

## EXPLOSION-PROOF ELECTRICAL CONTACTS

### Inductive type — ECI series

#### APPLICATIONS

The electrical contacts are fitted into the case of pressure gauges and intended to make or break an electric control circuit to the position of the pointer on the instruments.

#### DISCRIPTIONS

The pressure gauge with explosion-proof inductive is inductive approach form, because of non-contact-type, it has no any spoilage to the power supply system. Without electric spark, long using life, little impact on the measurement accuracy, it is not only applicable to certain dangerous places, but also suitable for frequent turn on/off occasions.

ECI series explosion-proof inductive pressure gauge is based on GB3836.1 (the request of the electric equipment used in explosive gas environment) and GB3836.4 (safe explosive gas environment electrical equipment intrinsically safety-type "1").



#### SPECIFICATIONS

<b>Instruments</b>	111 series pressure gauges of dial Ø4" & Ø6"
<b>Position of contact block</b>	Hiding type — the contact block is mounted behind the dial
<b>Number of contacts</b>	Single contact — normally open ; normally closed Double contacts — normally open and closed ; normally open x 2 ; normally closed x 2
<b>Protection class</b>	Standard type — IP54 Airtight type or Liquid filled type — IP65
<b>Explosion-proof class</b>	Exib II CT6
<b>Lens</b>	Safety glass
<b>Wiring styles</b>	by Junction box
<b>Filling (option)</b>	Insulation oil
<b>Electrical Parameter</b>	Pressure gauge fixed: 8 VDC, Safe voltage <16 VDC Working current: opening $\geq 3\text{mA}$ , Closed $\leq 1\text{mA}$ , Safe current <52 mA On/off frequency <5000 Hz
<b>Measuring Pressure range</b>	0/1 to 600 kg/cm <sup>2</sup> ( bar ) ; 0/40 to 1000 mbar positive, negative or compound range available

## THE FUNCTIONS OF CONTACTS

Wiring Scheme	Description	With clockwise pointer motion the metal flag	Model
<b>Single Contact</b>			
	Contact <b>makes</b> (NO – normally open)	Disengages from sensor	1a
	Contact <b>breaks</b> (NC – normally closed)	Merges with sensor	1b
<b>Double Contacts</b>			
	1 <sup>st</sup> contact <b>breaks</b> 2 <sup>nd</sup> contact <b>makes</b> (NC + NO)	1 <sup>st</sup> merges 2 <sup>nd</sup> disengages	1a1b
	1 <sup>st</sup> contact <b>makes</b> 2 <sup>nd</sup> contact <b>breaks</b> (NO + NC)	1 <sup>st</sup> disengages 2 <sup>nd</sup> merges	1b1a
	1 <sup>st</sup> and 2 <sup>nd</sup> contacts <b>make</b> (NO – normally open x 2)	Disengages 1 <sup>st</sup> and 2 <sup>nd</sup>	2a
	1 <sup>st</sup> and 2 <sup>nd</sup> contacts <b>break</b> (NC – normally closed x 2)	1 <sup>st</sup> and 2 <sup>nd</sup> Merges with sensor	2b

**Note:** Thin line — flag merged, circuit open  
Bold line — flag not merged, circuit closed

### HOW TO ORDER

Model No. of pressure gauge + 

ECl	1a1b
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Model of function	
1a	2a
1b	2b
1a1b	1b1a

ref. the above scheme