UL38—Manual signaling boxes for fire alarm systems.

CAN/ULC S58-M91—Standard for manual pull stations for fire alarm systems

CSA C22.2 No. 30-M1986—Explosionproof enclosures for use in Class I Locations.

CSA C22.2 No. 25-1966—Explosionproof enclosures for use in Class II Groups E, F and G hazardous locations.



Ordering Information:

HORNS	
DB3UL048N2CNRZ	24VDC,108dBA,CL 1 DIV 2,RD
SPEAKERS	
DB415ULXN2CRZ	70 VRMS,15W TRANSFORMER,CL 1,DIV 2,RD
DB425ULXN2CRZ	70 VRMS,25W TRANSFORMER,CL 1 DIV 2,RD
HORN/STROBE COMBO UNITS	
DB3/XB11UL 24V RED/RED	RED LENS,24VDC,CL 1 DIV 2,RD
SPEAKER/STROBE COMBO UNITS	
XB11/DB425 UL X(CLR LENS,70 VRMS,25W TRANS,CL 1 DIV 2,RD
STROBES	
XB16US02460CYNR	CLEAR LENS,UL1971,24VDC,285CD,CL 1 DIV 2,RD

Additional custom models available. Contact your local sales representative for more information. For details on availability, contact our Customer Service Representatives at 800-631-2148.

Cooper Notification

273 Branchport Ave.
Long Branch, NJ 07740
P: 800-631-2148
F: 732-222-8707

Cooper Notification, backed by \$5.1 billion global manufacturer Cooper Industries plc with facilities in 23 countries, provides premier life safety and mass notification solutions worldwide through our local dedicated representatives.

One Cooper | www.coopernotification.com | **Online**

Cooper Industries, plc
600 Travis, Ste. 5800
Houston, TX 77002-1001
P: 713-209-8400
www.cooperindustries.com
©2011 Cooper Industries plc