



# Heavy Duty Emergency Stop – Type GLES Guardian Line E Stop Operating Instructions



Type: GLES



Type: GLES - SS



Type: GLES - Ex



Explosion proof versions



Type: GLES – SS - Ex

### Application:

GLES Emergency Stop switches are used to provide a hand operated latching Emergency Stop command. In combination with any dual channel safety-monitoring controller they can be used as emergency stop devices and monitored for up to Category 4 to ISO13849-1.

It is the responsibility of the user to ensure the correct overall functionality of its systems and machines. IDEM, its subsidiaries and affiliates, are not in a position to guarantee all of the characteristics of a given system or product not designed by IDEM.

### Operation:

All GLES Emergency stop switches conform to European Standards ISO13850 and IEC 60947-5-5. They have a positive mechanical linkage between the switch contacts and the Mushroom Button. After operation by depressing the Red Mushroom button, they require to be re-set (safety contacts closed, auxiliary contacts open) by pressing the blue reset button on the switch cover.

### Installation:

Installation of all GLES must be in accordance with a risk assessment for the individual application. Installation must only be carried out by competent personnel and in accordance with these instructions.

M5 mounting bolts must be used to fix the switches. Tightening torque for mounting bolts to ensure reliable fixing is 4 Nm. Tightening torque for the lid screws, conduit entry plugs and cable glands must be 1.5 Nm to ensure IP seal. Only use the correct size gland for the conduit entry and cable outside diameter.

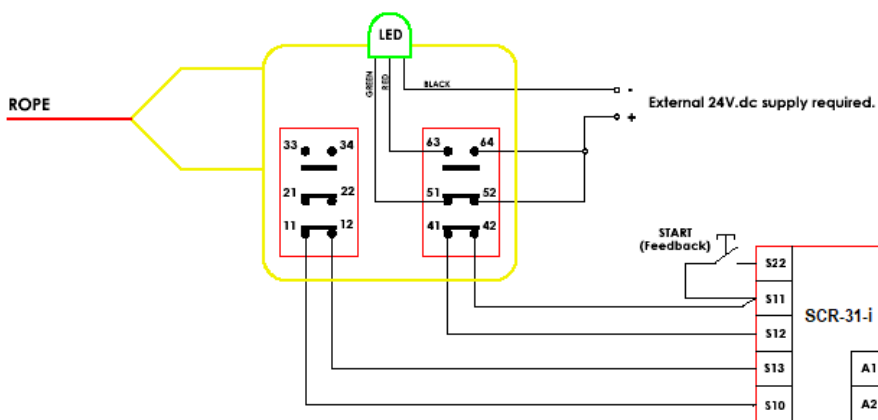
During installation / commissioning check the operation of the switch and the control circuits by depressing the Red Mushroom Button and resetting each switch by depressing the Blue Reset button. Ensure each time that the machine stop is activated according to the risk assessment for the machine.

### Maintenance:

Every 3 months (minimum – or as directed by the risk assessment for the application):  
Isolate power and remove cover. Check screw terminal tightness and check for signs of moisture ingress. Never attempt to repair any switch.

### Wiring Example:

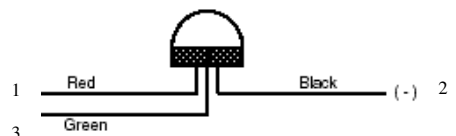
Connected to an IDEM SCR-31-i Safety Monitoring Relay.



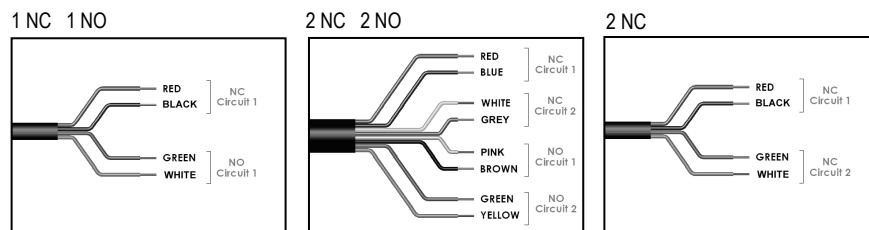
LED Flashing Red -- Stopped  
LED Steady Green -- Able to Start

Indicator Lamps (24V.d.c or 110V or 230V ).

When power is applied to the Red wire the lamp will illuminate Red and Flash.  
When power is applied to the Green Wire, the Lamp will illuminate Green.  
Black is 0V.d.c. or Neutral

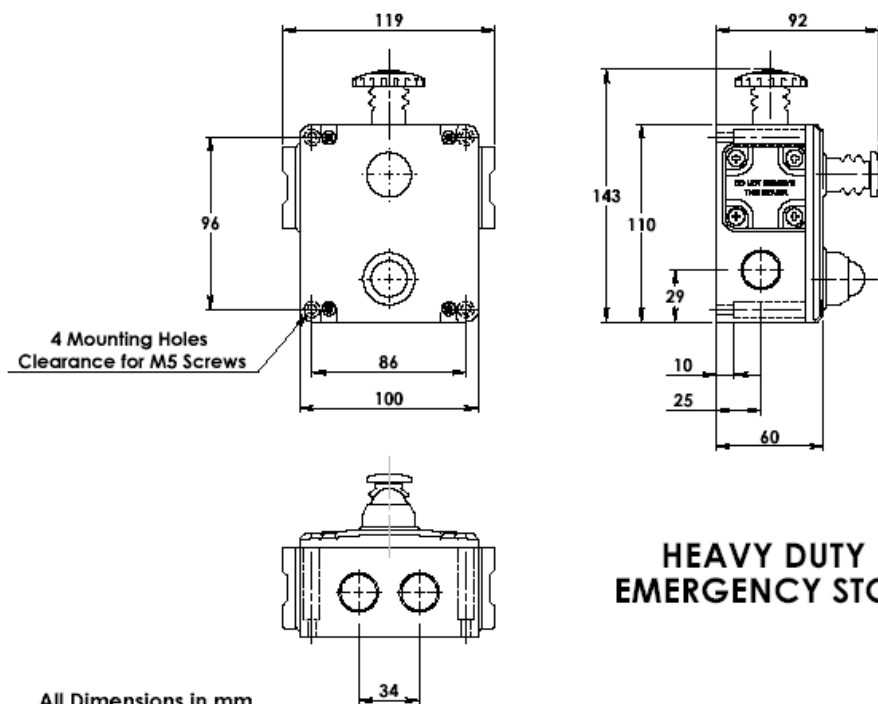


### Wiring circuits for EX versions:



**IMPORTANT-  
SPECIFIC CONDITIONS OF USE FOR EX VERSIONS:  
THE INTEGRAL CABLE SHALL BE SUITABLY PROTECTED  
FROM PHYSICAL DAMAGE AND ABRASION.  
THE INTEGRAL CABLE IS TO BE TERMINATED IN A  
SUITABLE TERMINAL FACILITY.**

# Heavy Duty Emergency Stop – Type GLES



All Dimensions in mm

<b>Standards:</b>	IEC 947-5-1 IEC947-5-5 ISO13850 UL508
<b>Enclosure / Cover</b>	Die-Cast – Painted Yellow or Stainless Steel 316
IP Rating	IP67
Mounting	4 x M5
Mounting position	Any
Conduit entries	3 x M20 or 3 x ½" NPT by part number
Torque settings	Mounting M5 4.0 Nm Lid Torx T20 M4 1.5 Nm Terminals 1.0 Nm
Ambient Temperature	-25C. 80 C. -40C. 80C. FZ versions
Vibration resistance	10-500Hz 0.35mm
Shock resistance	15g 11ms
Mechanical Life	1,000,000 operations
Approx. weight	1000 g. Yellow 2000g. S/Steel
	IEC 60947-5-1 Double break Type Zb up to 4NC (positive break) up to 2NO (Auxiliary)
Contact Material	Silver
Termination	Clamp up to 2.5 sq. mm conductors
Rating	Utilisation Category : AC15 A300
Operational Rating	240V. 3A.
Thermal Current (Ith)	10A.
Rated Insulation Voltage (Ui)	500V.
Withstand Voltage (Uimp)	2500V.
Short Circuit Overload Protection	Fuse Externally 10A. (F)



Exd IIC T6 (-20 ≤ Ta ≤ + 60C) Gb



Exd tb IIIC T85C (-20 ≤ Ta ≤ + 60C) Db

## Optional Explosion Proof Contacts

Type	IDEM LS-EX internal switch
EC Type Certificate Number	Baseefa11ATEX0267X
IEC Certificate Number	IECEx BAS11.0133X
Classification	Ex d IIC T6 (-20C Ta 60C) Gb Ex tb IIIC T85C (-20C Ta 60C) Db
Zones	1, 21, 2, 22
Rated Voltage	250V ac/dc
Rated Current	2 pole 4A. 4 pole 2.5A.

Sales Number	Type	Conduit Entry	Contacts
146001	GLES	M20	4NC 2NO
146002	GLES	½" NPT	4NC 2NO
146003	GLES-Ex	3m. 4 core Ex	1NC 1NO
146004	GLES-Ex	3m. 8 core Ex	3NC 1NO
146005	GLES-Ex	3m. 4 core Ex	2NC
146006	GLES-Ex	3m. 8 core Ex	2NC 2NO
147001	GLES-SS	M20	4NC 2NO
147002	GLES-SS	½" NPT	4NC 2NO
147003	GLES-SS-Ex	3m. 4 core Ex	1NC 1NO
147004	GLES-SS-Ex	3m. 8 core Ex	3NC 1NO
147005	GLES-SS-Ex	3m. 4 core Ex	2NC
147006	GLES-SS-Ex	3m. 8 core Ex	2NC 2NO

**\* For LED models add voltage code to Sales Number**  
**A - 24Vdc, B -110Vac, C - 230V.ac (146001+24v LED =146001-A)**

**Gold Plated Contacts available for low power circuits (5V. 5mA).**  
**Add GC to Part Number e.g. 146001-A-GC**