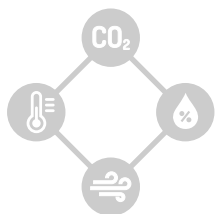


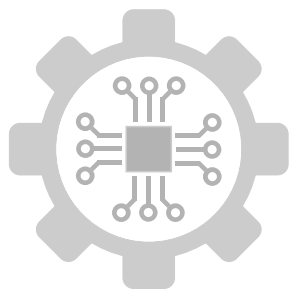


DIFFERENTIAL PRESSURE SWITCH

BD-355 USER MANUAL



www.emskontrol.com



WHAT IS IT?

A differential pressure switch is an electromechanical control element that detects the pressure difference between two points. When this difference exceeds or falls below a set threshold, the device activates or deactivates an electrical contact, triggering or cutting off a system component. It is commonly used in HVAC systems, filter monitoring, cleanroom applications, and fan monitoring systems.

HOW DOES IT WORK?

An internal flexible diaphragm detects the differential pressure between the high and low pressure inputs. When the pressure exceeds the set threshold, the mechanical mechanism connected to the diaphragm actuates the SPDT (Single Pole Double Throw) electrical contact. This allows the switch to trigger an electrical signal or alarm in the connected system. The device is entirely mechanical and does not require any external power supply.

GENERAL FEATURES

High measurement accuracy, Adjustable pressure range, Supplied with hose and probe set, Compact and user-friendly design, Long operating life, Easy installation, IP 54 protection class

AREAS OF USE

HVAC applications, Filter monitoring, Fan control, Poultry house automation and chicken farms, Cold storage rooms, Incubation chambers, Cleanrooms and laboratories

RULES TO BE CONSIDERED FOR SAFETY

- 1- Read this manual carefully before using the device.
- 2 - Disconnect the system power supply before making electrical connections.
- 3- The device must only be used with air or non-combustible, non-aggressive gases.
- 4- Plastic tubes must not be bent, compressed, or knotted.
- 5- Do not overtighten the device during installation to avoid damaging connection points.
- 6- Do not open any part of the device except for the top cover. Opening the bottom cover will disturb calibration and void the warranty.
- 7- Ensure airtight sealing at hose connections and check regularly for leakage.

Technical Data	
Product Name:	Differential Pressure Switch
Pressure Limit:	7500 Pa
Output:	NO / NC - SPDT (Mechanical Contact)
M. Range:	50-500 Pa
M. Type:	Air or non-combustible gases
Wiring:	Screw Terminal
Accuracy:	± 7,5 %
Repeatability:	± 2 %
Op. Temperature:	(-30°C) - (+75°C)
St. Temperature:	(-30°C) - (+75°C)
Protection Class:	IP 54

INSTALLATION AND SETUP

1- Mounting: The device should be mounted vertically on a stable, vibration-free surface, preferably close to the pressure source.

The P1 (high pressure) and – (low pressure) ports should face downward (factory calibration position).

Use the provided "U" mounting bracket for installation. Secure the bracket to the surface using three appropriate screws (maximum Ø 5.4 mm) through the holes in the bracket.

2- Pressure Connection: Connect 6 mm inner diameter plastic tubes to the + (high pressure) port on the bottom of the device and to the – (low pressure) port on the body.

Keep the tube length as short as possible.

After connecting, perform a leak test and ensure airtight sealing.

3- Electrical Connection: The device provides a dry contact (potential-free) SPDT output.

Terminal 1: Common (COM), Terminal 2: Normally Closed (NC), Terminal 3: Normally Open (NO)

Use screw terminals or flag terminals depending on your model.

OTHER FEATURES

Maximum Switching Frequency: 6 operations per minute

Housing Material: PC plastic

Diaphragm Material: Silicone

Mounting Position: Vertical (factory calibrated position)

Service Life: Over 1 million switching cycles

ADJUSTMENT AND TESTING

Carefully open the top cover of the device.

Using a flathead screwdriver, rotate the setpoint dial to the desired pressure value.

Adjustments are only valid in the vertical (factory calibration) position.

When the differential pressure reaches the setpoint, the contact will switch. When the pressure drops below the setpoint, it will return to its original state.

Device hysteresis (dead band): ±20 Pa

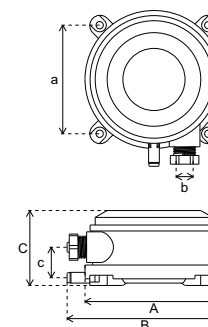
MAINTENANCE AND INSPECTION

Since the device contains moving parts, periodic inspection is required.

Check hose connections, terminals, and sealing integrity regularly.

Dust, dirt, or moisture accumulation may affect operation—clean if necessary.

Avoid sudden pressure spikes in the operating environment.



Sizes	
A	80.8 mm
B	91.4 mm
C	44.5 mm
a	63.5 mm
b	6 mm
c	18.5 mm

USER MANUAL

DECLARATION OF CONFORMITY

Headquarters and place of production, Mersinli Mah. 1201/2 Sk. Temsil Plaza No:2/F Konak / İZMİR - TÜRKİYE, EMS KONTROL ELEKTRONİK VE MAKİNE SAN. TİC. A.Ş. declares that the product marked with CE, whose name and specifications are given below, covers the specified directives and provisions.

Brand: Ems Kontrol
Product Name: BD-355
Product Type: Differential Pressure Switch

Compatible Directives:

Electromagnetic Compatibility Directive
2014/30/EU (EMC EN 61000-6-3: 2007 + A1: 2011, EN 61000-6-1: 2007)

Low Voltage Directive
2014/35/EU (LVD EN 60730-2-9:2010, EN 60730-1:2011)

Additional information: This product can be used in combination with other devices and compliance with the directives covers only the product. Ems Kontrol is not responsible for the compliance of the entire system with these directives.

This declaration is not valid if the product is modified without our approval.



**EMS KONTROL ELEKTRONİK
VE MAKİNE SAN. TİC. A.Ş.**
Mersinli Mahallesi 1201/2 Sk. Temsil Plaza
No:2/F Konak / İZMİR
EGE V.D. 334 704 4628
Mersis No: 0334104462800001

WARRANTY TERMS

1- The warranty period of the device and accessories starts from the invoice date and is guaranteed for 2 years against manufacturing defects.

2- Device and accessories are delivered to the customer in working condition in our company. On-site commissioning is subject to service fee.

3- The repair of the device and accessories under warranty is carried out in our company as a result of sending them with the transportation company contracted by our company. In on-site services, transportation and accommodation expenses of the service personnel shall be borne by the customer. The cost of the working time spent on the road is added to the service fee and the collection is made in advance.

4- Maintenance of device and accessories is done in our company. Shipping and transportation costs of the device and accessories to and from our company for maintenance shall be borne by the customer

5- In case of malfunction of the device and accessories whose warranty period continues, whether the malfunction is caused by the fault of the customer or the manufacturer is tested in our company and reported with the report to be issued by our company.

6- In case of detection of manufacturer-induced faults of the device and accessories whose warranty period continues, the customer may request a replacement or may request that the repair costs of the device and accessories be fully covered by the manufacturer, provided that it does not exceed the product price.

7- In the event that the faults of the device and accessories whose warranty period continues are determined to be caused by the customer, all costs shall be borne by the customer.

8- If the customer does not indicate that he/she is aware of the defects in the device and accessories from the date the warranty period starts or in cases where he/she is expected to be aware, he/she cannot benefit from Article 6.

9- Failures arising from the use of device and accessories contrary to the points in the user manual are not covered by the warranty.

10- Device and accessories are not covered by the warranty if they are dropped, broken or scratched by the customer.

11- Damages caused by the use of device and accessories of other brands and models without the approval of the manufacturer are not covered by the warranty.

12- Errors caused by rusting, oxidation and liquid contact due to working in dusty / acidic / humid environments are not covered by the warranty.

13- Damages that may occur during transportation of device and accessories are not covered by the warranty. If the customer wishes, he/she can have transportation insurance.

14- Damages caused by mains voltage / faulty electrical installation are not covered by the warranty.

15- Device and accessories are not covered by the warranty in case of malfunctions caused by force majeure such as fire, flood, earthquake, etc.

16- All parts of the device and accessories, including all parts, are covered by our company's warranty.

17- If the device and accessories malfunction within the warranty period, the time spent in repair shall be added to the warranty period. The repair period of the goods shall not exceed 20 working days. This period starts from the date of notification of the malfunction of the goods to the service station, in the absence of a service station, to the seller, dealer, agent, representative, importer or manufacturer - manufacturer of the goods. It is possible for the consumer to notify the malfunction by telephone, fax, e-mail, registered letter with return receipt or similar means. However, in case of dispute, the burden of proof belongs to the consumer. If the malfunction of the goods is not resolved within 20 business days, the manufacturer-manufacturer or importer; until the repair of the goods is completed, another product with similar characteristics must be allocated to the use of the consumer.

18- Despite the consumer's right to repair the goods; -Provided that it is within the warranty period from the date of delivery to the consumer, it fails at least four times within a year or six times within the warranty period determined by the manufacturer-manufacturer and / or importer, as well as the fact that these failures make the inability to benefit from the goods continuous, -Exceeding the maximum time required for repair, -If it is determined that it is not possible to repair the malfunction with the report to be issued by the service station of the company's service station, if the service station is not available, respectively by one of its dealer, dealer, agency, representative, importer or manufacturer-manufacturer, it may request a refund or a price reduction at the rate of defect.

19- Customer may file complaints and objections to consumer courts or consumer arbitration committees.

20- The warranty certificate must be kept by the customer during the warranty period. In case of loss of the document, a second document will not be issued. In case of loss, repair and replacement of device and accessories will be made for a fee.



This device is a Waste Electrical and Electronic Device according to the directives applied in Europe 2002/96/EC. (WEEE) Before scrapping or throwing away this device, you must prevent its potential negative consequences for the environment and human health. Otherwise it would be inappropriate waste. This symbol on the product is intended to warn that the product should not be treated as household waste and should be delivered to electrical and electronic waste collection points. Disposal of the product must be done in accordance with local environmental regulations. You can obtain detailed information from authorized units on how to destroy, reuse and recycle the product.

Manufacturer's

Title: EMS KONTROL ELEKTRONİK VE MAKİNE SAN. VE TİC. A.Ş.

Address: Mersinli Mah. 1201/2 Sokak Temsil Plaza No:2/F Konak / İzmir-TÜRKİYE
Telephone: 0 (232) 431 2121
E-Mail: info@emskontrol.com

Company Stamp:

STAMP
**EMS KONTROL ELEKTRONİK
VE MAKİNE SAN. TİC. A.Ş.**
Mersinli Mahallesi 1201/2 Sk. Temsil Plaza
No:2/F Konak / İZMİR
EGE V.D. 334 704 4628
Mersis No: 0334104462800001

Product's

Type: Differential Pressure Switch
Brand: Ems Kontrol
Model: BD-355
Warranty Duration: 2 Years
Maximum Repair Time: 20 Days
Serial Number:



Vendor Company

Title:
Address:
Telephone:..... Fax:.....
E-Mail:.....
Invoice Date and Number:.....
Delivery Date and Place:.....
Signature of Authorised Person:.....
Company Stamp:.....

STAMP

Product's

Type: Differential Pressure Switch
Brand: Ems Kontrol
Model: BD-355

Ems Kontrol reserves the right to make changes and improvements to the product specifications and user manual.

*For all changes, please visit emskontrol.com.