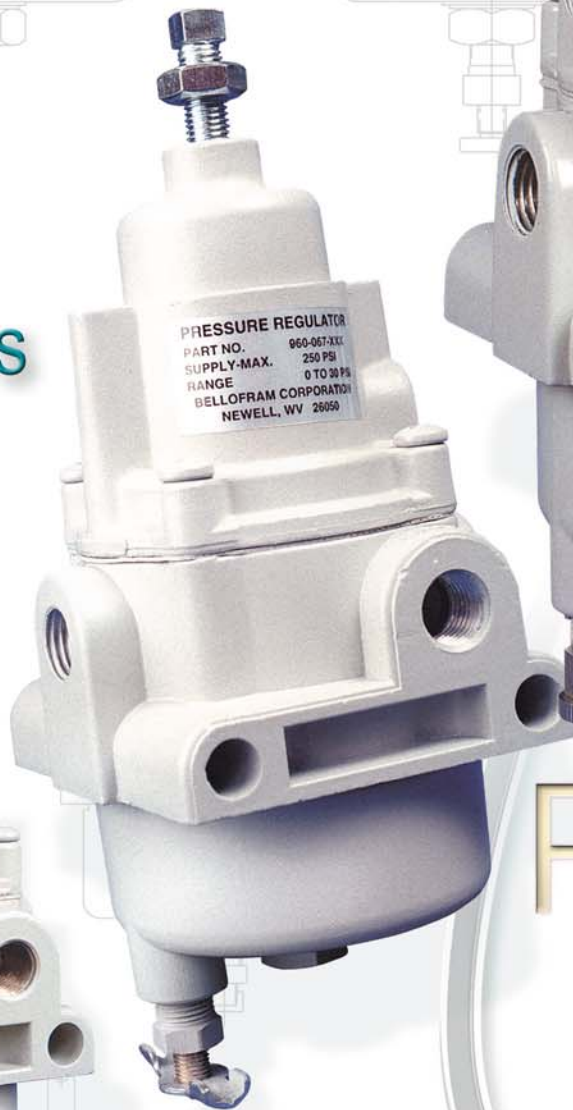


mB MARSH BELLOFRAM®

Type-50

Type 50 & Type 50 NACE

General
Purpose
Filter
Regulators



Precision
Control
Devices

mB T-50 & T-50 NACE Adjustable Air Filter Regulators

PRECISION CONTROL DEVICE

FEATURES

- Superior regulation characteristics
- Rugged, corrosion-resistant construction
- Excellent stability and repeatability
- Self-relieving
- Integral, 40 micron, self cleaning filter
- Low droop at high flow
- Several mounting options
- Low cost

APPLICATIONS

The design of these regulators is especially well suited to pilot-operated controllers, and instruments, as well as applications such as air chucks, air spray guns, air cylinders and actuators, and a wide range of industrial pneumatic systems and equipment.

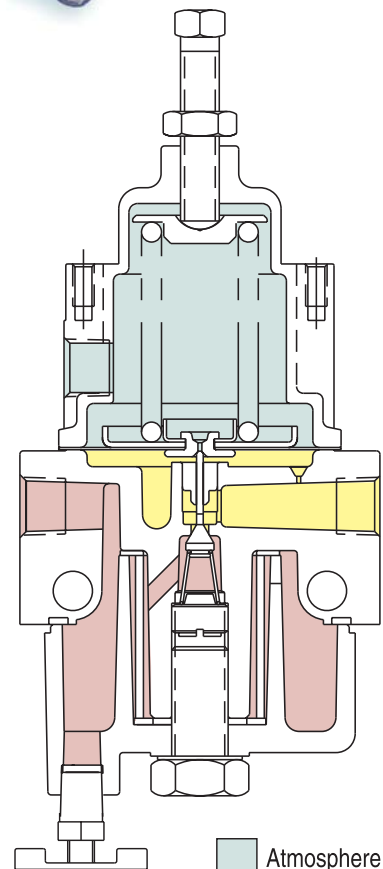
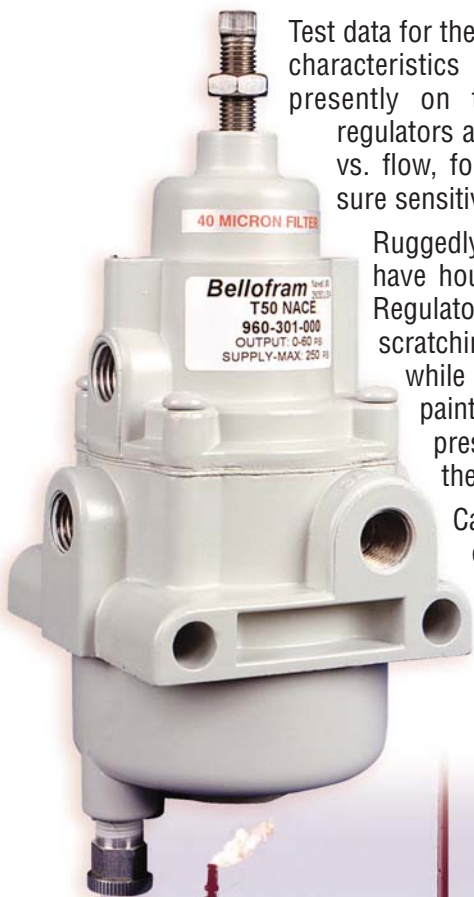
DESCRIPTION

Marsh Bellofram's General Purpose Type 50 & Type 50 NACE Filter Regulators are reliable precision units designed for instrumentation and general purpose use in both standard environments (Type 50), and corrosive environments (Type 50 NACE). The Type 50 NACE complies with NACE material requirement #MR-01-75 for sulfide stress cracking resistant metallic material for oil field equipment.

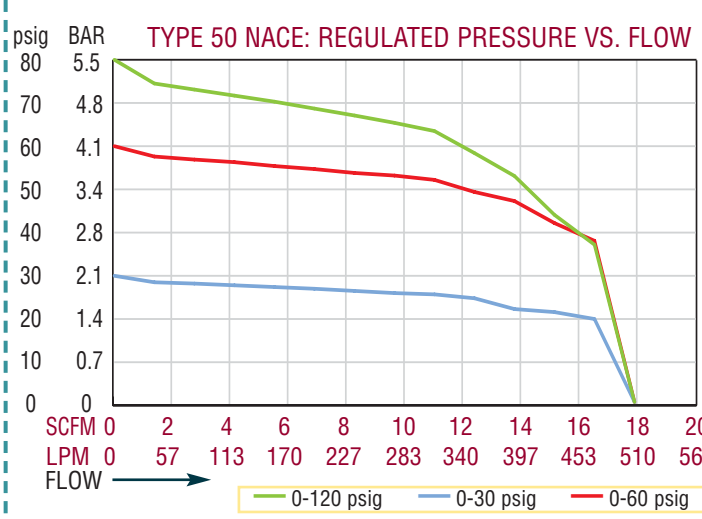
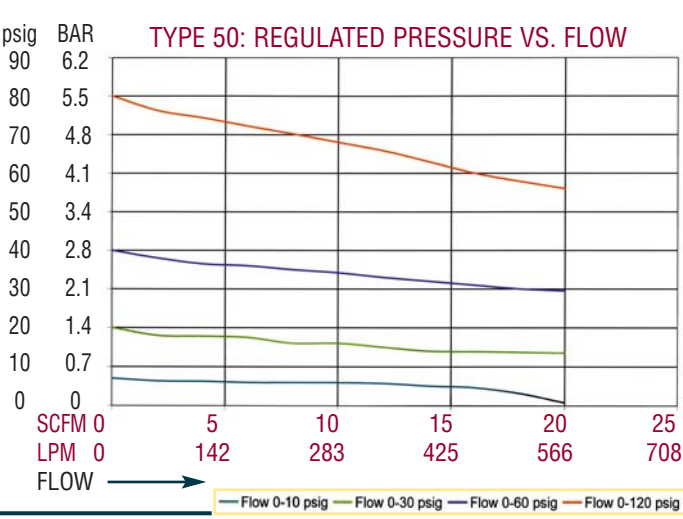
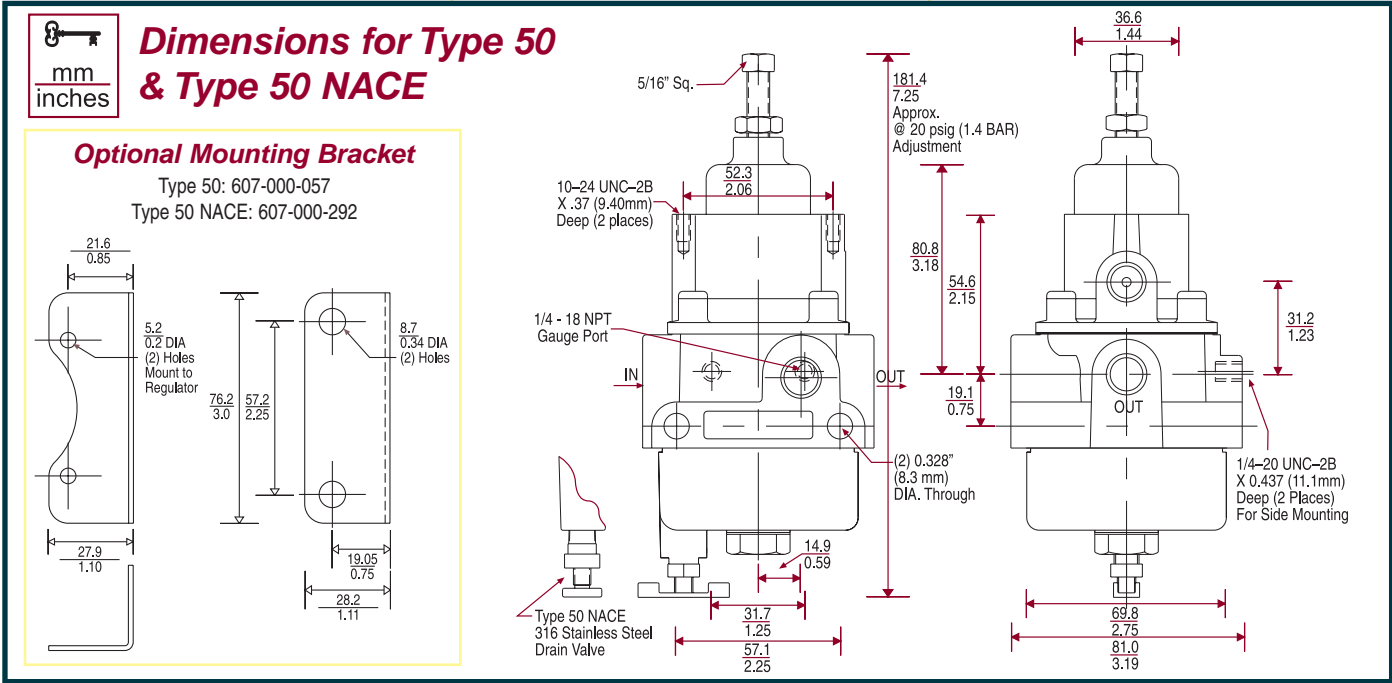
Test data for these regulators show excellent performance characteristics compared with those of similar units presently on the market. These Marsh Bellofram regulators are generally superior in regulated pressure vs. flow, forward-to-reverse flow offset, supply pressure sensitivity, repeatability and stability.

Ruggedly designed and constructed, the regulators have housings of diecast aluminum. The Type 50 Regulator is finished with vinyl paint (which resists scratching, weathering & other physical abuse), while the Type 50 NACE is finished with epoxy paint for added protection. Both models are pressure and leak tested prior to shipment from the factory.

Careful design and quality materials throughout assure long, trouble-free operation in the most difficult industrial environments. A rubberized, soft-seat valve stem provides positive shut-off and "forgives" dirt or other foreign matter. An aspirator maintains downstream pressure and compensates for droop when high flow occurs. The full flow gauge port is convenient for gauge installation and can also be used as an additional full flow outlet. The Type 50 regulators include a unique self-cleaning 40 micron nylon mesh filter (316 stainless steel in the Type 50 NACE) that can be easily removed.



| | TYPE 50 Filter Regulator | TYPE 50 NACE Filter Regulator |
|---|---|---|
| Sensitivity | 1" (25.4 mm) Water Column | 1" (25.4 mm) Water Column |
| Flow Capacity | 20 SCFM (565 LPM) | 18 SCFM (510 LPM) |
| Effect of Supply Pressure variation (25 psig) on Outlet Pressure | < 0.2 psig (0.01 BAR) | < 0.2 psig (0.01 BAR) |
| Exhaust Capacity (5 psig above 20 psig set point) | 0.1-0.45 SCFM Typical (2.8-12.7 LPM) | 0.1-0.45 SCFM Typical (2.8-12.7LPM) |
| Maximum Input / Supply Pressure | 250 psig (17.2 BAR) | 250 psig (17.2 BAR) |
| Effect of Changes in Flow on Regulated Pressure (100 psig/6.9 BAR Supply) | 4 psig (0.3 BAR) over flow 10 SCFM (283 LPM) (1/4" NPT, 20 psig / 1.4 BAR set point) | 5 psig (0.3 BAR) over flow 10 SCFM (283 LPM) (1/4" NPT, 20 psig / 1.4 BAR set point) |
| Output Pressure Ranges | 0-10 psig (0-0.7 BAR), 0-30 psig (0-2.1 BAR) 0-60 psig (0-4.1 BAR), 0-120 psig (0-8.3 BAR) | 0-30 psig (0-2.1 BAR) 0-60 psig (0-4.1 BAR), 0-120 psig (0-8.3 BAR) |
| Temperature Range | 0 to 160° F (-18 to 71° C) | -20 to 180° F (-29 to 82° C) |
| Total Air Consumption @ Maximum Output | 6 SCFH (2.8 LPM) | 6 SCFH (2.8 LPM) |
| Port Size | 1/4" NPT, BSPT | 1/4" NPT, BSPT |
| Size | 3.19" X 3.19" X 7.25" (81 X 81 X 184 mm) | 3.19" X 3.19" X 7.25" (81 X 81 X 184 mm) |
| Weight | 1.81 lb. (0.8 kg) | 1.81 lb. (0.8 kg) |
| Materials of Construction | Body: Diecast aluminum with vinyl paint Adjusting Screw: Plated steel Trim: Plated steel, brass, acetal resin Diaphragm: Buna-N elastomer with polyester fabric Knob: Phenolic plastic (option) Spring: Music wire | Body: Diecast aluminum with epoxy paint Adjusting Screw: Stainless steel Trim: Stainless steel, Neoprene, EPDM Diaphragm: Neoprene, Polyester Spring: Inconel |
| Tamper Proof Cover | Yes | Yes |
| Mounting | Pipe, Panel, Bracket or Thru Body Holes | Pipe, Panel, Bracket or Thru Body Holes |



PART NUMBERS:

| | Part Number | Port Size (NPT) | Set Point Range | |
|-----------|-------------|-----------------|-----------------|-------|
| | | | BAR | psig |
| T-50 | 960-062-000 | 1/4" | 0-0.7 | 0-10 |
| | 960-067-000 | 1/4" | 0-2.1 | 0-30 |
| | 960-068-000 | 1/4" | 0-4.1 | 0-60 |
| | 960-069-000 | 1/4" | 0-8.3 | 0-120 |
| T-50 NACE | 960-300-000 | 1/4" | 0-2.1 | 0-30 |
| | 960-301-000 | 1/4" | 0-4.1 | 0-60 |
| | 960-302-000 | 1/4" | 0-8.3 | 0-120 |

REGULATOR OPTIONS & ACCESSORIES:

FLUOROCARBON PINTLE

A special elastomeric pintle used where elements in the supply air, such as flame retardant synthetic lubricants, are particularly destructive to ordinary pintle material.

NON RELIEVING

Used in applications where it is desirable to relieve pressure downstream of the regulator, for some constant flow applications, and where the gas flowing through the regulator must not escape at the regulator. Non-relieving regulators should not be used for low or no flow applications.

KNOB

Option to replace the square head pressure adjusting screw.

5 MICRON FILTER

Replaces the 40 micron filter supplied with the standard Type 50 for more complete air filtration.

CORROSIVE RESISTANT EPOXY FINISH

An epoxy paint applied to the body and dripwell of the regulator exterior surfaces to provide increased corrosion resistance. (Standard with Type 50 NACE)

OPTION ORDERING MATRIX:

Replace last three digits of part number with digits from table below.

| OPTION | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 Fluorocarbon Pintle | 001 | 021 | 031 | 041 | 051 | 061 | 071 | 081 | 091 | 101 | 111 |
| 2 Non-Relieving | | 002 | 032 | 042 | 052 | | | 082 | 092 | | 112 |
| 3 Knob | | | 003 | 043 | 053 | 063 | 073 | 083 | | 103 | 113 |
| 4 5 Micron Filter | | | | 004 | 054 | 064 | 074 | 084 | 094 | 104 | 114 |
| 5 Epoxy Coating | | | | | 005 | 065 | 075 | 085 | 095 | 105 | 115 |
| 6 Tapped Vent | | | | | | 006 | 076 | 086 | 096 | 106 | 116 |
| 7 Mounting Bracket | | | | | | | 007 | 087 | 097 | 107 | 117 |
| 8 Pressure Gauge | | | | | | | | 008 | 098 | 108 | 118 |
| 9 Tamper-Proof Cover | | | | | | | | | 009 | 109 | 119 |
| 10 Soft Relief Seat | | | | | | | | | | 010 | 110 |
| 11 Fluorocarbon Diaphragm | | | | | | | | | | | 011 |

TAPPED VENT

Allows installation of plumbing to capture exhaust air. (Standard with Type 50 NACE)

MOUNTING BRACKET

T-50: Steel (dichromate finish) bracket for side mounting.

T-50 NACE: Stainless Steel bracket for side mounting.

PRESSURE GAUGE

T-50: Dual scale 2 in. (50.8 mm) gauges. Ranges include 0-30 psig (0-200 kPa), 0-60 psig (0-400 kPa), 0-100 psig (0-700 kPa) and 0-160 psig (0-1100 kPa).

T-50 NACE: A dual scale, 0-60 psig (0-400 kPa) or 0-200 psig (0-1400 kPa) 2.47" diameter (63mm) stainless steel pressure gauge is available and must be ordered separately, p/n 625-000-016 (0-60 psig) and p/n 625-000-018 (0-200 psig).

NOTE: Although the case is stainless steel, the internal components are not made of NACE qualified materials.

When specified with regulator, the correct range will be supplied.

TAMPER PROOF COVER

An aluminum tubular cover placed over a slotted head adjusting screw and screwed onto the bonnet of the regulator with a wrench. Prevents ordinary hand adjustments. Supplied with an o-ring that is designed to seal the adjusting screw threads in capture bleed applications.

SOFT RELIEF SEAT

Used in applications where it is desirable to reduce the standard bleed rate from 6 SCFH [0.17 m3hr] to less than 0.1 SCFH [0.003 m3hr]. (Not available with Type 50 NACE)

FLUOROCARBON DIAPHRAGM

Diaphragm as well as all seals are made of fluorocarbon elastomer to prevent deterioration from elements in the air supply, such as flame retardant synthetic lubricants normally destructive to standard Buna-N material.

To order BSPT add "BSPT" to end of part number.

IMPORTANT NOTICE: Our recommendations, if any, for the use of this product are based on tests believed to be reliable. The greatest care is exercised in the selection of our raw materials and in our manufacturing, no guarantee or warranty, express or implied, is made as to such use or effects incidental to such use, handling or possession or the results to be obtained, whether in accordance with the directions or claimed so to be. The manufacturing expressly disclaims responsibility therefor. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing laws and/or patents covering any material use.

