

**Pressure differential switch with contact output  
binary sensor in hazardous locations zones 1, 2**

**DBK-2G  
ATEX compliant**

### APPLICATION

DBK-2G is suitable for monitoring of over, under and differential pressure in gaseous, non aggressive medias. In combination with Ex-i switch Type EXL-IRU-1 with intrinsic safe circuit the sensors may be used in hazardous areas zones 1 and 2. Application areas are filters, fans, air ducts, air conditioning and ventilation systems and particularly for the monitoring and the security in air conditioning systems for the signaling low pressure on fans and filter obstructions.

DBK-2G-20/300	20...300 Pa	Switch difference 10 Pa +/- 15 %	max. 5000 Pa	057.1300.01
DBK-2G-50/500	50...500 Pa	Switch difference 20 Pa +/- 15 %	max. 5000 Pa	057.1301.01
DBK-2G-100/1000	100...1000 Pa	Switch difference 40 Pa +/- 15 %	max. 5000 Pa	057.1302.01
DBK-2G-500/2000	500...2000 Pa	Switch difference 100 Pa +/- 15 %	max. 5000 Pa	057.1304.01
DBK-2G-1000/5000	1000...5000 Pa	Switch difference 250 Pa +/- 15 %	max. 7500 Pa	057.1303.01

### TECHNICAL DATAS

Type	DBK-2G
Contact	single potential free switch, gold plated
Max pressure	5000 Pa
Ambient temperature	-20...+50 °C
Storage temperature	-40...+80 °C
Humidity	0...50 %r.F., non condensing
Medium	gaseous, non aggressive
Diaphragm	Silicone
Pressure connection	∅ 6 mm for pipe 6 x 1
Connexion P1	higher pressure, lower vacuum
Connexion P2	lower pressure, higher vacuum
Enclosure	Plastic, PVC, Cover ABS
Protection	IP54 (EN60529)
Dimension and weight	103 x 88 x 90 mm, approx. 200 g
Protection class	simple apparatus acc. to EN 60079-11
Temperature Class	T6 (max. 85 °C)
CE	94/9/EC (ATEX)
Included in price	1 pressure differential switch Type DBK-2G-..
Installation area	Zone 1 and 2 with switching module Type EXL-IRU-1

### MOUNTING AND INSTALLATION

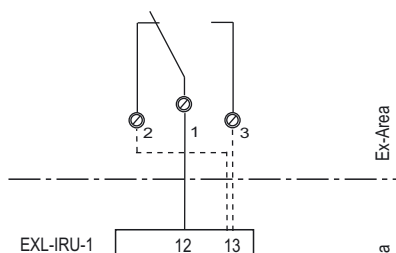
Switching pressure specifications apply to vertical installation which is also the recommended position with pressure pipe connenctions pointing downwards. If the switches are installed horizontally with AMP connexion terminals uppermost, the switching values are 20 Pa higher.

P1 connection of higher pressure or lower vacuum.  
P2 connection of lower pressure or higher vacuum

Use filter for not used pressure nipple.

### ELECTRICAL CONNECTIONS

#### Pressure differential switch DBK-2G



Ex-i Module EXL-IRU-1

Suitable for  
Zone 1, 2  
acc. to ATEX



### Ex-i CIRCUIT - TABLE 1

#### Operation values maximum at terminal

Simple apparatus suitable for Zone 1, 2  
Only for connecting to intrinsically safe circuits with max values

Voltage	Uo	13,5 VDC
Current	Io	23 mA
Power	Po	76 mW
Capacity	Ci	0 µF
Inductivity	Li	0 mH

#### The maximum values must not be exceeded!

Please check your external capacities and inductivities in acc. to the length of the cable and the methode of installation

### RECOMMENDED MODULE

- Switching module Mfr. Schischek Type EXL-IRU-1.
- In combination with switching module EXL-IRU-1 is intrinsic safety proof for simple circuits given.
- Manufacturer declaration zone 1 and 2.

### ACCESSORY

Installationkit 2:

Connexion kit with 2 PVC duct connectors, 2 m flexible PVC tube ∅6 mm and 4 screws

### 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 wet cleaning.

subject to change