(96*96, 5 digit for FR)

(96*96, LCD display)

(Wall mount enclosure)

(Wall mount enclosure)

(FLP Enclosure)

MASS FLOW INDICATORS / CONTROLLERS – GAS FLOW METERING SYSTEMS
MODEL 845G (Microprocessor based electronics)

Technical Catalogue

Introduction

Pantech Instrument's Model 845G represents FLOW INDICATORS /TOTALIZERS / CONTROLLERS for mass flow applications related to STANDARD GASES flow. The instrument is so designed to accept 3 inputs of FLOW, PRESSURE and TEMPERATURE at a time. Based on these inputs, and high end algorithms of STANDARD GAS EQUATIONS fed in the chip, the instrument calculates MASS 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.

Model 845G at a glance :
1)Used for the MASS FLOW CALCULATION of GASES that follow STANDARD GAS EQUATION.
2)Accepts three inputs – FLOW (mA), PRESSURE (mA), TEMP (mA / RTD Pt.100 / Thcpl).
3)Gives efficient Pressure and Temp. Compensations for MASS FLOW CALCULATIONS.
4)Refers Hi end Algorithms of Standard Gas Equations.
5)The user is allowed to FEED IN – Maximum Pressure Transmitter range in Kg/cm2, Operating pressure in Kg/cm2, Operating temp. in deg. C, Flow rate.

Pre-requisite data from the client :
1)Max. / Min. / Operating Flow rates of the system
2)Max. / Min. / Operating Pressure in line
3)Line size
4)Metering principle – Orifice / Vortex
5)Gas name

Specifications

Inputs – 3 nos.
FLOW– 4-20mA / 0-20 mA DC / other linear type
PRESSURE – 4-20 mA / 0-20 mA DC / other linear type
TEMP.- 4-20 mA DC / RTD Pt. 100-3 wire / Thcpl with type
* The user can choose to bypass any of the pressure or temp. signal input incase that compensation not reqd. however in this case, the gas type and its flow calculation is a virtue of its input types totally.

Calculations – fixed
Standard Gas equations

Analog output
1)Isolated / Non Isolated 4 – 20 mA DC
2)Isolated / Non Isolated 0-10 V DC
3)   Other types on factory confirmations

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

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)

Accuracy
+/-0.1% of span

Transmitter Power
3*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	
845G	Panel	96*96*150	All	All	Yes	Yes	4 digit	8 digit	½"- ¼" size
		144*72*150	All	All	Yes	Yes	4 digit	8 digit	½"- ¼" size
		144*144*150	All	All	Yes	Yes	4 digit	8 digit	½" size
	Wall	Opttimum	All	All	Yes	Yes	4 digit	8 digit	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)
845G-Mass flow meters for STD.GAS

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

Flow Principle
O-Orifice type
V-Vortex type

Input (Specified by first digit following the letter)
1-3 * (4-20 mA DC)
2-2 * (4-20 mA DC) & RTD
3-2 * (4-20 mA DC) & Thcpl

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
** Please mention the color of displays clearly

** Customized developments can be made if the quantity permits

PANTECH INSTRUMENTS