

Emergency stop button for panel mounting INCA Tina

Approvals:



Application:

- To stop a machine or a process

Features:

- Removable terminal block
- LED indication on push-button
- Information output
- Status information with serial connection



Inca Tina is an emergency stop button for panel mounting. Inca Tina is designed for installation in 22.5 mm holes in equipment cabinets. Inca Tina is to be used with Vital control module or Pluto Safety PLC.

Reduced downtime

All Inca Tina offer extensive indication of their status.

- A bright LED placed in the center of the push-button tells whether the push-button is pressed or not, and also whether the connection is interrupted before the device.
- All models are equipped with an information output that can be connected to, e.g., a PLC or a HMI, in order to know exactly which button has been pushed. The models with “StatusBus” functionality offer all the advantages of serial connection while still getting status information from each device.

Faster installation

The removable terminal block speeds up the connection.

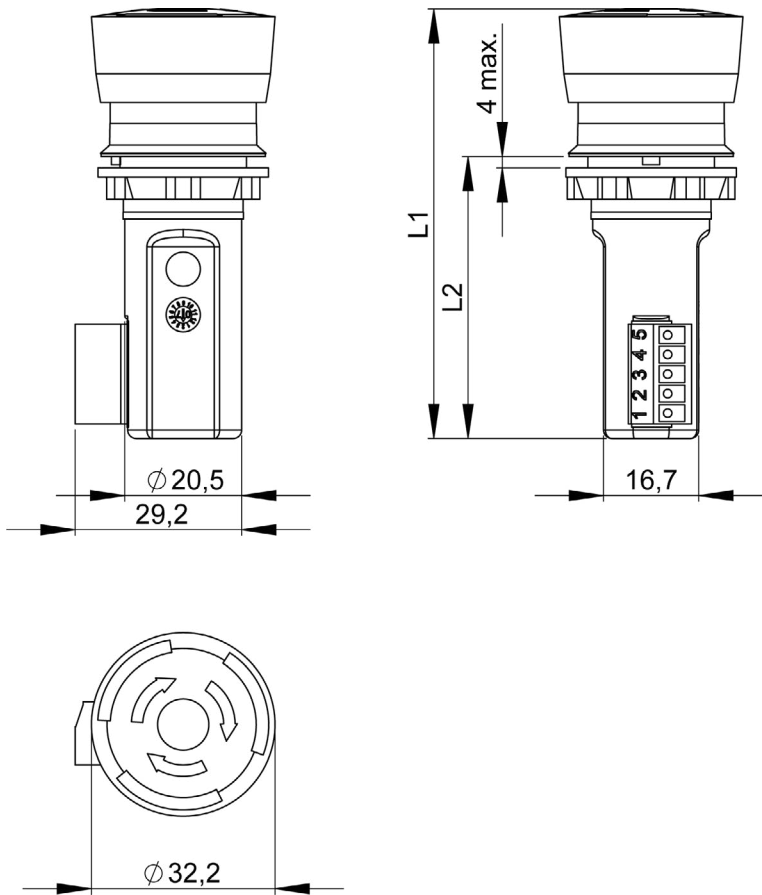
Cost effective solution

- Up to 10 Inca Tina can be connected to ONE input of a Pluto safety PLC. With a conventional 2 contact emergency stop button, two inputs would be necessary.
- The “StatusBus” functionality demands no extra communication module or extra cable.

Technical data

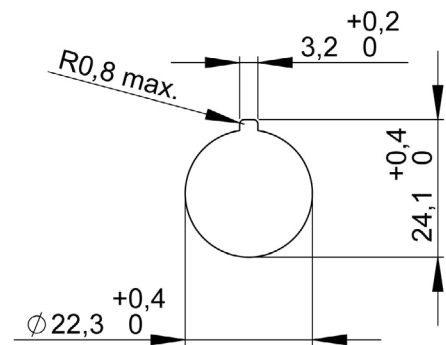
| | |
|---|---|
| Functional safety data | |
| EN ISO 13849-1 | Up to PL e/Cat. 4 depending upon system architecture |
| EN 62061 | SIL 3 depending upon system architecture |
| IEC/EN 61508-1...7 | SIL 3, PFHd: $4,66 \cdot 10^{-9}$ |
| Power supply | |
| Operating voltage | 24 VDC + 15 %, -25 % |
| Total current consumption | INCA 1 Tina/INCA 1S Tina: 47 mA (57 mA with max info signal out) INCA 1EC Tina/INCA 1SC Tina: 23 mA (33 mA with max info signal out) |
| Information output | Max 10 mA |
| Time delay t (in/out) | INCA 1 Tina/INCA 1S Tina: $t < 70 \mu\text{s}$ INCA 1EC Tina/INCA 1SC Tina: $t < 30 \mu\text{s}$ |
| Voltage when normal operation (protection OK) and 24 VDC supply voltage | Dynamic input: between 9 and 13 volt (RMS) Dynamic output: between 9 and 13 volt (RMS) Information output: ~23 VDC |
| Protection class | IP65, terminal block IP20 |
| Ambient temperature | Storage: -30...+70°C Operation: -10...+55°C |
| Humidity range | 35 to 85 % (with no icing or condensation) |
| Housing material | Polyamide PA66, Macromelt, Polybutylenterephthalate PBT, Polypropene PP, UL 94 V0 |
| Contact material | Silver alloy, gold plated |
| Contacts | 5 pole terminal block |
| Size | See Dimensions |
| Weight | ~45 g |
| Colour | Yellow base, red or black button |
| Actuator force (E-stop button) | $22 \pm 4\text{N}$ |
| Actuator travel | ~4 mm to latch |
| Mechanical life | > 50.000 operations |
| LED on Smile Tina | Green: Safety device OK, safety circuit OK Flashing red-green: Safety device OK, safety circuit previously interrupted Red: Button pushed, safety circuit interrupted |
| StatusBus LED indication | Double flash, red or green: Sensor waiting for an address. Red: Button pushed. Green: Button released Bursts of high freq. flash: Sensor identification Slow flash, 1 per 2 sec: During addressing High frequency flash: Short circuit between pin 5 and dynamic signal (pin 2 or 3) |

Dimensions



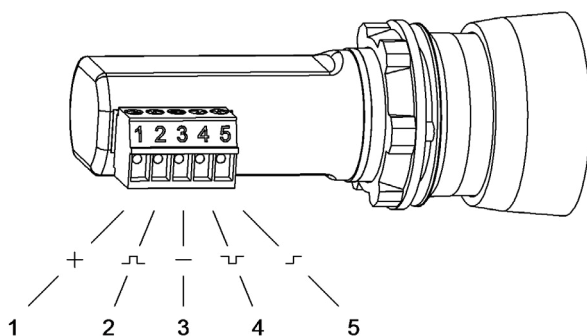
| | L1 | L2 |
|--------------------------------|------|----------------|
| INCA 1EC Tina INCA 1SC Tina | 75,5 | 49,5 $\pm 0,5$ |
| INCA 1 Tina INCA 1S Tina | 80 | 54 $\pm 0,5$ |

All dimensions in millimeters



Mounting cut-out

Connection



INCA Tina

5 pole terminal block

- 1) +24 VDC
- 2) Dynamic signal input
- 3) 0 V
- 4) Dynamic signal output
- 5) Information output*

Caution! Follow the pin numbers as labelled on the unit.

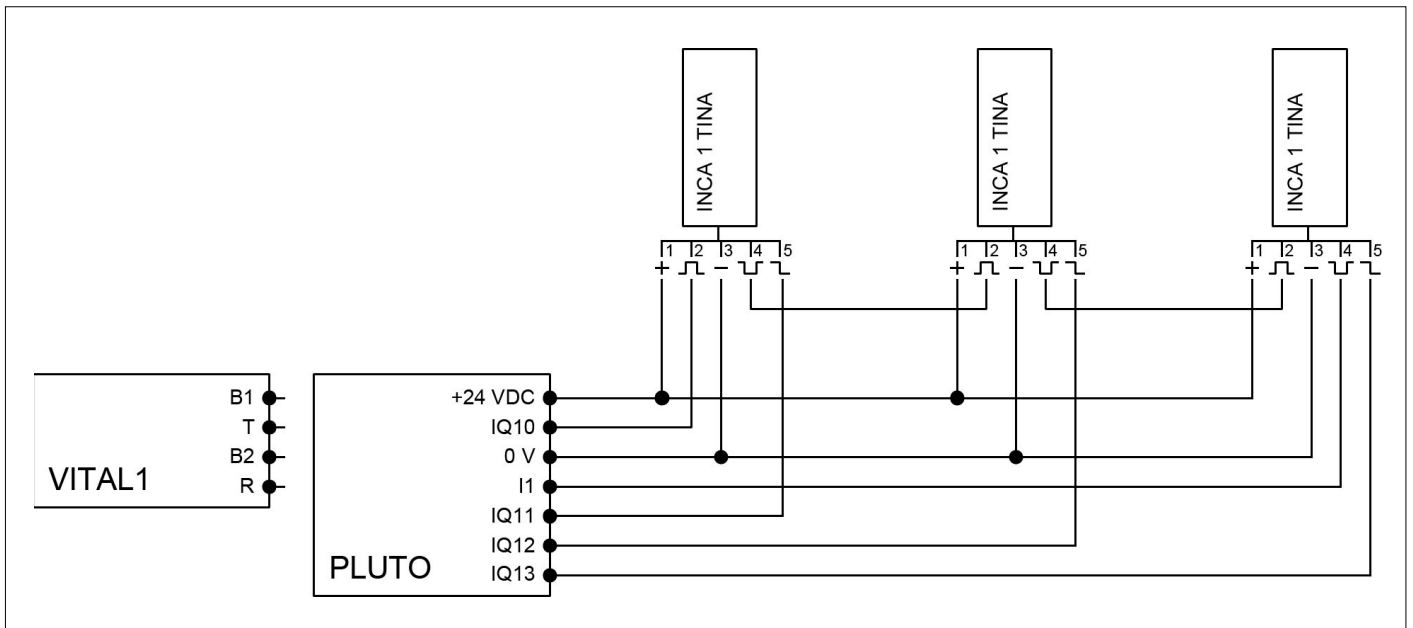
Note: Shielded cable is recommended between this unit and the rest of the safety circuit.

The information channel output shall **never** be used for the safety purpose(s).

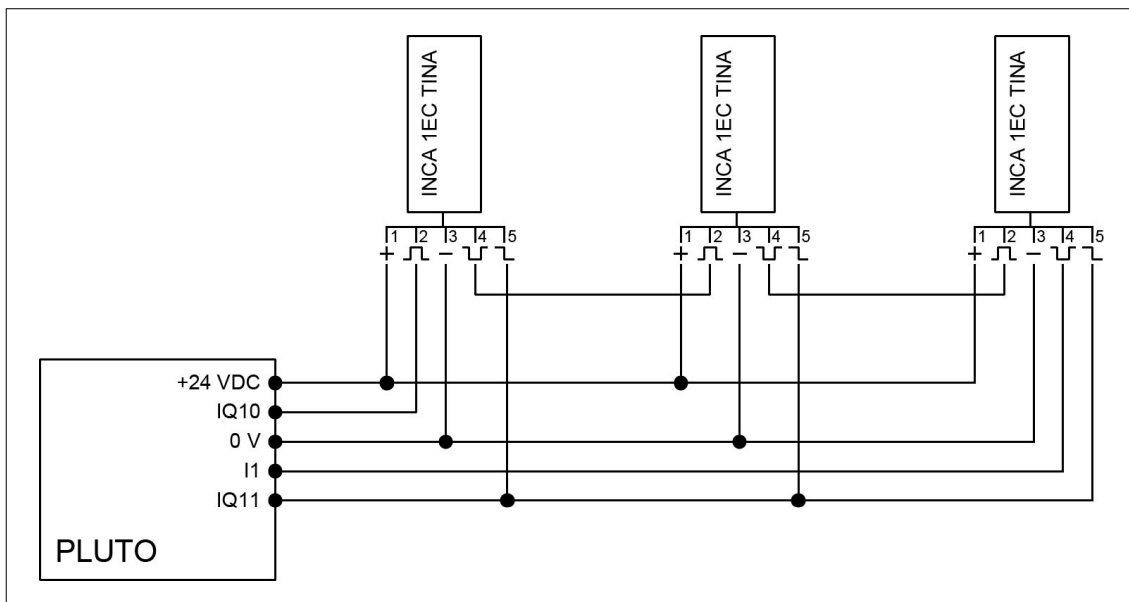
* For the devices with StatusBus functionality: If the device has address 0, pin 5 is an information output. If the address is 1 to 30, pin 5 is a StatusBus I/O. The address is 0 at delivery. Use Pluto safety PLC or Fixa addressing unit for the addressing. See manuals.

Connection examples

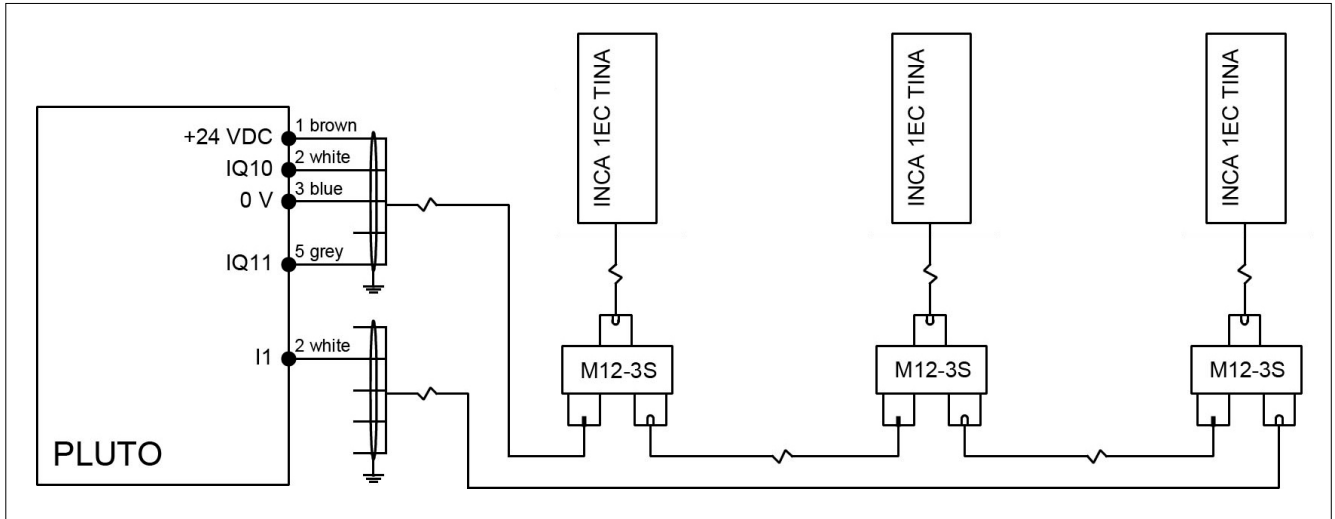
INCA 1 Tina with information output.



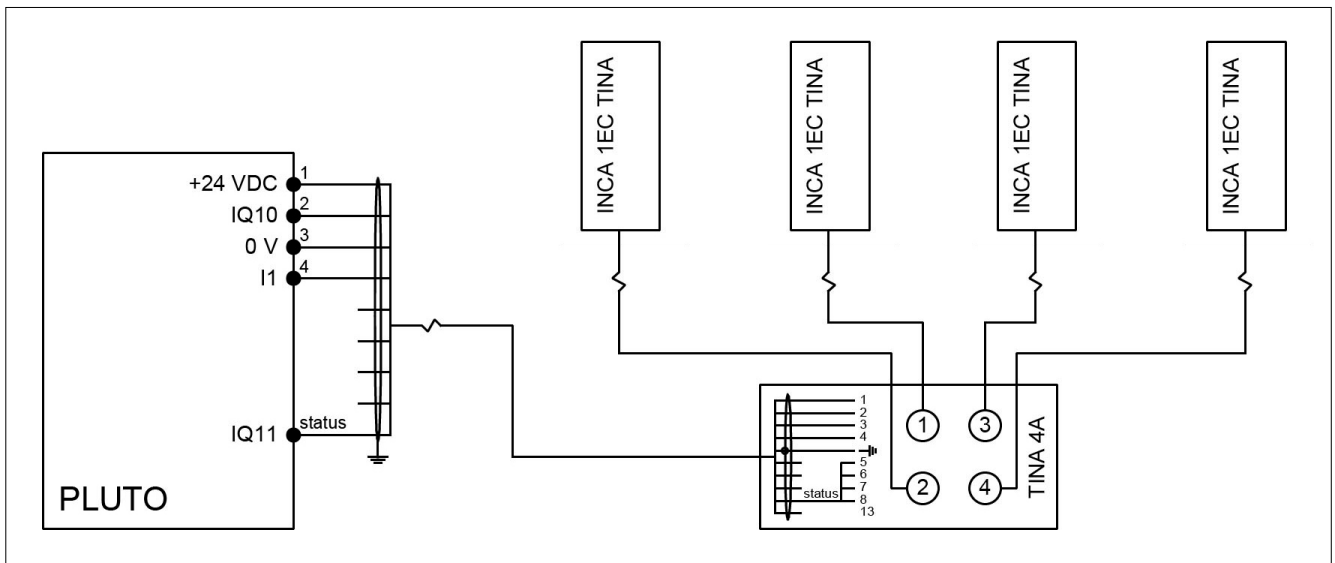
INCA 1EC Tina with StatusBus.



INCA 1EC Tina and M12-3S with StatusBus.



INCA 1EC Tina and Tina 4A with StatusBus.



Note: Terminals 5, 6, 7 and 8 in Tina 4A must be connected to each other when the StatusBus functionality is used.

Models and ordering information

| Type | Article number | Red button | Black button ¹ | Removal terminal block | Reduced installation depth | Information output | StatusBus functionality ² |
|---------------|-----------------|------------|---------------------------|------------------------|----------------------------|--------------------|--------------------------------------|
| INCA 1 Tina | 2TLA030054R0000 | X | | X | | X | |
| INCA 1S Tina | 2TLA030054R0200 | | X | X | | X | |
| INCA 1EC Tina | 2TLA030054R1400 | X | | X | X | X | X |
| INCA 1SC Tina | 2TLA030054R1500 | | X | X | X | X | X |

1) An Inca with black button shall not be used as emergency stop button. It is usually used as a stop button.

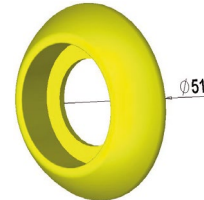
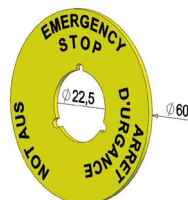
2) The StatusBus functionality can be used with Pluto safety PLC only, not with Vital 1.

If the device has address 0, pin 5 is an information output. If the address is 1 to 30, pin 5 is a StatusBus I/O. The address is 0 at delivery. Use Pluto safety PLC or Fixa addressing unit for the addressing. See manuals.

| Type | Article number | Description |
|---------------------|-----------------|---|
| C5 cable | 2TLA020057R0000 | Cable 5 x 0,34 mm ² + screen, by meter |
| Front ring | 2TLA030054R0400 | Front ring, yellow, for Inca |
| Emergency stop sign | 2TLA030054R0500 | Ø 22.5 mm, Swedish, Danish, Finnish |
| Emergency stop sign | 2TLA030054R0600 | Ø 22.5 mm, English, French, German |



Sign for emergency stop



Front ring for Inca

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