

SPACE MANIFOLD 1xN

Pyroalliance designs and manufactures high reliability manifolds for space applications, distributing a pyrotechnical signal from one end to the others (1xN).

This standard equipment meets the European launcher programs requirements, with associated justification level, and is not restricted by ITAR regulations.

These manifolds, combined with other Pyroalliance's products, are part of Separation, Flight Termination or Ignition pyro-chains.

More generally, Pyroalliance delivers complete pyrotechnic chains adapted to its customers' needs. They are designed and manufactured under Pyroalliance design authority.

MANIFOLD

The function of the manifold is to transmit a detonating signal from generally one or a few inputs to several output transfer lines (demultiplexer).

Our current product line offers up to 9 outputs for 1 input. Other versions are available on request.

Those manifolds are made of aluminium alloy housing. Organized in a pyrotechnic chain, they allow operating multiple terminal functions from one single initial electrical order.

Operating mode

When receiving an input “signal”, the manifold propagates, within a few microseconds, a signal to each output.

This component is interfaced with detonating transfer lines.

Benefits

- Integrated function for cost efficiency
- Light and compact
- Without any external effects
- Reach compliant
- High reliability/safety

Applications

- Pyrotechnic transfer lines interconnection

Typical performances and features

Number of channels (In & Out): 3 to 10

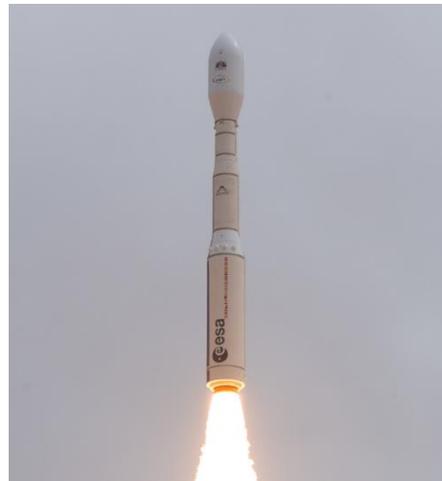
High synchronicity (Typical values): < 20 μ s between input initiation to the output ends

Leak rate: < 10^{-3} atm.cm³ / sec

Operating temperature: Down to -80°C
Up to + 100°C

Storage temperature -10°C to +40°C

Humidity Rate (HR): <60%



Pyroalliance's Manifold flies on Vega C - ESA

Product Classification

- Number UN: UN0432
- Storage class: 1.4S
- Not restricted by ITAR regulations

For more information

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