

Principle of operation (Figs. 2 and 3)

A capacitive pressure transducer (1) is used to convert the pressure p of the pneumatic input signal into an electric DC voltage signal.

The DC voltage signal which is proportional to the pressure is amplified to a defined level in the measuring amplifier (3). Lower range value and span can be adjusted at the potentiometers located on the front panel (approx. $\pm 10\%$).

The output stage (4) issues a load-independent DC current signal or a DC voltage signal. The type of output signal (mA or V) and the range can be set at the switches.

The power transformer (5) and rectifier (6) provide the converter with energy and isolate it from the power supply network. Converters with 24-V supply are isolated by means of a DC transducer. It is used instead of the rectifier (6) and the power transformer (5).

Installation

The p/i converter can be mounted in any position.

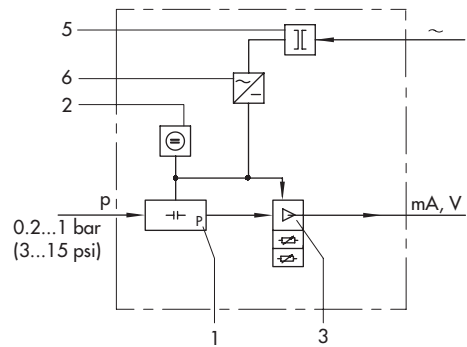


Fig. 2 · Schematic diagram

- p Pneumatic input signal
- 1 Capacitive pressure transducer
- 2 Constant voltage source
- 3 Measuring amplifier and potentiometer for adjusting the measuring span (SPAN) and ZERO
- 5 Power transformer
- 6 Rectifier

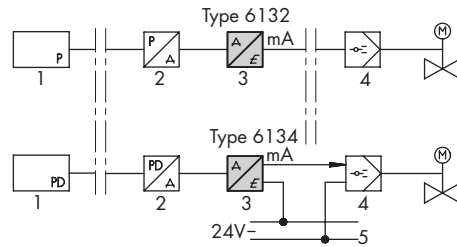


Fig. 3 · Typical application

- 1 Transducer
- 2 Pneumatic transmitter
- 3 p/i converter
- 4 Controller
- 5 Two-wire network

Table 1 · Technical data

Type		6132-04
		Rail-mounting unit
Input	0.2 to 1 bar (3 to 15 psi), overloadable up to 5 bar, other specifications on request	
Output	Selected using switches inside the device: 0 to 20 mA · 4 to 20 mA 0 to 10 V · 2 to 10 V · 0 to 5 V · 1 to 5 V	
Permissible load	0(4) to 20 mA	≤ 750 Ω at 20 mA
	0(2) to 10 V	≥ 2 kΩ
Power supply	24 V DC (18 to 36 V) 1.5 W 230 V AC, 115 V AC 24 V AC (+10/-15 %), 50/60 Hz, 3 VA	
Performance ¹⁾		
Characteristic	Output linear to input	
Deviation f. terminal-based linearity	≤ 0.2 %	
Hysteresis	≤ 0.05 %	
Range of inversion	≤ 0.03 %	
Ripple of the output signal	≤ 0.05 %	
Temperature influence	≤ 0.15 %/10 K for zero and span	
EMC noise emission	EN 61000-6-2, EN 61326	
EMC noise immunity	EN 61000-6-3, EN 61326	
Device safety	EN 61010	
Class of protection	I	
Overvoltage category	II	
Degree of contamination	2	
Ambient conditions		
Degree of protection EN 60529	IP 20	
Ambient temperature	-20 to 70 °C	
Storage temperature	-40 to 85 °C	
Connections and installation		
Pneumatic connection	Hose connection for 4 x 1 (outside Ø: 6 mm)	
Electrical connection	Terminals for wires 0.5 to 2.5 mm ² Fixed wires 0.2 to 4 mm ² Flexible wires 0.2 to 2.5 mm ²	
Mounting	Top hat rail 35 mm wide, DIN EN 60715	
Weight	Approx. kg	AC power version: 0.32 kg · DC power version: 0.25 kg

¹⁾ All errors specified related to output span

Electrical connection

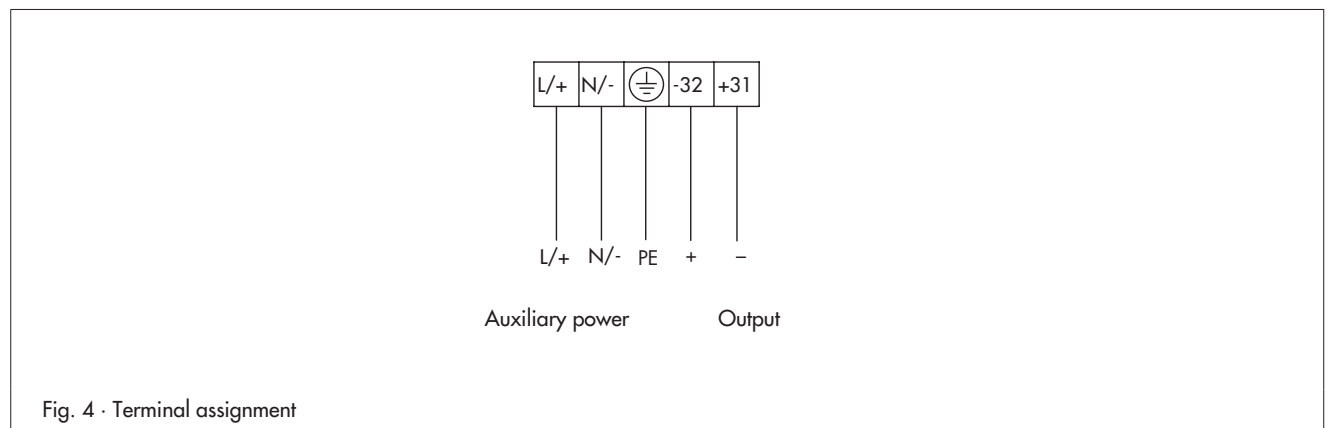


Fig. 4 · Terminal assignment

Dimensions in mm

Type 6132-04

- 1 Top-hat rail
- 2 Pneumatic connection
- 3 Electrical connection

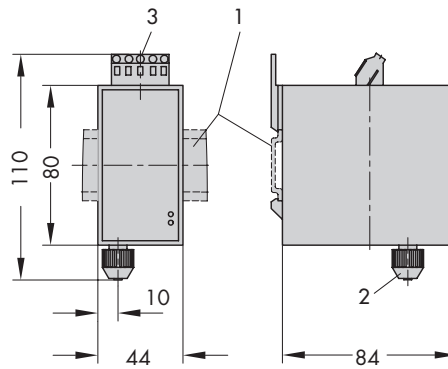


Fig. 5 · Dimensions

Article code

p/i converter	6132-	x	x	x	x	x	x
Explosion protection	Without	0					
Rail-mounting unit		4	0				
Power supply	24 V DC					1	
	230 V AC					2	
	115 V AC					3	
	24 V AC					4	
Input	0.2 to 1 bar					1	
	3 to 15 psi					2	
Output ¹⁾	0 to 20 mA					1	
	4 to 20 mA					2	
	0 to 10 V					3	
	2 to 10 V					4	

¹⁾ mA or V and range can be selected using switches inside the device

Ordering text

p/i Converter Type 6132-...

Input: ... bar / ... psi

Output: ... mA / ... V

Power supply: 230 V AC/115 V AC/24 V AC/24 V DC

Specifications subject to change without notice.



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2008-04