

Mid-West Instrument

Model 130

“Diaphragm Type”

Differential Pressure Gauges for
Ammonia Service Application



0-5" thru 0-9.9" H2O
+/-5% Accuracy

or

0-10" thru 0-400" H2O
+/- 2% Accuracy

When it comes to tough application solutions Mid-West Instrument provides the answer!!

Using Differential Pressure gauges for Ammonia service in PowerGen emission control is a critical application!

The use of special materials along with over 10 years of ammonia service experience has enabled our customers to have confidence that we provide a quality gauge that works not only at start up but for years to come in this harsh environment.

Mid-West Instrument has optimized the internal wetted parts as well as the external parts to hold up to the rigors of this environment.

We have optimized the design to improve removal of condensate from the system. Silicone and Ethylene Propylene elastomers are highly recommended in Ammonia service especially at elevated temperatures.

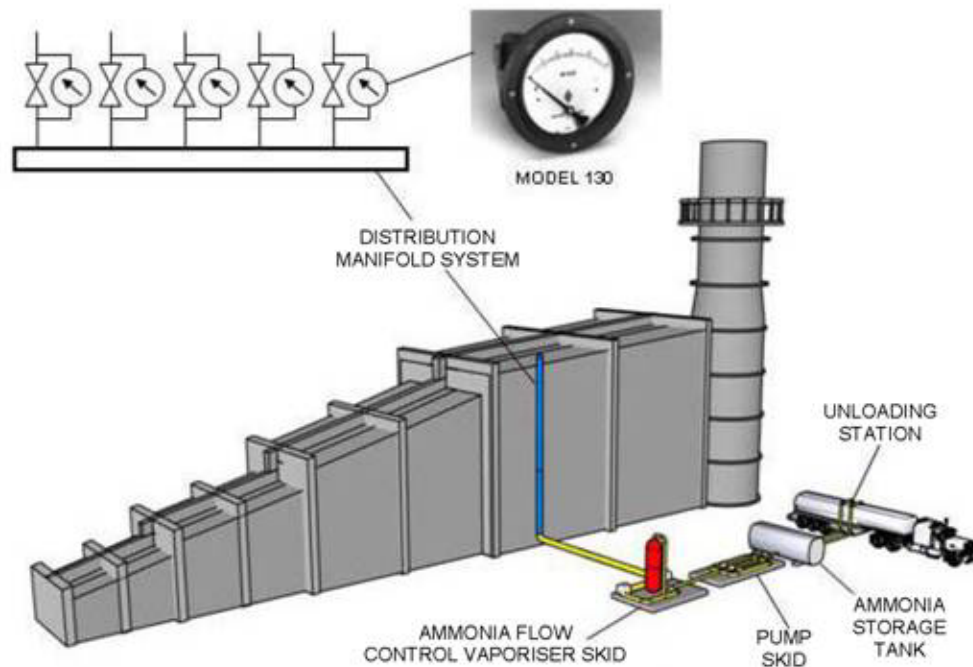
SCR Post-Combustion NO_x Control Model 130-PC or 130-SC

Nitrogen oxides (NO_x) are a combustion by-product of fossil fuels burned to produce energy. NO_x emissions are regulated under the Clean Air Act.

A Selective Catalytic Reduction System (SCR) is a post combustion technology used to reduce NO_x emissions. Ammonia (NH₃) is injected into the flue gas. This mixture flows through a catalyst bed where the NH₃ and the NO_x react to form nitrogen and water vapor.

Aqueous or anhydrous ammonia is pumped from a tank and sprayed into a vaporizer where it is heated and mixed with air. The ammonia-air mixture flows through a distribution manifold system into an injection grid. The injection grid distributes the mixture into the flue gas stream.

The amount of ammonia is adjusted to produce the desired degree of reaction with the NO_x. Mid-West Instrument model 130-PC or 130-SC are used to balance the flow of the ammonia-air mixture throughout distribution manifold system. The model 130-PC or 130-SC are also used to monitor an ammonia filter prior to injection into the vaporizer.



Standard Model Specifications: **Model 130**
0-5" H₂O thru 0-400" H₂O
Polysulfone, Aluminum, Brass and 316L Stainless Steel Body
316 Stainless steel internals.
Buna-N, Viton, Silicone and Ethylene Propylene elastomers available.

All Model 130 have the following features:

- Weather-resistant construction standard.
 - Shatter resistant lens.
- Temperature Limits: -40°F (-40°C) to +200°F (+93°C)
- Available DP Ranges: Inches H₂O, PSID, mbar, Kpa, and Flow Dials

Switches available for Aluminum, Brass and 316SS bodies only with one or two hermetically sealed reed switches for low and/or high limit alarm. These CSA listed switches are Single Pole Double Throw (SPDT) with adjustable set points. Switches can be set to activate/deactivate on rising or falling pressure. Switches are enclosed in a weather resistant housing. Switch setting is readily made with a screw adjustment.

Switches with CSA listed control switching are available in non-corrosive molded plastic enclosures.
These are oil tight, dust tight and watertight per NEMA Type 4X standards.

Switches with CSA listed control switching are available in an explosion-proof enclosure which complies with NEC Class 1, Groups C and D; Class II Groups E, F, and G; NEMA 7 and 9 standards. These are machined cast-aluminum enclosures with 1/2" FNPT conduit connection and 24" wire leads.

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