

## Technical Catalogue

### FLOW INDICATORS / CONTROLLERS – Single Flow signal input AIL 845P ( Microprocessor based electronics )



( 96\*96, 5 digit for FR )



( 96\*96, LCD display )



( Wall mount enclosure )



( Wall mount enclosure )



( FLP Enclosure )

#### Introduction

ALTOP AIL 845P represents FLOW INDICATORS / TOTALIZERS / CONTROLLERS for flow applications where single flow signal is available. Based on the flow application and the type of flow data signal, hence this model can be used in VOLUMETRIC and MASS flow measurements, both. The instrument accepts any predefined linear type of signal, and converts it into INSTANTANEOUS FLOW RATE to a resolution of 4/4.5 digits. TOTALIZED value is displayed through 8 digits red LED and this totalizer value is always protected against power failures through internal memory structures of microprocessor. Optionally the instrument is designed to give two contact relay outputs and a RETRANSMISSION ISOLATED signal on INSTANTANEOUS FLOW RATE. Serial communication outputs for computer system interfaces are also given optionally. All configurations, calibrations and output fine tunings etc. can be performed by front four keys only without opening the instrument. In the core of all the functions lies the latest and highly proven microprocessor based chipsets. The high end softwares ensure the most user friendly interactions by the user. The instrument incorporates low drift operational amplifiers and industrial grade components for long trouble free operation. Burn in of each module ensures long trouble free operations.

#### AIL 845P :

- 1) Is to be used when a single flow signal input is there. Application can be a VOLUMETRIC / MASS type, depending upon the system design and type of flow transmitter signal output.
- 2) User is allowed to feed in - FLOW RANGE for display, COUNTS/Hr., FLOW TYPE, FLOW RANGE again for RETRANSMISSION. For Pulse input, user has to feed in K factor.
- 3) In case the user wishes to calculate MASS FLOW with three inputs of : FLOW, PRESSURE, TEMP., then the user should look out for our model no. : 845G, 845N, 845S.

#### Specifications

##### Input ( single flow transmitter signal )

Current – 4-20 mA / 0-20 mA DC / Specials  
Voltage – 0-10 V DC / Specials  
Pulse ( Open Collector type )  
Other types on Factory Confirmation  
\* Predefined type only

##### Calculations possible for FLOW RATE

Square root  
Linear  
\* Both options configurable by front keys

##### Analog output

- 1) Isolated / Non Isolated 4 – 20 mA DC
  - 2) Isolated / Non Isolated 0-10 V DC
  - 3) Other types on factory confirmations
- \* 4-20 mA DC o/p @ 800 ohms load

##### Contact output

Maximum 2 sets of C,NC,NO on FLOW RATE

##### Serial output / MODEM CONNECTIVITY

- 1) RS232 With modbus RTU or ASCII protocol
- 2) RS485 with modbus RTU or ASCII protocol
- 3) Modem connectivity with central software
- 4) GSM (Mobile) connectivity

##### Display (any one type)

- 1) 4 digit red LED for Instant flow rate, 4 digit green LED for Engg. Unit display, 8 digit red LED for totalized value ( LED size : 0.25" ) ( Engg. Units selectable )
- 2) 4.5 digit red/green LED instant flow ( LED size : 0.5" ) & 8 digit red LED totalized ( LED size : 0.25" )
- 3) LCD display

##### Accuracy

+/-0.1% of span

##### Transmitter Power

24 V DC @ 40 mA  
Other types on factory confirmations

##### 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 – SMPS type
- 5) Specials on factory confirmations

##### Backup

Zero power RAM provided backup for data

##### Power consumption

6 VA max.

##### Ambient temperature

0 – 50 C.

##### Storage temperature

0 – 70 C.

##### Humidity

90% RH (non-condensing)

##### Security

Single level – Password protected

##### Enclosures

Weatherproof, Flameproof and all other standard types

##### Mounting

Panel / Wall / Field

##### Dimensions

96\*96 / 72\*144 / 144\*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 * D)	Input	Power	Output option		Indication Options		Display size	
				Analog output	Contact output	Display resolution	Counter resolution		
AIL 845P	Panel	72*72*150	All	All	Yes	Yes	4/4.5 digit	8 digit	1/4" size
		96*96*150	All	All	Yes	Yes	4/4.5 digit	8 digit	1/2" - 1/4" size
		144*72*150	All	All	Yes	Yes	4/4.5 digit	8 digit	1/2" - 1/4" size
		144*144*150	All	All	Yes	Yes	4/4.5 digit	8 digit	1/2" size
	Wall	Optimum	All	All	Yes	Yes	4/4.5 digit	8 digit	Upto 4" size

**Ordering Information**

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 845P-Single input type  
Flow Indicator Totalizers

**Mounting & Encl.** (Specified by letter following 3 digits)  
P-Weatherproof - Panel  
W-Weatherproof - Wall  
F-Flameproof - Wall / field  
I-IP65 grade – wall / field  
S-Specials

**Input** (Specified by first digit following the letter)  
1-Current inputs  
2-Voltage inputs  
3-Pulse inputs  
S-Special input

**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 type  
S-Specials

**Analog O/P Option** (Specified by the fourth digit)  
0-None  
1-mA/V DC isolated  
2-mA/V DC non-isolated  
S-Specials

**Contact output option** (Specified by the fourth digit)  
0-None  
1-1NO + 1NC on flow  
2-2NO + 2NC on flow

**Display Resolution** (Specified by the sixth digit)  
1-4 digit instantaneous  
4 digit for Eng.units  
8 digit totalizer  
2-4.5 digit instant. Flow  
8 digit totalizer  
3-LCD  
\*\* Please mention the color of displays clearly

**Serial output** (Specified by the fifth digit)  
0-None  
1-RS232 With modbus RTU  
2-RS485 with modbus RTU  
3-Modem connectivity  
4-GSM connectivity  
\*\* Customized developments can be made if the quantity permits

An ISO 9001 : 2008 company

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