

PLACKA ELECTRO PNEUMATIC PROPORTIONAL REGULATOR



Product Features

- > Adopt 32-bits CPU, special closed-loop control algorithm to realize the rapid response and precise control effectively;
- > Control precision is $\leq +0.5\%$;
- > Adopt high-precision built-in pressure sensor to improve control precision effectively;
- > Three-color digital display LCD, real-time display actual pressure and setting pressure simultaneously, convenient to confirm and adjust on site;
- > Easy to change 4 pressure units(Mpa,Bar,Psi,Kpa)at any time; Self-diagnosis;
- > Error indication failure alarm;
- > 4-pins M12A standard (male) fieldbus connector;
- > Easy assembling and operating;
- > The built-in filter can be easily removed for cleaning or replacement;
- > The valve body made by microdiecast technology; Large flow rate;
- > Protection class IP65

HOW TO ORDER?

| Series No. | Valve body size | Port size | Pressure range | Input Signal | Monitor Output | Port Size | Bracket | Cable Connector type |
|---|--|--|---|--|---|--------------------------------|--|--|
| PAC:PAC Series Electro-Pneumatic proportional regulator | 3000: 3000 Series 4000: 4000 Series | 02:1/4" 03:3/8" 03:3/8" 04:1/2" | 30: 0-0.5MPa/0-5bar/ 0-72psi/0-500KPa 50: 0-0.9Mpa/0-9bar/ 0-130psi/0-900KPa | 0: 4-20mA 3: 0-10V 0: 4-20mA 3: 0-10V | 1: 1-5V 4: 4-20mA 1: 1-5V 4: 4-20mA 1: 1-5V 2: 24V NPN 3: 24V PNP | Blank : G P : PT T : NPT | Blank : Without bracket B : Flat bracket C : L-bracket | Blank : Without cable connector L : right angle type 2m S : Straight type 2m |

Order Example : PAC Series Electro-Pneumatic Proportional regulator, valve body 3000, port size 1/4", output pressure 0-0.9MPa, input signal 0-10V, Monitor output 1-5V, port size G, Flat bracket, straight type 2m, ERP code is: PAC3000-025031-BS.

PAC SERIES ACCESSORIES ORDER CODE

| Cable Connector Name | Order Code |
|--|---------------|
| 4-pins M12A Standard Straight type 2m | M12R-PVC-2M |
| 4-pins M12A Standard Right angle type 2m | M124RL-PVC-2M |

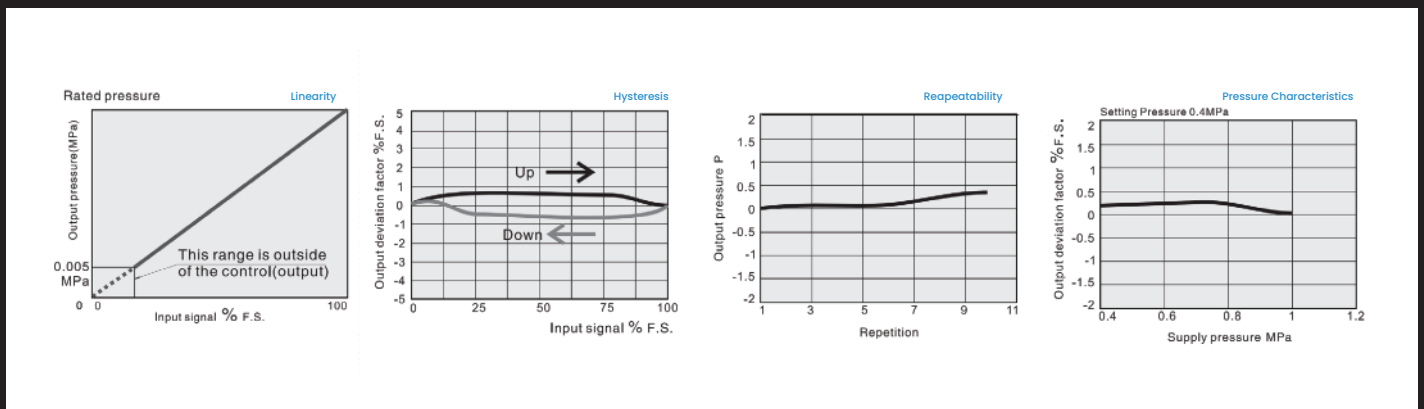
| Bracket Name | Order Code |
|--------------|------------|
| Flat Bracket | FJ-ETV-FA |
| L-Bracket | FJ-ETV-LB |

Note : Normal cable connector length is 2m, any other model need to be customized production, max length 10m.

SPECIFICATIONS

| Model | PAV3000-02 | PAV3000-03 | PAV4000-03 | PAV4000-04 |
|-----------------------|---|------------|------------|------------|
| Port size | G1/4 | G3/8 | G3/8 | G1/2 |
| Flow rate (Cv) | 1.5 | 2.0 | 2.5 | 3 |
| Pressure range | 0-0.9MPa | | | |
| Input Signal | 0-10 or 0-5 V or 4-20ma (sink) | | | |
| Monitor output | 4-20mA (sink) /1-5 | | | |
| Connection type | 4-pins M12A standard | | | |
| Supply Voltage | DC24v+10% | | | |
| Enclosure | IP65 (DIN40050) | | | |
| Working Temperature | 0-500 C | | | |
| Working medium | Clear air (After 5um filtration) | | | |
| LCD display | Set pressure and display at the same time | | | |
| Valve body | Aluminum alloy | | | |
| Installation position | Random direction | | | |
| Max input pressure | 1.0pa | | | |
| Min input pressure | bigger than max output pressure by 0.1Mpa | | | |
| Accuracy | $\leq \pm 0.5$ | | | |
| Linearity | $\leq \pm 1.0\text{F.S}$ | | | |
| Repeatability | $\leq \pm 0.5\% \text{F.S}$ | | | |
| Hysteresis | $\leq 0.5\% \text{F.S.}$ | | | |

CHARACTERISTIC PARAMETERS CURVE



FILTER REGULATOR LUBRICATOR



Your Air-actuated Instrument and Equipment work at their best for a long period when you feed with clean dry air at a constant prescribed pressure. PLACKA FRL -Series Filter Regulator Lubricator removes completely the moisture and dust particles, and provides the exact pressure constantly at varying air demands as well as to distribute oil to the moving parts to reduce friction. Its compactness and highly accurate performance for a long period with minimum of maintenance make for an optimum compromise between the ideal and the practical, consistent with end-use.

SALIENT FEATURES

- Longer life assured as the materials used are selected for their corrosion resistance and long wear.
- Negligible pressure drop due to high porosity ratio of the filter. The filter is reusable and has a high impact strength.
- In addition to solid particles, the unit extracts a high percentage of water thus ensuring trouble-free service even in the most adverse conditions.
- Built in relief ensures rapid response to circuit-induced pressure changes.
- Simple, versatile built in mounting arrangements by bolts and clamps. For panel mounting, tapped holes are provided.

OPERATION

An FRL unit comprises a filter (F), regulator (R), and lubricator (L). These individual units can combine into one unit to ensure clean air in a pneumatic system. It is also possible to use each component individually. A proper air filter, regulator, and lubricator unit in a pneumatic system provides higher reliability of the components downstream, reduced power wastage from over-pressurisation, and increased component lifetime. The three components in an FRL unit work together.

Filters: Filters remove water, dirt, and other harmful debris from an air system, which is often the first step in improving air quality.

Regulators: The second step in an FRL system is a regulator. Regulators adjust and control the air pressure of a system to ensure that down-line components do not exceed their maximum operating pressures.

Lubricators: Lubricators reduce the internal friction in air tools by releasing a controlled oil mist into the compressed air. This is often done last and/or right before the component that needs lubrication.

SPECIFICATIONS

| | |
|-----------------------------|---|
| Ensured Pressure Resistance | 15 Kg/sq.cm |
| Highest Working Pressure | 10 Kg/sq.cm |
| Temperature | 5 - 60° C |
| Filter Precision | 25 Microns |
| Container Material | Poly Carbonate |
| Recommended Oil Use | Turbine No.1 Oil ISOVG32 |
| Container Material | Polycarbonate |
| Protective Cover | PAC1000-2000 (Not Available) PAC2500-5000 (Available) |
| Pressure Regulating Range | PAC1000 : (0.5 - 7 Kg/sq.cm) PAC2000-5000 (0.5 - 8.5 Kg/sq.cm) |
| Valve Type | With Over Flow |

| Model No | | Filter | Regulator | Lubricator | Flow (L/Min) | Port Size | Gauge Size |
|------------|--------------|------------|------------|------------|--------------|-----------|------------|
| PAC1000-M5 | ----- | PAF1000 | PAR1000 | PAL1000 | 90 | M5 | 1/16" |
| PAC2000-01 | PAC2000-01 D | PAF2000 | PAR2000 | PAL2000 | 500 | 1/8" | 1/8" |
| PAC2000-02 | PAC2000-02 D | | | | | 1/4" | |
| PAC2500-02 | PAC2500-02 D | PAF3000 | PAR2500 | PAL3000 | 1500 | 1/4" | 1/8" |
| PAC2500-03 | PAC2500-03 D | | | | | 3/8" | |
| PAC3000-02 | PAC3000-02 D | PAF3000 | PAR3000 | PAL3000 | 2000 | 1/4" | 1/8" |
| PAC3000-03 | PAC3000-03 D | | | | | 3/8" | |
| PAC4000-03 | PAC4000-03 D | PAF4000 | PAR4000 | PAL4000 | 4000 | 3/8" | 1/4" |
| PAC4000-04 | PAC4000-04 D | | | | | 1/2" | |
| PAC4000-06 | PAC4000-06 D | PAF4000-06 | PAR4000-06 | PAL4000-06 | 4500 | 3/4" | 1/4" |
| PAC5000-06 | PAC5000-06 D | PAF5000 | PAR5000 | PAL5000 | 5000 | 3/4" | 1/4" |
| PAC5000-10 | PAC5000-10 D | | | | | 1" | |

Shreyas Instruments Pvt. Ltd.,

STD 5000 and STD 6000 Series Current To Pressure Transducers



SHREYAS



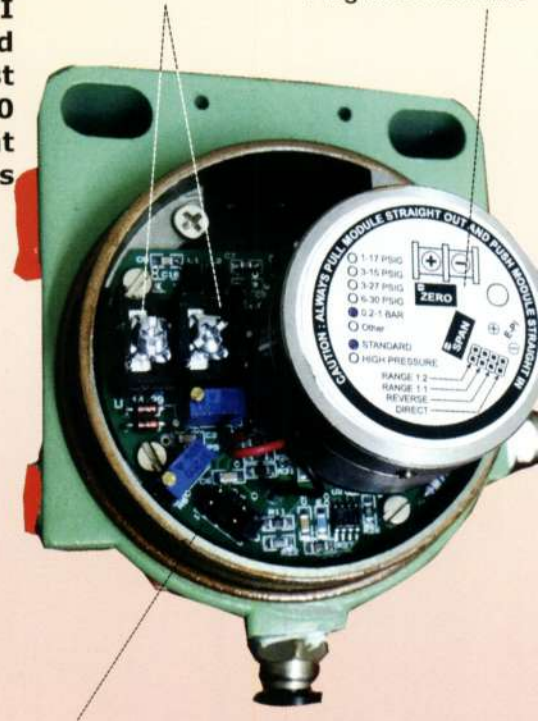
Shreyas

STD 5000 & STD 6000 SERIES I/P Transducers

Shreyas Instruments' Plant Standard STD 5000 and STD 6000 series of Current to Pressure (I/P) Transducers represent the highest standard in I/P Technology. The rugged IP-65 housing, compact size and the revolutionary "Plug-In-E-Pi Module" coupled with brandt's field proven technology, and affordable price make them the most accurate, reliable and simplest I/P's to install, operate and maintain in the industry. Both STD 5000 & STD 6000 series are similar in specification excepting that STD 6000 series are fitted with necessary flame arrestors and are certified ones for hazardous area.

Electrical Connections for 12-22 AWG Wire

Plug-in E-Pi Module



- ✓ Accuracy of $\pm 0.15\%$ to $\pm 0.25\%$ of span
- ✓ Field Proven "E-Pi" Technology is unaffected by Vibration, Shock or Mounting Position
- ✓ Air consumption of 0.06 SCFM . (Typical)
- ✓ Output capacity of 4.0 SCFM.
- ✓ CIMFR Certification for intrinsically Safe and Explosion Proof Installations.
- ✓ Operating Temperature Range - 25°C to 66 C
- ✓ Electro Pneumatic feedback type
- ✓ Rugged IP-65 Enclosure
- ✓ Field selectable Direct, Reverse and Split Range.
- ✓ STD 5000 is for non hazardous applications
- ✓ STD 6000 is Certified By CIMFR for hazardous areas

Field Selectable Direct, Reverse and Split Range

Model Number

STD5: STD5000, General Purpose, IP - 65, intrinsically safe

STD6: STD6000, EX-Proof, intrinsically Safe, IP 65

1 : 4-20 mA

2 : Special input, Consult Factory for Availability

1: 6-30 PSIG Split Range Consult factory for Availability

2: 3-27 PSIG. Split Range Consult factory for Availability

3: 0.2 to 1Kg/cm²

4: 3-15 PSIG

5: Special Output (Consult Factory)

1: Standard

2: S.S. body

3: Special applications

OPTION

1. Pipemount Kit - 2"

2. Surface mounting

3. Output Gauge

STD6

1

3

1

Typical Model Number

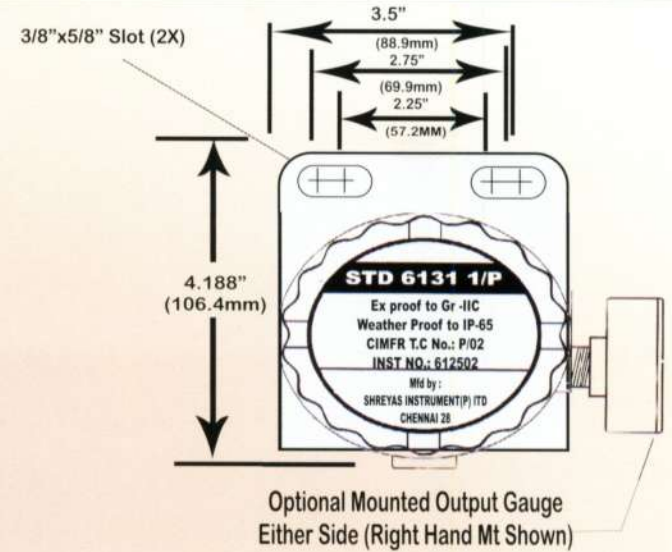
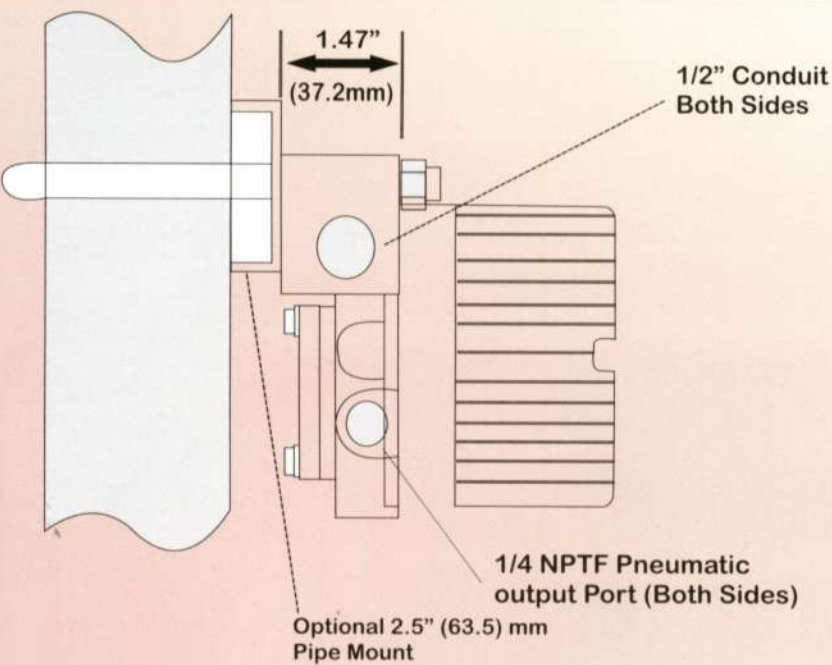
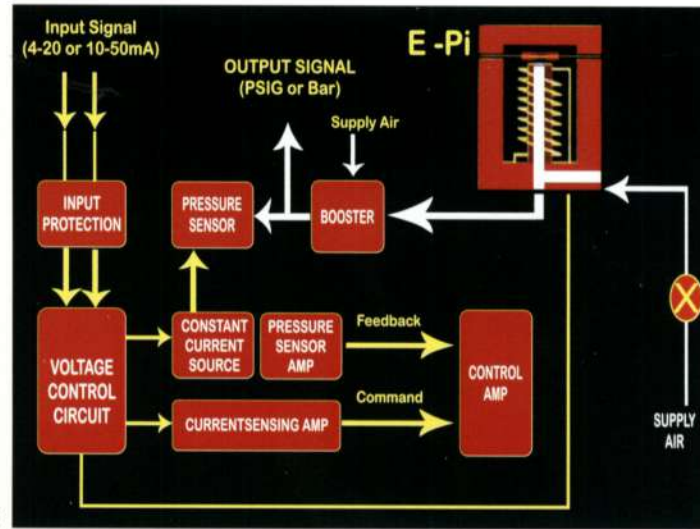
Brand'ts "E-Pi" Transducer Technology

The STD5000 and STD6000 Series of I/P Transducers utilize Brandt's Patented field proven, "E-Pi" transducer technology. This revolutionary breakthrough provides the industry with its first "solid State" I/P Transducer.

Brandt's "State of the Art" E-Pi Technology uses Minimal electrical energy and air Consumption to convert an electronic input signal (4-20mA or 10-50mA) to a proportional pneumatic output signal (3-15PSIG, 0.2-1kg, etc).

The E-Pi Transducer utilizes "a Virtually Weightless membrane" that is electromagnetically positioned over a nozzle to precisely modulate the pneumatic (back pressure) output. The low mass membrane is held in a continuously balanced Position, providing an output that is unaffected by shock, vibration or mounting position. The output of the E-Pi is then fed into an integral volume booster to deliver a pneumatic output signal with an output capacity of 4.0 SCFM.

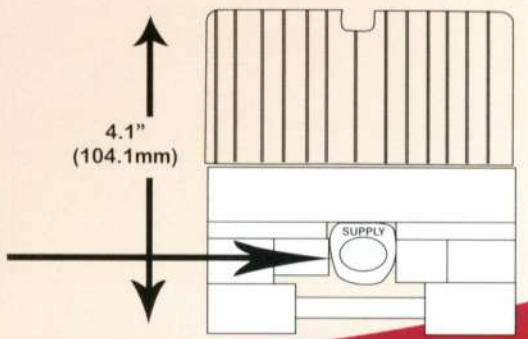
The overall Performance, accuracy and repeatability are further enhanced by employing an internal feedback network whose speed and resolution allow the I/P to quickly respond to input changes. The balance supply and exhaust dynamics enhance control stability, while delivering accuracies of $\pm 0.15\%$ to 0.25% of Span **Dimensions**



STD 5000 & STD 6000 Series I/P Transducers

INCHES
(mm)

1/4" NPTF
Supply Pressure Connection



STD 5000 & STD 6000 SERIES I/p Transducers

PERFORMANCE SPECIFICATIONS

| | |
|------------------------------|--|
| ACCURACY | : $\pm 0.15\%$ Of Span (3-15 & 1-17 PSI Output) $\pm 0.25\%$ Of Span (3-27 & 6-30 PSI Output) |
| REPEATABILITY | : $\pm 0.05\%$ of Span |
| Deadband | : 0.02% of Span |
| Stability / Reproducibility: | 0.5% of Span / 6 Months |
| Output Capacity | : 4.0 SCFM (Supply and Exhaust characteristics are balanced to within $\pm 10\%$) |
| Air Consumption | : 0.06 SCFM , typical |

FUNCTIONAL SPECIFICATIONS

| | |
|-----------------------|--|
| Position Effect | : Not Measurable |
| Vibration Effect | : $< 0.25\%$ from 1-200 Hz / 1g |
| Frequency Response | : -3db at 1.8 HZ (per ISA- S26.4.3.1 Configuration A) |
| Loop Load | : 4.2V dc Max |
| Operation Current | : 3.7mA min, 200mA max, continuous at 120°F half cycle 70 amp at 1 /120 second 68°F |
| Supply Pressure | : 1.4 Kg/cm ² std $\pm 20\%$ variation will not affect accuracy |
| Air Supply | : Clean dry and oil free instrument air |
| Operation Temperature | : (-25°C to 66°C) |
| Temperature Effect | : $\pm 0.04\%$ of Span Per °C from 0 to 66°C $\pm 0.80\%$ of span per °C from 0 to (-) 22°C |
| EMI /RFI | : Less than $\pm 1\%$ effect on zero / Span (26-1000mHZ@30V/m) when installed per Installation Guidelines. |
| Operational Mode | : Field Selectable Direct Reverse and /or Split Range . |
| Failure Mode | : Mechanically Direct i.e.if input current drops below 3.7mA dc the output will drop to 1 to 2 psig regardless of direct or reverse mode selection . |

PHYSICAL SPECIFICATIONS

| | |
|-------------|---|
| Enclosure | : Internally purged IP-65 enclosure |
| Connections | : Pneumatic Supply Port - 1/4" NPT (F) Pneumatic Output Port - 1/4" NPT (F) Electrical connection -1/2" NPT (F) |
| Weight | : 1Kg |

Manufactured By:

Shreyas Instruments (P) Ltd

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Nehru Nagar, Chrompet,
Chennai - 600 044. India
Ph : 22231559, 22234562, 22230187
Fax : 91- 44- 2223 6984
Email : shreyasinstruments@gmail.com

In Technical Collaboration

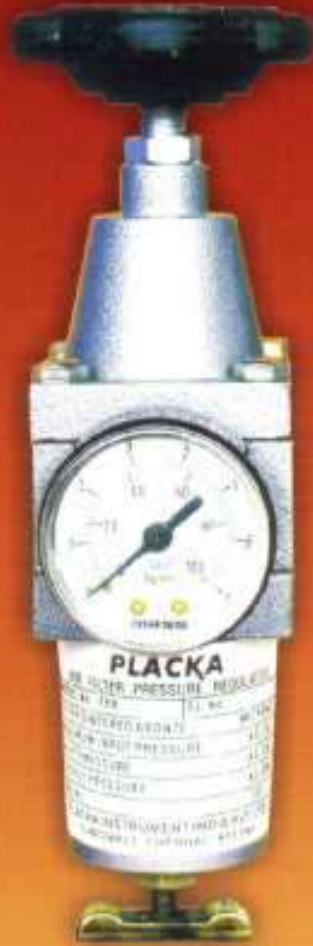
**Brandt instruments inc.
USA.**

Note : Before installation refer to shreyas Installation & Operation Manual

PLACKA™

Placka Instruments India Pvt. Ltd.

MIDI - AIR FILTER PRESSURE REGULATORS



Your Air-actuated Instruments and Equipments work at their best for a long period when you feed with clean dry air at a constant prescribed pressure. PLACKA MPR Series Air Filter-cum-Pressure Regulators remove completely the moisture and dust particles, and provides the exact pressure constantly at varying air demands.

This economically priced unit is extensively used for Process Control Instruments, Air-actuated Control Valves, Cylinders and other equipments, not requiring large bowl capacity.

OPERATION

The primary air through the inlet port, passes through the filter element, leaving down the contaminants in the bowl. When the knob is adjusted suitably, the springs act on the diaphragm which in turn actuates the main valve to allow the pure secondary air at a particular pressure to the outlet. The main valve is supported between the relief valve and the main valve spring, eliminating the need for stem guiding. Toggle action between main valve and relief valve completely eliminates the alignment problems and thus, erratic output pressure variation.

REGULATION CHARACTERISTICS

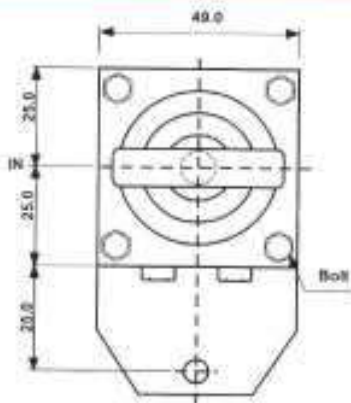
The secondary pressure at the bottom of the diaphragm balances against the set position of the main spring to keep the main valve at the adjusted position. When the secondary pressure rises above the set point, it pushes the diaphragm away from the relief valve and the excess air finds its way to atmosphere through the bleed hole.

SPECIFICATIONS

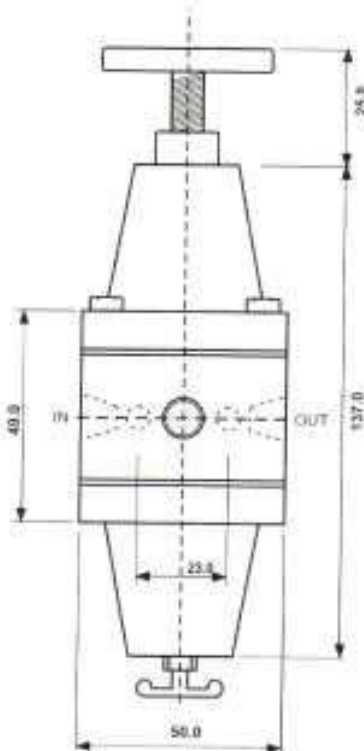
| | | | |
|---------------------------|--|----------------------|----------------------------------|
| Service | : Air | Body Spring Case and | |
| Max | : 18kg/cm ² | Filter Bowl | : Die Cast Aluminium alloy |
| Enclosure | : Weather Proof (Ip65) | Fitter | : Sintered Bronze |
| Outlet Pressure Ranges | : 0-2.1 kg to 4.2 kg/cm ² | | : 5/15/25/40 Microns |
| | : 0-7 kg/cm ² | Main Valve | : Neoprene Moulded on SS |
| End Connections | : 1 inlet, 1 outlet and | | : Stem |
| | : 1 pressure gauge port | Drain Valve | : Brass-Standard (SS on request) |
| Inlet Connection Size | : 1/8", 1/4" - NPT(F) / BSP (F) | Main Valve Spring | : SS |
| Bowl Capacity | : 70cc (Approx.) | Diaphragm | : Nylon Reinforced Neoprene |
| Ambient Temperature | : Upto 80°C | Main Spring | : Spring Steel |
| Adjustment knob with nut: | Unbreakable plastic moulded on C.S. Stem (SS on request) | Mounting | : Surface or Panel |

PLACKA™

Placka Instruments India Pvt. Ltd.



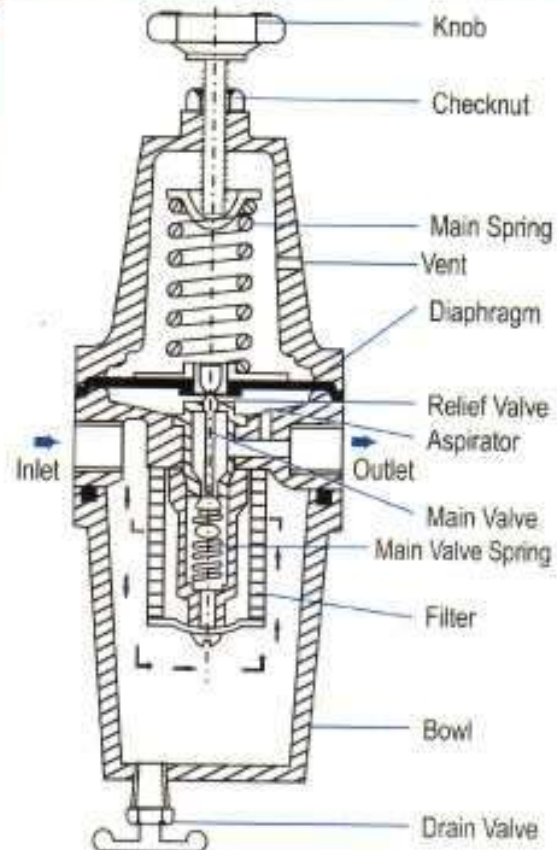
TOP VIEW



FRONT VIEW

MIDI-AIR FILTER PRESSURE REGULATOR
MOUNTING DETAIL

NOTE : ALL DIMENSION ARE IN MM



Cross Sectional Diagram of
Midi-Air Filter Pressure Regulator

FLOW CHARACTERISTICS

When air flow from the Regulator is increased the Secondary Pressure falls below the set point. This 'pressure drop' in supply will force your equipment to function erratically. But PLACKA Air Set reduces the pressure drop successfully by an aspirator. The aspirator connects the outlet port and the chamber under the diaphragm. When flow increases, the aspirator creates a lower pressure below the diaphragm, which in turn forces the main valve to open further and thus more air flows in, to compensate for the pressure drop.

Manufactured & Marketed by :

PLACKA INSTRUMENTS INDIA PVT. LTD.

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Phone : 044-2223 1559, 2223 4562 Fax : 044-222 6984

E-mail : sales@plackainstruments.com / Website : www.plackainstruments.com

PLACKA LARGE SIZE PRESSURE REGULATOR (PAR 825-925)



Your air-actuated instrument and equipment work at their best for a long period when you feed with clean and dry air at a constant prescribed pressure. PLACKA LARGE SIZE PRESSURE REGULATOR are a series of regulators are large size pressure regulators designed to maintain a stable output pressure in compressed air systems. Series regulators are large size pressure regulators designed to maintain a stable output pressure in compressed air system, in ensuring efficient air pressure control for various applications.

SALIENT FEATURES

| | | |
|-------------------------------|---|--|
| Ensured Pressure Resistance | : | 15 kg/cm ² |
| Highest Working Pressure | : | 10 kg/cm ² |
| Ambient and Fluid Temperature | : | 5 to 60°C |
| Pressure Regulating Range | : | 0.5-8.5 kg/cm ² |
| Valve Type | : | Overflow |
| Model Variants | : | PAR825-14 and PAR925-20 |
| Nominal Flow (L/min) | : | PAR825-14 has 18000 L/min, PAR925-20 has 22000 L/min |
| Port Size | : | PAR825-14 uses 1 1/2 inch, PAR925-20 uses 2 inch |
| Gauge Port Size | : | Both models use 1/4 inch gauge ports |
| Weight | : | PAR825-14 weighs 8.3 kg, PAR925-20 weighs 8.6 kg |
| Bracket and Gauge | : | Optional accessories |

OPERATION

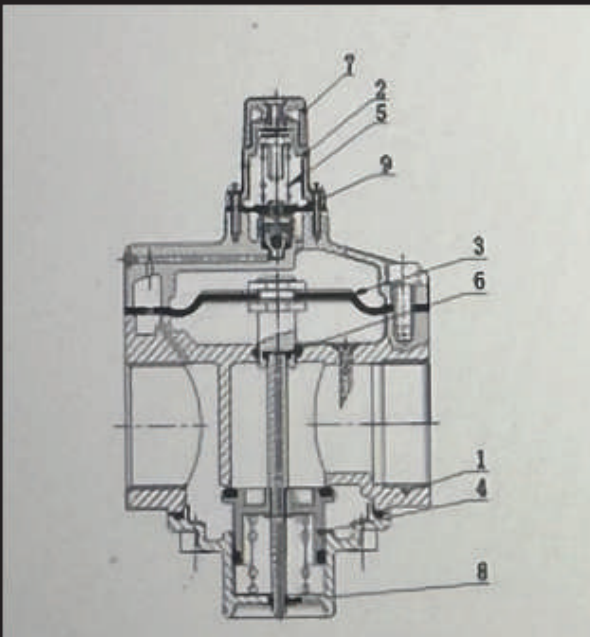
A pressure regulator maintains a consistent output pressure despite variations in input pressure and flow demand. It comprises an inlet port, outlet port, valve, diaphragm, spring, and adjustment screw. The fluid enters through the inlet port at high pressure and flows to the valve mechanism. The diaphragm, connected to the valve, senses the outlet pressure and adjusts the valve's position accordingly. If the outlet pressure drops, the spring pushes the diaphragm to open the valve, allowing more fluid to pass through. Conversely, if the outlet pressure increases, the diaphragm moves to close the valve, reducing the fluid flow. The adjustment screw sets the desired outlet pressure by altering the spring tension, ensuring the output remains stable and within the specified range.

SPECIFICATIONS

| | |
|-----------------------------|---------------------|
| Ensured Pressure Resistance | 15 Kg/sq.cm |
| Highest Working Pressure | 10 Kg/sq.cm |
| Temperature | 5 - 600 C |
| Pressure Regulating Range | 0.5 - 8.5 Kg/sq.cm. |
| Valve Type | With Over Flow |

| Model No | Rated Flow (L/min) | Port Size (G) | Pressure Gauge Size | Weight (Kg) |
|-------------|--------------------|---------------|---------------------|-------------|
| PAR825 - 14 | 18000 | 1 1/2" | 1/4" | 2.5 |
| PAR925 - 20 | 22000 | 2" | 1/4" | 3.1 |

STRUCTURAL DIAGRAM



MAIN PARTS

| Sl.no | Denomination | Material |
|-------|--------------|-----------------------|
| | | PAR825 - 925 |
| 1 | Vale Body | Aluminium Die Casting |
| 2 | Bonnet | Aluminium Die Casting |
| 3 | Film | Rubber |
| 4 | Valve Core | Brass - Rubber |
| 5 | Spring | Stainless Steel |
| 6 | O Ring | Rubber |
| 7 | Hand Wheel | Enhanced Nylon |
| 8 | O Ring | Rubber |
| 9 | Film | Rubber |

PLACKA PRECISION REGULATOR



Product Features

- > High precision , sensitive response.
Steady output pressure.
- > Large flow rate and steady flow output.
- > Easy installation : Independent installation by bracket ;Bottom installation;
- > Direct installation with existing modular air preparation.
- > High pressure type, medium pressure type and low pressure type optional.

HOW TO ORDER?

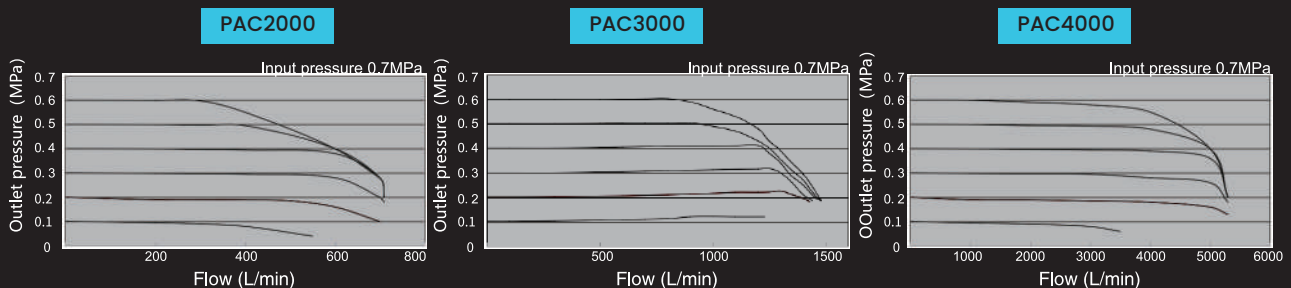
| Series No. | Port Size | Pressure Range | Pressure Gauge Code | Bracket Code | Scale Unit | Thread Type |
|-------------------------------|--|--|--|--------------------------------------|------------|----------------------------|
| PAC2000 PAC3000 PAC4000 | 2000 01:1/8" 3000 02:1/4" 4000 02:1/4" 03:3/8" 04:1/2" | L : 0.005 ~ 0.2MPa M: 0.01 ~ 0.4MPa H: 0.01 ~ 0.8MPa | Blank: With pressure gauge N: No pressure gauge | Blank: With bracket J: No bracket | 4: MPa/psi | Blank: G P: PT T:NPT |

PPR3000 high precision regulator , 1/4" port, pressure range 0.01 –0.8MPa ,with gauge.with bracket.scale unit MPa/psi,G thread.
PPR code is PPR3000–02H

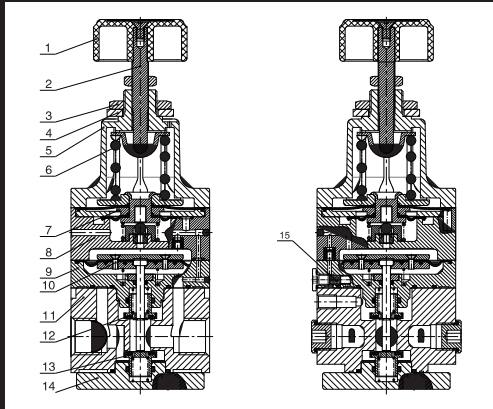
SPECIFICATIONS

| Model No. | PPR2000 01 | PPR3000 02 | PPR4000 02 | PPR4000 03 | PPR4000 04 |
|---------------------------|-----------------------------------|------------------|----------------------|-----------------|------------|
| Working Medium | Clean air(After 5 μm filtration) | | | | |
| Max. Supply Pressure(Mpa) | 1.0 | | | | |
| Min. Supply Pressure(Mpa) | Setting pressure+0.05 | | Setting pressure+0.1 | | |
| Proof Pressure(Mpa) | 1.5 | | | | |
| Set Pressure | Low Pressure | L:0.005 ~ 0.2MPa | | L:0.01 ~ 0.2MPa | |
| | Medium Pressure | M:0.01 ~ 0.4MPa | | | |
| | High Pressure | H:0.01 ~ 0.8MPa | | | |
| Sensitivity | Within 0.2% of full scale | | | | |
| Repeatability | Within ±0.5% of full scale | | | | |
| Air Consumption | ≤4.4L/min (ANR) | | ≤11.5L/min (ANR) | | |
| Port Size | 1/8" | 1/4" | 1/4" | 3/8" | 1/2" |
| Pressure Gauge Port Size | G 1/8(2 locations) | | | | |
| Working Temperature(°C) | -20~70 (No freezing) | | | | |
| Weight(g) | 140 | 420 | 710 | | |

FLOW CHART



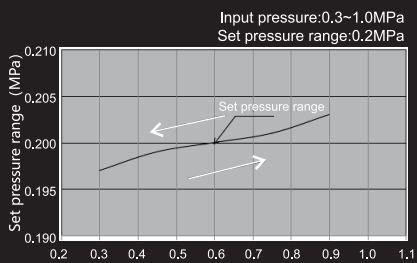
INTERNAL STRUCTURE



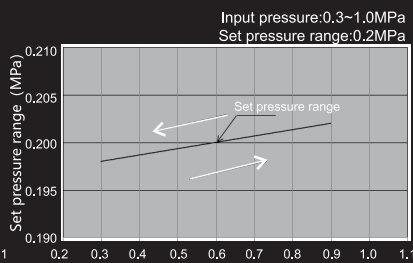
| No. | Part Name | Material |
|-----|-------------------------|-----------------------|
| 1 | Pilot regulate button | Plastic |
| 2 | Pilot regulate axle | Carbon steel |
| 3 | Hex nut | Free Machining Steel |
| 4 | Flat washer | SPCC |
| 5 | Pilot regulate seat | Aluminum |
| 6 | Spring | Spring steel |
| 7 | Pilot diaphragm assy | Assy |
| 8 | Nozzle | Aluminum |
| 9 | Middle valve body | Aluminum |
| 10 | Main regulate diaphragm | Assy |
| 11 | Main valve body | Aluminum |
| 12 | Exhaust valve core | Assy |
| 13 | Inlet valve core | Assy |
| 14 | Bottom cover | Aluminum |
| 15 | Filter element | High polymer material |

PRESSURE CHARACTERISTIC DIAGRAM

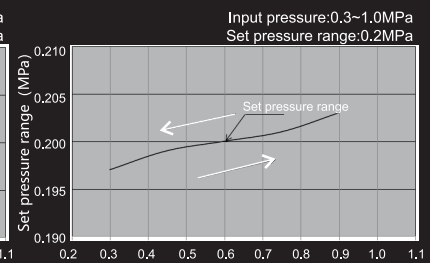
PAC2000



PAC3000

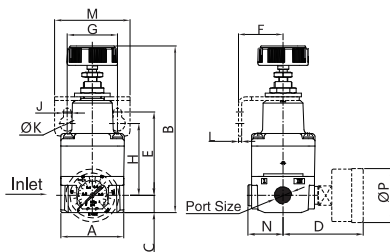


PAC4000

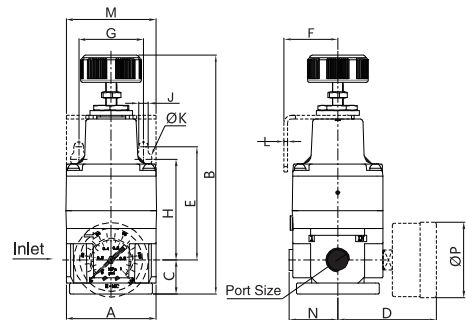


MAIN DIMENSION

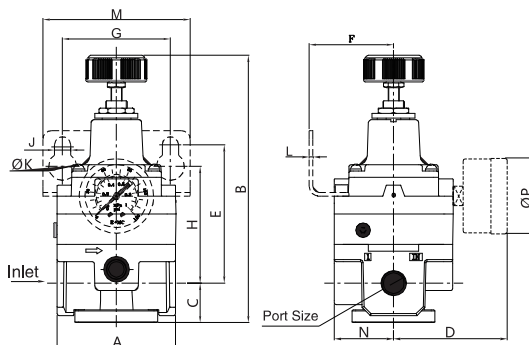
PAC2000



PAC3000



PAC4000



| Model | Port Size | A | B | C | D | E | F | G | H | J | K | L | M | N | P |
|---------|------------------|----|-----|-----|------|------|----|----|----|-----|------|---|----|------|----|
| PAC2000 | 1/8" | 35 | 93 | 9.5 | 44.5 | 46.5 | 25 | 28 | 40 | 4.5 | 8.5 | 2 | 42 | 19.5 | 30 |
| PAC3000 | 1/4" | 50 | 133 | 19 | 55 | 63 | 30 | 36 | 56 | 5.5 | 9.5 | 2 | 50 | 27 | 42 |
| PAC4000 | 1/4", 3/8", 1/2" | 66 | 149 | 22 | 63.5 | 77 | 47 | 60 | 65 | 9 | 15.5 | 2 | 82 | 33 | 42 |

PURGE ROTAMETERS



Rotameters are the mostly widely used type of variable Area (VA) flowmeters.

The movement of a float in a tapered tube provides a measure of flow rate.

A Rotameter is designed in accordance with the basic volumetric flow rate equation of $Q = kA \sqrt{gH}$

where Q is the flow rate, K is a constant, A is the annular area, G is the force of gravity & H is the pressure drop across the float

all the rest being a constant in a given Rotameter, the flow rate (Q) is directly proportional to the area (A) so the height of the tube is a measure of the flow rate. In PLACKA Purge rotameter a constant flow differential pressure flow regulator is used to maintain the purge flow-rate at the desired level. A needle valve is used for convenient setting of the flow rate.

SALIENT FEATURES

- > Economical
- > Compact
- > Panel / Side Mounting
- > Good Accuracy
- > Ease of Maintenance

APPLICATION

- > Accurate level Measurement
- > Continuous Lubrication (Bearing)
- > Purging for Corrosive Fluids
- > Density Measurement
- > Gas Analysers (Sample Delivery)



SPECIFICATION

PERFORMANCE

Model No. : LGPR 1.2.3 & 4

| | |
|---------------------------------|--|
| Fluids | : Transparent liquids and gases |
| Maximum Pressure | : 12 kg/cm ³ |
| Maximum Temperature | : 100° C |
| Flow rate | : Upto 300 LPM for Air/Gas & 5 LPM for Water standard (Higher flow rates on request) |
| Accuracy | : 5% FSD Std (Others on request) |
| Connections (Inlet & Outlet) | : 1/8*, 1/4* 1/2*NPT & BSP Standard, (Other sizes and flanged connections on request) |

MATERIAL

| | |
|--|---|
| Scale | : Engraved on Glass tube |
| Matering Tube | : Borosilicate Glass |
| Body of rotameter | : 304SS / 316SS / Brass Plated |
| Body of DP regulator | : Die Cast Aluminum / 304 SS 316 SS (Other on request) |
| Connections | : 304 SS / 316 SS / Brass Plated |
| Inter connecting Tube for rotameter and DP regulator | : 304SS / 316SS / Copper Plated |
| Needle Valve | : 304 / 316SS |
| Packing | : Teflon / Neoprene |

| S.NO | MODEL | CONNECTION LOCATION |
|-------------|---------------------------|--|
| 1 | GA-10 | BACK & BACK |
| 2 | LGPR-3 | BACK & BACK |
| 3 | LGPR-3S | BACK & BACK |
| 4 | LGPR-4 | SIDE & TOP , BACK & BACK WITH CONNECTOR |
| 5 | LGPR-4S | SIDE & TOP , BACK & BACK WITH CONNECTOR |
| 6 | LGPR-4SS | SIDE & TOP , BACK & BACK WITH CONNECTOR |
| 7 | LGPR-1 | B&B,S&S,B&T |
| 8 | LGPR-1S | B&B,S&S,B&T |
| 9 | FLANGE TYPE LGPR-1 | BOTTOM & TOP |
| 10 | LGPR-2 | SIDE & TOP , BACK & BACK WITH CONNECTOR |
| 11 | LGPR-2S | SIDE & TOP , BACK & BACK WITH CONNECTOR |

AIR FILTER –ALUMINIUM



Your Air-Actuated Instrument and Equipment work at their best for a long period when you feed with clean dry air . PLACKA AF- Series Air Filter removes **completely** the moisture and dust particles, and provides a clean air. Its compactness and highly accurate performance for a long period with minimum of maintenance make for an optimum compromise between the ideal and the practical, consistent with end-use.

This economically priced unit is extensively used for Process Control Instruments, Air-actuated Control Valves, Cylinders transducers and other equipments.

SALIENT FEATURES:

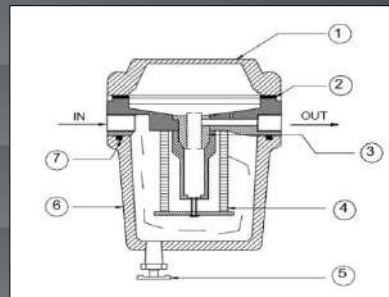
- In addition to solid particles, the unit extracts a high percentage of water thus ensuring trouble-free service even in the most adverse conditions.
 - The dust and liquid contaminants can be fully drained out when the Air Filter is mounted vertically as in the case of Control Valves, Transmitters, etc
- Custom made Unit for Control Valves, Transmitters and other field mounted Instruments.
- Simple, versatile built-in mounting arrangements by bolts and clamps. For panel mounting, tapped holes are provided at the top of the spring case for mounting screws.
 - Most economically priced.

OPERATION:

- The primary air through the inlet port, passes through the filter element, leaving down the contaminants in the bowl and clean air is supplied through the output port
- In a regular intervals, the drain valve should be opened and the dust/contaminants to be drained for effective function of the Air Filter(AF)

| Model | End Fitting |
|-------|-----------------------|
| AF-1 | 1/4" NPT (F)/ BSP (F) |
| AF-2 | 3/8" NPT (F)/ BSP (F) |
| AF-3 | 1/2" NPT (F)/ BSP (F) |
| AF-4 | 3/4" NPT (F)/ BSP (F) |
| AF-5 | 1" NPT (F)/ BSP (F) |

AIR FILTER – AF-3



| SL.NO | DESCRIPTION | MATERIAL |
|-------|----------------------|---------------------------|
| 1 | TOP PIECE | DIE CAST ALUMINIUM |
| 2 | GASKET | NEOPRENE |
| 3 | DUMMY PLUG | BRASS |
| 4 | FILTER | 5 MICRONS SINTERED BRONZE |
| 5 | DRAIN VALVE | MANUAL, BRASS |
| 6 | BOWL | DIE CAST ALUMINIUM |
| 7 | BIG 'O' RING | NITRILE |
| 8 | INLET & OUT LETPORTS | 1/2"NPT(F) |

AF -SPECIFICATIONS

| | |
|----------------------------|--|
| Service | : Air /Natural gas |
| Max.Inlet Pressure | : 18Kg/Sq.cm(250psi) |
| End Connections | : 1 Inlet,1 Outlet (Pressure gauge port on request) |
| End Connection Size | : Screwed (Refer Table) |
| Ambient Temperature | : 100° C |
| MOC of Air Filter | : Diecast Aluminium |
| Filter | : Sintered Bronze/ Poly Propylene Plastic / SS316 |
| Drain Valve | : Brass |
| Bowl Capacity | : 130cc |
| Gasket | : Neoprene/EPDM |
| Mounting | : Surface or Panel |
| Models | : Refer table |

Placka Instruments India Pvt. Ltd.,

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SS AIR FILTER



Your Air-Actuated Instrument and Equipment work at their best for a long period when you feed with clean dry air . PLACKA AF- Series Air Filter removes **completely** the moisture and dust particles, and provides a clean air. Its compactness and highly accurate performance for a long period with minimum of maintenance make for an optimum compromise between the ideal and the practical, consistent with end-use.

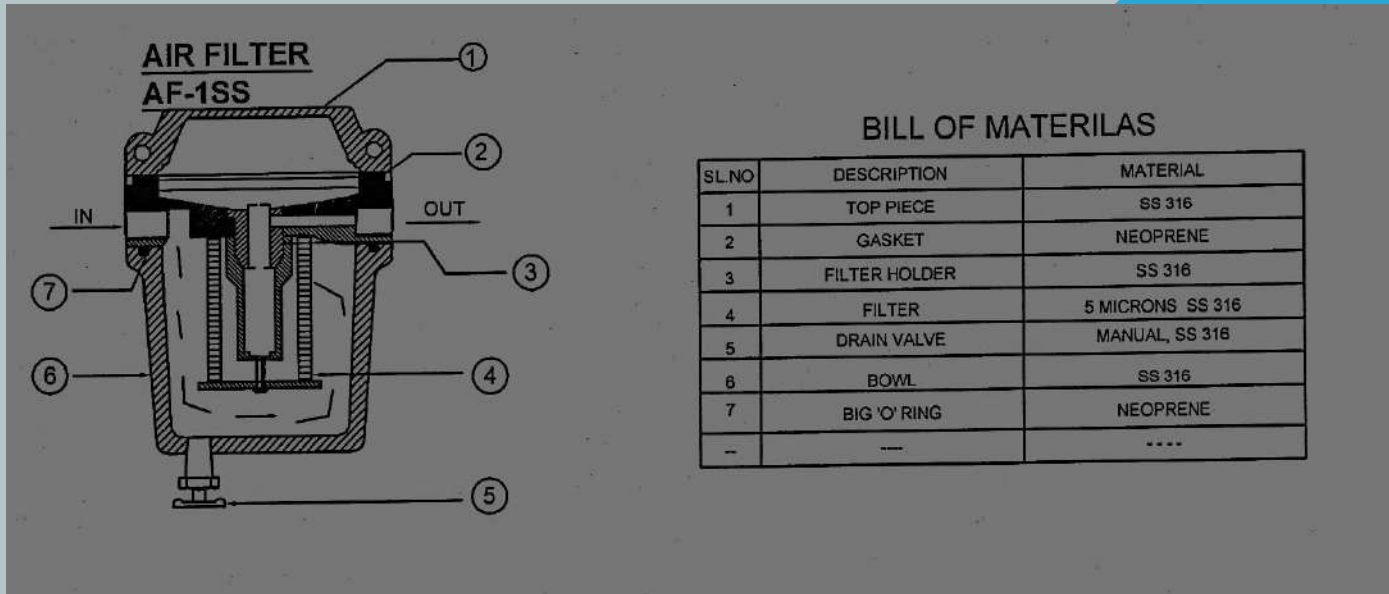
This economically priced unit is extensively used for Process Control Instruments, Air-actuated Control Valves, Cylinders transducers and other equipments.

SALIENT FEATURES:

- Longer life assured as the materials used are selected for their corrosion resistance and long wear.
 - In addition to solid particles, the unit extracts a high percentage of water thus ensuring trouble-free service even in the most adverse conditions.
 - The dust and liquid contaminants can be fully drained out when the Air Filter is mounted vertically as in the case of Control Valves, Transmitters, etc
- Custom made Unit for Control Valves, Transmitters and other field mounted Instruments.
- Simple, versatile built-in mounting arrangements by bolts and clamps. For panel mounting, tapped holes are provided at the top of the spring case for mounting screws.
 - Most economically priced.
 - Model AFSS with SS components instead of brass, for corrosive working conditions of Fertilisers, Nuclear, Refinery and Steel Plants.

OPERATION:

- The primary air through the inlet port, passes through the filter element, leaving down the contaminants in the bowl and clean air is supplied through the output port
- In a regular intervals, the drain valve should be opened and the dust/contaminants to be drained for effective function of the Air Filter(AF)



| Model | End Fitting |
|--------|-----------------------|
| AF-1SS | 1/4" NPT (F)/ BSP (F) |
| AF-2SS | 3/8" NPT (F)/ BSP (F) |
| AF-3SS | 1/2" NPT (F)/ BSP (F) |
| AF-4SS | 3/4" NPT (F)/ BSP (F) |
| AF-5SS | 1" NPT (F)/ BSP (F) |

AF -SPECIFICATIONS

| | |
|---------------------|---|
| Service | : Air |
| Max.Inlet Pressure | : 18Kg/Sq.cm(250psi) |
| End Connections | : 1 Inlet,1 Outlet (Pressure gauge port on request) |
| End Connection Size | : Screwed (Refer Table) |
| Ambient Temperature | : 100° C |
| MOC of Air Filter | : SS 304 / SS316 |
| Filter | : Sintered Bronze/ Poly Propylene Plastic / SS316 |
| Drain Valve | : SS304/SS316 |
| Bowl Capacity | : 130cc |
| Gasket | : Neoprene/EPDM |
| Mounting | : Surface or Panel |
| Models | : Refer table |

Placka Instruments India Pvt. Ltd.,

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E-mail : sales@plackainstruments.com ; plackainstruments@yahoo.com Website : www.plackainstruments.com

AIR FILTER PRESSURE REGULATOR (ALUMINIUM)



Your Air-Actuated Instrument and Equipment work at their best for a long period when you feed with clean dry air at a constant prescribed pressure. PLACKA FPR- Series Air Filter-cum Pressure Regulator removes completely the moisture and dust particles, and provides the exact pressure constantly at varying air demands. Its compactness and highly accurate performance for a long period with minimum of maintenance make for an optimum compromise between the ideal and the practical, consistent with end-use. This economically priced unit is extensively used for Process Control Instruments, Air-actuated Control Valves, Cylinders transducers and other equipments.

SALIENT FEATURES

- > Longer life assured as the materials used are selected for their corrosion resistance and long wear.
- > Excellent characteristics throughout the full flow range particularly at low flow zone in which the unit usually serves Instruments.
- > Negligible pressure drop due to high porosity ratio of the filter. The filter is reusable and has a high impact strength.
- > In addition to solid particles, the unit extracts a high percentage of water thus ensuring trouble-free service even in the most adverse conditions.
- > Built-in relief ensure rapid response to circuit-induced pressure charges.
- > The dust and liquid contaminants can be fully drained out when the regulator is mounted both vertically and horizontally as in the case of control valves, transmitters etc.
- > Custom made unit for control valves, Transmitters and other field mounted Instruments.
- > regulator adjustment knob is easily lockable by the finger operated locking unit.
- > Simple, versatile built in mounting arrangements by bolts and clamps. For panel mounting, tapped holes are provided at the top of the spring case for mounting screws.
- > Most economically priced.

| | |
|---------------------------------------|---|
| Service : | Air |
| Max. inlet Pressure : | 250 PSI 18 kg/cm ² |
| Enclosure : | Weather Proof (IP65) |
| Outlet Pressure Ranges : | Refer Table 1 |
| End Connections : | 1 inlet, 1 outlet and 1 pressure gauge port |
| Bowl Capacity : | 130 cc (Approx.) |
| Ambient Temperature : | Upto 80° c |
| Adjustment knob with nut : | Unbreakable plastic moulded on C.S. Stem (SS on request) |
| Body Spring Case and Filter Bowl : | Die Cast Aluminium alloy |
| Filter : | Sintered Bronze / Porus Plastic 15 Microns Standard 5, 25, 40 Microns Optional |
| Main Valve : | Neoprene Moulded on SS stem |
| Drain Valve : | Brass - Standard (SS on request) |
| Main Valve Spring : | SS |
| Diaphragm : | Nylon Reinforced Neoprene |
| Main Spring : | Spring Steel |
| Mounting : | Surface or Panel |

SELECT MODEL NUMBERS :

| END CONNECTION | OUTLET PRESSURE RANGE | | | | DIMENSION (A) mm |
|----------------|--|--|---|--|---------------------|
| | 0 - 2.1 kg / cm ² 0 - 30 PSI | 0 - 4.2 kg / cm ² 0 - 60 PSI | 0 - 7 kg / cm ² 0 - 100 PSI | 0 - 10.6 kg / cm ² 0 - 150 PSI | |
| 1/4" | FPR - 1 | FPR - 2 | FPR - 3 | FPR - 3A | 157 |
| 3/8" | FPR - 4 | FPR - 5 | FPR - 6 | FPR - 6A | 172 |
| 1/2" | FPR - 7 | FPR - 8 | FPR - 9 | FPR - 9A | 172 |
| 3/4" | FPR - 10 | FPR - 11 | FPR - 12 | FPR - 12A | 180 |
| 1" | FPR - 13 | FPR - 14 | FPR - 15 | FPR - 15A | 190 |

AIR FILTER PRESSURE REGULATOR (STAINLESS STEEL)



Your Air-Actuated Instrument and Equipment work at their best for a long period when you feed with clean dry air at a constant prescribed pressure. PLACKA FPR- Series Air Filter-cum Pressure Regulator removes completely the moisture and dust particles, and provides the exact pressure constantly at varying air demands. Its compactness and highly accurate performance for a long period with minimum of maintenance make for an optimum compromise between the ideal and the practical, consistent with end-use. This economically priced unit is extensively used for Process Control Instruments, Air-actuated Control Valves, Cylinders transducers and other equipments.

SALIENT FEATURES

- > Longer life assured as the materials used are selected for their corrosion resistance and long wear.
- > Excellent characteristics throughout the full flow range particularly at low flow zone in which the unit usually serves Instruments.
- > Negligible pressure drop due to high porosity ratio of the filter. The filter is reusable and has a high impact strength.
- > In addition to solid particles, the unit extracts a high percentage of water thus ensuring trouble-free service even in the most adverse conditions.
- > Built-in relief ensure rapid response to circuit-induced pressure charges.
- > The dust and liquid contaminants can be fully drained out when the regulator is mounted both vertically and horizontally as in the case of control valves, transmitters etc.
- > Custom made unit for control valves, Transmitters and other field mounted Instruments.
- > regulator adjustment knob is easily lockable by the finger operated locking unit.
- > Simple, versatile built in mounting arrangements by bolts and clamps. For panel mounting, tapped holes are provided at the top of the spring case for mounting screws.
- > Most economically priced.

| | |
|---------------------------------------|--|
| Service : | Air |
| Max. inlet Pressure : | 250 PSI 18 kg/cm ² |
| Enclosure : | Weather Proof (IP65) |
| Outlet Pressure Ranges : | Refer Table 1 |
| End Connections : | 1 inlet, 1 outlet and 1 pressure gauge port |
| Bowl Capacity : | 130 cc (Approx.) |
| Ambient Temperature : | Upto 80° c |
| Adjustment knob with nut : | Unbreakable plastic moulded on S.S. Stem |
| Body Spring Case and Filter Bowl : | Investment Casting SS316 |
| Filter : | Sintered Bronze / Poly proylene Plastic 15 Microns Standard 5, 25, 40 Microns Optional SS filter 5 Micron Optional |
| Main Valve : | Neoprene Moulded on SS stem |
| Drain Valve : | SS |
| Main Valve Spring : | SS |
| Diaphragm : | Nylon Reinforced Neoprene |
| Main Spring : | Spring Steel |
| Mounting : | Surface or Panel |

SELECT MODEL NUMBERS :

| END CONNECTION | OUTLET PRESSURE RANGE | | | | BODY LENGTH mm |
|----------------|--|--|---|--|----------------|
| | 0 - 2.1 kg / cm ² 0 - 30 PSI | 0 - 4.2 kg / cm ² 0 - 60 PSI | 0 - 7 kg / cm ² 0 - 100 PSI | 0 - 10.6 kg / cm ² 0 - 150 PSI | |
| 1/4" | FPR - 1SS | FPR - 2SS | FPR - 3SS | FPR - 3ASS | 154 |
| 3/8" | FPR - 4SS | FPR - 5SS | FPR - 6SS | FPR - 6ASS | 166 |
| 1/2" | FPR - 7SS | FPR - 8SS | FPR - 9SS | FPR - 9ASS | 166 |
| 3/4" | FPR - 10SS | FPR - 11SS | FPR - 12SS | FPR - 12ASS | 176 |
| 1" | FPR - 13SS | FPR - 14SS | FPR - 15SS | FPR - 15ASS | 176 |

AIR FILTER REGULATOR



Your Air-actuated Instrument and Equipment work at their best for a long period when you feed with clean dry air at a constant prescribed pressure. PLACKA FPR-Series Air Filter-cum-Pressure Regulator removes completely the moisture and dust particles, and provides the exact pressure constantly at varying air demands. Its compactness and highly accurate performance for a long period with minimum of maintenance make for an optimum compromise between the ideal and the practical, consistent with end-use.

This economically priced unit is extensively used for Process Control Instruments, Air-actuated Control Valves, Cylinders and other equipments.

SALIENT FEATURES

- Longer life assured as the materials used are selected for their corrosion resistance and long wear.
- Excellent characteristics throughout the full flow range particularly at low flow zone in which the unit usually serves Instruments.
- Negligible pressure drop due to high porosity ratio of the filter. The filter is reusable and has a high impact strength.
- In addition to solid particles, the unit extracts a high percentage of water thus ensuring trouble-free service even in the most adverse conditions.
- Built-in relief ensures rapid response to circuit-induced pressure changes.
- The dust and liquid contaminants can be fully drained out when the Regulator is mounted both vertically and horizontally as in the case of control valves, transmitters, etc.
- Custom made Unit for Control Valves, Transmitters and other field mounted Instruments.
- Regulator adjustment knob is easily lockable by the finger operated locking nut.
- Simple, versatile built in mounting arrangements by bolts and clamps. For panel mounting, tapped holes are provided at the top of the spring case for mounting screws.
- Most economically priced.

OPERATION

The primary air through the inlet port, passes through the filter element, leaving down the contaminants in the bowl. When the knob is adjusted suitably, the spring acts on the diaphragm which in turn actuates the main valve to allow the pure secondary air at a particular pressure to the outlet. The main valve is supported between the relief valve and the main valve spring, eliminating the need for stem guiding, Toggle action between main valve and relief valve completely eliminates the alignment problems and thus, erratic output pressure.

SPECIFICATIONS

| | |
|-----------------------------|---|
| Ensured Pressure Resistance | 15 Kg/sq.cm |
| Highest Working Pressure | 10 Kg/sq.cm |
| Temperature | 5 - 60° C |
| Filter Precision | 25 Microns |
| Container Material | Poly Carbonate |
| Protective Cover | PAW 1000 - 2000 (Not Available) PAW 3000 - 5000 (Available) |
| Pressure Regulating Range | PAW 1000 (0.5-0.7 kg/sq.cm) PAW 2000 - 5000 (0.5-8.5 kg/sq.cm) |
| Valve Type | With Over Flow |

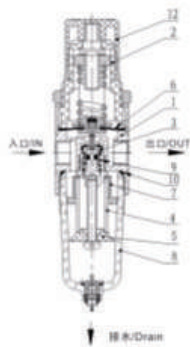
| Model No | Flow Rate (L/min) | Port Size | Gauge Size | Drain Function | Auto Drain Model |
|------------|-------------------|-----------|------------|-----------------------------------|------------------|
| PAW1000-M5 | 100 | M5 | 1/16" | Manual | - |
| PAW2000-01 | 550 | 1/8" | 1/8" | Air Shut Off Drain / Manual Drain | PAW2000-01D |
| PAW2000-02 | | 1/4" | | | PAW2000-02D |
| PAW3000-02 | 2000 | 1/4" | 1/4" | Air Shut Off Drain / Manual Drain | PAW3000-02D |
| PAW3000-03 | | 3/8" | | | PAW3000-03D |
| PAW4000-03 | 4000 | 1/2" | | | PAW4000-03D |
| PAW4000-04 | | 3/4" | | | PAW4000-04D |
| PAW4000-06 | 4500 | 3/4" | 1" | Air Shut Off Drain / Manual Drain | PAW4000-06D |
| PAW5000-06 | 5500 | | | | PAW5000-06D |
| PAW5000-10 | | 1" | | | PAW5000-10D |

Note 1) There are 2 types auto drain for AW2000, pulsed type and lever type. "D" means normal auto drain, pulsed type; 'D2" means lever type auto drain. For Example: PAW2000-0202. The normal auto drain for PAW3000-PAW5000 is lever type, but the float type auto drain is available for choose. Please check the details from AUTO DRAIN.

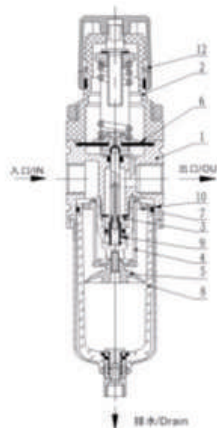
Note 2) Under the circumstance that the supply pressure is 7.1 Kg/sq.cm and set pressure is 5.1 Kg/sq.cm

Note 3) RC, NPT thread are available.

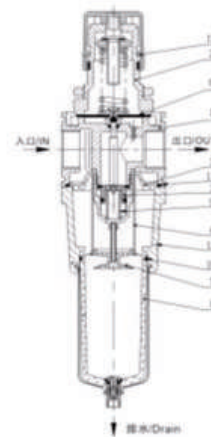
| Sl.No | DENOMINATION | MATERIAL | | |
|-------|---------------------|-------------------|-----------------------------------|--------------|
| | | PAW1000 | PAW2000-4000 | PAW4000-5000 |
| 1. | Valve Body | Zince Die Casting | Aluminium Die Casting | |
| 2. | Valve Core | Reinforced Nylon | Aluminium Die Casting | |
| 3. | Valve Core assembly | | Brass, Rubber | |
| 4. | Filter element | | Brass | |
| 5. | Drain Board | | ABS | |
| 6. | Flim | | Rubber | |
| 7. | WhirlWind Blade | | ABS | |
| 8. | Water Storage Cup | | PolyCarbonate (Cold Rolled Sheet) | |
| 9. | Spring | | StainlessSteel | |
| 10. | O Ring | | Rubber | |
| 11. | O Ring | | Rubber | |
| 12. | Hand Wheel | | Reinforced Nylon | |
| 13. | Middle part | | Aluminium Die Casting | |



PAW1000 - 2000



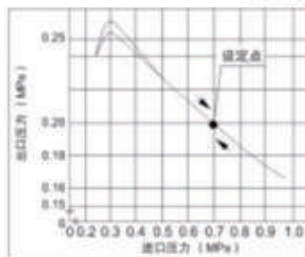
PAW3000 - 4000



PAW5000

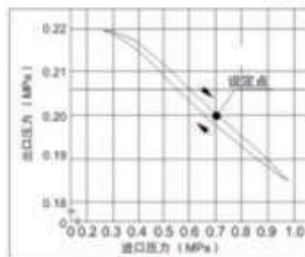
PAW1000

MS×0.8



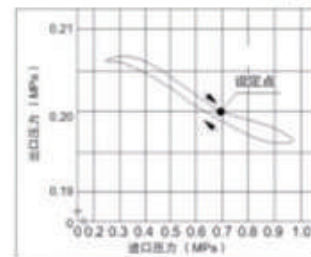
PAW2000

1/8-1/4



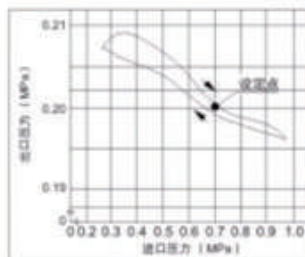
PAW3000

1/4-3/8



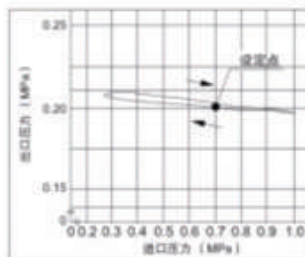
PAW4000

3/8-1/2



PAW4000-06

3/4



Inlet Pressure P1 = 7.0 Kg/sq.cm

Outlet Pressure P2 = 2.0 Kg/sq.cm

Rate of Flow Q=20 L/Min (ANR)