Instrumentation for
Nitrogen and Syngas
As a provider of engineered instrument solutions, WIKA offers a package of pressure and temperature measurement designed to meet the needs of nitrogen fertilisers and syngas. Whether it be high temperatures, aggressive or corrosive media or vibrating conditions, WIKA has designed its products to meet your needs.

**Temperature measurement**

This high-temperature thermocouple with a gas-tight sapphire protection tube has been specifically developed for use in gas reactors. Through the monocrystalline structure, the sapphire protects the precious metal of the thermocouple from poisonous toxic media in the aggressive atmosphere of the gasification reactor.

- Up to 1,700 °C
- Significant life-time improvement
- No purge gas system required

**Refracto-Pad™**
The purpose of tubeskin temperature measurements is to determine tube life and trending, and to provide safeguards within a system. By relying on accurate tubeskin thermocouples clients can safeguard heater operations at their facilities. This can increase tube life in furnaces and increase production.

**Flex-O™ multipoints for fitting in pipewells**
WIKA offers spring-loaded multipoint thermocouples and multipoint thermocouples with fabricated thermowell for use in catalytic reactors, reformers and heat exchangers.
Pressure measurement

Pressure transmitters with remote seals
By using diaphragm seals, pressure measuring instruments can be adapted to even the harshest of conditions within process industries. A diaphragm made of the appropriate material separates the medium to be measured from the measuring instrument. WIKA offers flange assemblies as well as extended diaphragm versions, specially designed for urea production.

Special materials
- Urea grade stainless steel
- Tantalum
- Duplex
- Zirconium

Diaphragm seal replacement service
With the replacement service, the total costs of the diaphragm seal system can be clearly lowered. In this way, the service life of the process transmitters can be fully utilised and only the diaphragm seal and the assembly parts need replacement, preventatively or after failure.

Your advantages
- New calibration of the complete assembly
- Hydrostatic pressure test for differential pressure
- Current material certificate

Diaphragm pressure gauges
For low pressure ranges, the diaphragm pressure gauge is an ideal solution, particularly with the use of special wetted parts materials such as Hastelloy or tantalum.

Thermowells in ScrutonWell® design
The ScrutonWell® design reduces the amplitude of oscillation by more than 90% and allows an easy and fast installation of the thermowell without support collar, and thus without expensive and time-consuming rework on site. An additional advantage is the optimised response time of the thermometer compared to the conventional thermowell design through an enlarged surface.