

# General Specifications

# Refex solid state reference

Refex reference sensors are designed for arduous application particularly where fouling or poisoning conditions exist. The reference uses a highly stable non-porous polymeric interface in place of the traditional porous liquid junction used by all conventional reference electrodes. □□  
The active reference area is the whole of the outside surface of the electrode, this super large contact area means that the electrode is supremely resistant to coatings. □□  
Poisoning effects are eliminated because the polymeric reference material is ionically conductive, but is not porous, consequently electrolyte and process fluids are not exchanged.

□□□

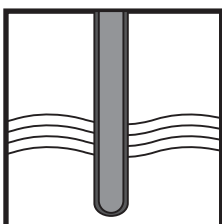
### FEATURES □□

- >Unique non porous polymeric reference □□
- >Super large active reference area □□
- >Highly resistant to coatings □□
- >Highly resistant to poisoning

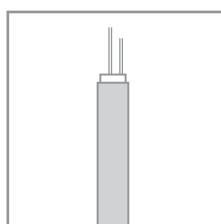


### System Configuration

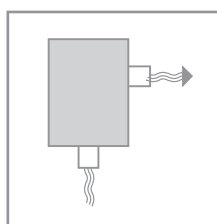
Manufactured by Refex Sensors Ltd



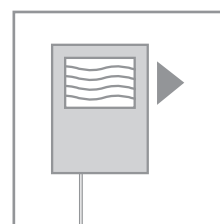
Sensors



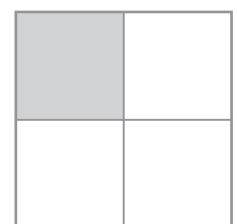
Cables



Fittings



Transmitters



Accessories

## General Specifications

Maximum Temperature	100°C
Maximum Pressure	10 BarG
Sensor Length	120mm
Sensor Diameter	12mm

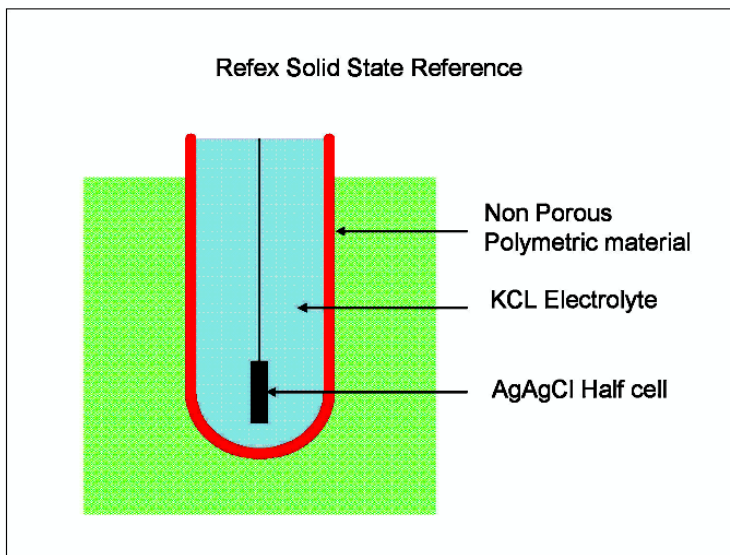
## Part Numbers

For DIN Fittings 10/YG5710

(single reference electrode)

For Compact Fittings 10/YGFT2001

(combination electrode)



## Application Examples

The Reflex electrode is exceptionally resistant to applications containing poisons such as cyanide, ammonia and sulfides. This immunity is achieved because the polymetric reference is ionically conductive but not porous and prevents elements of the process from contaminating the electrode causing drift and inevitable failure.

### Petroleum Refining - Sour Water Stripper

Used to remove ammonia and dissolved hydrogen sulfide from sour water the stripper prevents a challenging pH measurement application. The stripper is operated at around 80°C to facilitate removal of the gases. Hydrogen sulfide can block the reference by precipitating silver whilst ammonia and cyanide poison the reference by forming a complex with the silver ion. These effects can be so severe that traditional references may last only days. The Reflex sensor is not porous so does not suffer these effects because the polymetric reference is a non porous, impermeable barrier to the poisoning process chemicals. Reflex lifetime in this application typically exceeds 12 months.

### Municipal Waste Water Treatment

Sulfides also buildup in waste water systems due to the anaerobic (without oxygen) conditions that commonly occur. As with sour water in the petroleum industry the non porous Reflex reference is a barrier to the dissolved sulfides, it prevents any precipitation of silver and so is not effected by the pronounced drift and failure that will rapidly destroy traditional porous reference systems

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