SCHISCHEK
A rotork Brand

Differential Pressure Switch

Differential pressure switch with contact output
Binary sensor in hazardous locations zone 1, 2

LGW-2G-…-SIL
ATEX compliant

APPLICATION

The differential pressure switch LGW-2G-…-SIL is suitable for monitoring over-, differential- and underpressure of air, gaseous, non-aggressive media in air ducts, in supply or exhaust air units. In combination with Ex-i switch type EXL-IR-9170 with intrinsically safe circuit, the sensors can be used in hazardous locations in zone 1 and 2. The sensor has a passive, potential-free switch contact.

Type	Range	Switch difference	Item No.
LGW-2G-40-300-SIL	40… 300 Pa	30 Pa +/- 15 %	057.1370
LGW-2G-100-1000-SIL	100… 1.000 Pa	30 Pa +/- 15 %	057.1371
LGW-2G-250-5000-SIL	250… 5.000 Pa	30 Pa +/- 15 %	057.1372
LGW-2G-3000-15000-SIL	3.000…15.000 Pa	30 Pa +/- 15%	057.1373

TECHNICAL DATA

Type	LGW-2G-…-SIL
Contact	single potential free switch
Range	see above
Switch difference	see above
Max. operating pressure	50.000 Pa (500 mbar)
Ambient temperature	-15...+70 °C
Storage temperature	-15...+70 °C
Humidity	0...50 % rH, non condensing
Medium	gaseous, non aggressive
Diaphragm	NBR, silicone free
Pressure connection	Ø 4,6 mm
Enclosure	Plastic, PC
Protection	IP54 (EN60529)
Pressure connection	M20 (cable Ø 7-13 mm)
Dimensions and weight	82 × 82 × 46,5 mm, approx. 200 g
Protection class	simple apparatus acc. to EN 60079-0/ EN 60079-11
CE	2014/34/EU (ATEX)
SIL	Safety requirement level/safety integrity level according to IEC 61508/IEC61511
Scope of delivery	1 differential pressure switch type LGW-2G-…-SIL
Installation area	Zone 1 or 2 when using a Ex-i switch type EXL-IR-9170

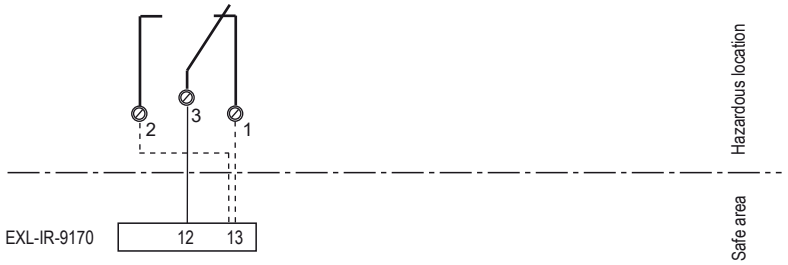
MOUNTING AND INSTALLATION

Connection + for higher pressure or lower negative pressure
Connection - for low pressure or higher negative pressure

1 mbar = 100 Pa
1 Pa = 0,01 mbar

ELECTRICAL CONNECTIONS

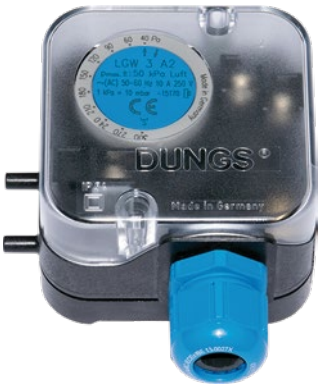
Differential pressure switch
LGW-2G-…-SIL



Ex-i module EXL-IR-9170

Suitable for zone 1, 2 acc. to ATEX

CE Ex SIL



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Ex-i CIRCUIT – TABLE 1

Maximum operating values or connected loads at the terminals

Voltage	Uo	30 VDC
Current	Io	50 mA
Power	Po	100 mW
Capacity	Ci	0 µF
Inductivity	Li	0 mH

The specified values must not be exceeded!
Particular attention must be paid to external capacitances due to cable lengths and inductances due to external interference.

RECOMMENDED SWITCHING MODULE

- Switching module Mfr. Stahl Type EXL-IR-9170
- When using the sensor together with a switching module type EXL-IR-9170, the proof of intrinsic safety for simple circuits is given
- Manufacturer declaration zone 1 and 2

ATTENTION!

- For installation, use and maintenance the official standards and rules must be applied.
- The energy of intrinsically safe circuits are below the level to start an explosion in case of a spark.
- Intrinsic safe circuits must be installed with light blue coloured and separate from non intrinsic safe circuits.
- The sensor is passiv and potential free for use in hazardous locations in zone 1, 2.
- Pay attention to the max values for wiring, listed in table 1.
- Avoid electrostatic discharge.
- Only damp cleaning.

Subject to change
057.13xx | 10.06.2021

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