

# IND 44 -Megohmmeter 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.
- High speed parallel soak dual inflator or dual test station electrical check.
- 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 MegOhmmeter 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 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.**



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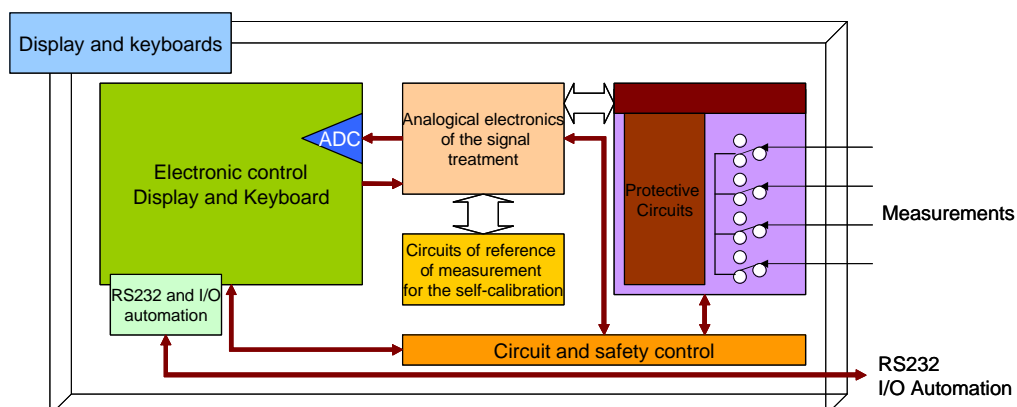
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# IND44 General Specifications

<b>Dimensions</b>	
* Box	280 mm Wide x 155 mm High x 290 mm Deep
<b>Number of channel</b>	1
<b>Testing Voltage</b>	45 V (other voltage on demand)
<b>Type and range of measurement</b>	2 wires – From 0 to 100 MO (standard).
<b>Resolution</b>	0,1 MO.
<b>Precision</b>	±1% from 0 to 50 MO and ± 2% between 50 and 100 MO
<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 measurement of the line value with validation.
<b>Interface</b>	RS232 or Automation
<b>Power supply</b>	220 V / 50 Hz with storage of parameters and counters.
<b>Screen</b>	Backlighted LCD
<b>Options</b>	Another testing voltage, integration, ...

## Functional description



## Customers references

AUTOLIV  
LIVBAG  
NCS  
SPRIA  
FAURECIA  
SAS Automotive  
RENAULT  
VISTEON  
DAVEY BICKFORD