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ON LINE HYDROGEN SULPHIDE GAS ANALYSER NOVASULF™ HG400

- **Measurement specific to H₂S**
No interference from other components
- **Wide range capability**
Measures between 0-50ppb to 0-600ppm
- **Low volume humidifier**
Response times as low as 10 seconds
- **Electronics temperature compensated**
Improves stability
- **No instrument air / N₂ required**
Lowers running costs
- **Fibre optic link between housings**
Reduces affects caused by ambient temperature swings
- **Up to 4 detection modules per controller**
Minimises capital investment
- **Multi-streaming capability**
Will control up to 4 streams with one controller



ATEX



APPLICATIONS:

With its wide-ranging ability to measure H₂S from % levels down to ppb levels, the HG400 range of H₂S process analysers can be utilised in many process industries, including:

Natural Gas pipelines	Reformer recycle gas
Offshore gas production	Fuel gas monitoring
Biogas	Sour gas treatment plants



PRINCIPLE OF OPERATION

A reel of paper tape impregnated with lead acetate is exposed to the gaseous process sample in the sample chamber. Hydrogen sulphide (H₂S) in the process sample reacts with the lead acetate, after acidification, to form lead sulphide (PbS), a brown compound that stains the tape. The higher the concentration of H₂S the darker the stain. A focused LED and single photo detector system continuously measures the darkening stain and the analyser reports this as a 4-20mA output of the concentration of H₂S. Incremental measurements are made on the same spot until saturation occurs, when the tape is advanced to a fresh portion of tape. This avoids the need for frequent zero or span calibrations.




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SPECIFICATIONS

ANALYSER:

Measurement principle	Colorimetric (complies with ASTM D4045, D4084, D4323, D4468)
Software	C++ Windows XPe based, SIL 2 certified
Electronics	PC104, Intel Celeron 400MHZ microprocessor, 256Mb SDRAM, 512Mb compact flash for the operating system, application, customised parameters and calibration curves storage
Keypad	Accessible through flameproof box using <i>Touchsense™</i> technology
Measurement range	Between 0-50ppb H ₂ S to 0-600ppm H ₂ S
Repeatability	± 1.5% full scale
Drift	Zero
Multiplexing	Up to 4 detection modules on one controller
Output	1 x 4-20mA per module (Modbus optional)
Alarms	1 x measurement alarm, 1 x instrument failure alarm. Additional optional alarms available
Area classification	ATEX approved,  Ex d [ia] IIC T4
Ambient temperature limits	-20°C to +40°C
Tape life	Up to 60 days depending on application.
Weather protection	IP66
Response time	Depends on application but typically 10secs for 0-10ppm range

UTILITIES

Power	120 / 240 VAC 50 / 60 Hz
Power rating	40 VA
Process sample	Max pressure 1.5 – 4.0 bar, flow rate 0.15 to 0.3 l/min , 40°C max temp

INSTALLATION

Process connections	1/8" OD inlet, 1/4" NPT female vent (to atmospheric vent)
Analyser Vent	To Atmospheric, no back pressure or vacuum allowed
Weight	30 Kg approx
Dimensions	378(w), 975(h), 235(d) mm

ORDERING INFORMATION:

- Application
- Range
- Process conditions
- Wall mounting or free standing frame
- Power supply

REPRESENTED BY: