

E12-15 IR High Level NH₃ Gas Transmitter

An ammonia gas transmitter shall be supplied for the purpose of measuring high concentrations of ammonia gas in harsh environments where electrochemical sensor life may be short. The transmitter shall be a microprocessor based intelligent gas sensor that continuously monitors ammonia gas in the % level up to the Lower Explosive Limit (LEL). The ammonia gas transmitter shall be the ATI Model E12-15IR, as described below.

The gas monitor shall operate using infrared absorption technology for detecting ammonia gas using a straight optical path and shall not have reflective surfaces such as mirrors or beam splitters. The concentration of ammonia gas shall be quantified by measuring and comparing the intensity of the absorption band to the intensity of the reference band.

The gas transmitter shall be a stand-alone device that provides a linear, continuous 4-20 mA output that corresponds to the ammonia concentration range from 0 to full scale.

The Infrared gas sensor shall perform reliably in the presence of silicone and other traditional poisoning agents, and shall also operate in oxygen free environments or where high background gas levels are present.

The Infrared gas transmitter shall not require routine calibration to ensure proper operation, and shall continuously self-test and indicate faults, with fail to safe operation.

The Infrared gas transmitter shall be housed in an explosion proof, stainless steel housing that is rated Class I Division I, Groups B, C, and D. The transmitter shall have a multi-layered filtering systems to protect the optics from particulate and water ingress.

The Infrared High Level Ammonia Gas Transmitter shall be Analytical Technology, Inc. model E12-15IR or approved equal.
