

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.

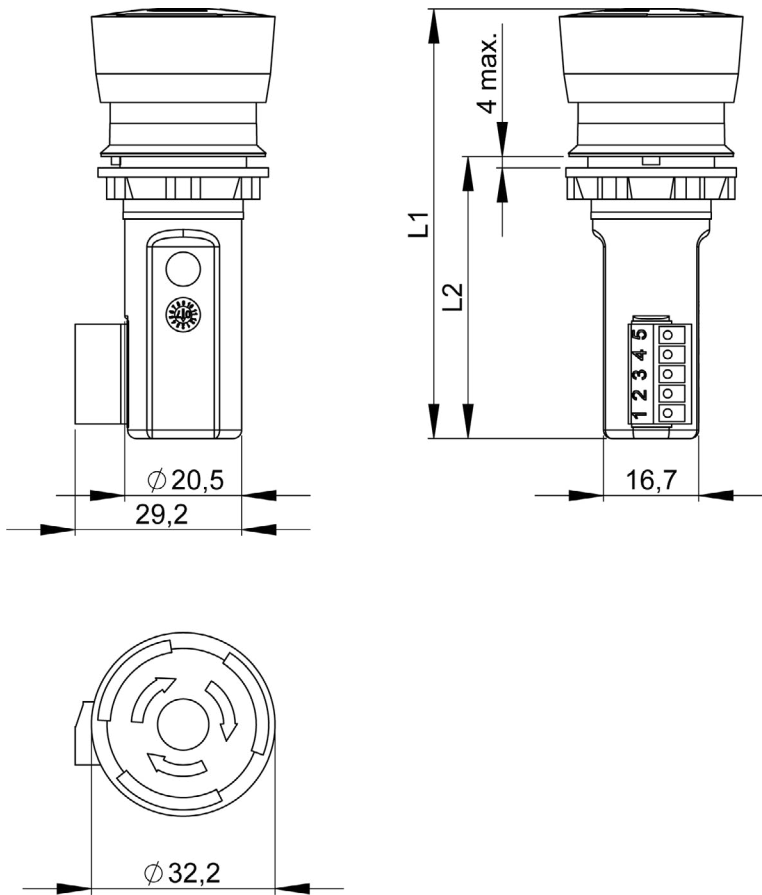
Cost effective solution

- 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

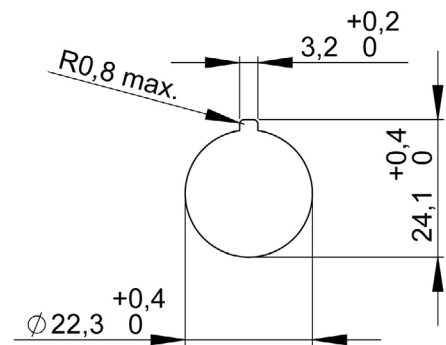
Functional safety data	
EN ISO 13849-1	Up to PL e/Cat. 4 depending upon system architecture
EN 62061	SIL 3 depending upon system architecture
IEC/EN 61508-1...7	SIL 3, PFHd: $4,66 \cdot 10^{-9}$
Power supply	
Operating voltage	24 VDC + 15 %, -25 %
Total current consumption	INCA 1 Tina/INCA 1S Tina: 47 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



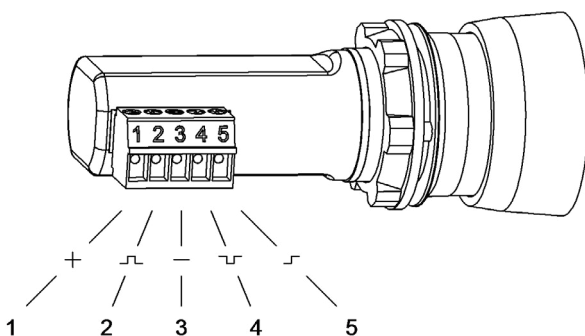
	L1	L2
INCA 1EC Tina INCA 1SC Tina	75,5	49,5 $\pm 0,5$
INCA 1 Tina INCA 1S Tina	80	54 $\pm 0,5$

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.

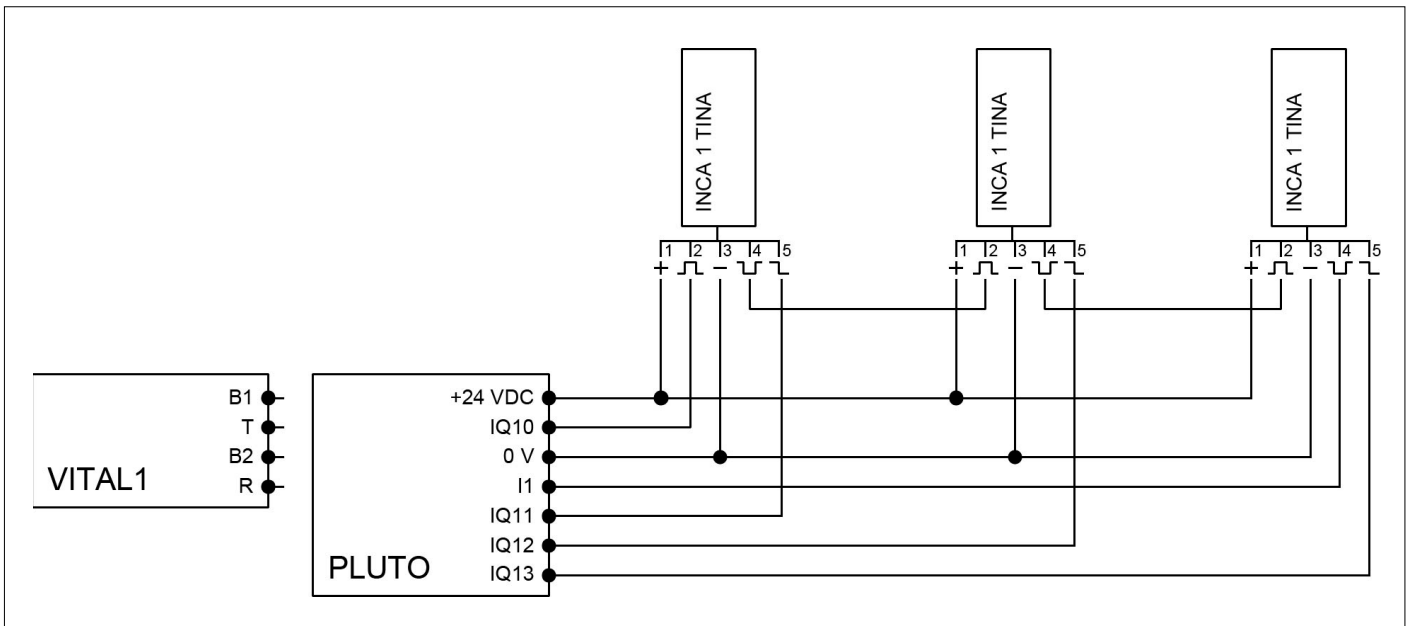
Note: Shielded cable is recommended between this unit and the rest of the safety circuit.

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

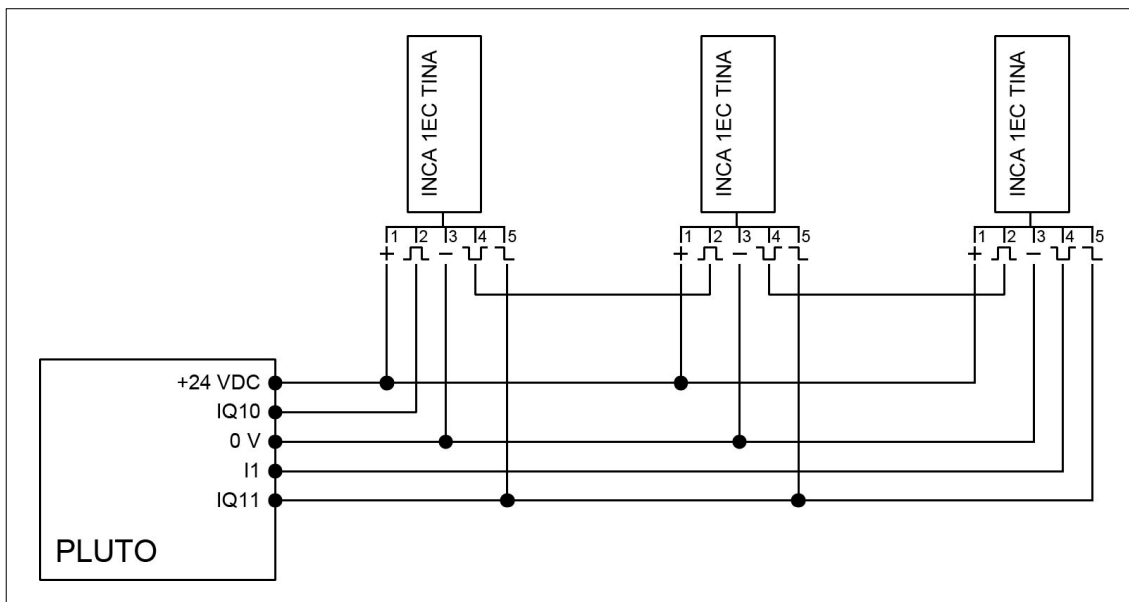
* For the devices with StatusBus functionality: If the device has address 0, pin 5 is an information output. If the address is 1 to 30, pin 5 is a StatusBus I/O. The address is 0 at delivery. Use Pluto safety PLC or Fixa addressing unit for the addressing. See manuals.

Connection examples

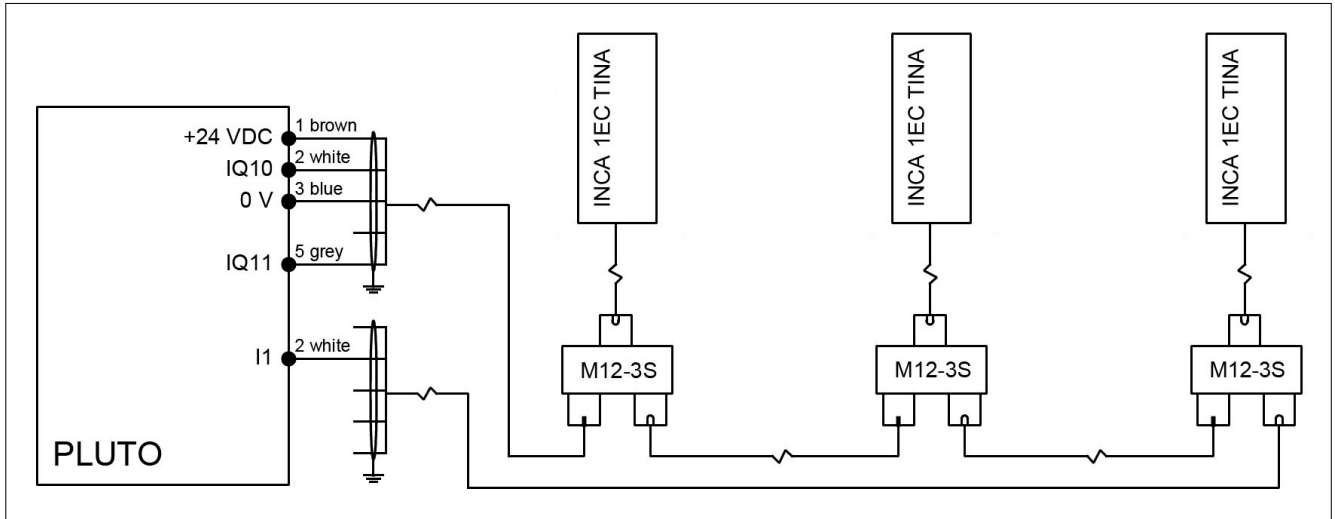
INCA 1 Tina with information output.



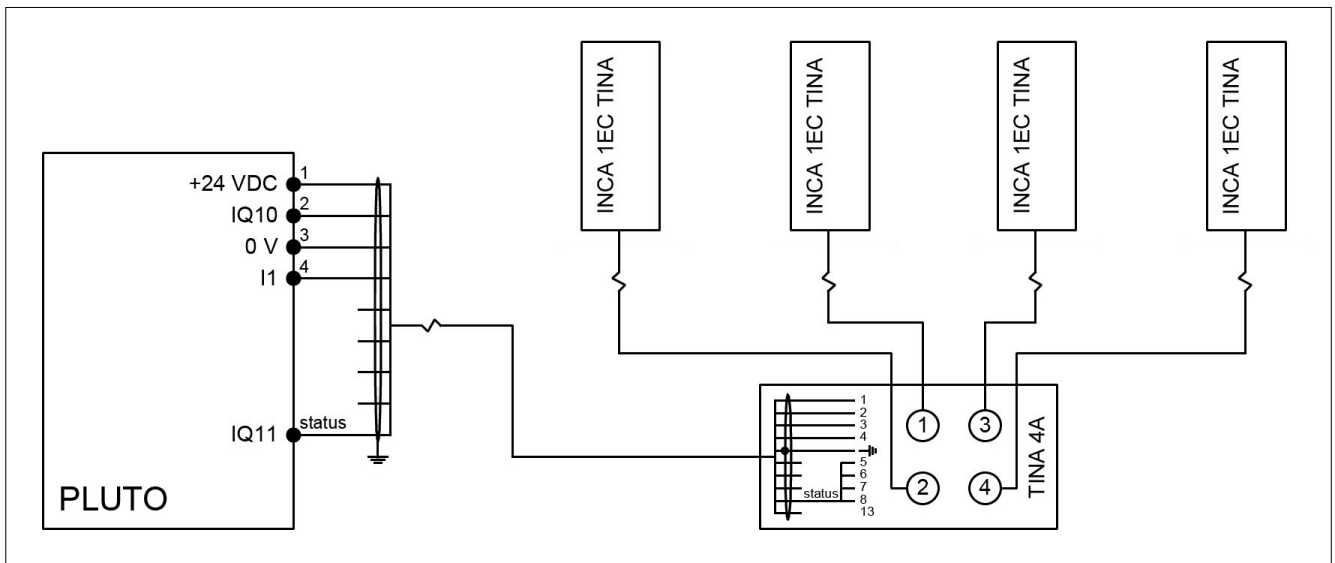
INCA 1EC Tina with StatusBus.



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.

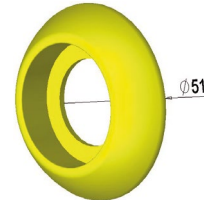
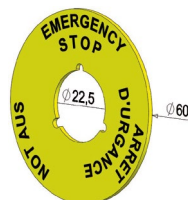
2) The StatusBus functionality can be used with Pluto safety PLC only, not with Vital 1.

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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