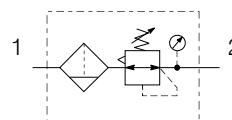


Mini Filter / Regulator P31



Symbols



- Integral 1/4 ports (BSPP & NPT)
- High efficiency 5 micron element as standard
- Excellent water removal efficiency
- Robust but lightweight aluminium construction
- Positive bayonet latch to ensure correct & safe fitting
- Secondary pressure ranges 2, 4 & 8 bar
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.

Options:

| | | | | | | | | | | |
|--------------------------------|------------|-------------------|----------|---------------|----------|--------------------------|----------------------|-----------------|-------------------------|----------|
| P 3 1 | E A | | | E | | | | N | | P |
| Thread type | | Drain type | | Relief | | Adjustment range | | Mounting | | |
| BSP | 1 | Pulse drain | B | Relieving | B | With square gauge | Without gauge | | Plastic panel mount nut | P |
| NPT | 9 | Manual drain | M | Non relieving | N | 2 bar * | V | 2 bar | Y | |
| Port size | | | | | | 4 bar | S | 4 bar | L | |
| 1/4 | 2 | | | | | 8 bar ** | T | 8 bar | N | |
| Element | | | | | | | | | | |
| 5µ Element | E | | | | | | | | | |
| Bowl type | | | | | | | | | | |
| Poly bowl with bowl guard | | | | | | | | | | |
| Metal bowl without sight glass | | | | | | | | | | |

| Port size | Description | Order Code | Flow dm ³ /s * | (scfm) * | Max bar (psi) | Height mm (Inches) | Width mm (Inches) | Depth mm (Inches) |
|-----------|---|----------------------|---------------------------------|-------------|------------------|--------------------------|-------------------------|-------------------------|
| 1/4" | 8 bar (125 psi) Relieving - Poly bowl - Manual drain | P31EA12EGMBNT | 14 | (30) | 10 (150) | 164.1 (6.46) | 40 (1.58) | 64 (2.53) |
| 1/4" | 8 bar (125 psi) Relieving - Poly bowl - Pulse drain | P31EA12EGBBNT | 14 | (30) | 10 (150) | 164.1 (6.46) | 40 (1.58) | 64 (2.53) |
| 1/4" | 8 bar (125 psi) Relieving - Metal bowl - Manual drain | P31EA12EMMBNT | 14 | (30) | 17 (250) | 164.1 (6.46) | 40 (1.58) | 64 (2.53) |
| 1/4" | 8 bar (125 psi) Relieving - Metal bowl - Pulse drain | P31EA12EMBBNT | 14 | (30) | 17 (250) | 164.1 (6.46) | 40 (1.58) | 64 (2.53) |

* flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.3 psig) set pressure and 1 bar (14.5 psig) pressure drop.

Specifications

| | | |
|-----------------------|---------------------------------------|--|
| Flow Capacity* | 1/4 | 14 dm ³ /s (30.0 scfm) |
| Operating Temperature | Plastic Bowl Metal Bowl | -10°C (14°F) to 52°C (125°F) -10°C (14°F) to 65.5°C (150°F) |
| Max Supply Pressure | Plastic Bowl Metal Bowl | 10 bar (150 psi) 17 bar (250 psi) |
| Standard Filtration | 5 Micron | |
| Useful Retention | 12 cm ³ (0.4 US oz.) | |
| Adjusting Range | 0-2 bar (30 psi) | |
| Pressure | 0-4 bar (60 psi) 0-8 bar (125 psi) | |
| Port Size | BSPP / NPT | 1/4 |
| Gauge Port (2 ea.)** | BSPP / NPT | 1/8 |
| Weight | 0.19 kg (0.42 lbs) | |

* Inlet pressure 10 bar. Secondary pressure 6.3 bar.

** Non-gauge option only.

Air quality:

Within ISO 8573-1: 1991 Class 3 (Particulates)

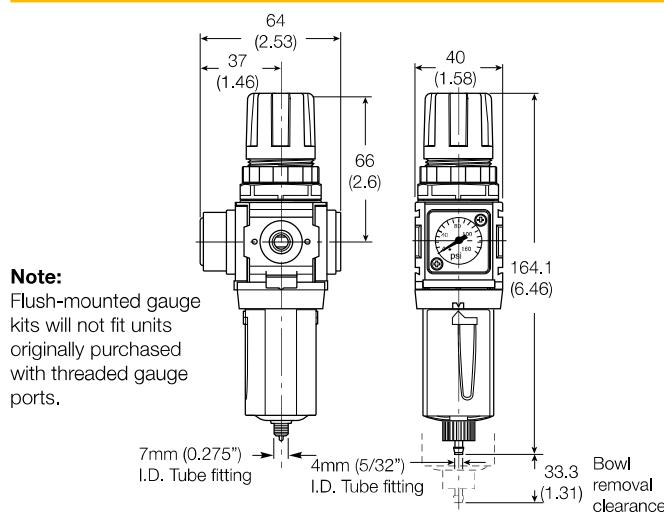
Within ISO 8573-1: 2001 Class 6 (Particulates)

Materials of Construction

| | | |
|--------------------|----------------------------|----------------------------|
| Body | Aluminium | |
| Adjustment Knob | Acetal | |
| Body Cap | ABS | |
| Bonnet | PBT | |
| Bowl | Plastic Bowl Metal Bowl | Polycarbonate Aluminium |
| Bowl Guard | Nylon | |
| Filter Element | Polyethylene | |
| Seals | Plastic Bowl Metal Bowl | Nitrile Nitrile |
| Springs | Steel | |
| Valve Assembly | Brass / Nitrile | |
| Diaphragm Assembly | Brass / Nitrile | |
| Panel Nut | Acetal | |

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Dimensions

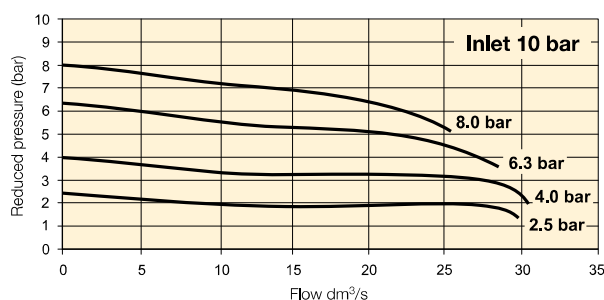


WARNING

**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

Flow Charts

1/4 Filter/Regulator



Repair and Service Kits

| | |
|---|-------------------|
| Plastic bowl / Bowl guard manual drain | P31KA00BGM |
| Metal bowl / w/o sight gauge manual drain | P31KA00BMM |
| Plastic bowl / Bowl guard pulse drain | P31KA00BGB |
| Metal bowl / w/o sight gauge pulse drain | P31KA00BMB |
| 5μ particle filter element | P31KA00ESE |
| Panel mount nut - Aluminium | P31KA00MM |
| Panel mount nut - Plastic | P31KA00MP |
| Angle Bracket (uses panel mount threads) | P31KA00MR |
| C-Bracket (fits to body) | P31KA00MW |
| T-Bracket with body connector | P31KA00MT |
| Body connector | P31KA00CB |

Gauges

Square flush mount gauge

replacement for unit ordered with square gauge

| | |
|----------|--------------------|
| 0-4 bar | K4511SCR04B |
| 0-10 bar | K4511SCR11B |

40mm (1 1/2") Round 1/8" center back mount

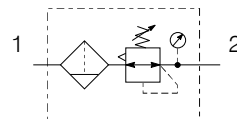
for units ordered without square gauge

| | |
|-----------------------|--------------------|
| 0-30 PSIG / 0-2 bar | P3D-KAB1AYN |
| 0-58 PSIG / 0-4 bar | P3D-KAB1ALN |
| 0-160 PSIG / 0-10 bar | P3D-KAB1ANN |

Compact Filter / Regulator P32



Symbols



- Integral 1/4, 3/8 or 1/2 ports (BSPP & NPT)
- High efficiency 5 micron element as standard
- Excellent water removal efficiency
- Robust but lightweight aluminium construction
- Positive bayonet latch to ensure correct & safe fitting
- Secondary pressure ranges 2, 4, 8 & 17 bar
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.

Options:

| | | | | | | | | | | |
|---|------------|--|--|---|--|---|--|--|--|----------|
| P 3 2 | E A | | | E | | | | N | | P |
| Thread type BSPP 1 NPT 9 | | Port size 1/4 2 3/8 3 1/2 4 | | Drain type Manual drain M Auto drain A | | Relief Relieving B Non relieving N | | Adjustment range With round gauge 2 bar; 30 psi; 0.2 MPa Z 4 bar; 60 psi; 0.4 MPa M 8 bar; 125 psi; 0.8 MPa G 17 bar; 250 psi; 1.7 MPa J Without gauge 2 bar; 30 psi; 0.2 MPa Y 4 bar; 60 psi; 0.4 MPa L 8 bar; 125 psi; 0.8 MPa N 17 bar; 250 psi; 1.7 MPa H | | |
| | | Element 5µ Element E | | | | | | | | |
| | | Bowl type Poly bowl with bowl guard G Metal bowl with sight glass S | | | | | | | | |
| | | | | | | | | Mounting Plastic panel mount nut P | | |

| Port size | Description | Order Code | Flow dm ³ /s * | (scfm) * | Max bar (psi) | Height mm (Inches) | Width mm (Inches) | Depth mm (Inches) |
|-----------|---|-----------------------|---------------------------------|-------------|---------------------|--------------------------|-------------------------|-------------------------|
| 1/4" | 8 bar (125 psi) Relieving - Poly bowl - Manual drain | P32EA12EGMBNGP | 42 | (89) | 10 (150) | 254 (10.0) | 60 (2.36) | 60 (2.36) |
| 1/4" | 8 bar (125 psi) Relieving - Poly bowl - Auto drain | P32EA12EGABNGP | 42 | (89) | 10 (150) | 248 (9.76) | 60 (2.36) | 60 (2.36) |
| 1/4" | 8 bar (125 psi) Relieving - Metal bowl sight glass - Manual drain | P32EA12ESMBNGP | 42 | (89) | 17 (250) | 245 (9.66) | 60 (2.36) | 60 (2.36) |
| 1/4" | 8 bar (125 psi) Relieving - Metal bowl sight glass - Auto drain | P32EA12ESABNGP | 42 | (89) | 17 (250) | 248 (9.76) | 60 (2.36) | 95 (3.74) |
| 3/8" | 8 bar (125 psi) Relieving - Poly bowl - Manual drain | P32EA13EGMBNGP | 58 | (123) | 10 (150) | 254 (10.0) | 60 (2.36) | 60 (2.36) |
| 3/8" | 8 bar (125 psi) Relieving - Poly bowl - Auto drain | P32EA13EGABNGP | 58 | (123) | 10 (150) | 248 (9.76) | 60 (2.36) | 60 (2.36) |
| 3/8" | 8 bar (125 psi) Relieving - Metal bowl sight glass - Manual drain | P32EA13ESMBNGP | 58 | (123) | 17 (250) | 245 (9.66) | 60 (2.36) | 60 (2.36) |
| 3/8" | 8 bar (125 psi) Relieving - Metal bowl sight glass - Auto drain | P32EA13ESABNGP | 58 | (123) | 17 (250) | 248 (9.76) | 60 (2.36) | 95 (3.74) |
| 1/2" | 8 bar (125 psi) Relieving - Poly bowl - Manual drain | P32EA14EGMBNGP | 64 | (136) | 10 (150) | 245 (9.66) | 60 (2.36) | 95 (3.74) |
| 1/2" | 8 bar (125 psi) Relieving - Poly bowl - Auto drain | P32EA14EGABNGP | 64 | (136) | 10 (150) | 248 (9.76) | 60 (2.36) | 95 (3.74) |
| 1/2" | 8 bar (125 psi) Relieving - Metal bowl sight glass - Manual drain | P32EA14ESMBNGP | 64 | (136) | 17 (250) | 254 (10.0) | 60 (2.36) | 60 (2.36) |
| 1/2" | 8 bar (125 psi) Relieving - Metal bowl sight glass - Auto drain | P32EA14ESABNGP | 64 | (136) | 17 (250) | 248 (9.76) | 60 (2.36) | 60 (2.36) |

* flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.3 psig) set pressure and 1 bar (14.5 psig) pressure drop.

Specifications

| | | |
|--------------------------|---------------------------------|----------------------------------|
| Flow Capacity* | 1/4 | 42 dm ³ /s (89 scfm) |
| | 3/8 | 58 dm ³ /s (123 scfm) |
| | 1/2 | 64 dm ³ /s (136 scfm) |
| Operating Temperature | Plastic Bowl | -25°C (-13°F) to 52°C (125°F) |
| | Metal Bowl | -25°C (-13°F) to 65.5°C (150°F) |
| Max Supply Pressure | Plastic Bowl | 10 bar (150 psi) |
| | Metal Bowl | 17 bar (250 psi) |
| Standard Filtration | 5 Micron | |
| Useful Retention** | 51 cm ³ (1.7 US oz.) | |
| Adjusting Range Pressure | 0-2 bar (30 psi) | |
| | 0-4 bar (60 psi) | |
| | 0-8 bar (125 psi) | |
| | 0-17 bar (250 psi) | |
| Port Size | BSPP / NPT | 1/4, 3/8, 1/2 |
| Gauge Port (2 ea.) | BSPP / NPT | 1/4 |
| Weight | 0.53 kg (1.17 lbs) | |

* Inlet pressure 10 bar. Secondary pressure 6.3 bar.

** Useful retention refers to volume below the quiet zone baffle.

Air quality:

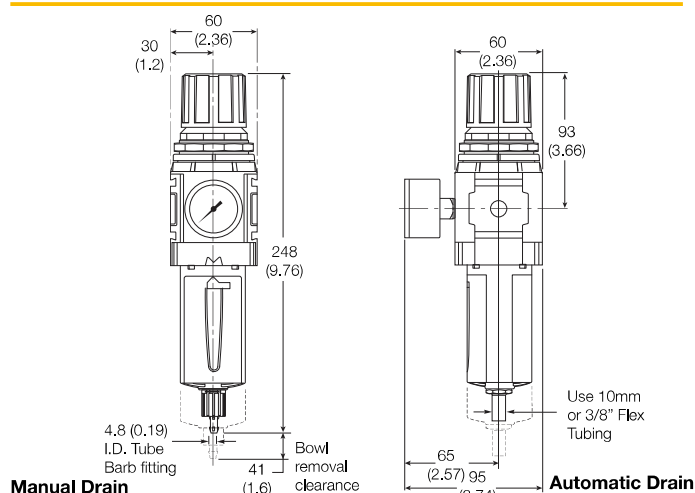
Within ISO 8573-1: 1991 Class 3 (Particulates)

Within ISO 8573-1: 2001 Class 6 (Particulates)

Materials of Construction

| | | |
|---------------------------|-------------------------|---------------|
| Body | Aluminium | |
| Adjustment Knob | Acetal | |
| Body Cap | ABS | |
| Element Retainer / Baffle | Acetal | |
| Bowl | Plastic Bowl | Polycarbonate |
| | Metal Bowl | Zinc |
| Bowl Guard | Nylon | |
| Filter Element | Sintered Polyethylene | |
| Seals | Plastic Bowl | Nitrile |
| | Metal Bowl | Nitrile |
| Springs | Main Regulating / Valve | Steel / S.S. |
| Valve Assembly | Brass / Nitrile | |
| Diaphragm Assembly | Nitrile / Zinc | |
| Panel Nut | Acetal | |
| Sight Gauge | Metal Bowl | Polycarbonate |

Dimensions

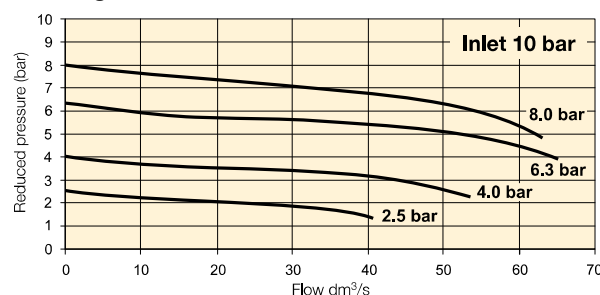


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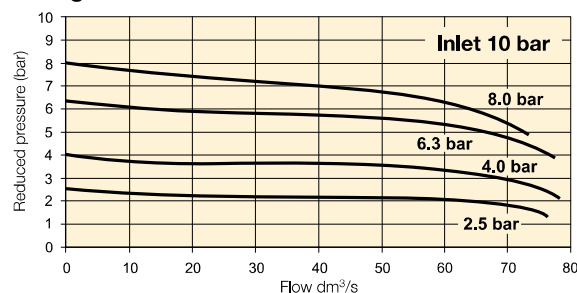
**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

Flow Charts

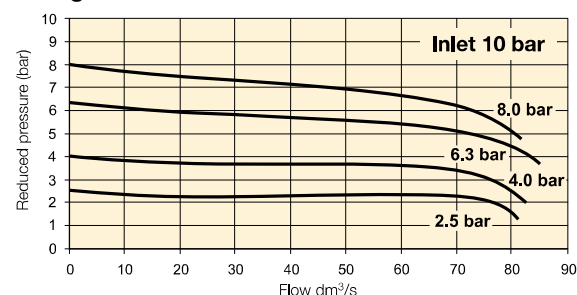
1/4 Filter/Regulator



3/8 Filter/Regulator



1/2 Filter/Regulator



Repair and Service Kits

| | |
|---|------------|
| Plastic bowl / Bowl guard manual drain | P32KA00BGM |
| Metal bowl / Sight gauge manual drain | P32KA00BSM |
| Auto drain | P32KA00DA |
| 5µ particle filter element | P32KA00ESE |
| Panel mount nut - Aluminium | P32KA00MM |
| Panel mount nut - Plastic | P32KA00MP |
| Angle Bracket (fits to panel mount threads) | P32KA00MR |
| T-Bracket (fits to body connector) | P32KA00MB |
| T-Bracket with body connector | P32KA00MT |
| Body connector | P32KA00CB |

Gauges

50mm (2") Round 1/4" center back mount

for units ordered without square gauge

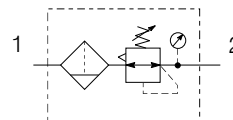
| | |
|-----------------------------------|-------------|
| 0-60 PSIG / 0-4 bar / 0-0.4 MPa | P6G-ERB2040 |
| 0-160 PSIG / 0-11 bar / 0-1.1 MPa | P6G-ERB2110 |
| 0-300 PSIG / 0-20 bar / 0-2 MPa | P6G-ERB2200 |

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Standard Filter / Regulator P33



Symbols



- Integral 1/2 or 3/4 ports (BSPP & NPT)
- High efficiency 5 micron element as standard
- Excellent water removal efficiency
- Robust but lightweight aluminium construction
- Positive bayonet latch to ensure correct & safe fitting
- Secondary pressure ranges 2, 4, 8 & 17 bar
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.

Options:

| | | | | | | | | | | |
|--------------------|------------|-----------------------------|---|-------------------|---|--------------------------|--|-----------------|--|----------|
| P 33 | E A | | | E | | | | N | | P |
| Thread type | | Port size | | Drain type | | Adjustment range | | Mounting | | |
| BSPP | 1 | 1/2 | 4 | Manual drain | M | With round gauge | | Plastic panel | | |
| NPT | 9 | 3/4 | 6 | Auto drain | A | | | mount nut | | |
| | | Element | | Relief | | Without gauge | | | | |
| | | 5µ Element | | Relieving | | 2 bar; 30 psi; 0.2 MPa | | Z | | |
| | | | | Non relieving | | 4 bar; 60 psi; 0.4 MPa | | M | | |
| | | | | | | 8 bar; 125 psi; 0.8 MPa | | G | | |
| | | | | | | 17 bar; 250 psi; 1.7 MPa | | J | | |
| | | Bowl type | | | | | | | | |
| | | Poly bowl with bowl guard | | | | | | Y | | |
| | | Metal bowl with sight glass | | | | | | L | | |
| | | | | | | | | N | | |
| | | | | | | | | H | | |

| Port size | Description | Order Code | Flow dm ³ /s * | (scfm) * | Max bar (psi) | Height mm (Inches) | Width mm (Inches) | Depth mm (Inches) |
|-----------|---|----------------|---------------------------------|-------------|---------------------|--------------------------|-------------------------|-------------------------|
| 1/2" | 8 bar (125 psi) Relieving - Poly bowl - Manual drain | P33EA14EGMBNGP | 90 | (191) | 10 (150) | 282 (11.0) | 73 (2.9) | 73 (2.9) |
| 1/2" | 8 bar (125 psi) Relieving - Poly bowl - Auto drain | P33EA14EGABNGP | 90 | (191) | 10 (150) | 291 (11.44) | 73 (2.9) | 73 (2.9) |
| 1/2" | 8 bar (125 psi) Relieving - Metal bowl sight glass - Manual drain | P33EA14ESMBNGP | 90 | (191) | 17 (250) | 282 (11.0) | 73 (2.9) | 73 (2.9) |
| 1/2" | 8 bar (125 psi) Relieving - Metal bowl sight glass - Auto drain | P33EA14ESABNGP | 90 | (191) | 17 (250) | 291 (11.44) | 73 (2.9) | 108 (4.27) |
| 3/4" | 8 bar (125 psi) Relieving - Poly bowl - Manual drain | P33EA16EGMBNGP | 98 | (208) | 10 (150) | 282 (11.0) | 73 (2.9) | 108 (4.27) |
| 3/4" | 8 bar (125 psi) Relieving - Poly bowl - Auto drain | P33EA16EGABNGP | 98 | (208) | 10 (150) | 291 (11.44) | 73 (2.9) | 108 (4.27) |
| 3/4" | 8 bar (125 psi) Relieving - Metal bowl sight glass - Manual drain | P33EA16ESMBNGP | 98 | (208) | 17 (250) | 282 (11.00) | 73 (2.9) | 73 (2.9) |
| 3/4" | 8 bar (125 psi) Relieving - Metal bowl sight glass - Auto drain | P33EA16ESABNGP | 98 | (208) | 17 (250) | 291 (11.44) | 73 (2.9) | 73 (2.9) |

* flow with 10 bar (145 psig) inlet pressure, 6.3 bar (91.3 psig) set pressure and 1 bar (14.5 psig) pressure drop.

Specifications

| | | |
|--------------------------|---------------------------------|----------------------------------|
| Flow Capacity* | 1/2 | 90 dm ³ /s (191 scfm) |
| | 3/4 | 98 dm ³ /s (208 scfm) |
| Operating Temperature | Plastic Bowl | -25°C (-13°F) to 52°C (125°F) |
| | Metal Bowl | -25°C (-13°F) to 65.5°C (150°F) |
| Supply Pressure | Plastic Bowl | 10 bar (150 psi) |
| | Metal Bowl | 17 bar (250 psi) |
| Standard Filtration | 5 Micron | |
| Useful Retention** | 85 cm ³ (2.8 US oz.) | |
| Adjusting Range Pressure | 0-2 bar (30 psi) | |
| | 0-4 bar (60 psi) | |
| | 0-8 bar (125 psi) | |
| | 0-17 bar (250 psi) | |
| Port Size | BSPP / NPT | 1/2, 3/4 |
| Gauge Port (2 ea.) | BSPP / NPT | 1/4 |
| Weight | 0.85 kg (1.87 lbs) | |

* Inlet pressure 10 bar. Secondary pressure 6.3 bar.

** Useful retention refers to volume below the quiet zone baffle.

Air quality:

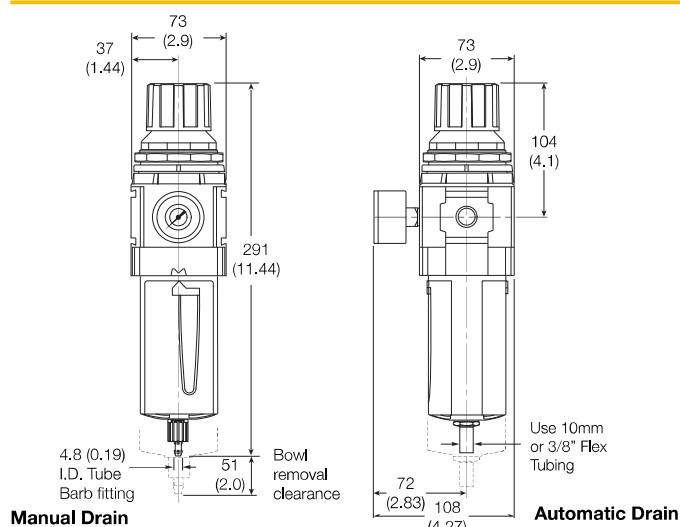
Within ISO 8573-1: 1991 Class 3 (Particulates)

Within ISO 8573-1: 2001 Class 6 (Particulates)

Materials of Construction

| | | |
|---------------------------|-------------------------|---------------|
| Body | Aluminium | |
| Adjustment Knob | Acetal | |
| Body Cap | ABS | |
| Element Retainer / Baffle | Acetal | |
| Bowls | Plastic Bowl | Polycarbonate |
| | Metal Bowl | Aluminium |
| Filter Element | Sintered Polyethylene | |
| Seals | Plastic Bowl | Nitrile |
| | Metal Bowl | Nitrile |
| Springs | Main Regulating / Valve | Steel / S.S. |
| Valve Assembly | Brass / Nitrile | |
| Diaphragm Assembly | Nitrile / Zinc | |
| Panel Nut | Acetal | |
| Sight Gauge | Metal Bowl | Polycarbonate |

Dimensions

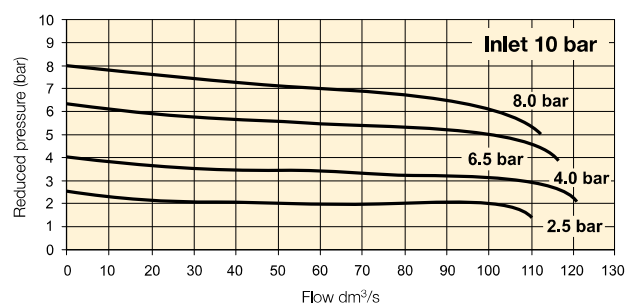


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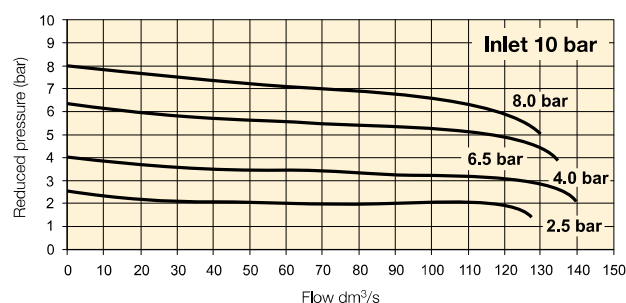
**Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.**

Flow Charts

1/2 Filter/Regulator



3/4 Filter/Regulator



Repair and Service Kits

| | |
|---|-------------------|
| Plastic bowl / Bowl guard manual drain | P33KA00BGM |
| Metal bowl / Sight gauge manual drain | P33KA00BSM |
| Auto drain | P33KA00DA |
| 5µ particle filter element | P33KA00ESE |
| Panel mount nut - Aluminium | P33KA00MM |
| Panel mount nut - Plastic | P33KA00MP |
| Angle Bracket (fits to panel mount threads) | P33KA00MR |
| T-Bracket (fits to body connector) | P32KA00MB |
| T-Bracket with body connector | P32KA00MT |
| Body connector | P32KA00CB |

Gauges

50mm (2") Round 1/4" center back mount

for units ordered without square gauge

| | |
|-----------------------------------|--------------------|
| 0-60 PSIG / 0-4 bar / 0-0.4 MPa | P6G-ERB2040 |
| 0-160 PSIG / 0-11 bar / 0-1.1 MPa | P6G-ERB2110 |
| 0-300 PSIG / 0-20 bar / 0-2 MPa | P6G-ERB2200 |

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.