

CMC-600 Explosion Proof Alarm Light

Audible and Visual Warning Beacon - Ex d IIC T6 Gb

User Manual

Model CMC-600-SG

DC 24 V - IP66 - 304 Stainless Steel - -40 to +70 degrees C

Kemotronics Industrial Lighting

sales01@birtechnology.com - www.cnclight.com

This manual covers the CMC-600 explosion-proof audible and visual alarm lamp. Read it fully before installation and keep it for future reference. Installation in a hazardous area must be carried out by qualified personnel.

1. PRODUCT OVERVIEW

The CMC-600 is a flameproof audible and visual alarm lamp (sound and light alarm) for hazardous areas. A flashing red lens sits on top of a sealed 304 stainless-steel housing rated Ex d IIC T6 Gb, so the lamp can be installed directly in explosive gas atmospheres. The enclosure is weather-proof to IP66 and resists rain, dust, oil and water jets.

The lamp is normally driven by a gas detector or an alarm controller: when the host supplies 24 V DC, the red lens flashes and the built-in sounder operates. The electrical entry can be supplied as G1/2, M20 x 1.5 or G3/4 to match your cable gland and conduit.

Typical users: oil and gas fields, pipelines, refineries, chemical and pharmaceutical plants, coal and metal mines, coking plants, power generation and water-treatment plants.

2. TECHNICAL SPECIFICATIONS

Model	CMC-600-SG (CMC-600 series)
Working voltage	DC 24 V plus/minus 20 per cent
Working current	under 100 mA
Explosion-proof grade	Ex d IIC T6 Gb
Alarm type	audible and visual (sound and light)
Electrical entry	G1/2, M20 x 1.5 or G3/4 (select when ordering)
Protection rating	IP66
Housing material	304 stainless steel
Weight	0.4 kg
Overall size	37 x 97 mm
Operating temperature	-40 to +70 degrees C
Atmospheric pressure	86 to 106 kPa
Humidity	10 to 95 per cent RH, non-condensing
Certification	China explosion-proof certificate (Ex)
Note	Dimensions are measured manually; tolerance 1-3 mm

3. PACKAGE CONTENTS

- 1 x CMC-600 explosion-proof alarm lamp (conduit entry size as ordered)
- 1 x Product certificate (explosion-proof certificate copy on request)

A certified cable gland, mounting bracket, screws and cable are NOT included unless ordered. Tell us your conduit entry size (G1/2, M20 x 1.5 or G3/4) when ordering.

4. INSTALLATION INSTRUCTIONS

Step 1 - Check the marking: confirm the nameplate shows Ex d IIC T6 Gb and the DC 24 V rating, and that the entry thread matches your conduit.

Step 2 - Choose the position: mount where the sound and the flashing lens can be seen and heard, and within the temperature range of -40 to +70 degrees C.

Step 3 - Fix the lamp: mount the lamp on a firm, vibration-free surface using the fixing points for your installation. Keep the lens facing the area to be warned.

Step 4 - Fit the cable gland: screw a certified Ex cable gland into the entry and tighten it so the flameproof joint is fully seated. Do not cross-thread the entry.

Step 5 - Wire and test: with the supply isolated, wire per section 5 and energise briefly to confirm the lens flashes and the sounder operates.

In a hazardous area the lamp must be installed in accordance with the local explosion-proof code and by qualified personnel.

5. WIRING

The CMC-600 is a DC 24 V two-wire device. Feed the cable through the certified conduit entry. Wire colours may vary by batch - identify polarity with a multimeter before connecting.

Conductor	Function	Note
Positive (+)	DC 24 V supply, positive	Via the alarm controller or gas detector output
Negative (-)	DC 24 V supply, negative / return	Observe polarity
Earth (PE)	Housing earth	Connect to the stainless-steel housing - mandatory

ALWAYS isolate the supply before wiring. Never connect the lamp to mains voltage - the CMC-600 is a DC 24 V device.

6. COLOR STATUS

The CMC-600 is a single-colour alarm lamp, not a multi-colour status tower. When the host controller supplies DC 24 V the red lens flashes and the sounder operates; there is no colour-coding logic inside the lamp.

7. MAINTENANCE AND CARE

- Wipe the lens and housing with a soft dry or slightly damp cloth; do not use solvents or abrasives.
- Check the cable gland and the flameproof joint periodically for damage, looseness or water entry.
- Keep the sounder outlet clear of dust, paint and oil so the alarm stays loud.
- Inspect the lens for cracks, crazing or heavy soiling; replace the lamp if the lens is damaged.
- Periodically test the sound and the flash with the host controller to confirm correct operation.
- Store in a dry place between -40 and +70 degrees C when not in use.

8. SAFETY WARNINGS

- ALWAYS switch off and isolate the supply before installation, wiring or maintenance.
- In a hazardous area, NEVER open the enclosure while it is energised - do this only in a safe area or with a gas clearance permit.
- This is a DC 24 V device. Never connect it to AC mains.
- Use only certified Ex cable glands and keep the flameproof joints undamaged.
- The stainless-steel housing must be earthed.
- Do not modify, drill or repair the enclosure; a damaged enclosure loses its explosion-proof rating.
- Installation and maintenance must be carried out by qualified personnel in accordance with the local explosion-proof code.
- The lens may become warm in use; allow it to cool before handling.

9. TROUBLESHOOTING

Problem	Possible cause	Solution
No light and no sound	No supply / blown fuse	Check the DC 24 V supply and the upstream fuse or breaker
No light and no sound	Reversed polarity	Check the positive and negative conductors
Sound only, no flash	LED or driver fault	Contact after-sales
Light only, no sound	Sounder blocked or fault	Clear the sounder outlet; if still silent, contact after-sales
Weak or dull flash	Lens soiled or damaged	Clean the lens; replace if cracked
Water inside the lens	Gland or flameproof joint not sealed	Isolate, re-seal the entry, and check the joint

10. WARRANTY POLICY

The CMC-600 carries a 3-year warranty from the date of delivery, covering manufacturing defects in materials and workmanship.

Not covered: damage from incorrect voltage, water ingress caused by improper installation or an uncertified gland, unauthorised opening or modification of the enclosure, physical impact, and normal wear of the lens.

11. AFTER-SALES SERVICE

Contact	Jude
Tel / WhatsApp	+86-15915305795
Email	sales01@birtechnology.com
Website	www.cnclight.com

Please quote your model code (for example CMC-600-SG) and your order number when contacting us.