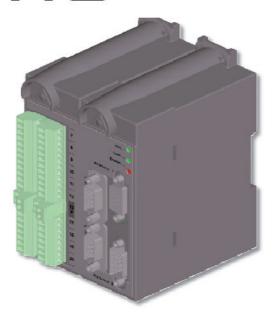


## ECHO



Echo is a monitoring system for handling machinery. It is equipped with digital, analogue and CAN BUS inputs that enable it to acquire information on machine use.

Through an analysis of inputs, the Echo system, connected to Bravo and Delta radio remote controls, can activate or deactivate the relays of the radio remote control and analyze machine use. Activation and deactivation can be performed either upon reaching a given threshold value for the digital and analogue inputs or after a preset number of relay activations.

When the system performs activations or deactivations, it can be programmed to send alert messages to the Bravo radio remote control display or to a telephone number through the GSM module.

Thanks to the possibility of performing Boolean operations on inputs and/or relays, the system can be set to check algebraic functions before intervening on the radio remote control.

In addition to the above mentioned operations, Echo also serves as a memory for radio remote control operation, and can generate reports showing time and activations, in compliance with the current provisions of ISO 4301/1 - 12483/1 - 9927/1.

Combined with an Actuating unit, Echo can manage all the supervision activities for safe machine operation. Connected to the machine operation sensors, it guarantees its safety by limiting or changing its movements in particular conditions or danger situations; normal operation conditions will then be restored after the danger situation has been removed.

It can also automatically intervene to modify the behaviour of the machine for safety purposes as the scheduled or calculated maintenance period gets closer (predictive maintenance period) and depending on the way the operator uses the machine.

It can memorise up to 20 minutes of each activity with 1 second resolution.

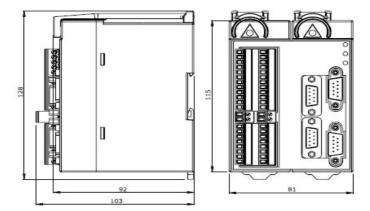


## TECHNICAL SPECIFICATIONS

Conformity to Community Diretives	89/392/CEE 2006/95/CE 1999/5/CE
Conformity to Standards	EN 301 489-1 EN 301 489-3 EN 60204-32 EN60950
	EN 61000-6-2 EN 61000-6-4 EN 954-1
Operational temperature	-25°C / +70°C
Protection degree	IP 20
Power supply	12-24 VAC/VDC, 48 VAC, 110-230 VAC
No. of digital inputs	12 (0-10V)
No. of analogue inputs	8 (0-10V / 4-20mA)
Software	Echo Interface
Programming	Visual
Connections	2 RS 232 / 2 CAN BUS
Safety category	3 (EN 954-1)

<sup>4 (</sup>EN 954-1 stop function - when used with Bravo/Delta)

## OVERALL DIMENSIONS



The data and the products illustrated in this brothure may be modified without notion. Under no chamistances can their description have a contractual value.



TER TEDNO ELETTRICA RAVASI S.R.L. - VIA GARIDALDI 29/31 - 23885 CALCO (LC) - ITALY
TEL. +39 039 9911011 - FAX +39 039 9910445 - E-MAIL: Info@terinternational.net - www.terinternational.net
REGISTERED OFFICE - GOODS RECEPTION: VIA SAN VIGILIO 2 - 23887 DLGIATE MOLGORA (LC) - ITALY
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