

# KEMTRAK

## Kemtrak Process Photometer

Kemtrak ATEX

 II 2G Ex d IIB+H2 T5 Gb IP66  
Enclosure



### EX-D3 v4.20

For Kemtrak 007 Range of Instruments

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## Introduction

The Kemtrak EX-D3 Ex certified enclosure allows a Kemtrak 007 series photometer or turbidimeter to be used in an ATEX zone 1 environment. A window on the front of the enclosure is used to view the analyzer display and status lamps while four external pushbuttons provide complete control of the instrument

All Kemtrak products use fiber optics to perform the measurement. Fiber optics are ideally suited for use in explosive environments as they only allow transmission of low power cold light. Since fiber optic cables do not carry electricity, they can be removed and inspected at any time, however NEVER look directly into the fiber optic when powered as invisible radiation may be emitted that could be harmful to the eyes.

The fiber optics are connected to the enclosure with an EExd barrier gland that incorporates a compound filled chamber sealing the individual bare optic fibers to provide an impenetrable barrier. Only use EX type fiber optic assemblies with this enclosure.

The Kemtrak 007 series of instruments use light from low power LED lamps and large diameter optic fibers and fulfill the requirements of 60079-28. The maximum optical energy in the fiber for [op is] signals is <math><15\text{mW}</math> or <math><5\text{mW}/\text{mm}^2</math> (IIC T6).

## Specifications

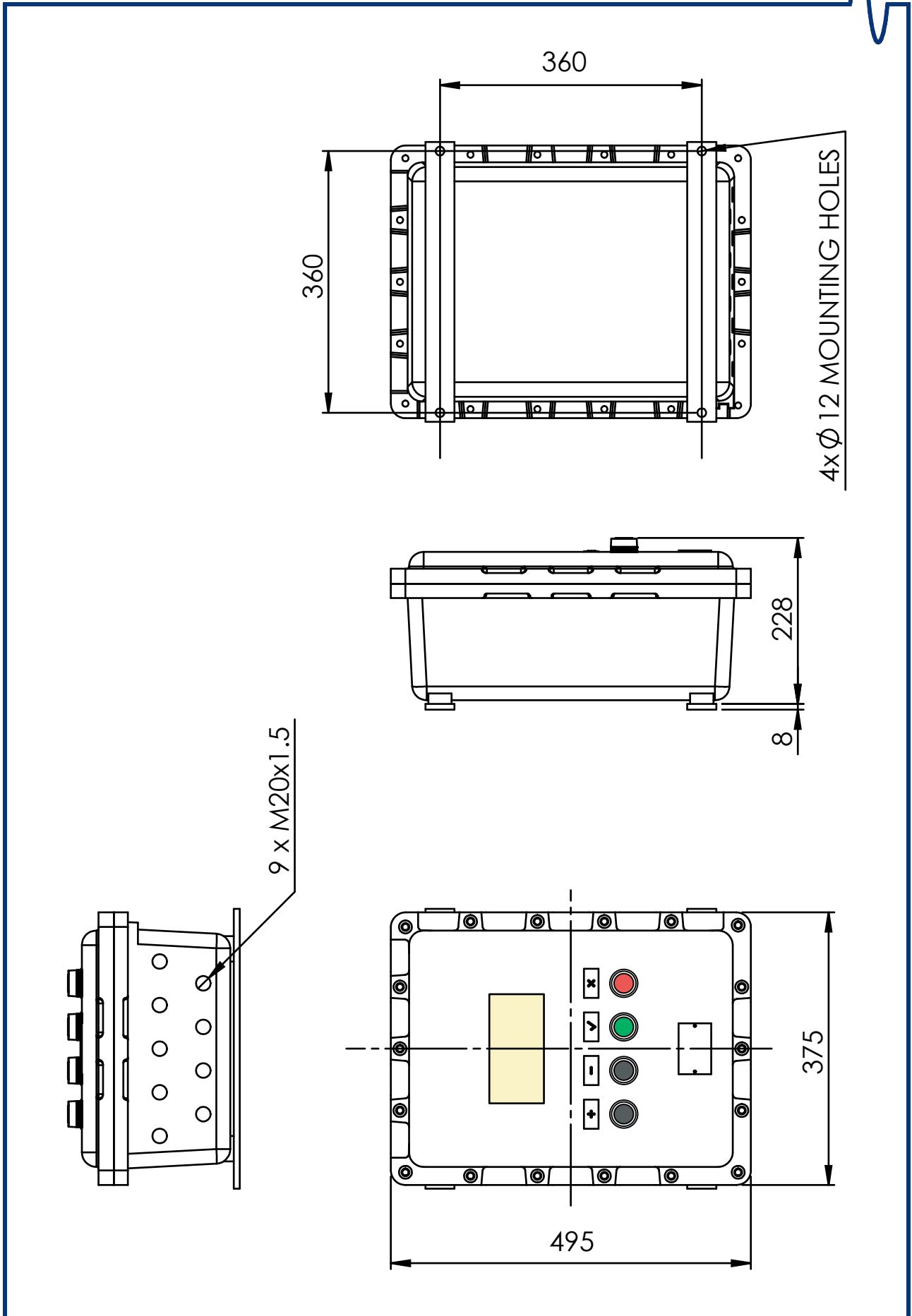
Kemtrak 007 enclosure dimensions (mm):	215(h) x 244 (w) x 105 (d)
EExd Electrical Junction box dimensions (mm):	500 (h) x 375 (w) x 236 (d)
Weight:	39kg
Body & Cover:	Aluminum alloy EN AB 43200 with less than 0.3% copper content. Vertical mounted.
Cover Bolts:	18 ea Stainless steel (A4-70) AISI316
Paint:	External textured grey RAL 7037 Epoxy paint Internal orange anti-condensation RAL 2004
Certified:	$\text{Ex}$ II 2G Ex d IIB+H2 T5 Gb IP66 -20 °C ≤ Ta ≤ +55 °C $\text{Ex}$ II 2D Ex tb IIIC T100°C Db IP66 (Including instrument)

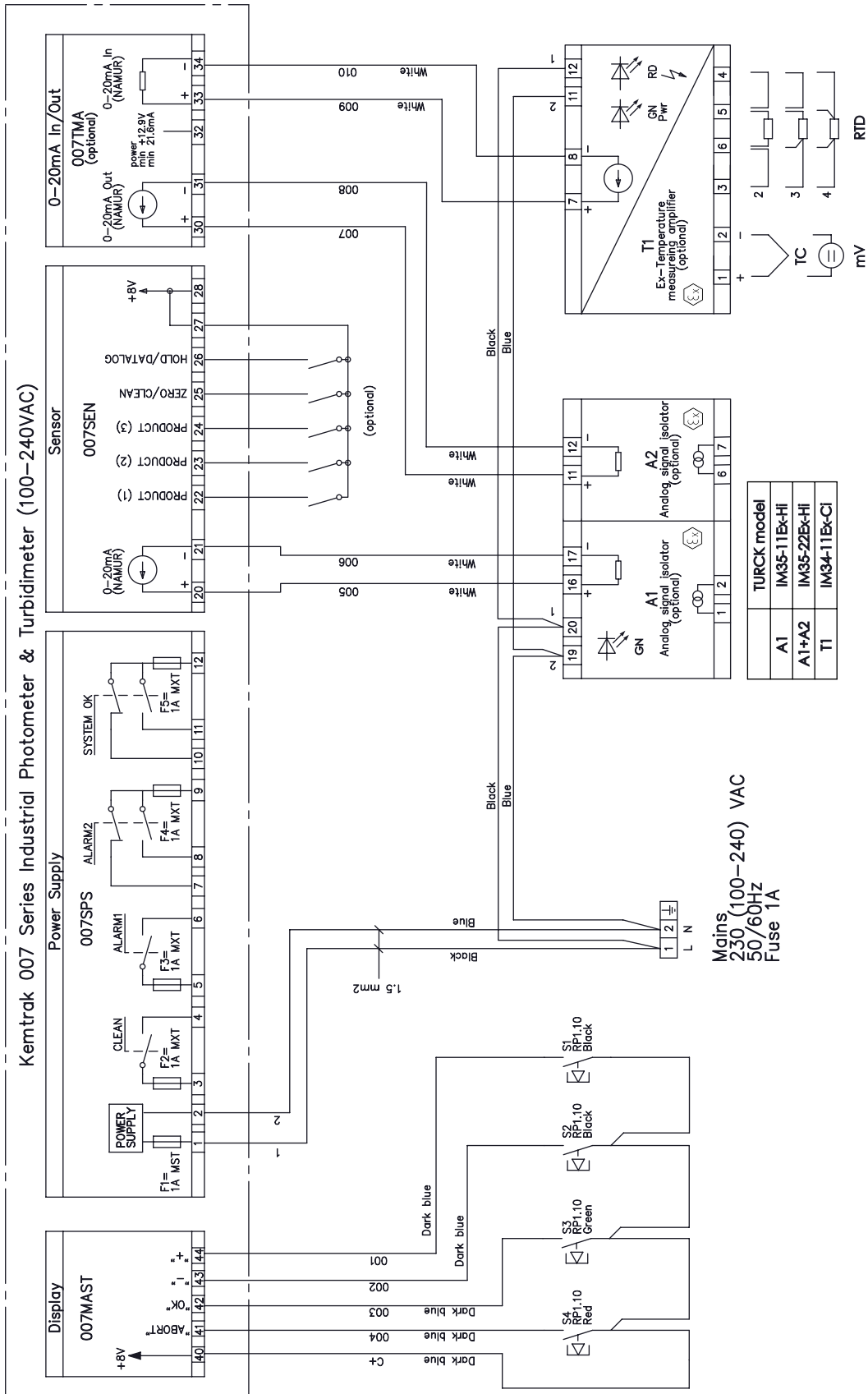
### In bottom side

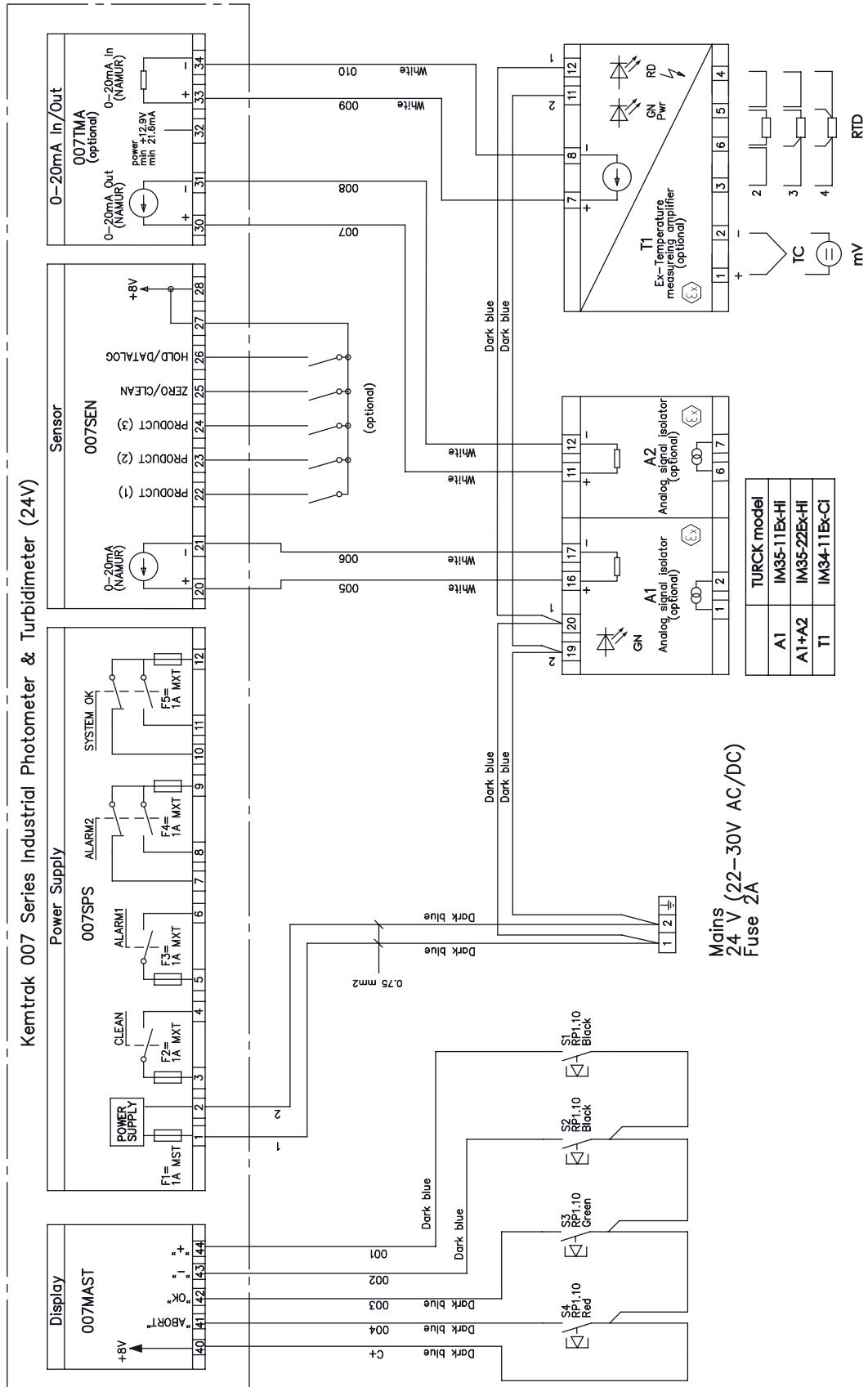
- 9 ea M20 in bottom face
- 8 ea Cable gland blank PAD/1BKM
- 1 ea Breather/Drain to prevent condensation

### In cover

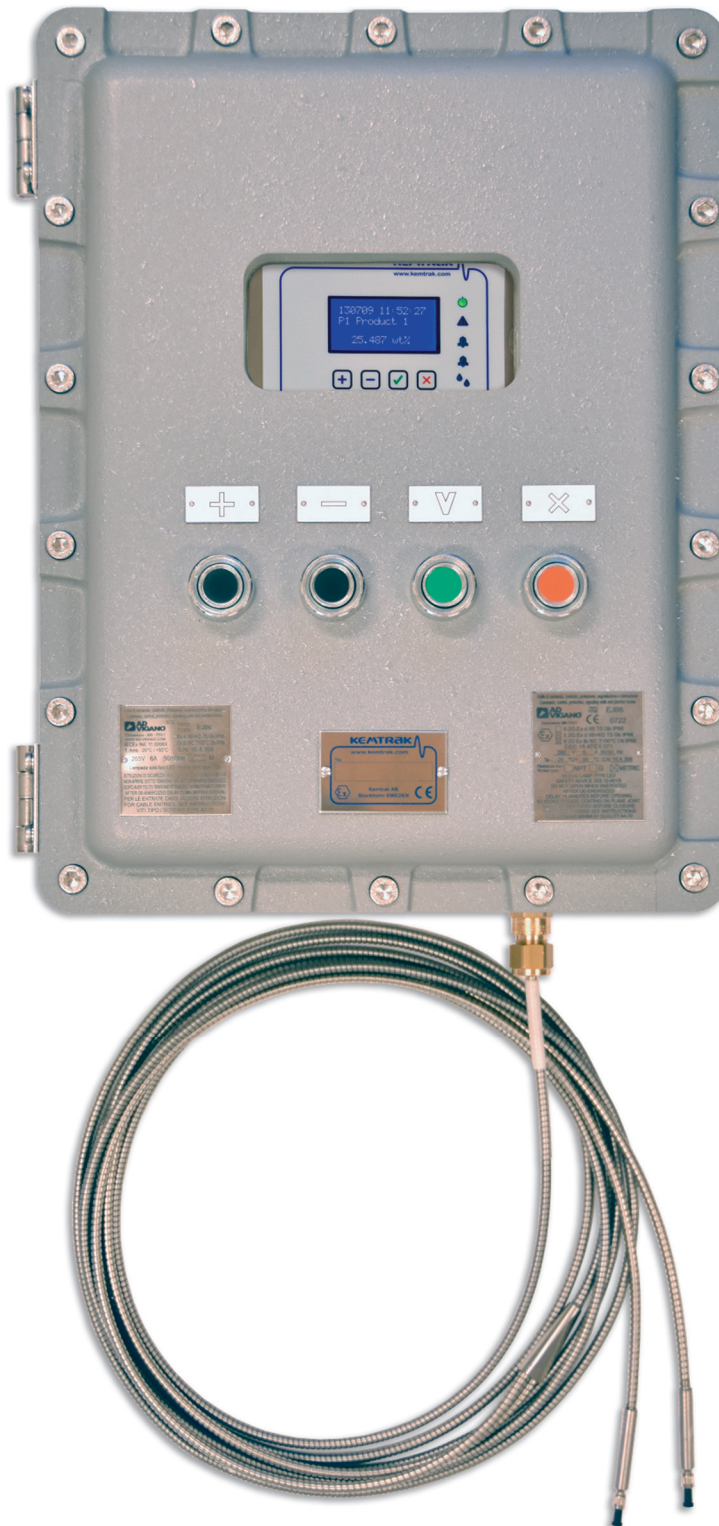
- 1 ea Window, 150 (w) x 75 (h) mm
- 4 ea Pushbuttons including labels
- 2 ea EExd certification plate
- 1 ea Kemtrak tag plate







## Connection of Optic Fibers



- 1. Connect the optic fiber (potted cable gland) to the enclosure**







**2. The fiber optic should be mounted to the analyzer as shown.**

To prevent damage to the aluminium enclosure, ensure all threads (cable glands and lid screws) are clean and greased before assembly.

When handling fiber optic cables, never force the cables to bend too tightly as permanent damage could occur.

Once the fiber optics are connected to the analyzer, please use the provided cable ties to firmly fasten the cables to the enclosure – this will prevent movement and ensure the fiber optic cables are not subject to vibrations. The plastic cable glands on the analyzer enclosure should also be firmly fastened to provide additional mechanical support.

After installation and power is supplied to the unit, the entire system should be allowed at least 2 hours to equilibrate to the surrounding temperature before use. Please refer to the relevant installation & operation manual for additional information.