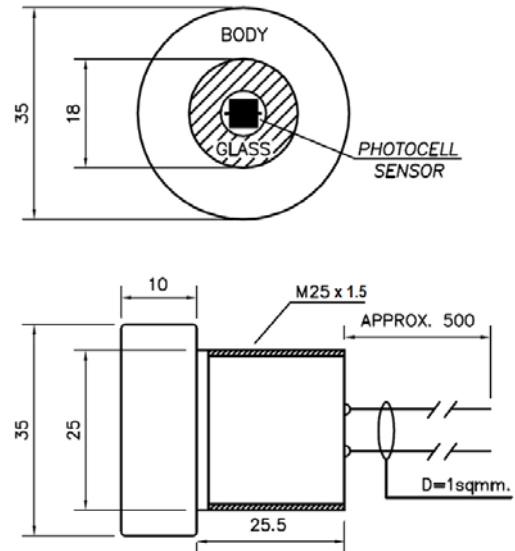




SICE NAVIGATION AID SYSTEM Ex PHOTOCELL SYSTEM



**SICE FTC M25 COMPLETE DEVICE
INCLUDING PHOTOCONDUCTIVE CELL
SENSOR, ENCLOSURE, ENCAPSULATION
AND CONNECTING CABLE**



**SICE FTC M25 COMPLETE DEVICE
DIMENSIONAL DRAWING**

Photoconductive cell (photoresistor), rugged type, installed, connected and encapsulated by SICE inside a special enclosure, M25 threaded, that includes the glass window. The complete device (photoresistor + enclosure + encapsulation + connecting cable) is ATEX and IECEx certified and is suitable for Zone 1 installation. This device can be installed on a dedicated Junction Box (Photocell Junction Box) or inside the same navigation aids control panel, depending on the navigation aids requirements. Main technical characteristics:

Photoconductive cell details:

- ✓ Type : VT50N1 (or equivalent)
- ✓ Resistance range at 10 lux : from 4.0kΩ to 12kΩ
- ✓ Resistance at dark : 200kΩ minimum
- ✓ Working voltage : 200Vpk maximum
- ✓ Power dissipation : 0.5W maximum
- ✓ Operating (and storage) temperature : from -45°C to +75°C

Complete device details:

- ✓ Type : SICE FTC M25
- ✓ Enclosure body material : AISI 316L Stainless Steel
- ✓ Window glass type : tempered
- ✓ Glass thickness : 10mm
- ✓ Rating voltage : 80Vdc/ac maximum
- ✓ Rating current : 0.1A maximum
- ✓ Mechanical protection : IP66
- ✓ Rated service temperature range : from -40°C to +55°C
- ✓ Protection mode (marking) : II 2 G Ex d IIB Gb IP 66
- ✓ ATEX certificate number : 02ATEX9006U
- ✓ IECEx certificate number : INE 14.0022U



**VT50N1 (OR EQUIVALENT)
PHOTOCONDUCTIVE CELL SENSOR
INSTALLED INSIDE ENCLOSURE**



SICE NAVIGATION AID SYSTEM Ex PHOTOCELL SYSTEM

REDUNDANT PHOTOCELL SYSTEM TYPE EJB-2 + 3xFTC



PHOTOCELL DEVICE 1

PHOTOCELL DEVICE 2

PHOTOCELL DEVICE 3

**EJB-2 + 3 FTC
Ex ENCLOSURE TYPE EJB-2
ASSEMBLED WITH THREE
PHOTOCELL DEVICES TYPE FTC
(TYPICAL)**

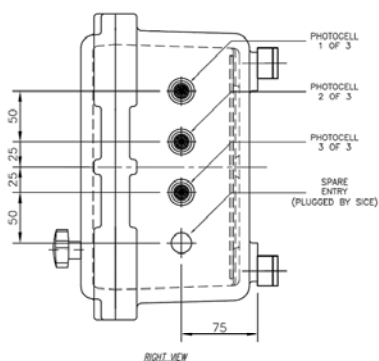


**INTERNAL BASE
PLATE LAYOUT
(TYPICAL)**

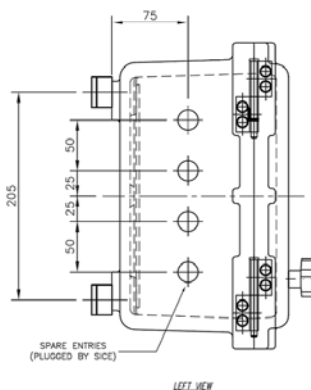
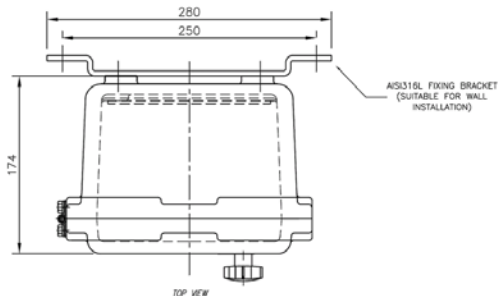
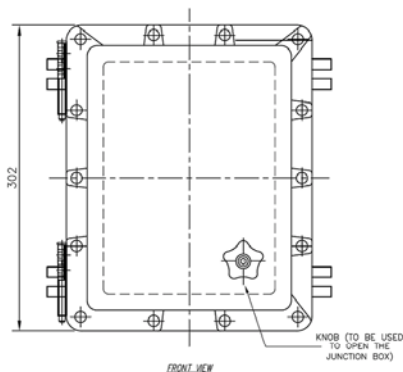
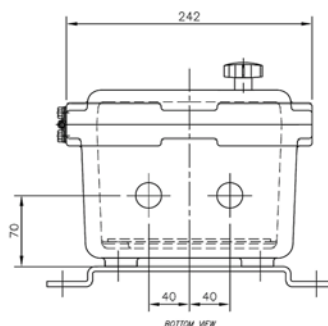
This redundant photocell system includes Q.ty 3 photocell sensors, ATEX and IECEx certified, type SICE FTC M25, placed in the side of one explosion proof enclosure type EJB-02 (or equivalent enclosure). These sensors are managed by SICE supervisor system placed in the SICE navais control panel and work as follows:

- ✓ When at least 2 photocell sensors detect "day", the navais control panel switches-off the signal lights.
- ✓ When at least 2 photocell sensors detect "night", the navais control panel switches-on the signal lights.

In this way, the failure of one photocell sensor does not affect the correct activation/deactivation of the lights system.



**EJB-2 Ex ENCLOSURE
TYPICAL DIMENSIONAL DRAWING**



Enclosure details:

- ✓ Type: EJB-2
- ✓ Manufacturer: Technor-Italsmea
- ✓ Material: marine grade aluminium
- ✓ External paint: for off shore use
- ✓ Internal paint: anticondensation
- ✓ Mechanical protection: IP66
- ✓ Execution: Ex d IIB T6 IP66
- ✓ Temp. range: from -40°C to +55°C
- ✓ ATEX certificate: INERIS 00ATEX0021X
- ✓ IECEx certificate: INE 10.0015X
- ✓ Weight: 12kg (approx.)

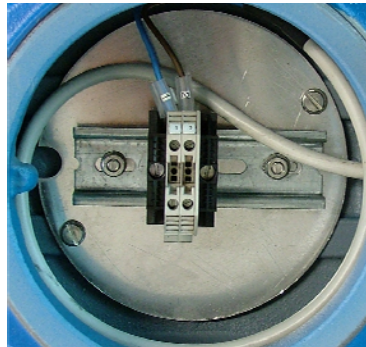


SICE NAVIGATION AID SYSTEM Ex PHOTOCELL SYSTEM

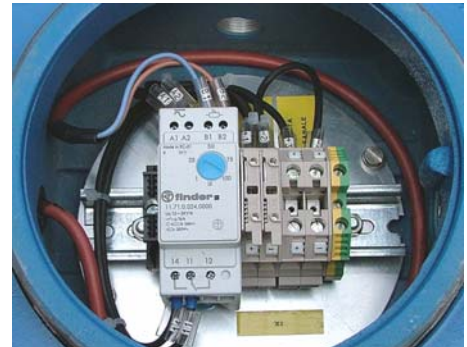
PHOTOCELL SYSTEM TYPE GUB-02 + 1xFTC



GUB-02 + 1xFTC
Ex ENCLOSURE TYPE GUB-02
ASSEMBLED WITH ONE PHOTOCELL
DEVICE TYPE FTC M25
(TYPICAL)

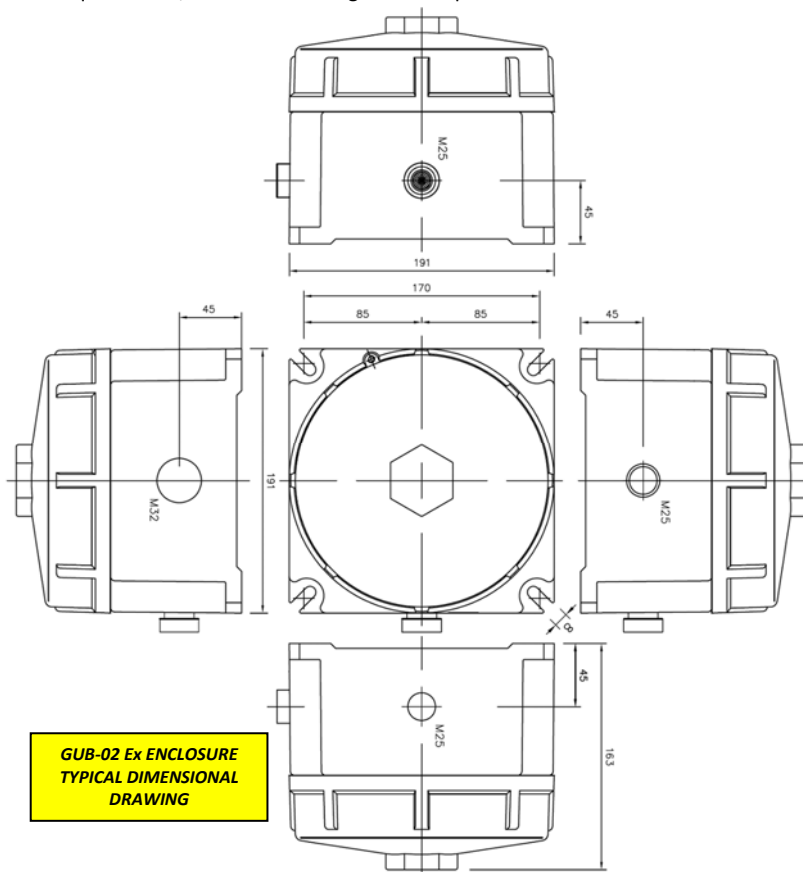


INTERNAL BASE PLATE LAYOUT OF
GUB-02 + 1xFTC STANDARD TYPE
(TYPICAL)



INTERNAL BASE PLATE LAYOUT OF
GUB-02 + 1xFTC COMPLETE TYPE
(TYPICAL)

This system includes (usually) Q.ty 1 photocell sensor device, ATEX and IECEx certified, type SICE FTC M25, placed in the side of one explosion proof enclosure, type GUB-02 (or equivalent enclosure). SICE can manufacture this system in compliance with Customer specifications and requirements, as in the following two examples.



GUB-02 Ex ENCLOSURE
TYPICAL DIMENSIONAL
DRAWING

GUB-02 + 1xFTC standard type:

Inside the enclosure are installed the photocell sensor device and the terminal strip only. The photocell sensor device must be managed by SICE Navaid's Panel, where the light dependant relay, that manages the photocell sensor, is installed. This system does not require power supply voltage, it is powered by Navaid's Panel directly through the two wires used for the connection.

Main technical details:

- ✓ Working voltage: $\leq 24Vdc$ (from SICE Navaid Panel)
- ✓ Power consumption: $\leq 0.5W$

GUB-02 + 1xFTC complete type:

This system is complete also with local light dependant relay and, in this case, it is able to switch ON / OFF the loads directly. So, in this case, the photocell system must be also powered by external voltage.

Main technical details:

- ✓ Working voltage: $24Vdc / 230Vac$
- ✓ Power consumption: $1.3VA / 0.8W$ (excluded loads)
- ✓ Relay contacts current: $16A$ at $250Vac$ (AC1)

Enclosure details:

- ✓ Type: GUB-02
- ✓ Manufacturer: Technor-Italsmea
- ✓ Material: marine grade aluminium
- ✓ External paint: for off shore use
- ✓ Internal paint: anticondensation
- ✓ Mechanical protection: IP66
- ✓ Execution: Ex d IIC T6 IP66
- ✓ Temp. range: from $-40^{\circ}C$ to $+55^{\circ}C$
- ✓ ATEX certificate: INERIS 00ATEX0033x
- ✓ IECEx certificate: BKI 15.0003
- ✓ Weight: $6kg$ (approx.)

Document can be subjected to modifications, without prior notice