

# CCA-02E/S...LD LED traffic lights

CCA-02E/S...LD series traffic light system is the result of research and development activities into the new LED lighting technology that can achieve optimum light efficiency, immediate power response times and very low power consumption. These Ex d IIC traffic lights are suitable for regulating traffic in chemically aggressive industrial environments or potentially explosive areas classified as Zone 1 - 2 - 21 or 22.

It is made of low copper content aluminium and features tempered glass, coloured polycarbonate lenses and painted steel sun shades. The benefits offered by the new CCA- 02E/S...LD system are as follows: lower maintenance costs, better visibility in critical conditions thanks to the LED lamps, better reliability thanks to the guaranteed continuous light even if one LED fails and, lastly, the lack of any "phantom" effect.

## Application sectors:



Oil refineries



Chemical and petrochemical plants



Fuel tanker loading/unloading areas



Offshore plants



Emergency exits



Combustible liquid depots



Oil loading/unloading jetties

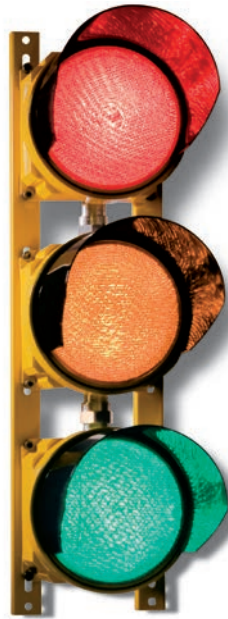


100% Cortem product

## CERTIFICATION DATA

<b>Classification:</b>	Group II	Category 2GD		
<b>Installation:</b> EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone22 (Dust)		
<b>Marking:</b>	CE 0722 Ex II 2GD Ex d IIC T6 Gb - Ex tb IIIC T... Db IP 66			
<b>Certification:</b>	ATEX CESI 01 ATEX 036X			
	TR CU AVAILABLE			
<b>Standards:</b>	CENELEC EN 60079-0: 2006, EN 60079-1: 2007, EN 61241-0: 2006, EN 61241-1: 2004 and EUROPEAN DIRECTIVE 2014/34/UE IEC 60079-0: 2004, IEC 60079-1: 2003, IEC 61241-0: 2004, IEC 60079-1: 2004			
<b>Class temperature:</b>	85°C (T6)			
<b>Ambient temperature:</b>	Standard -20°C +55°C	Special -40°C +55°C		
<b>Degree of protection:</b>	IP66			

## CCA-02E/S...LD LED traffic lights



ORIGINAL PRODUCT

### MECHANICAL FEATURES

Body and internal ring:	Low copper content aluminium alloy
Internal frame and bracket:	Aluminium
Sun shades:	Galvanised steel
Gasket:	Acid/hydrocarbon resistant NBR
Glass face:	Shock and high temperature resistant tempered glass
Fresnel lens:	Polycarbonate
Coloured lens:	Red, yellow and green in polycarbonate
Bolts and screws:	Stainless steel
Mounting:	See "CCA-02E/S...LD series dimensional drawings"
Entries:	1 x 3/4" NPT
Coating:	Epoxy coating Ral 1003 (Signal yellow)

**Corrosion Resistance** : The STANDARD of the aluminium alloy used by Cortem has passed the tests required by standards EN60068-2-30 (hot/humid cycles) and EN60068-2-11 (salt mist tests)

### ELECTRICAL FEATURES

#### LED:




- 4 LEDs installed on plate  
if one or more of the LEDs fails, the lamp keeps on working)
- High resistance to vibration (longer lifespan if installed in severe operating conditions)
- Estimated lifespan 50,000 hours
- Maintenance costs estimated to be about one tenth compared with systems currently in use

<b>Power supply:</b>	High efficiency electronic system. Protection against short circuit, overloading and restore system
<b>Rated voltage:</b>	230Vac $\pm$ 10%
<b>Rated frequency:</b>	50/60 Hz
<b>Connection:</b>	Direct entries for cables to terminal board L, N, Pe. Max section 4mm <sup>2</sup>
<b>Power factor:</b>	0.96
<b>Wiring:</b>	Silicone rubber cables with glass braid protection against high temperatures

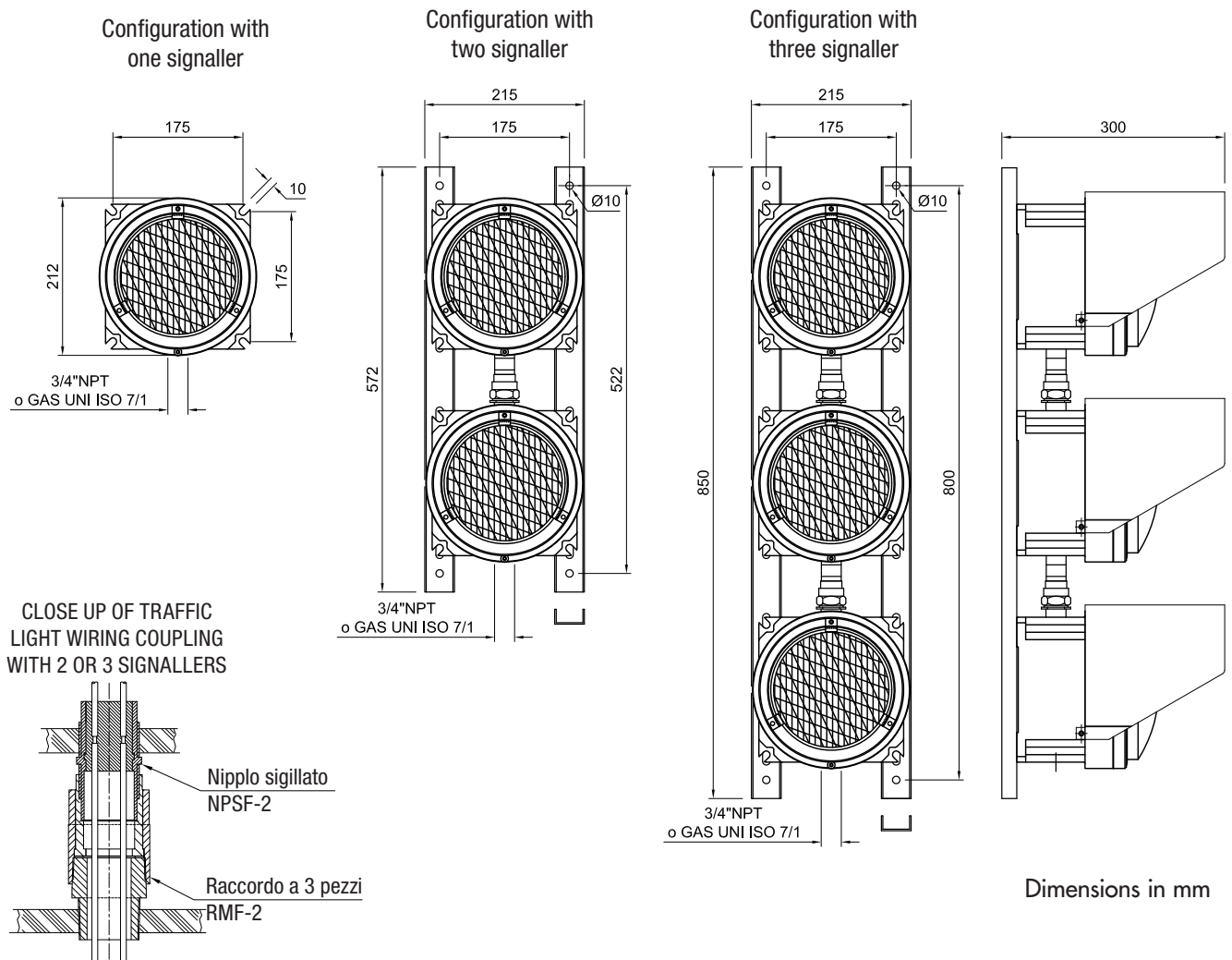
### ACCESSORIES AVAILABLE / SPECIAL REQUESTS

Cable gland: FGAB2NBK for armoured cable or FB2NBK for non-armoured cable  
Rated voltage 24Vdc (code CCA-02E/S2LD24)  
LED traffic light units with Wi-Fi system

# CCA-02E/S...LD series selection chart

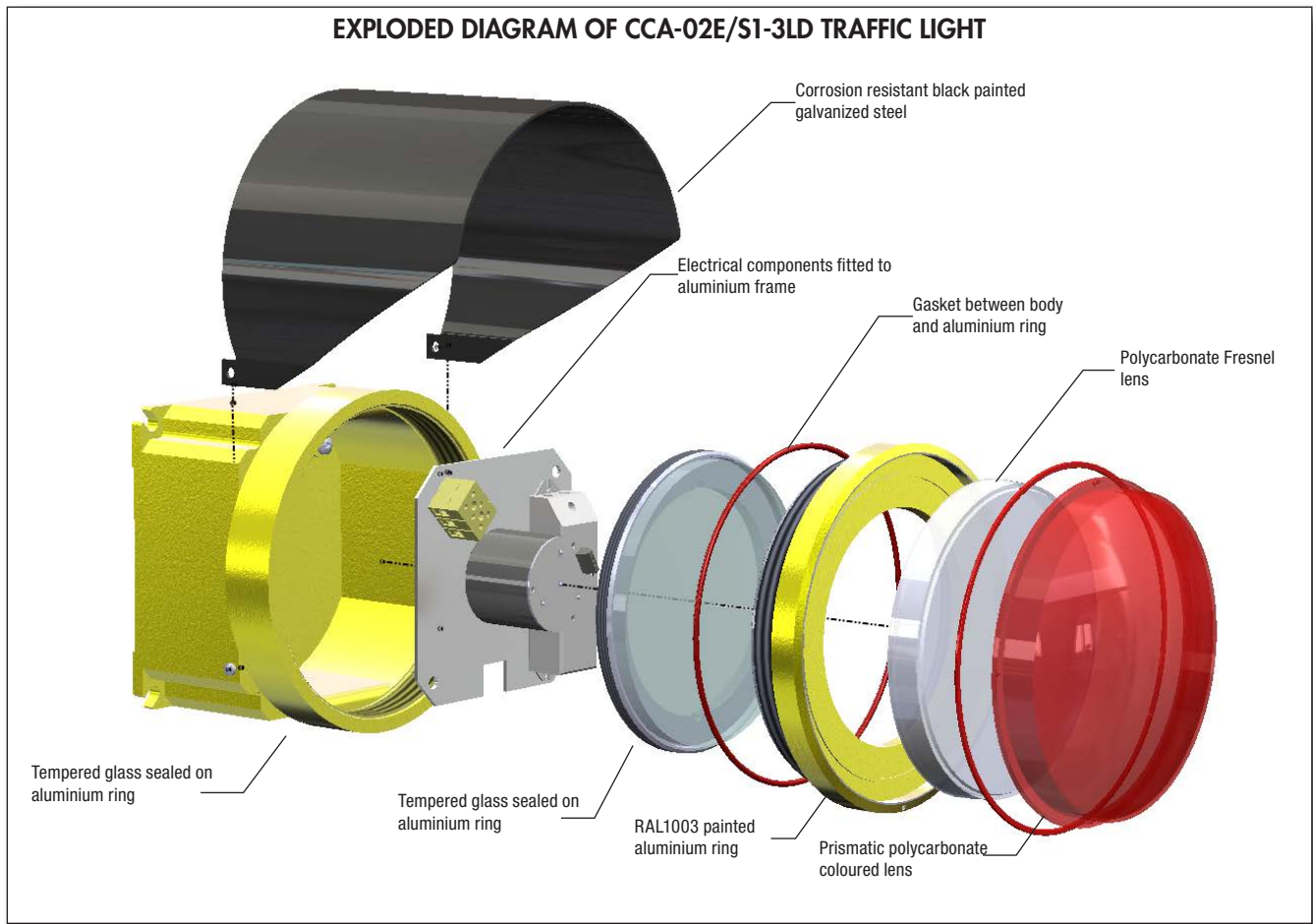
Code	LED colour	Number of signallers	Watt	Weight kg	 mm
CCA-02E/S1-1LD	GREEN	1	6W	8	90x190x320
CCA-02E/S1-2LD	YELLOW	1	6W	8	90x190x320
CCA-02E/S1-3LD	RED	1	6W	8	90x190x320
CCA-02E/S2-4LD	GREEN + RED	2	6W	16	230x580x320
CCA-02E/S2-5LD	GREEN + YELLOW	2	6W	16	230x580x320
CCA-02E/S2-6LD	RED + YELLOW	2	6W	16	230x580x320
CCA-02E/S3-7LD	RED + GREEN + YELLOW	3	6W	24	230x870x320

## DIMENSIONAL DRAWING



# CCA-02E/S...LD traffic light features

## EXPLODED DIAGRAM OF CCA-02E/S1-3LD TRAFFIC LIGHT



## WIRING DIAGRAM

