Explosion Proof Limit Switches – Type LS-EX

Installation Sheet Explosion Proof Limit Switch

Type: LS-EX
Part No. 920_ _ _

Ex d IIC T6 (-20°C ≤ Ta ≤ +60°C) Gb
Ex tb IIIC T85°C (-20°C ≤ Ta ≤ +60°C) Db IP65



Operation:
All LS-EX Explosion Proof Limit Switches are designed to conform to EN60079-0, IEC60079-1 and EN60079-31. They have a mechanical operating rod, which provides a switching action when depressed. They can be used for position monitoring and provide a positive switching action.

WARNINGS:

THESE SWITCHES ARE SEALED AND NOT USER SERVICEABLE.

THE INTEGRAL CABLE AND OPERATING ROD MUST BE PROTECTED FROM PHYSICAL DAMAGE AND ABRASION.

INTENDED FOR USE ON FIXED INSTALLATIONS. IF NOT MOUNTED DIRECT TO EARTHED METALWORK THEY ARE TO BE PROTECTED FROM ELECTROSTATIC RISKS (RUBBING AND CHARGED AIR FLOWS).

THE MAXIMUM SWITCHING CURRENT SHOULD BE OBSERVED FOR 4 WIRE AND 8 WIRE VERSIONS.

THE MOUNTING HOLES ARE NOT TO BE ENLARGED.

Installation of all IDEM LS-EX Switches must be in accordance with a risk assessment for the individual application.

Tightening torque for the mounting bolts to ensure reliable fixing is 1.0 Nm. The recommended operating depression of the rod is 2mm to ensure positive operation of all closed contacts. The switch rod must not be used as a mechanical stop or be adjusted by striking with a hammer.

Actuator operating chart:

Plunger depression from rest →

2NC 2NO

0 1.0 1.2 2.8 mm

Green / Yellow	Open	Closed
Pink / Brown	Open	Closed
Red / Blue	Closed	Open
White / Grey	Closed	Open

1NC 1NO

0 1.0 1.2 2.8 mm

White / Green	Open	Closed
Red / Black	Closed	Open

2NC

0 1.0 2.8 mm

White / Green	Closed	Open
Red / Black	Closed	Open

Maintenance:

Every 6 months: Check condition of operating rod and check for signs of mechanical damage to the switch casing. **If there is any dust build up around the switch casing this must be removed.** Check cable for signs of damage.

Never repair any switch or integral cables. **Replace any switch displaying signs of mechanical damage to the casing or cables.**

Technical Specifications:

Switching frequency	1.0 Hz maximum
Body Material	Nylon PA66
Temperature Range	–20 to 60C.
Enclosure Protection	IP65 (Encapsulated)
Shock Resistance	IEC 68-2-27 11ms 30g
Vibration Resistance	IEC 68-2-6 10-55 Hz. 1mm
Mechanical Life Expectancy	1,000,000 switchings
Electrical Life Expectancy	Tested to 1,000,000 cycles at 24V. 0.2A
Cable Type	PVC 8 core or 4 core 8mm O.D. Max.
Mounting Bolts	2 x M3 Tightening torque 1.0 Nm

Certification Standards	IEC 60079-0	(EN60079-0)
	IEC 60079-1	(EN60079-1)
	IEC 60079-31	(EN60079-31)
Certificate No's:	EC Type Certificate Number:	Baseefa11ATEX0267X
	IEC Certificate Number:	IECEx BAS11.0133X
Classification	ATEX Zones 1,21,2,22	
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Electrical Rating	4 wire versions	2NC or 1NC 1NO	250V.ac/dc 4A.
	8 wire versions	2NC 2NO	250V.ac/dc 2.5A.

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CE *EC Declaration of Conformity*

Manufacturer: IDEM SAFETY SWITCHES Ltd., WN2 4HR UK email: info@idemsafety.com

The following products conform to the Essential Health and Safety Requirements of the European Machinery Directive (98/37/EC and 2006/42/EC), the requirements of the Low Voltage Directive (2006/95/EC), the requirements of the Directive for Equipment intended for use in potentially explosive atmospheres (94/9/EC) and the relevant requirements of the stated standards:

Devices: Explosion Proof Limit Switches
Types LS-EX

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ATEX Harmonised Standards: EN60079-0 :2011 EN60079-1:2007 EN60079-31:2009

EC Type Certificate Number: Baseefa11ATEX0267X Date: 04/04/2011 Certified Body : Baseefa Ltd, Buxton, Derbyshire, UK SK17 9RZ (Notified Body Number 1180).

Materials used in the manufacture of these products are RoHS compliant in accordance with Directive (02/95/EC).



M.Mohtasham Managing Director 1st June 2012

Manufacturer: IDEM SAFETY SWITCHES Ltd.,
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