

2018

# GUARDIAN : ELEV8TOR

Lift Car Presence Indicator / Alarm

Information Brochure



C-VIGIL Ltd : marine (CVM)

In  
association  
with

 kvasirgroup

C-VIGIL Ltd : marine (CVM)  
GUARDIAN : SYSTEMS





## Elevator / Lift Car Presence Indication and Warning System



Fatal accidents have occurred where people have stepped into empty lift shafts expecting the car to be in position. Ship's lifts/elevators can be relatively un-sophisticated - such that a simple lever switch malfunction may allow the outer door to open when the car is not in place. Should this happen as a person (who may be distracted) approaches, a dangerous situation may occur.

Elev8tor has been designed to help draw the user's attention to the lift's position status. A PIR motion sensor detects the user's approach and briefly (3 secs) sounds an alarm to alert the user. The warning panel will show a flashing red light to indicate the lift is not present.

As the lift approaches the red flashing light is extinguished and the amber light is lit, should it remain lit this means the lift's car is not in its usual position; should the doors open then caution should be exercised.



## *Help Prevent Distracted Personnel Entering an Empty Lift Shaft*

Only when the lift is in its usual position will the green light be lit, indicating it is safe to proceed.

Having this warning indicator will hopefully keep the user's attention focused and prevent them stepping into an empty lift shaft.

Upper & lower photo-electric position sensors are located within the lift shaft and positioned to detect the lift's normal position.

The Main Control Unit (MCU) is also be installed in the lift shaft.

The Indicator & Warning Panel should be installed adjacent to the lift's call button – at eye level.

Power is taken from the ship's mains supply – 100-240V AC 50/60Hz



Photo-electric sensors fitted within the lift shaft detect when the car is in its normal position. An indicator / warning panel shows users the cars position status.

**Helps protect: -**

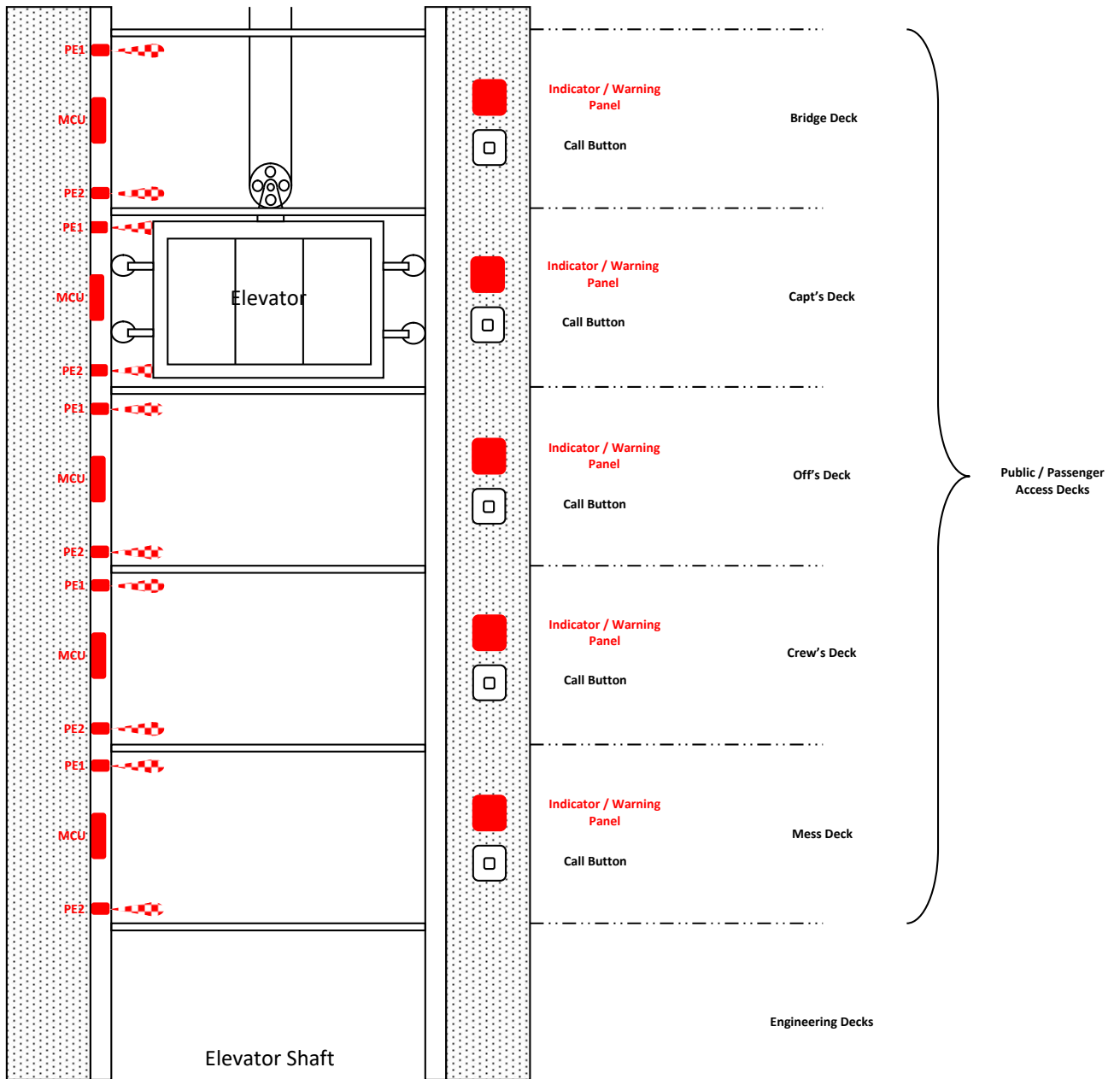
- **Ship's Personnel**
- **Passengers**
- **Shore-side Personnel**
  - **Agents**
  - **Agents Runners**
  - **Immigration Officers**
  - **Customs Officials**
  - **Stevedores**
  - **...etc**



<b>ELEV8TOR</b>	
<b>MCU – Main Control Unit (Includes PLC, PSU &amp; TB1)</b>	
Power	100-240V AC 50/60Hz to 12V DC 1000mA
PLC	8 Digital I/Ps & 4 Relay O/Ps
TB1	Termination & Connection
Size	200mm x 150mm x 75mm
<b>Photo-electric Position Sensors PE1 &amp; PE2</b>	
Power	12V DC
Output	TTL NPN
Detection	Up to 300mm
Mode	Output High when no target present
Size	100mm x 100mm x 57mm
Range	100m
<b>Indicator &amp; Warning Panel</b>	
Power	12V DC
Indicators	Red (Danger) : Amber (Caution) : Green (Present)
Sounder	85dB
Motion Sensor	PIR – Up to 0.5m Detection Range - 140Degs
On / Off	Magnetic Key Switch
Test	Push Button Test Facility

***Photo-electric Position  
Sensors***

# Typical Overview



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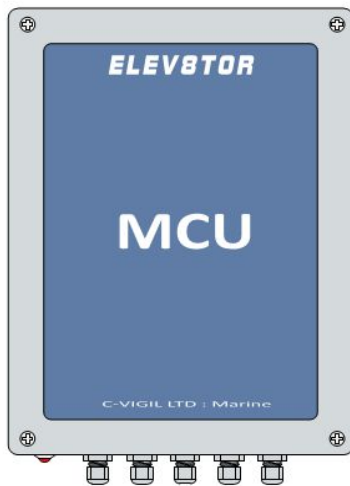
klarion  
acoustic area denial

autoguard  
intruder detection

thermoguard  
remote °C monitoring

elev8tor  
lift car indicator

## Main Control Unit



- PLC Unit
- Main PSU – 85-240V AC to 12V DC
- Terminal Connector Strip
- Rugged ABS Construction
- IP68

## Indicator Warning Panel



- Bulkhead Mount
- PIR Motion Detector
- Red LED – Danger car not present
- Amber LED – Caution car present but not in normal position
- Green – Safe to enter
- Magnetic key switch – on / off

## Photo-Electric Object Sensor



- Photoelectric sensor (photocell) of self-reflective type, consisting of a transmitter/receiver integrated into a single housing.
- NPN output type (output negative -). Operating NO and NC.
- Round type sensors diameter 18 mm (M18) and 70 mm length.
- Operating voltage: 10-36 VDC (300 mA).
- Sensing Distance (Sn): 10-30 cm.



**C-VIGIL<sup>LTD</sup>**  
**marine**  
**GUARDIAN SYSTEMS**



[www.cvigil.co.uk](http://www.cvigil.co.uk)

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