

FAI600 Series

Additive Injection Controller

FAI600 ▶▶▶

IPK
Innovation Petro Korea



Application

- Markers, Dyes
- Anti-static Additives
- Anti-corrosion Additives
- Fuel stabilizing Additives
- Performance Enhancing Additives

Over View

IPK's FAI600 additive injection system features a proven microprocessor based.

Programmable control module coupled with additive injector block.

The smart additive injection system is ideal for load racks with multiple injection points

Additive Injection Controller

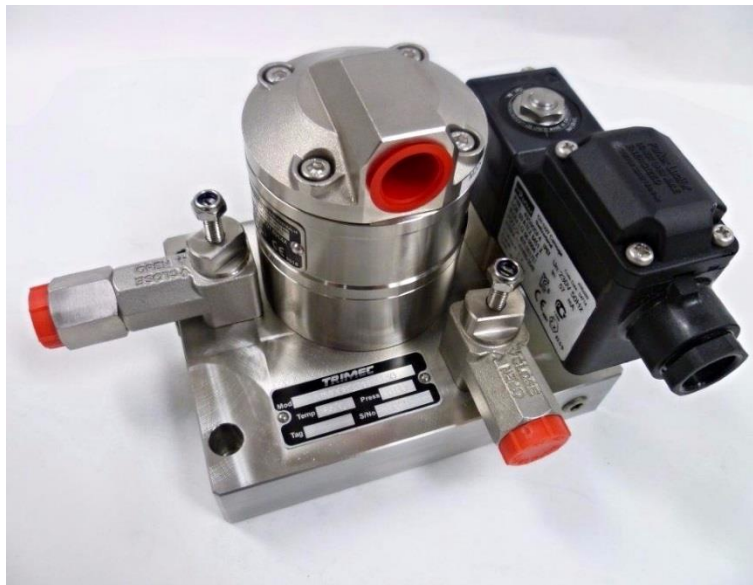
FAI600 ▶▶▶

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Feature

- Additive Meter pulse inputs for Total Additive System monitoring and Control
- Electronic Calibration of Additive Meter output signal
- True Accountability of Additive per injection Point
- Automatic injection Rate Adjustment
- 10 solid state relays for control (Mechanical contact Relay – Optional)
- 3-Channel injection Control (Basic 1-channel)
- Non-Volatile Memory Retention
- Additive Injection Data logging

Additive Injection Block



- Compact Stainless steel design with stainless gears
- All valve assemblies & the meter are detachable
- Modular process connections (directional)
- High accuracy & repeatability ($\pm 0.5\%$ or better)
- Simple to install, easy to service in situ
- ATEX/IECEx approved Explosion proof Electrics
- Quadrature Pulse Output option

Additive Injection Controller

FAI600 ▶▶▶



General

Display

Main : Large 2-line * 20-character LCD
With LED B/L

Sub : Small 2-line * 20-character LCD
With LED B/L

Display Update Rate 0.25-second

Decimal Points

Fully programmable for Rate and Total

Time Base

The Rate can be displayed in unit per second, per minute, per hour or per day

Data Retention

Set up parameters and totals stored in non-volatile memory with 10 years retention.

Operation Temperature

-25°C to 60°C

Power AC110V / 220V Selectable (50/60Hz)

Transducer Supply

12V or 24V selectable, 100mA max

Flow Inputs

Main product flow channel

Number Of channel
2-Channel(basic 1-channel)

Frequency Range 0.5 to 10kHz Max

Signal Type
open collector, reed switch,
voltage and current pulse

K-factor Range
0.01 – 50000.0000(the pulse per units)

Injection flow channel

Number Of channel
3-Channel(basic 1-channel)

Frequency Range 0.5 to 1kHz Max

Signal Type
open collector, voltage pulse

K-factor Range
0.0001 – 50000.0000(the pulse per units)

Temperature Input

RTD Input

Number Of channel 2-Channel
Type Platinum PT100(DIN)

Temperature Range

-100°C to +200°C

(Refer to the ordering information
for detail)

Accuracy 0.1°C

Linearity The non-linearity of the RTD is
internally compensated for.

Analog Input(4-20mA)

Number Of channel 2-Channel

Input Impedance 250 ohms

Measurement Range

-100°C to +200°C

Accuracy 0.05%

Digital Input

Channel 3-Channel

Function

Open collector or Dry-Contact Input
For Permissive switch, Earth Device,
Aux pulse input. etc

Pulse Width 10ms (negative going pulse)

Nominal Input Voltage 12VDC

Maximum Input Voltage 12VDC

Relay Output

Function

Additive Valve control and Pump control

Relay Type AC Solid-State-Relay

Load Voltage 90-240VAC

Max. Current 1.5 Amps

OR

Relay Type Mechanical Contact-Relay

Load Voltage 250VAC / 30VDC

Max. Current 10A

Number or Relay output

Max. 10 Relay output

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RS232/422/485

Type

Both RS232 and RS422/485 are provided.
(Note : When using the RS422/485, multi drop communication can be implemented with up to 32 instruments connected to a common bus.

Communication Channel

2-Channel

Isolation

Communication is optical isolation

Function

Printer and computer protocols are fully programmable.

Printer

A print is initiated on each reset or at a programmable time interval.

Computer

An ASCII based protocol enable all display parameters to be read and the totals to be reset.

Baud Rate 1200 to 19200 BPS

Data Bit 8-bit

Parity Bit None

Time

A real time clock is provided to give time and date on each output.

Digital Output

Function Alarm output

Injection Totalize output

Channel Output 5-Channel

Current sinking output transistor 50mA, 30vdc max.(Pulse output is suitable for driving remote counter or PLC's)

Enclosure

Explosion Proof (FAI600)

Outside Dimension

270mm (H) x 290mm (W) x 280mm (D)

Notice : H is not fixed

Mounting Dimension

90mm (H) x 83mm (W) x M8 Bolt

Classification

Division 1, Class I Group-A, B, C, D

Class II Group-E, F & G

Class III

Zone 1 or 2, Exd II B T6

Certificate Number 18-AV2BO-0272

Explosion Proof (Additive Injection Block)

Outside Dimension

145.5mm (H) x 148mm (W) x 125mm (D)

Notice : H is not fixed

Mounting Dimension

77.5(51)mm (H) x 134 (W)

M7 Mounting Hall

Classification

ATEX/IECEX Explosion proof

Ex d I/II B T4/T6

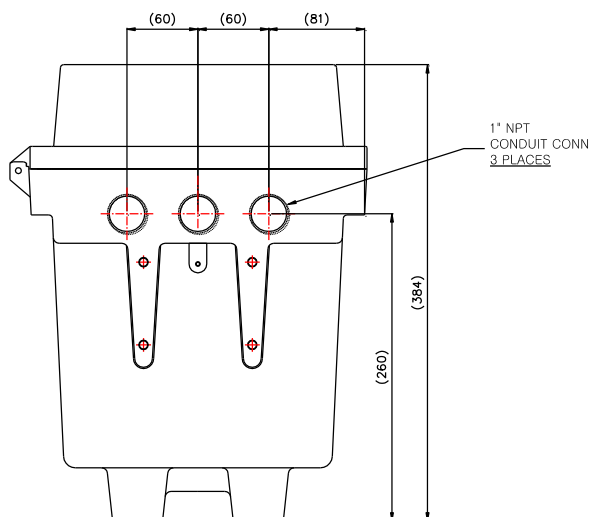
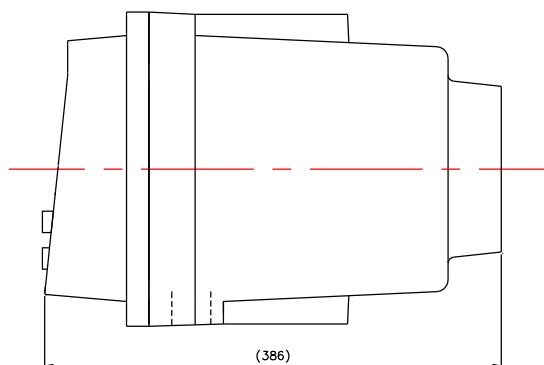
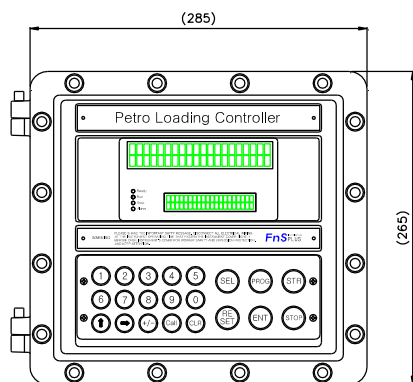
IP66/67 (NEMA 4X)

Additive Injection Controller

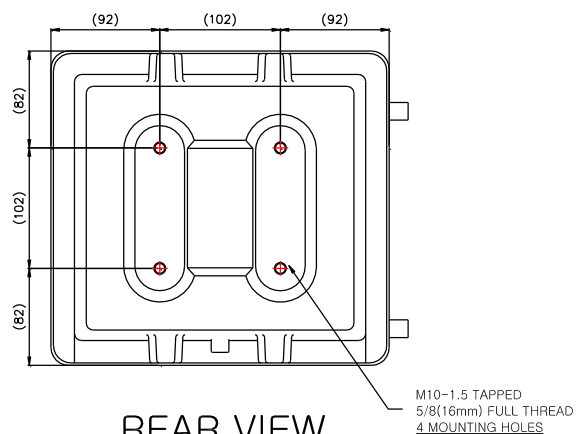
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Dimension(FAI600)



BOTTOM
VIEW



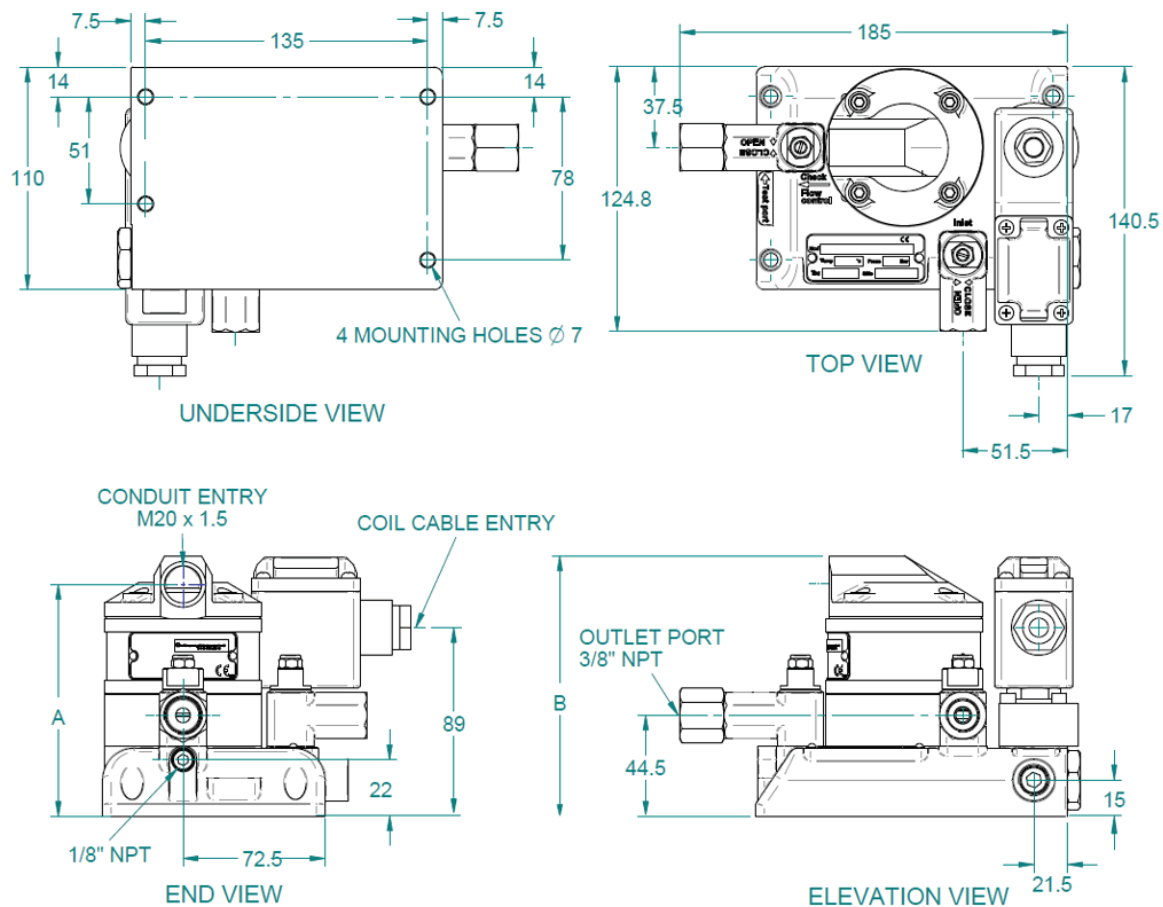
REAR VIEW

Additive Injection Controller

FAI600 ▶▶▶

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Dimension(Additive Injection Block)



Additive Injection Controller

FAI600 ▶▶▶



Ordering

MODEL					Description
FAI600					Petro loading Counter
Temperature	N A R				No option 4-20mA Analog Temperature Input RTD(PT-100) Input
Main Product Flow Channel		1 2			1-Channel(basic) 2-Channel(Optional)
Injection Flow Channel			1 2 3		1-Channel(basic) 2-Channel(Optional) 3-Channel(Optional)
Relay Output				Nn	N : Number of Solid State Relay n : Number of Mechanical Contact Relay ex) 100 : 10-Solid State Relay (Basic)
Additive Injection Block					1 4mm(1/8") 0.5 ~ 36 LPH Flow Range 2 6mm(1/4") 2 ~ 100 LPH Flow Range 3 8mm(3/8") 15 ~ 550 LPH Flow Range