

MultiDetek₃EX



EXPLOSION PROOF GC SOLUTION DESIGNED FOR HAZARDOUS AREAS



An innovative design based on simplicity. The standard industrial compact GC model MultiDetek3 is now integrated inside a Stainless Steel certified (ATEX-IECEx) purged enclosure to be used in Zone 1 and Zone 2 hazardous areas. This “EX” series allows to keep the proven robust industrial platform features of the MultiDetek3 with its LDChroma software interface. It also allows to mount more than one GC or other instruments/accessories in the same MultiDetek3 EX purged enclosure. On top of that, using the standard rackmount platform of the MultiDetek3 mounted on a slide out system makes it easy to swap units inside the enclosure for maintenance or application upgrade. A multi streams/GCs and methods all in one system approaches was the objective with the launch of the MultiDetek3 EX series.

FEATURES

- Explosion proof for use in zone 1 and zone 2
- Capable to integrate multiple instruments and sampling system all in one unit
- Designed to mount up to 2 standard units' model MultiDetek3
- Easy to swap and access units inside the enclosure with its slide out design
- Triclops X purge controller is capable to feed up to 3 enclosures in cascade or parallel for more possibilities.
- Stainless Steel cabinet with secured doors (IP66)
- Wall mount or floor mount available
- Front industrial panel PC
- LAN remote control for GC and stream selector
- LDChroma industrial GC interface with LDReport database software
- Industrial communication protocols (Modbus-Profibus from Ethernet/RS232/RS485)
- Up to 10 analog outputs 4-20mA
- Up to 6 isothermal ovens to fit capillary, micropacked or packed columns with an easy access to replace columns.
- Up to 10 diaphragm/rotary valves to build multiple methods for multiple streams
- Can combine up to 3 detectors in one GC (PED, TCD, FID, Quartz crystal for H₂O, electrochemical sensor or third party sensor)
- Electronic pressure and flow controllers
- Corrosion resistant material available (option)
- Analysis in ppb/ppm/%
- One status alarm contact and two levels alarm contacts are available
- A non-purged version is also available for use in safe zones

INDUSTRIES/APPLICATIONS

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| <ul style="list-style-type: none">• Hydrogen Production• Hy/CO Plants• Hydrocarbons Processing• Petrochemicals (measurement of CO-CO₂)• Chemical Plants• Natural Gas/LNG Processing | <ul style="list-style-type: none">• Electronic Gases• Air Separation Units (ASU)• Refineries (analysis of CO in propylene and ethylene)• Synthesis Gas (measurement of H₂)• Other related industries |
|---|---|



DESIGN

Area for mounting accessories as extra sensors and/or gas purifier (LDP1000) or others.

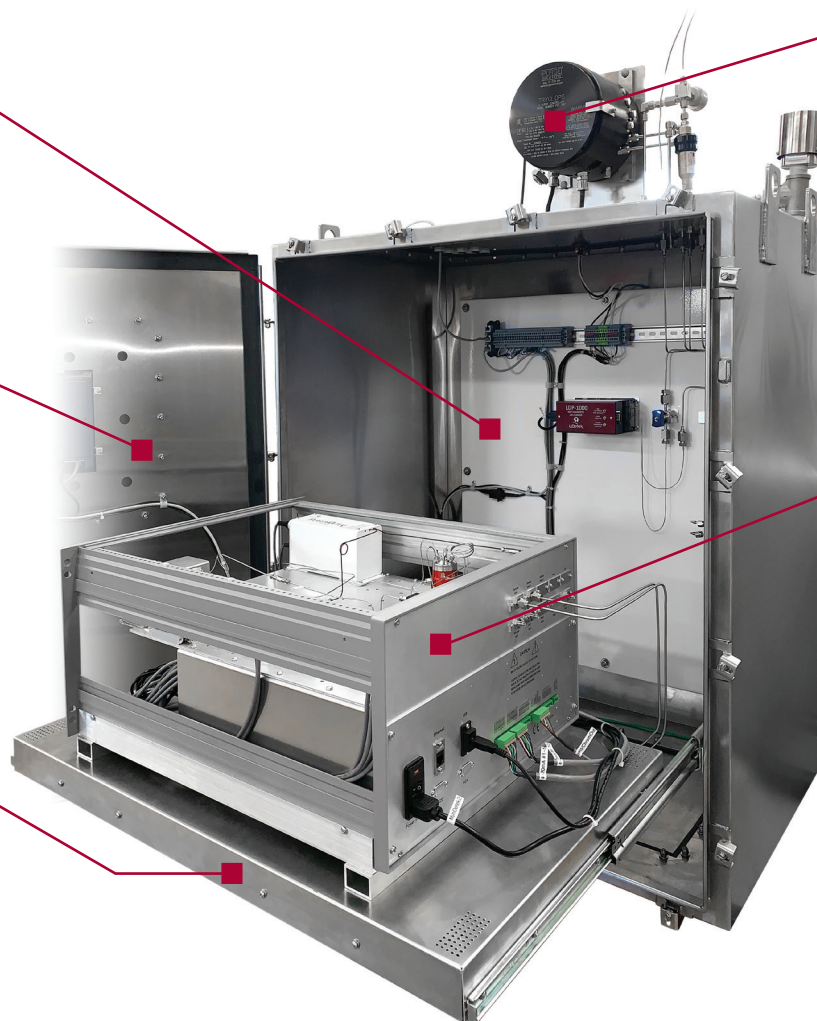
Front Panel PC with 8.4" LCD.

MultiDetek3 slide out design for easy access (enough space available for a second slide out for another MultiDetek3).

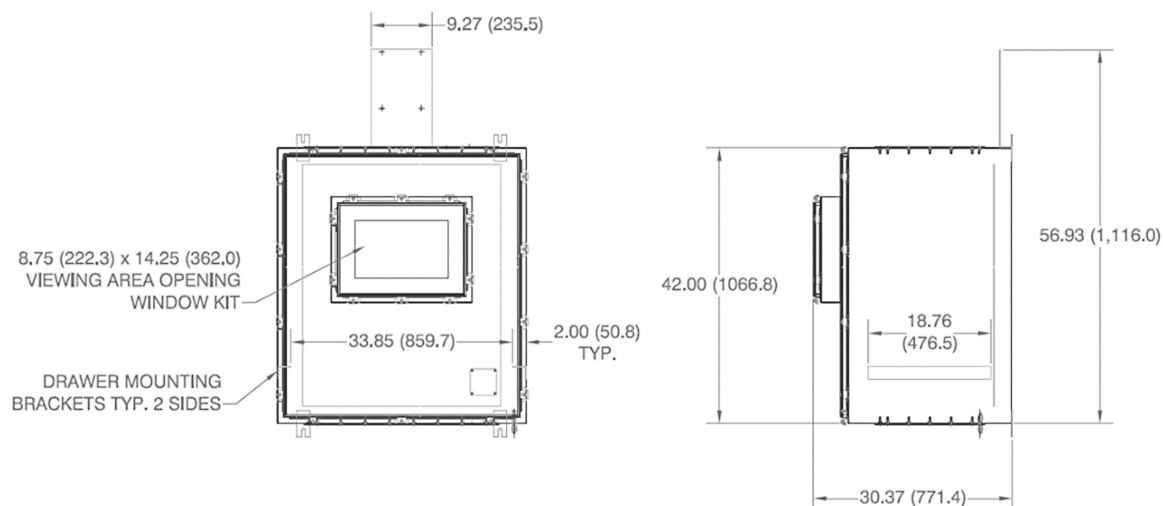
Tryclops-X purge system proved according to EN 60079 (The same device can feed up to 3 different EX cabinets).

MultiDetek3 GC instrument having capacity to mount multiple ovens(6x)/ detectors(3x)/ valves(10x)/electronic flow controllers(5x) for analysis of multiple streams with multiple methods built in.

An ultra high purity 4 channels stream selector can be integrated in the GC.



DIMENSIONS



SPECIFICATIONS

GENERAL DIMENSIONS	38" W (965mm) X 30.37"D (771mm) X 56.93" H (1116mm) (other sizes available on request)
MATERIAL	Stainless Steel
DOOR CLEARANCE	37" (932 mm)
WEIGHT	227 kg
STANDARD FEATURES	• 1 Tryclops X-Purge controller, XP version certified for Zone 1 and Zone 2 hazardous areas • 1 air Exhaust • 1 air purge gas inlet kit • 1 8.4" panel PC per MultiDetek3 GC • 1 Adjustable check valve on sample gas • 1 Flashback arrestor on sample gas • 1 pneumatic shut off valve on sample gas
OPTIONS	• 1 Vortex cabinet cooler with AC muffler • Additional instruments can be added • Up to three purged enclosures can be mounted in cascade using the same Tryclops • Floor mount rack
OPERATING ENVIRONMENT	Indoor and outdoor
CARRIER GAS PRESSURE	100 PSI (6.9 bar)
SAMPLE GAS PRESSURE	5-30 PSI (0.35-2 bar)
GAS CONNECTIONS	1/8" or 1/4" VCR or Compression type (Swagelok)
PURGE PROTECTIVE GAS SUPPLY QUALITY	Dry air grade : Water and oil-free, - 40° F (- 40° C) dew point, particles 5µ, ISA grade hydrocarbon-free
SUPPLY	115 VAC, 50 – 60 Hz or 220 VAC, 50 – 60 Hz
POWER CONSUMPTION	Maximum 660 watts
APPLIED STANDARDS	• EN60079-0 • EN60079-2 • EN60079-7 • EN60079-11 • EN60079-15 • EN60079-18
CERTIFICATIONS	IECEx : Ex pxb IIB+H2 T4 Gb ATEX : II 2 G Ex pxb IIB+H2 T4 Gb CE (MultiDetek3)
OPERATING TEMPERATURE	-20 °C to 47 °C
T CLASSIFICATION	T4
IP	66
ENCLOSURE VOLUME	727.8 liters
MINIMUM PURGE FLOW	120 L/min
MINIMUM PURGE TIME ON START-UP	78 minutes
MAXIMUM OVERPRESSURE	0.1 PSI (6.7 mBar)
MINIMUM OVERPRESSURE	0.02 PSI (1.24 mBar)
MAXIMUM SUPPLY AIR PRESSURE	100 PSI (6.9 bar)
MINIMUM SUPPLY AIR PRESSURE	15 PSI (1.4 bar)