

PROTECH903 SPECIFICATIONS

PERFORMANCE

Zero drift	+/- 2% F.S
Span Drift	+/- 2% F.S.
Accuracy	+/- 1% F.S. for ranges 1 to 50 ppm +/- 1.25% F.S. for ranges > 50 ppm +/- 1.5% F.S for ranges 0.5 to 1 ppm +/- 2.5% F.S. for ranges < 0.5 ppm
Repeatability	+/- 1% F.S. for ranges 1 to 50 ppm +/- 1.25% F.S. for ranges > 50 ppm +/- 1.5% F.S for ranges 0.5 to 1 ppm +/- 2.5% F.S. for ranges < 0.5 ppm
Sensitivity	1% F.S.
Linearity	+/- 2% F.S.
Response time:	30 seconds to alarm (excluding sample system)

ENVIRONMENT

Ambient temperature	0°C to 50°C (32°F to 122°F)
Dimensions	H2S: 686 mm W x 838 mm H x 318 mm D (27" W x 33" H x 12.5" D) With TS option: 686 mm W x 1219 mm H x 318 mm D (27" W x 48 " H x 12.5 D)
Weight	H2S Div 1: 27.2 kg (60 lbs) H2S Div 2: 20.4 kg (45 lbs) TS Div 1: 36.3 kg (80 lbs) TS Div 2: 29.4 kg (65 lbs)

UTILITIES

Power & consumption	H2S: 10-32 VDC, 10 watts + 1.5 watts per solenoid H2S: 90-240 VAC, 50/60 Hz, 10 watts + 17 watts per solenoid TS: 90-240 VAC, 50/60 Hz, 250 watts + 17 watts per solenoid
Sample flow	100 cc/min, 1 Barg (0.21 SCFH, 15 psig)
Gas requirements	TS Option: Hydrogen 180 cc/min, 1 Barg (0.38 SCFH, 15 psig)

COMMUNICATIONS

Digital Outputs	Modbus RS232, Modbus RS485, Modbus TCP/IP (optional) RS 485 Ethernet USB
Digital Inputs	4 dry contact, 4 wet
Analog Inputs	2 x 4-20 mA, user scalable, loop or self powered
Analog Outputs	6 x 4-20 mA, user scalable, loop powered
Relays	6 x SPDT relays, 5 amps @ 30 VDC or 8 amps @ 120/240 VAC

APPROVALS & CERTIFICATIONS

CSA (C, CUS) Class 1 Division 1, Groups BCD
CSA (C, CUS) Class 1 Division 2, Groups BCD
ATEX Zone 1
CE

About Galvanic

Galvanic Applied Sciences Inc. solves critical process-analysis and measurement problems for customers world-wide with our full line of rugged, fit-for-purpose gas- and liquid-measurement systems. We engineer all of our systems and components to deliver uncompromising accuracy, reliability, and long-term value to users, even in the most-challenging process environments. That's why multinationals and small companies alike turn to us again and again – they count on our attention to detail, applications know-how, and exacting quality standards. We work with customers to tailor each system to meet their site-specific process requirements and to provide unparalleled support through installation, training, and long-term product maintenance. A private company headquartered in Calgary, AB, Canada, with a facility in Lowell, MA, USA, Galvanic supports a global network of dedicated sales and service engineers, as well as value-added distributors to serve the needs of customers.

GALVANIC
APPLIED SCIENCES



ProTech903™ Family of Tape-Based Analyzers



Ultra-high-sensitivity, lowest total cost of operation – the ProTech903 family of tape-based analyzers can improve both quality – and economics

Galvanic has been a long-time leader in tape-based analyzers, and continues to innovate, designing and building cost-effective systems that optimize performance in the harshest monitoring environments. Galvanic's ProTech903 analyzers deliver fast, extremely sensitive and accurate analysis of H₂S and total sulfur, arsine, phosphine, or phosgene, depending on which analyzer you choose.

Rugged and reliable, ProTech903 analyzers are capable of very low detection limits and outperform all other analytical methods in the critical application range of 0 to 15 ppmv. Whether you're on site or around the globe, you can rest assured. With easy remote-access capability and fast, accurate analyte-specific measurement – you have all you need to monitor critical parameter levels to improve product quality and lower costs, ensure pipeline, equipment, and public safety, or meet regulatory and contractual compliance targets. Galvanic's ProTech903 analyzers are interference free and are not matrix dependent. The low total cost of ownership marks the Pro-Tech series as the highest-value tape-based analyzers on the market today.

Flexible, headache-free installation & operation

Galvanic analyzers custom-configured at the factory to integrate seamlessly into your existing infrastructure. Galvanic's expert support team will calibrate one analyzer or dozens to your exact specifications, mimicking sample conditioning and outputs of your current system, as required.

Retire old analyzers individually as necessary, or start an entire new line in the most cost-effective way possible – Galvanic makes it easy to standardize your training protocols, operating procedures, and service processes at all your facilities worldwide.

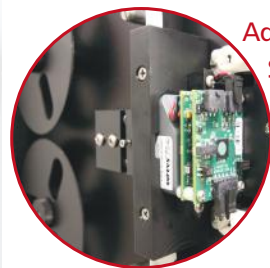
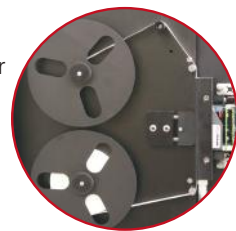


Look Inside ...

Galvanic continues to lead the way in innovative, cost-effective tape-based analyzer systems

Precision Optical Encoder

The ProTech903 system's optical encoder ensures exact spacing between stains and keeps track of tape usage.



Advanced Digital Sensor

An advanced digital sensor puts the AD right at the measurement point, eliminating noise associated with transmitting analog signals.

Proprietary Membrane Humidifier

The ProTech903 system's proprietary membrane humidifier reduces dead volume for faster response times.



External-Keypad-Driven Display

An intrinsically safe external keypad allows the user to configure and monitor the analyzer without declassifying the area – a feature unique to Galvanic systems. It provides full menu access for the high-resolution display, enabling at-a-glance status and results.

Dual Redundant Power Supplies & Optional Ethernet Connection

Unparalleled flexibility enables ProTech903 analyzers to be configured to meet any application need. Dual redundant power supplies (located inside the analyzer) allow the unit to be run on either AC or DC power, or to have back up DC power; optional Ethernet connection allows users to connect the analyzer on a local area network for remote operation and troubleshooting.



Choose the ProTech903 analyzer that's right for your specific application needs

PROTECH903 H ₂ S/TS ANALYZER	W	D1	D2
H ₂ S over-range capability	●	●	●
5 ppb sensitivity level	●	●	●
ASTM D4084-94 & D4323-84	●	●	●
Total Sulfur capability (ASTM D4468-95)		●	●
CSA Class 1, Div 1, Groups B,C & D, T3		●	
CSA Class 1, Div 2, Groups B,C & D, T3	●		●
Multi-stream capability		●	●
Solor power option (not available with Total Sulfur option)	●	●	●

PROTECH903 ARSINE ANALYZER	W	D1	D2
5 ppb sensitivity level	●	●	●
CSA Class 1, Div 1, Groups B,C & D, T3		●	
CSA Class 1, Div 2, Groups B,C & D, T3			●
Multi-stream capability		●	●

PROTECH903 PHOSPHINE ANALYZER	W	D1	D2
5 ppb sensitivity level	●	●	●
CSA Class 1, Div 1, Groups B,C & D, T3		●	
CSA Class 1, Div 2, Groups B,C & D, T3			●
Multi-stream capability		●	●

PROTECH903 PHOSGENE ANALYZER	W	D1	D2
5 ppb sensitivity level	●	●	●
CSA Class 1, Div 1, Groups B,C & D, T3		●	
CSA Class 1, Div 2, Groups B,C & D, T3			●
Multi-stream capability		●	●

Selected Industries & Applications

- Chemical
 - 40 CFR 60 Subpart Ja flare gas emissions monitoring
- Food & Beverage
 - Food-grade CO₂
- Natural Gas Pipeline
 - Custody transfer
 - Odorant monitoring
- Natural Gas Processing
 - 40 CFR 60 Subpart Ja flare gas emissions monitoring
 - NG plant inlet/outlet gas
 - NG sweetening
- Oil & Refining / Petrochemical
 - 40 CFR 60 Subpart Ja flare gas emissions monitoring
 - Catalyst protection
 - Feedstock/fuel gas monitoring
- Pharmaceutical
 - Stack emissions for reporting
 - Industrial hygiene / worker safety
 - Organic synthesis – phosgene