

Technical Note



FLS-ASD-SOx Air Shield Assembly

Introduction

Optical flame detectors are often used in highly polluted or dirty areas, where maintenance personnel are forced to access the detector frequently to clean its optical window. The FLS-ASD-SOx air shield, has been specifically developed for FlameSpec series of optical flame detectors, allowing the detector to be installed under tough environmental conditions, where they may be exposed to oil vapors, sand, dust, and other particulate matter.

Technical Data

Air pressure source: clean, dry, and oil-free air

Pressure: 2–3bar (30–45psi)

Fitting: 7/16" – 20UNF-2A

Operation temperature: -55°C/85°C / -67°F/185°F

Warning: The temperature of the air supply to the air shield should never exceed 60°C/140°F. Part Numbers

Standard FlameSpec Detector: FLS-ASD-S01

HD FlameSpec Detector: FLS-ASD-S02

TN-FLS-ASD-SOx-02
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ASD Recommendations

Use one pressure regulator near each detector and control the flow through each air shield.

The flow needed will be up to 85 lt per minute, depending on the levels of airborne contamination. Some detectors may need greater air flow than others.

The flow should be constant – blowing an air curtain across the detector face, this means the compressor must be capable of 24/7 operation.

Compressors normally work with a 50% duty meaning it must be off for at least as long as the time it takes to top up the reservoir otherwise it overheats.

Note - as air is compressed water will collect in the reservoir, this needs to be drained periodically as it will displace the volume available for the air. This should be built into a maintenance schedule.