

## DUST LAYER ACCUMULATION (DLA) SENSOR

The DLA is an optional component that can be mounted directly to Fike's ValvEx® or Dual-Flap Isolation (DFI™) valves to satisfy Section 12.2.3.4.5 of NFPA 69. The sensor provides a continuous monitoring signal to indicate dust accumulation in the valve body that may prevent the valve flaps from fully closing should a deflagration occur.

The DLA is a capacitive sensor with field adjustable gain that can be calibrated to trigger at or above 10 mm (0.39 in) dust accumulation based on the bulk properties of a given process media. The DLA sensor connects to the facilities programmable logic controller (PLC) either through an intrinsic safety barrier or through the optional Fike DFI Interface Module (Refer to datasheet X.1.104.01) for monitoring purposes.

Upon activation of the sensor, a signal is sent to the PLC to indicate a dust build-up. The accumulated dust must be cleared to ensure proper operation of the valve. The sensor will reset once the collected dust is removed.



### ORDERING

PART NUMBER	DESCRIPTION
<b>E30-0730</b>	Dust Layer Accumulation Sensor Kit*
<b>02-15293</b>	Dual-channel Intrinsic Safety Barrier

\*Kit includes the 02-15850 DLA sensor and E06-164 installation instructions.

## SPECIFICATIONS

DLA SENSOR	
SWITCHING FUNCTION	Normally open (NO)
OUTPUT TYPE	NAMUR
SENSING RANGE	10mm (0.39 in)
INSTALLATION	Flush
APPROVALS	ATEX – IEC – cETLus
ELECTRICAL DESIGN	Intrinsic safe circuits
NOMINAL VOLTAGE	8.2 Vdc (R <sub>i</sub> approximate 1kΩ)
OPERATING VOLTAGE	5 – 15 V
CURRENT CONSUMPTION	≤ 1.5mA measuring plate not detected
AMBIENT TEMPERATURE:	≥ 2.5 mA measuring plate detected
CONNECTION TYPE:	-20°C to 70°C (-4°F to 158 °F)
CORE CROSS-SECTION:	Cable PUR, 2 m (6.56 ft.)
WIRING:	2 x 0.75 mm <sup>2</sup>
HOUSING MATERIAL:	2-wire (BN – brown, BU – blue)
SENSING FACE:	Stainless steel 1.4305/AISI 303
DEGREE OF PROTECTION:	PTFE
INTRINSIC SAFETY BARRIER	
No. of channels:	2, 1 PDT per channel
Noise immunity:	EN 61000-6-2
Degree of protection:	IP 20
Supply voltage range:	24 to 230 VAC/VDC (-20 to +10%, 50 to 60 Hz)
Max current consumption:	< 80 mA
Connection method:	Screw connection
Stripping length:	0.28 in (7 mm)
Conductor cross section:	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (stranded or solid)
Conductor cross-section AWG:	24 ... 14
Torque:	0.5 Nm ... 0. Nm