

# IND 43 – Ohmmeter of pyrotechnic security



## APPLICATIONS

- Automotive airbag inflator / module electrical functional tests.
- Seatbelt pre-tensioner actuator / module functional electrical check.
- High speed parallel soak dual inflator or dual test station electrical seek.
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- High speed parallel soak dual inflator.
- Multicontact / switch dry circuit continuity and leakage resistance measurements.
- Automotive power / fuse center continuity and leakage characterization.
- PCB / PWB and general purpose short/open circuits testing.

## AOIP line of products Compliant AS201

**IND 43 (from 1 to 4 channels) : Ohmmeter**  
Range of measurement : 0 – 15 Ohms (airbag)  
Other range on demand.

**IND 44 : MegOhmmeter**  
**3 versions (standard voltage of testing):**

- 45V,
- 500V.

Other voltage on demand.

Range of measurement according the testing voltage between 0,1 MegOhms and 1000 MegOhms.

**IND 45 : MegOhmmeter**  
**3 versions (standard voltage of testing):**

- 45V,
- 500V,
- Programmable (45 to 500V)

**2 versions according the number of channels** (1 to 2 channels Ohmmeter / 1 MegOhmmeter).

**IND46 : RLC Meter.**  
**RL or RC** measurer of circuits : dedicated to the control of pyrotechnics elements on production line or laboratory.

**INT 7 : Switching unit between the IND46 and the modules to be measured.**

**INT 17 : Switching unit between the IND43, IND44, IND45 and the modules to be measured.**

**INT 17 High Voltage : Switching unit between the IND44 and 45, and the modules to be measured.**

## Testers on product line or laboratory Tests for automotive airbag inflators

This Ohmmeter was developed to carry out **MEASUREMENTS** on **PYROTECHNICAL** elements where the **SAFETY OF the USERS** is directly concerned.

Two types of conditions determine this safety:

- **Conditions of measurement**
  - o A current of measurement much lower than the current of non-fire.
  - o A connection on the line of test only for the activated period of measurement.
  - o A flow of the residual electrical charges.
- **Conditions of safety**
  - o The respect of a safety level of maximum current if there's a problem with the equipments (breakdown of electronics, internal short-circuit,...).
  - o Permanent self-checking of the internal functions of our equipments before connection on the measurement line.

## Key points

The Ohmmeter uses a principle of measurement on 4 wires, which makes it possible to be freed from parasitic resistances of lines.

The principle of Measurement rests on an internal device of permanent self-calibration which guarantees, to short and long-term, a very great reliability of the measurements carried out by continuously correcting the drifts of profit and Offset.

The parameter setting is carried out by keyboard with a locking of the parameters by key.

Our units are equipped with dry contact output and a RS232 to allow a connection to process automation and the implementation of traceability.

On demand, we adapt the equipments: adapted protocol RS232, another Testing voltage, integration,...

We suggest to yearly carry out the calibration and to control the safety functions of your equipments.

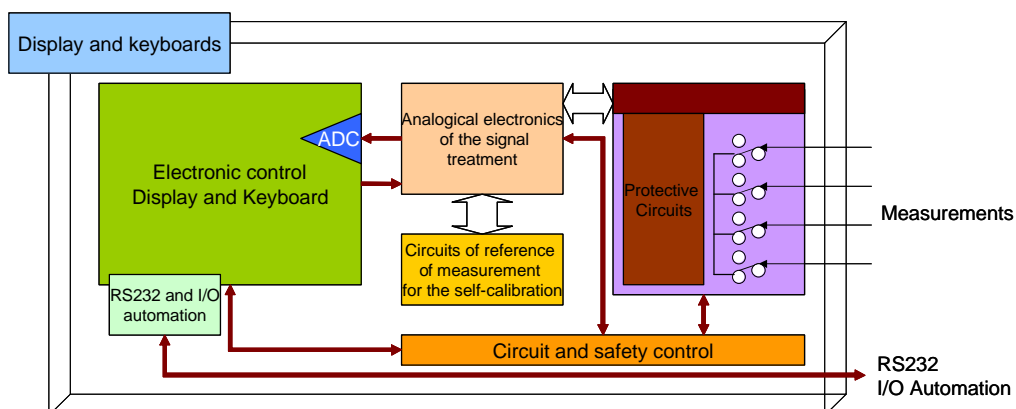
**Our technical experts can assist you:**

- During the starting of your product.
- In the management of your park of our units and its evolution according to your functional needs.
- In breakdown service on your site.
- In integration and globally, in the industrial equipments of production or in Laboratory.
- In investigation on site for your problems of measurement.

# IND43 General Specifications

<b>Dimensions</b>	
* Box 1 channel	280 mm Wide x H155 mm Hide x P290 mm Deep
* Box 2 to 4 channels	L480mm Wide x H170 mm Hide x P300 mm Deep
<b>Number of channels</b>	From 1 to 4
<b>Type and range of measurement</b>	4 wires – from 0 to 15 Ohms
<b>Resolution</b>	0,01 Ohms
<b>Precision</b>	± 0,1%
<b>Current of measurement</b>	10 mA (other current on demand)
<b>Setup</b>	Keyboard – locking by key for parameters
<b>Offset correction of line</b>	Through a mesurement of the line value with validation.
<b>Screen</b>	Backlighted LCD
<b>Interface</b>	RS232 or Automation
<b>Power supply</b>	220 V / 50 Hz with storage of parameters and counters.
<b>Options</b>	Other current of measurement, integration, ...

## Functional description



## Customers references

AUTOLIV  
LIVBAG  
NCS  
SPRIA  
FAURECIA  
SAS Automotive  
RENAULT  
VISTEON  
DAVEY BICKFORD