



BOREAL

OPX HEAD (OPEN PATH TRANSCEIVER HEAD)

- Worlds longest line-of-sight measurement available
- Align optical path during operation
- No power at the head required

SET

FORGET

DETECT

BOREAL

OPX HEAD (OPEN PATH HEAD)



WHAT IT DOES

- The OPX Head is a measurement head for our series of **GasFinder3-DC** analyzers that **provides a path integrated (or average) concentration** in the active measurement path (ambient atmosphere)

HOW IT WORKS

- The analyzer can be **mounted locally or remotely**
- Fibre optic cable** carries the laser light from the analyzer to the remotely mounted OPX Transceiver Head
- The **active measurement path** is formed by the laser passing through the ambient atmosphere and being returned by the retroreflector
- The returning laser light is then collected and the signal is carried back to the analyzer via **CAT6 cable**
- The ppm-m concentration is then transferred **from the analyzer to the PLC or DCS**

RESPONSE CELL

- To validate that the GasFinder3-DC is **responding appropriately to the target gas, a response cell** can be inserted into the active measurement path
- While the GasFinder3-DC is designed to report any instrument or measurement errors, **this response test mitigates the small remaining risk** of an instrument in an unreported error condition
- The response cell is **NOT a field calibration**
- Depending on how the response cell is held in the active measurement path **the path length can change and therefore so will the indicated reading and one cannot expect identical readings** from the response cell every time it is put into the path

OPTICAL ALIGNMENT

- Install the OPX Head/X-Y Mount** inside the Rain/Dust Enclosure
- Roughly **align the Rain/Dust Enclosure** to the retro
- Connect and turn-on the **visible laser** from the troubleshooting and diagnostic kit
- Adjust the alignment screws on the X-Y Mount so **the visible laser beam is aimed at the retro** (the retro will glow red)
- Connect and turn-on the **Remote Light Meter (RLM)** from the troubleshooting and diagnostic kit
- Adjust the X-Y mount vertically and horizontally so that the **highest light level is registered** on the RLM (it is assumed that you are in the middle of the retro)
- Tighten the red screws on the X-Y mount and align the scope so that the **crosshairs are in the middle of the retro**
- Remove visible laser and RLM **and connect fibre and coax cables**

SPECIFICATIONS

OPERATIONAL SPECS

- Measurement Principle:** TDLAS
- Open-Path Length:** 3 - 750m (10 - 2460 ft)
- Ambient Temperature:** -45°C - 80°C (-49°F - 176°F)
- Ambient Humidity:** operating; non-condensing 5-95% RH
- Opacity:** can withstand 95% beam block

SIGNAL CONNECTOR SPECS

- Optical Connection:** FC/APC Female (Signal-In)
- CAT6 Connection:** RJ-45 Female (Signal-Out)
- Aiming Laser Connection:** FC/APC Female (Signal-In)
- Maximum Cable Length:** 500m
- Power Supply:** None Needed

PHYSICAL SPECS w/ RAIN/DUST ENCLOSURE

- Dimensions w/ X-Y MOUNT:** 311 x 139 x 203mm (12.3 x 5.4 x 7.9 in)
- Weight:** 4 kg (9 lbs)
- Dimensions w/ Enclosure:** 457 x 138 x 195mm (18.0 x 5.53 x 7.7 in)
- Weight w/ Enclosure:** 5.2 kg (11.5 lbs)
- Alignment Scope:** 3/9 x 40
- Protection:** IP66/NEMA 4x
- Material:** Anodized Aluminium
- Window:** Borosilicate, fused silica, or sapphire
- Hazard Area Classification:** Class 1 Zone 2 A,B,C,D

APPLICABLE ACCESSORIES



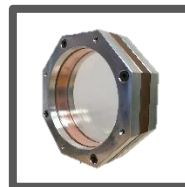
RAIN/DUST ENCLOSURE



X-Y MOUNT



DIAGNOSTIC KIT



RESPONSE CELL



HEATED RETRO



EDC