2000RS Series

Thermal Conductivity Analyzers



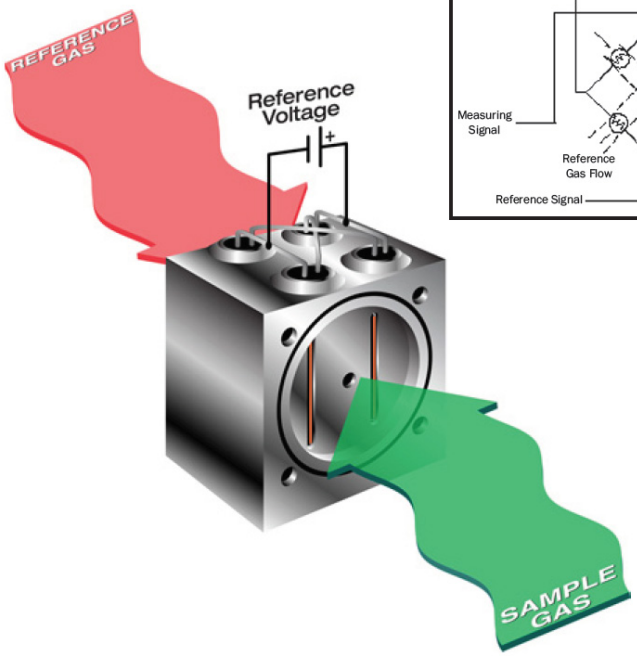
- Versatility: Over 100 gas combinations, up to 11 gases measured
- Flexibility: Auto-linearization either with built-in curve or customer specified values
- Ease of Use: Auto-ranging or fixed range analysis
- Intuitive Interface: Touch screen display and graphic user interface
- Advanced Automation: Profibus & RS-232 Serial communication

The RS Series represents Teledyne's benchmark analyzer platform in its smallest yet most powerful form factor. The 2000RS Thermal Conductivity Analyzer employs a four (4) filament detector for gas analysis in a binary stream including: argon, helium, hydrogen, nitrogen and many others. With a front panel dimension of approximately 4.3"W x 5.1"H (10.9 x 12.9 cm), up to four (4) RS-series analyzers can be mounted in a single 19-inch 3U bezel. Key parameters are displayed on the 3.5" touchscreen color LCD and all gas connections and I/O are accessible from the rear panel.

Thermal Conductivity Detector

A thermal conductivity detector measures levels of gas by its ability to conduct heat. The cell block is heated to a fixed temperature; consisting of four (4) filaments arranged in a Wheatstone Bridge configuration. Two filaments are exposed to a reference gas (sealed or flowing) of a known thermal conductivity, while the other two see the sample gas being measured. A reference voltage is then applied across the bridge.

If the measuring filaments are exposed to a gas of the same thermal conductivity as the reference filaments, the bridge will be balanced (the differential voltage will be zero). However, if the thermal conductivity of the measuring gas changes, the filaments temperature will increase or decrease respectively. This change will affect the electrical resistance across the filaments, which then creates a measurable voltage differential proportional to the volumetric concentration of the gas of interest.



Ranges	Up to 3 ranges (per application)
Approvals	CE Marked
Repeatability	1% F.S. at constant temperature
Linearity	1% F.S. at constant temperature
Response Time	T90 < 15 seconds @ 200 ccm
Temperature	32° to 122°F (0° to 50°C)
Inlet Flow	50 to 200 ccm
Reference Flow	50 to 200 ccm
Display	3.5" touchscreen color LCD
I/O	4-20 mADC (isolated) or 0-1 VDC Analog Outputs 1 x System fault alarm, Form-C relay contact 2 x Concentration alarms, Form-C relay contact 4-20 mADC (isolated) or 0-1 VDC Range ID 4 x Form-A (normally open) Range ID Contacts Profibus-DP and RS-232 Communications
Voltage	24 VDC (optional 100-240 VAC, 50/60 Hz with AC adapter)
Power	40 Watts
Dimensions	4.3"W x 5.1"H x 17.6"D (10.9 x 12.9 x 44.7 cm) 9.2 lbs (4.2 kg)

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ISO 9001:2015 CERTIFICATION
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