

SPYGLASS

OPEN PATH COMBUSTIBLE GAS DETECTOR



TECHNICAL DATA PACKAGE





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SPYGLASS

OVERVIEW

● LOW COST OF OWNERSHIP

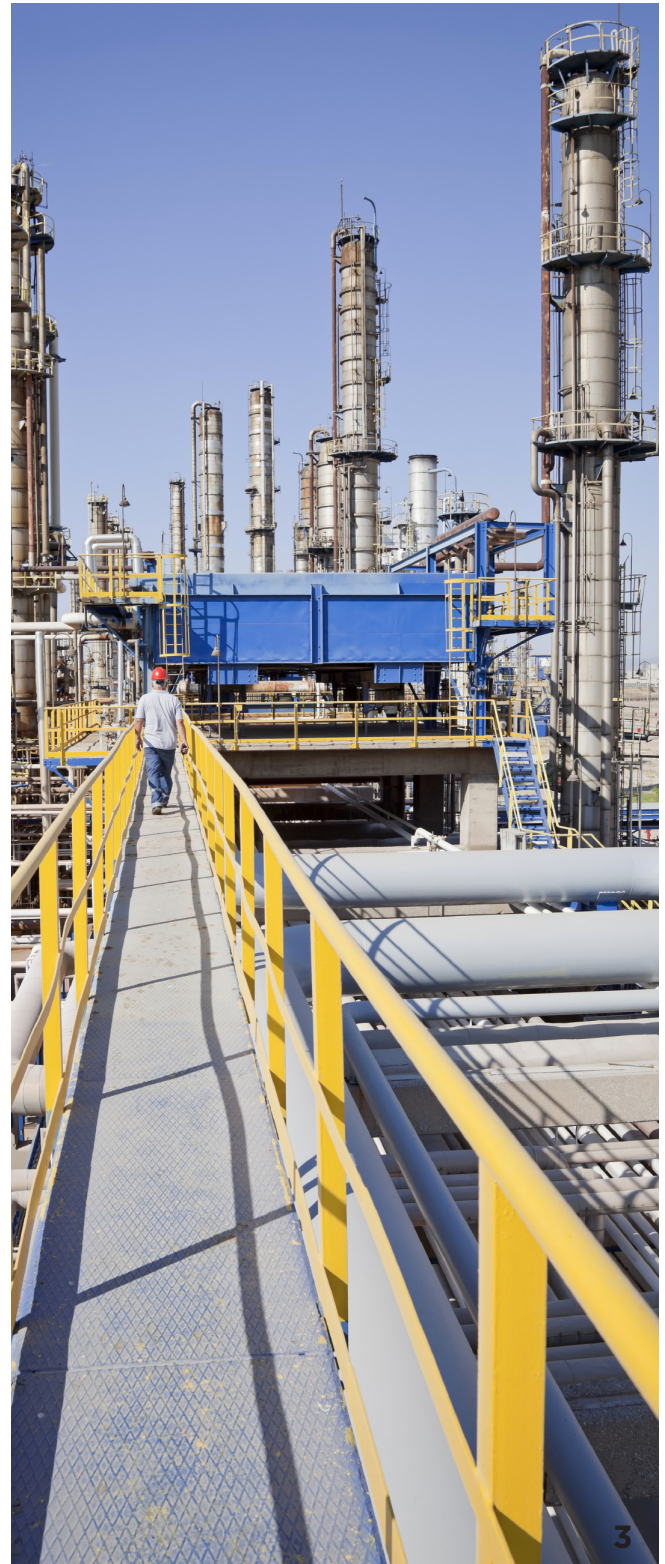
- Can replace 20 line of sight point detectors
- Lower up-front investments
- Source/Detector require minimum maintenance
- Only one consumable sensor to replace periodically; IR flash source has 10-year warranty

● DETECT MULTIPLE COMBUSTIBLE GASES SIMULTANEOUSLY

- Ci-C8 Hydrocarbons:
 - Methane
 - Ethane
 - Ethylene
 - Propane
 - Propylene
 - n-butane
 - Isobutane
 - 1, 3-butadiene
 - Isobutylene
 - Alkanes
 - Alkenes
 - Naphthenes
 - Benzenes
- These are the most common, but all Hydrocarbon Gases are possible to detect

● HANDLE YOUR CHALLENGING ENVIRONMENTS WITH EASE

- Robust design can handle the toughest work environments:
 - 316L stainless steel casings and mounts
 - Circuit boards epoxy-coated for durability
 - Meets MIL-C-810C testing for humidity, salt, fog, vibration, mechanical shock and temperature
 - Meets IP66, IP68 and NEMA 250 6P water and dust egress standards
 - SIL-2 approval per IEC61508



SPYGLASS SPECIFICATIONS

SPYGLASS TECHNICAL DATA PACKAGE

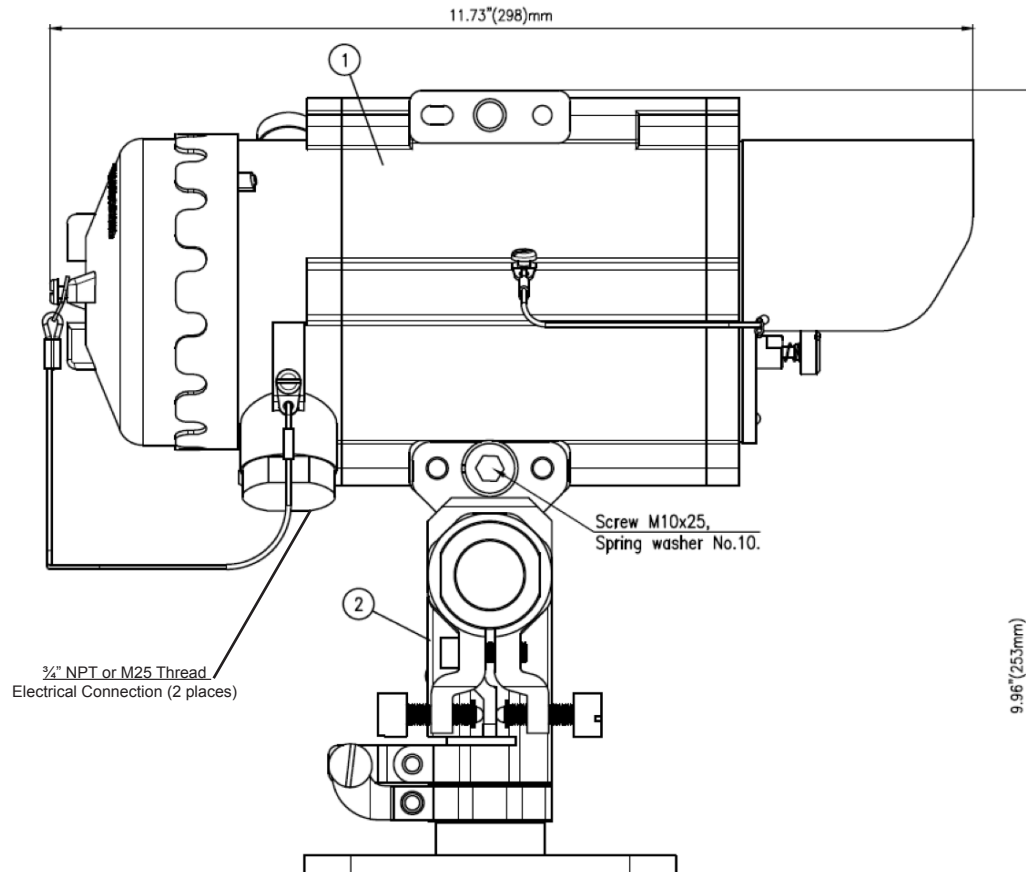
Product Description	
Spyglass is a SIL-2 compliant Open Path gas detector for combustible gas detection. It is available in 3 or 4 wire configuration with a standard 4-20 mA and MODBUS® output. It also supports HART® communication protocols. Spyglass has built in alarm and fault event logging. It also provides a user friendly 3 color status LED and is configurable with a non-intrusive magnetic switch.	
Certifications	
Global Approvals	IECEX, ATEX, FM, FMC, SIL-2 (Third-Party Certification by TUV-Rheinland), DNV
Area Classification	Class I Div 1 Group BCD, Class II Div 1 Group EFG, Class III
Environmental	
Operating Temperature	-55° to 65° Celsius / -67° to 149° Fahrenheit
Humidity	0-95% RH (non condensing)
Transmitter Specification	
Power	3 wire or 4 wire
Operating Voltage 3/4 Wire	10-32 VDC (24 VDC nominal)
Operating Voltage 2 Wire	18-32 VDC (24 VDC nominal)
Power Consumption	12 Watts max. (6.0 Watts each for Source and Detector)
Electrical Input Protection	MIL-STD-1275BxEN50270
Enclosure Material	316L Stainless Steel
Enclosure Ingress Protection	NEMA 250 6P, IP66 and IP68
Conduit Connections	3/4" NPT or M25 thread
Communication Protocols	Standard 4-20 mA, MODBUS®, HART®
Maximum 4-20 loop load Ohms (@24 VDC)	500 Ohms
Alarms	1 alarm 3 fail-safe system fault detection modes
Display	One 3 color status LED: Green - Power Yellow - Fault Red - Alarm
Documentation Languages	English, Portuguese, Spanish
User Configuration Control	Magnetic Mode selector, Winhost Software (PC), HART® hand-held Communicator, MODBUS®

SPYGLASS SPECIFICATIONS

Transmitter Specification Continued	
Access Control	Transmitter provides controlled access to sensor range, alarm settings and other safety functions; password protection for secure configuration control
Memory	Non-volatile memory ensures configuration parameters are retained in the event of power loss
Accessories	Commissioning Kit, Sun shield, 5" Pole Mount, HART® Hand-Held Diagnostic Unit, Winhost Software, RS485 Connector cable, Magnetic Mode Selector
Flexible Design	Allows for ease of calibration without the need to remove instruments.
Weight	11 lbs (5 kg) each Detector/Source 4.2 lbs (1.9 kg) each Tilt mount 30.4 lbs (13.8 kg) Total
Wiring	Transmitter accepts industry-standard 3-wire or 4-wire inputs
Flexible Mounting Option	Source/Detector each provides multiple conduit entry points for sensor, power, signal and relay wiring
Tilt Mounting Flange Surface Area	4.70" x 4.70" / 120mm x 120mm
Tilt Mounting Bolt Holes	4 holes with 0.334" dia. (8.5mm) in square pattern, 3.937" (100 mm) each side of square, hole center to hole center.
Sensor Specification	
Detector Type	Combustible Gas detection of Hydrocarbon Gases
Sensor Types	Detector and Infrared Flash source, source changes depending on required range: Model 20 - Detects between 7 and 20 meters (23 - 66 feet) Model 40 - Detects between 15 and 40 meters (50 - 132 feet) Model 100 - Detects between 35 and 100 meters (115 - 330 feet) Model 200 - Detects between 80 and 200 meters (265 - 660 feet)
Sensitivity Range	0-5 LEL.m
Warranty	
Infrared Flash Bulb	10 Years
Complete Spyglass System	3 Years

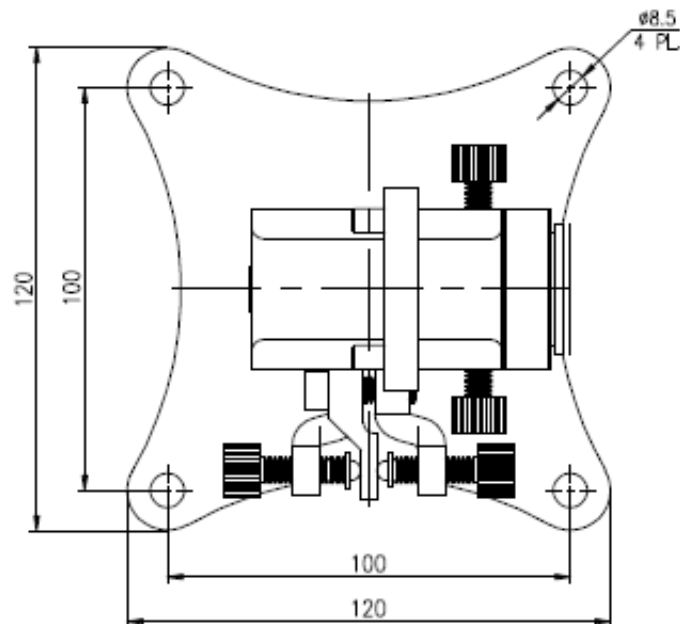
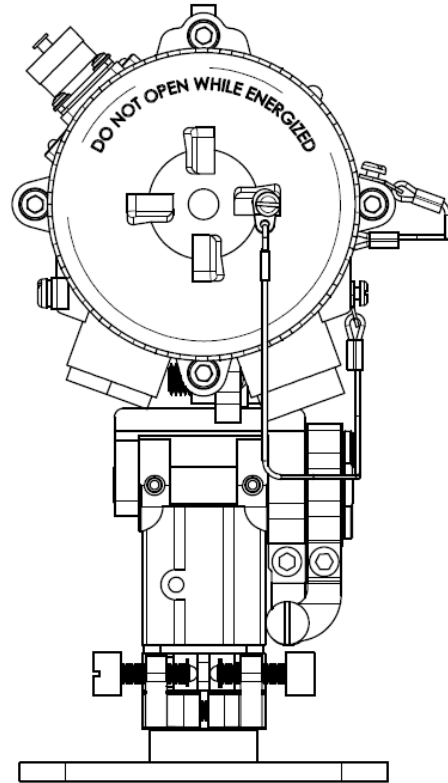
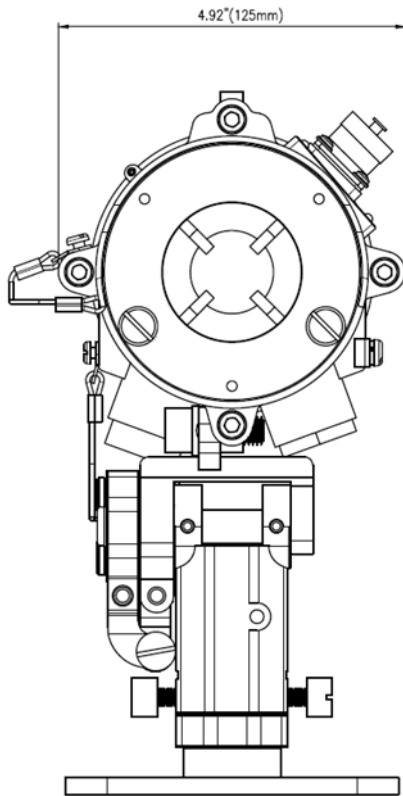
TECHNICAL DRAWINGS

SPYGLASS DETECTOR & SOURCE



TECHNICAL DRAWINGS

SPYGLASS DETECTOR & SOURCE



ACCESSORIES

SPYGLASS DETECTOR & SOURCE



*USB RS485
Communication Kit*
PN 8000453

Allows a PC to be used for configuration and diagnostics of the units. *For Safe Areas Only!*



Tilt Mount
PN 8000447

Comes with the detector and source. For replacement they can be ordered separately.



*HART® Hand-Held
Communicator Kit*
PN 8000451

For configuration and diagnostics of the units. Intrinsically Safe.



Sun Shade
PN 8000455

Protects the units against extreme sun, rain, snow and ice. Stainless Steel.



Commissioning Kit
PN 8000449

For installation and alignment of the source and detector. Contains: alignment scope, function check filters, magnetic mode selector, allen wrenches and rear cover wrench.



Alignment Scope
PN 8000450

Mounts to the source and detector for alignment of the units to one another, for maximum detection capability.



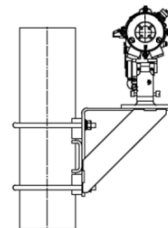
Function Check Filters
Warning Level Methane PN 8000457
Alarm Level Methane PN 8000458

Used to easily confirm detection capability of the system.



Magnetic Mode Selector
PN 8000497

Used to change detector operating mode via magnetic switch.



5" Pole Mount
PN 8000448

Used for convenient mounting of the unit on a purpose installed metal pole.

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ESPECIALISTA EM DETECÇÃO DE GASES