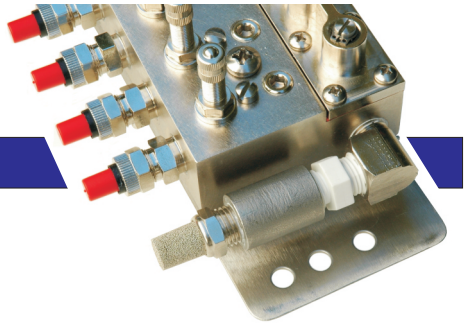
System Studies Incorporated

5-Port Pressure Relief Manifold Assembly

Product Information 9800-3905-BS-0



Providing Monitored Pressure Relief in Positive Air Flow Systems

The Positive Air Flow (PAF) System™ is an engineering design that has proven to be successful in helping telephone companies reduce high resistance cable trouble in underground cables. The high resistance cable trouble is attributed to two primary factors: high ambient temperature and moisture in the underground. These factors can result in the development of high vapor pressure, which penetrates the cable sheath and results in elevated relative humidity readings in the cables. When a cable with high relative humidity (40% to 50%) comes in contact with a cooling force, such as a water main or creek, its temperature drops suddenly and the humidity condenses. This causes a moisture pocket to develop inside the cable which, in turn, causes the high resistance trouble.

The PAF System makes it possible to distribute a constant source of pressurized, monitored air flow through the cables. The increased air flow dries any existing or developing moisture pockets inside the sheath and helps to reduce/prevent high resistance cable trouble.

One of the important components in the system is the Pressure Relief Manifold Assembly. Two versions of the assembly are available—one for five cables (shown here) and one for ten cables (P/N 9800-3915-BS-0). The 5-port manifold assembly consists of a stainless steel bracket containing a 0-30 psi High Resolution Pressure Transducer™, a five-port nickel-plated brass manifold, and a pressure relief valve.

Unlike a standard manifold assembly, the Pressure Relief Manifold Assembly is not connected to an air pipe. Instead, the manifold ports connect directly to individual cables, allowing air to flow from the cables into the manifold and out through the pressure relief valve. The pressure relief valve closes when manifold pressure drops to 4.85 psi, ensuring that adequate cable pressure is maintained.

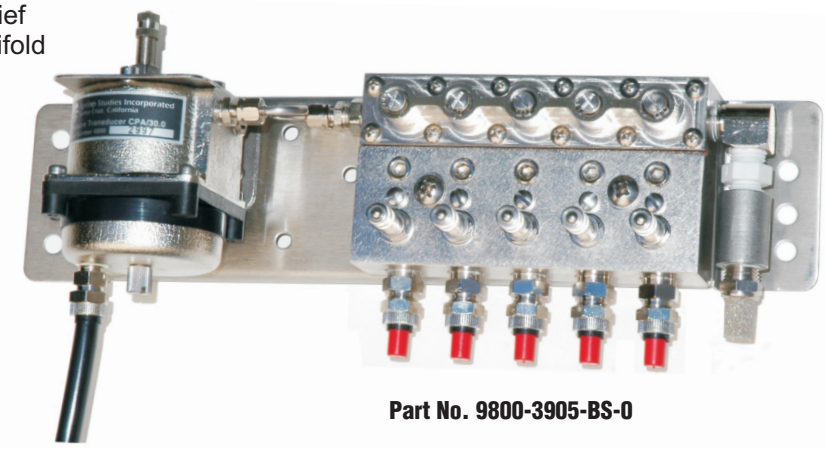
Performance Characteristics:

- Maintains adequate cable protection — relief valve stops air flow when pressure drops to 4.85 psi
- Remotely monitors cable pressure (psi) protection
- Manifold equipped with internal flow limiters to reduce high flowing cables (allows them all to bleed uniformly)
- Pressure relief valve supplied with particulate filter to prevent clogging

Specifications:

- **Mounting Bracket:** stainless steel, 13 in (33.02 cm) long, 3 in (7.62 cm) wide
- **Transducer:** 0-30 psi output, 0.1 psi reading resolution; includes nickel-plated brass conductor tubing connector, 15 feet of plastic tubing, and 18 feet of 2-pair conductor wire
- **Manifold:** 5-port, 3/8 inch nickel plated brass tubing connector fittings, internal flow limiters, individual tank valves, pre-formed stainless steel pneumatic tubing from transducer
- **Pressure relief valve:** combined nickel-plated brass/plastic components; single direction flow, closes at 4.85 psi

Please give us a call if you'd like more information about the Pressure Relief Manifold Assembly's performance capabilities, installation requirements, or ordering procedures.



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