

Electro Pneumatic Transducer T60

As of 21-11-2013

TetraTec[®]
Instruments



The Electro Pneumatic Transducer T60 transforms an electrical analogue controlling signal directly to a proportional pneumatic pressure.

- Electro Pneumatic Transducer
- Pressure Control with Air and Gases
- Pressure control ranges from 1 to 8 bar
- Stepless sensible analogue controlling
- Open 3/2-way controller with unload

Model Description

In the first level of the device the electrical signal is transformed by an inductor in a magnetic field. The corresponding force of this field adjusts a distance in a nozzle-deflector system which controls the pressure. In the second level an amplifying pneumatic relays increases the air flow rate.

The optionally available extended control range realizes with the help of an internal minus-spring constant that then the pressure output starts at zero. The modular construction allows the mounting as well in pipes as in DIN rails.

Specification

Measure and Control Range (Standard Range)

Output	Supply	Min. Span
0,2 – 1 bar	1,4 – 8,0 bar	0,35 bar
0,2 – 1,8 bar	2,2 – 8,0 bar	0,7 bar
0,4 – 2,0 bar	2,4 – 8,0 bar	0,7 bar

Measure and Control Range (Extended Range)

Output	Supply	Min. Span
0 – 2 bar	2,4 – 10 bar	0,8 bar
0 – 4 bar	4,4 – 10 bar	1,5 bar
0 – 8 bar	8,4 – 10 bar	3,5 bar

Accuracy

	Standard	Extended
Linearity:	±0,5 % F.S.	±1 % F.S.
Hysteresis & Repeatability:	±0,25 % F.S.	±1 % F.S.
RFI/ EMI Effect:	< ± 0,5 % F.S.	
Pressure dependency:	2 % per bar inlet pressure change	

Flow Behaviour (Air)

In-/Outlet pressure	Standard	Extended
1,7 / 0,6 bar	70 NI/min	70 NI/min
8 / 0,6 bar	250 NI/min	250 NI/min
Air Consumption	< 3 NI/min	< 8 NI/min
Standard conditions (1013 mbar abs., 0 °C, 0 % r.F.)		

Temperature

Storage and operation: -20 to 60 °C

Media Compatibility

Air and inert gases

Pressure Limits

Max. 8 bar standard and 10 bar extended range

Enclosure

Housing: Aluminium
Nozzle: Stainless steel
Control unit: Stainless steel, brass, plated steel
Explosion-Proof NEMA 4X, IP65, Type 4 Enclosure available for outdoor and indoor installations

Mounting Options

Pipe mount, DIN top-hat rail DIN EN 50022, 50035, 50045

Connections Pneumatical

1/4" NPT-F

Connections Electrical

Hirschmann (DIN 43650), clamping block or specific.

Supply

Umax: 28 VDC / Imax: 93 mA

Special Features

- Reverse function provides an output which is directly or inversely proportional to the input signal
- RFI/EMI protection eliminates susceptibility to electro-magnetic and radio interference.
- Input and output ports on both front and rear side.
- External zero and span adjustments

Ordering Information

Part-No.-Structure: T60-abc6000deef

aaaaa Electrical Connection

A	With open wire-ends	
D	With DIN 43560 plug	(standard)
T	With clamping block	
-	Empty if ATEX	

b Certification

-	Without	
C	Canadian Standards	
E	ATEX II 1G EEx ia II C T4 (-20 ... +65 °C) *	
F	Factory mutual	

c Protection class

-	Without	
I	Intrinsic safety (only with current signal)	

d Input Signal

4	4 – 20 mA	(standard)
0	0 – 10 VDC**	
3	10 – 50 mA	
5	1 – 5 VDC**	
7	0 – 5 VDC**	
9	1 – 9 VDC**	

ee Measuring and controlling range

11	0,2 – 1 bar	
12	0,2 – 1,8 bar*	Standard Ranges
13	0,4 – 2 bar	
14	0 – 2 bar	
15	0 – 4 bar*	Extended Ranges
16	0 – 8 bar*	

f Option general

-	NPT-thread (standard)	
U	BSPT (conical) instead of NPT-thread	

* Only possible with current signal and intrinsic safety