

Instrument Air Quality Standard



Instrument air quality standard ISA-S7.0.01 establishes four elements of instrument air quality for use in pneumatic instruments

Pressure Dew Point :

ISA-S7.0.01 establishes a maximum pressure dew point to protect the instrument air systems from the presence of moisture.

The pressure dew point as measured at the dew point outlet shall be at least 15-20 deg C below the minimum ambient/ surrounding temperature to which any part of the instrument air system is exposed. & also the pressure dew point shall not exceed +2 deg C line pressure i.e. (-) 23 deg C at atm pressure,

For example - If the min ambient at any Location is +5 deg C then the recommended pressure dew point for instrument air shall be (-) 15 deg C at line pressure i.e. (-) 33 deg C at atm pressure.

Particle Size :

maximum 40 micron particle size in the instrument air system is acceptable for the majority of pneumatic devices. Pneumatic devices that require instrument air with less than 40 micrometer particle size shall have additional filtration to meet the particulate size limit for the device.

Subsequent to any maintenance or modification of the air system , maximum particle size in the instrument air system should be verified to be less than 40 micrometers.

Lubricant Content

As far as possible, the Instrument Air shall be oil Free and under no circumstances shall it exceed 1 ppm w/w or v/v. Any lubricant in the compressed air system shall be evaluated for compatibility with end-use pneumatic devices. & , the use of automatic oilers is strongly discouraged.

Contaminants

Instrument air should be free of corrosive contaminants and hazardous gases , which could be drawn in the instrument air supply .The air supply intake should be monitored for contaminants. If contaminants exists in the compressor intake area , the intake should be moved to a different elevation or location free from contamination. Some sources of contamination are

- Painting
- Chemical Cleaning
- Engine Exhaust

[Contact For Dryers](#)

✉ E-mail: mellcon@mellcon.com

☎ Phone : +91 9313227567