



( 96\*96, 0.5" display )



( 96\*48, 0.5" display )



( 96\*48, 0.8" display )



( 72\*72, 0.5" display )



( 72\*72, with set point display )



( 48\*48, predefined input )  
Yellow in spec803  
( Din rail type )



( din rail type )

## AIL 802P – MICROPROCESSOR BASED SIGNAL INDICATORS / CONTROLLERS ( Fully configurable )

## Technical Catalogue

### Introduction

Programmable Microprocessor based Indicator cum Controller, AIL 802P is an ideal instrument for providing indication as well as controlling set points to various processes. It is designed to accept various process inputs ( Current, Voltage, RTD, Thermocouples, Resistances ) simultaneously i.e in UNIVERSAL manner or any one of these in PREDEFINED manner. When UNIVERSAL manner, The user can configure from the front keys to select any one of the input automatically. The user can also configure to set the range of linear inputs or calibrate the instrument without opening it. The AIL 802P can give maximum 4 relay outputs. All the contact output related specs like – SETPOINT, ALARM TYPE, HYSTERESIS – can be configured easily by the front panel keys itself. Retransmission facility is of course provided with all possible configurations allowed by front keys as usual. The instrument can be optionally equipped with serial communication facility to operate on MODBUS RTU protocols. Single level password is there to keep the settings and configurations intact for the right user only.

Low drift precision components are used for long term accuracy of the instruments. All instruments undergo a burn-in for better reliability. The instrument is available in different formats and sizes. Information regarding specification and size is given below.

### Specifications

#### Inputs ( & Display range )

- 1) Current, 4 – 20 mA DC / 0 – 20 mA DC ( -1999 to 9999 )
- 2) Voltage, 1 – 5V / 0 – 10V ( -1999 to 9999 )
- 3) RTD Pt 100 – 3 wire ( -100.0 to 600.0 )
- 4) T/C Type J ( -100 – 800 )
- 5) T/C Type K ( 0 – 1200 )
- 6) T/C Type R ( 0 – 1760 )
- 7) T/C Type S ( 0 – 1700 )
- 8) T/C Type T ( -100 – 400 )
- 9) T/C Type B ( 450 to 1820 )
- 10) T/C Type E ( -100 to 1000 )
- 11) T/C Type C
- 12) Ohms-0-10K ohms ( -1999 to 9999 )
- 13) mV DC

#### 14) UNIVERSAL type 1 – 1...8 of above

#### 15) UNIVERSAL type 2 – 1...13 of above

- 16) Pulse train input. ( open collector type ) –
- 17) 10 to 10 V DC / -mV to mV DC ( -1999 to 9999 )
- 18) RTD – Cu 53
- 19) Special type of inputs of any V/Current/Resistance ( However on factory confirmation only )
- Decimal point configurable for linear inputs
- T/C temperature displays without decimal point

#### Input impedance

200 K for Voltage, mV & T/C inputs  
upto 250 ohms for current inputs

#### Display resolution

3 digit  
4 digit  
\* Display range is the virtue of its resolution

#### Display accuracy

+/- 0.1% of span

#### Alarms

Maximum 4 nos. of potential free contacts

#### Setpoint Display

Optional on a resolution of 3 or 4 digit

#### Analog output

- Maximum 2 nos. of any of below
- 1) Isolated / Non Isolated 4 – 20 mA DC
  - 2) Isolated / Non Isolated 0-10 V DC
  - 3) Other types on factory confirmations

#### Analog output load capability

800 maximum for current outputs

#### Output accuracy

+/- 0.1% of span

#### Serial output with open protocol

- 1) RS232 With modbus RTU protocol
  - 2) RS485 with modbus RTU protocol
- Note: Any other protocol on demand

#### Transmitter power

24 V DC for current inputs  
10/12 V DC ( in case of Load cell/Proximity application )  
Specials

#### Power supply

- 1) 24 V DC
- 2) 110 V AC, 50 Hz, +/- 10%
- 3) 230 V AC, 50 Hz, +/- 10%
- 4) 90-270 V AC, 50 Hz. – SMPS
- 5) Specials

#### Security

Single level Password protected

#### Contact ratings

230 V AC, 5 Amps.

#### Power consumption

3 VA max.

#### Ambient temperature

0 – 50 C.

#### Storage temperature

0 – 70 C.

#### Humidity

90% RH (non-condensing)

#### Enclosures

Weatherproof, Flameproof and all other standard types

#### Mounting

Panel / Wall / Field / Dinrail / Eurocard / Specials

#### Dimensions

96\*96 / 96\*48 / 72\*72 / 48 \* 48 / 72\*144 / **SPECIALS**

**\*All config/calibration from front keys only**

\*Following table describes the availability of several models with the company right now. A general preview is only presented to the user. The dimensional and display sizes are the relational virtues of each other and hence the user is always requested to clarify the specifications of instrument with the factory prior to placement of the order.  
On confirmation with factory, changes of all types in all specifications is possible.

Model	Mounting & Dimension in mm (H * W)		Inputs	Power	Bargraph	Alarms	Retransmission	Setpoint Display	Process value Display resolution	Process value Display size
							Isolated or Not-Isolated			
<b>AIL 802P</b>	Panel	48*96	All	All	No	Max.2	Max. 1	No	3/4 digit max.	0.25/0.5/0.8"
		72*72	All	All	No	Max.2	Max. 1	Yes	3/4 digit max.	0.25/0.5"
		96*96	All	All	Yes	Max.4	Max. 2	Yes	3/4 digit max..	0.25/0.5/1"
		144*72	All	All	51 LED	Max.4	Max. 2	Yes	3/4 digit max..	0.25/0.5/1"
		72*144	All	All	51 LED	Max.4	Max. 2	Yes	3/4 digit max.	0.25/0.5/1"
		36*144	All	SMPS	51 LED	Max. 4	Max. 1	No	3/4 digit max.	0.25"
	Din Rail	70*100 max	All	All	No	Max. 4	Max.1	No	3/4 digit max.	0.25/0.5"
	Euro	Std. or as req	All	All	No	Max. 4	Max. 2	No	3/4 digit max.	0.25/0.5"
	Wall	As required or Optimum possible	All	All	Depends on size	Max. 4	Max.2	Yes	3/4 digit max.	0.25" to 1"

In case the qty. permits, the instruments can be taken to the customized requirements. Contact factor for confirmation

#### Ordering Information ( 12 digits )

Please confirm the availability of the model by cross checking the table mentioned on the backside.

**Basic Model No.** (Specified by first 3 digits) AIL 802P - Signal Ind. cum Controller Microprocessor based and Fully configurable

**Enclosure / Mounting** (Specified by letter following 3 digits)  
 P-Weatherproof - Panel  
 R-Weatherproof -Din Rail  
 E-Weatherproof - Euro card  
 W-Weatherproof - Wall  
 F-Flame proof – Wall / Field  
 I-IP65 grades – Wall / Field  
 S-Specials

**Input** (Specified by first digit following the letter)  
 1-mA DC signal input  
 2-V/mV DC signal input  
 3-RTD type  
 4-Thermocouple  
 5-Resistances  
 U-UNIVERSAL1 type  
 V-UNIVERSAL2 type  
 S-Specials / Others

**Power Option** (Specified by the second digit)  
 1-24 V DC  
 2-110 V AC  
 3-230 V AC  
 4-90-270 V AC – SMPS  
 S-Specials

**Alarms Option** (Specified by the third digit)

0-None  
 1-1 no. of alarm  
 2-2 no. of alarms  
 3-3 no. of alarms  
 4-4 no. of alarms

**Analog O/P Option** (Specified by the fourth digit)

0-None  
 1-1 no. mA/V DC isolated  
 2-2 no. mA/V DC isolated  
 3-1 no. mA/V DC N. I.  
 4-2 no. mA/V DC N.I  
 S-Any other type of output

**Bargraph Option** (Specified by the fifth digit)

0-None  
 1-YES

**Display Resolution** (Specified by the sixth digit)

1-2/3 digit  
 2-4 digit

**Communication output**

0-None  
 1-YES

**Setpoint Display**

0-None  
 1-YES



( din rail type )



( Euro Card format )



( FLP enclosure )



( Edge cut, Single Bargraph type )



( Single channel Bargraph Ind./Ct.)



( FLP enclosure )

An ISO 9001 : 2008 company

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