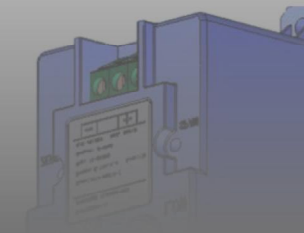
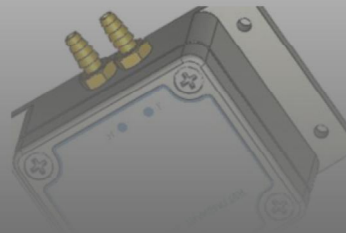
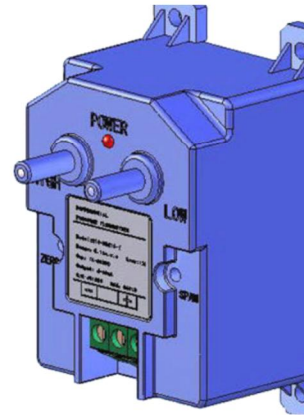


New

# DFT Series-Differential Pressure Transmitter-Fixed Range User Manual

**IP-65  
Model**



**ABUS TECHNOLOGIES INC.**

## WARNING

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- ❖ This manual should be passed on to the end user.
- ❖ The contents of this manual are subject to change without prior notice.
- ❖ All rights reserved.
- ❖ ABUS gives no warranty of any kind with regard to this manual, including, but not limited to, fitness for a particular purpose.
- ❖ If any question arises or errors are found, or if any information is missing from this manual, please inform your supplier or inform at [info@abustek.com](mailto:info@abustek.com).
- ❖ The specifications mentioned in this manual are limited to those for the standard type under the specified model number break-down and do not necessarily apply for customized instruments.
- ❖ Please note that changes in the specifications, construction, or component parts of the instrument may not immediately be reflected in this manual at the time of change.
- ❖ If the customer or any third party is harmed by the use of this product, ABUS assumes no responsibility for any such harm owing to any defects in the product which were not predictable, or for any indirect damages.

Although Warning hazards are related to personal injury, and Caution hazards are associated with equipment or property damage, it must be understood that operation of damaged equipment could, under certain operational conditions, result in degraded process system performance leading to personal injury or death. Therefore, comply fully with all Warning and Caution notices.

Information in this manual is intended only to assist our customers in the efficient operation of our equipment. Use of this manual for any other purpose is specifically prohibited and its contents are not to be reproduced in full or part without prior approval of Technical Communications Department, ABUS Technologies

## HEALTH AND SAFETY

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To ensure that our products are safe and without risk to health, the following points must be noted:

1. The relevant sections of these instructions must be read carefully before proceeding.
2. Warning labels on containers and packages must be observed.
3. Installation, operation, maintenance and servicing must only be carried out by suitably trained personnel and in accordance with the information given. Any deviation from these instructions will transfer the complete liability to the user.
4. Normal safety precautions must be taken to avoid the possibility of an accident occurring when operating in conditions of high pressure and/or temperature.
5. Chemicals must be stored away from heat, protected from temperature extremes and powders kept dry. Normal safe handling procedures must be used.
6. When disposing of chemicals ensure that no two chemicals are mixed.

Safety advice concerning the use of the equipment described in this manual or any relevant hazard data sheets (where applicable) may be obtained from the Company address on the back cover, together with servicing and spares information.

# CATALOGUE

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## 1. INTRODUCTION

The DFT Series, Differential Pressure Transmitter - Fixed Range can accurately measure negative, positive, combination of both (compound), or differential pressure mainly applied to air and neutral gases. The DFT Series is not position sensitive and can be mounted in any orientation without compromising accuracy. The DFT series has a lightweight, compact and simplified design makes it suitable for industrial applications.

### Applications

- Air and Neutral Gases
- HVAC Applications
- Clean Room Applications
- Filter Status
- Duct Static Pressure
- Fan and Blower Pressure
- Paint Shops
- Dust Collectors
- Bubbler Systems
- Cabinet Purging

## 2. PRESENTATION

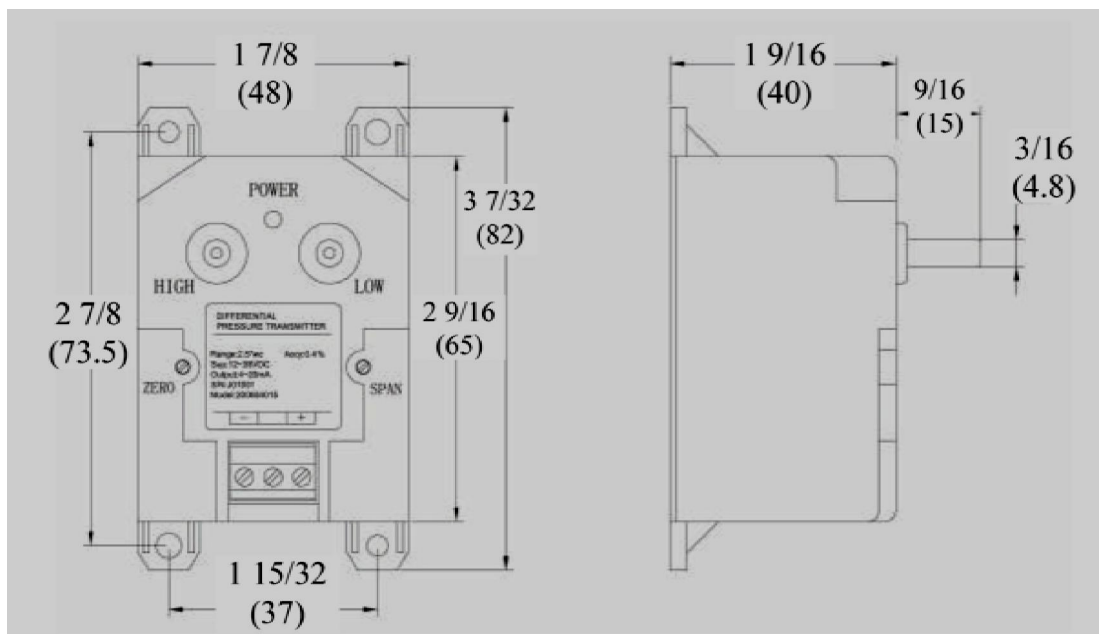
### 2.1 Features

1. Lightweight and Simplified Design
2. Compact Design
3. 0.25 % Accuracy
4. LED Power Indication
5. Easy Installation
6. 2-Wire, 4~20 mA output.

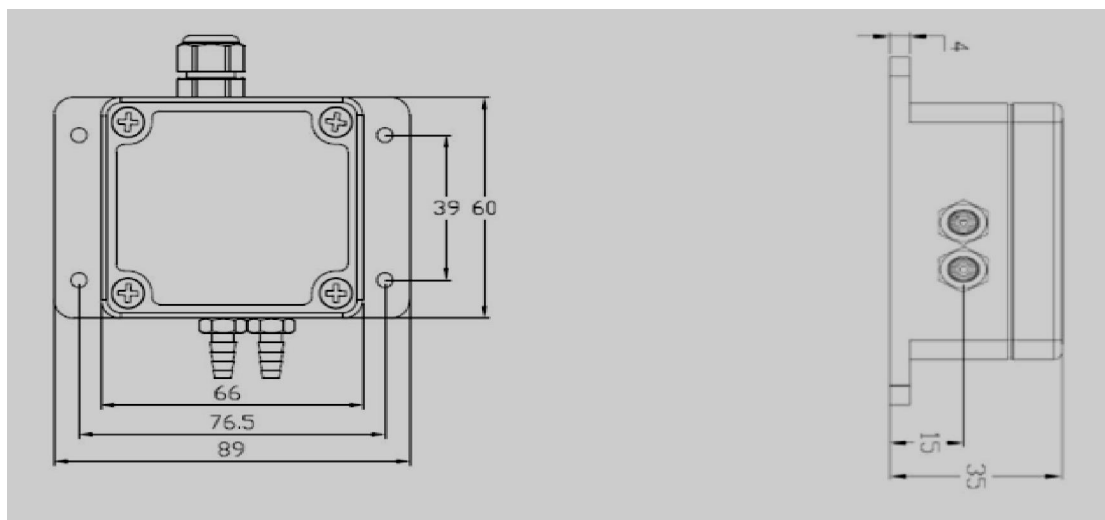
### 2.2 Technical Parameters

<b>Maximum Pressure</b>	:	Ranges $\leq$ 5 PSI – Max 15 PSI Ranges $>$ 5 PSI – Max 30 PSI
<b>Media compatibility</b>	:	Air and compatible non combustible, non corrosive gases.
<b>Accuracy</b>	:	Ranges $\leq$ 4" w.c. 1.0% Ranges $\geq$ 5" w.c. 0.25%
<b>Temperature Ranges</b> : <i>Compensated</i>	:	15°F to 120°F (-10°C to 50°C)
<i>Operating</i>	:	-10°F to 155°F (-25°C to 70°C)
<b>Thermal Effect</b>	:	$\pm$ 0.028% FS/°F
<b>Stability</b>	:	$\pm$ 0.25% FS/year
<b>Output Signal</b>	:	4~20 mA, 2-wire
<b>Loop Resistance</b>	:	250 $\Omega$ @ 24 V dc
<b>Power Supply</b>	:	12~30 V dc
<b>Housing Material</b>	:	ABS Plastic
<b>Electrical Connections</b>	:	Screw Terminals
<b>Process Connection</b>	:	Push on connection for 1/8" I.D. Tubing.

### 3. DIMENSIONS

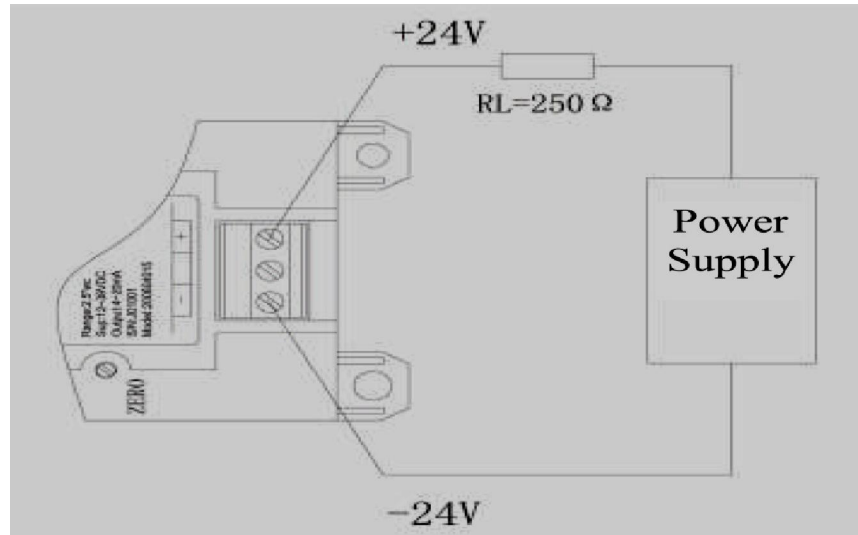


All dimensions in mm



All dimensions in mm

## 4. CONNECTIONS



## 5. ORDERING DETAILS

TYPE					DESCRIPTION	
Product	DFT				Differential Fixed Transmitter	
Size		8				48 (W) x 82 (H) x 40 (D) mm
Power Supply			A	24V DC		
Analogue Output			D	4~20mA DC Output		
			V	0 – 10 V DC		
Connections				2	2-Wire System	
				4	4-Wire System	
Ranges				1G	0-250 Pa	0-1" W.C.
				2G	0-500 Pa	0-2" W.C.
				3G	0-1 KPa	0-4" W.C.
				4G	0-2.5 KPa	0-10" W.C.
				5G	0-7 KPa	0-26.7" W.C.
				6G	0-35 KPa	0-138.4" W.C.
				7G	0-100 KPa	0-415.2" W.C.
				8G	0-200 KPa	0-830.4" W.C.
				1CP	125-0-125 Pa	0.5-0-0.5" W.C.
				2CP	250-0-250 Pa	1-0-1" W.C.
				3CP	500-0-500 Pa	2-0-2" W.C.
				4CP	1.25-0-1.25 KPa	5-0-5" W.C.
				5CP	50-0-50 KPa	200-0-200" W.C.
				6CP	100-0-100 KPa	415.2-0-415.2" W.C.
			NS	Non Standard (as low as 12.5 Pa)		

**Example: DFT > 8 > A > D > 2 > 1CP**

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## 6. INSTALLATION

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### 6.1 Mounting

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The DFT Series should be mounted in a clean, dry location free from excess vibration. The transmitter can be mounted in any orientation and should be attached by using the 4 holes provided on the housing.

### 6.2 Pressure Connections

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Two push on pressure connections are located on the front of the unit, labeled “High” and “Low”. For best results, connect 1/8” I.D. push on tubing to the pressure connections. For differential pressure measurement, the higher pressure should be connected to the “High” pressure port. For positive pressure, the “Low” pressure port should be left vented to atmospheric pressure. For negative pressure measurement, the “High” pressure port should be vented to atmospheric pressure.

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## 7. MAINTENANCE

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### Calibration

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The DFT Series is factory calibrated and should not require calibration out of the box. Periodically, it may be necessary to recalibrate the gauge to maintain the accuracy of the product. To “zero” the gauge, remove the pressure connections from both pressure ports and adjust the zero potentiometer until the output is 4 mA. To “span” the gauge, apply the full scale pressure to the High pressure port and adjust the span potentiometer until the output is 20 mA. To properly calibrate the product, it is necessary to have an accurate pressure standard. If you do not have one available or would like calibration traceable to NIST, please contact ABUS Technologies Inc.

## 8. SAFETY PRECAUTIONS

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1. The unit should be powered for 15 minutes before use.
2. Use in ambient temperature of 0-60°C.
3. Avoid vibrations, shock, excessive dust, corrosive chemical materials or gaseous environment.
4. Input wire should not be too long. If measured signal have to be far away from the unit, please use 2-core shielded cable.
5. Use this instrument in the scope of its specifications, otherwise fire or malfunctions may result.
6. Contact of the instrument, with organic solvents or oils should be avoided.
7. Do not turn on the power supply until all of the wiring is completed. Otherwise electrical shock, fire or malfunction may result.
8. Do not disassemble, repair or modify the instrument.
9. All connections should be tightened properly.
10. Power supply should be constant, should not be fluctuating.

## 9. WARRANTY

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ABUS provides the original purchaser of this instrument a one (1) year warranty against defects in material and workmanship under the following terms:

- The one year warranty begins on the day of shipment as stated on the sales bill.
- During the warranty period all costs of material and labor will be free of charge provided that the instrument does not show any evidence of misuse.
- For maintenance, return the instrument with a copy of the sales bill to our factory.
- All transportation and insurance costs should be covered by the owner of the equipment.
- Should any sign of electrical or mechanical shock, abuse, bad handling or misuse be evident the warranty voids and maintenance costs will be charged.