TRANSDUCER OF RMS CURRENT OR VOLTAGE

P11Z

CE

APPLICATION

The P11Z transducer is destined to a continuous conversion of the rms current value or alternating voltage without the constant component into a standard d.c. current or d.c. voltage signal.

The transducer output signal is galvanically insulated from the input signal and the supply.

The P11Z transducer is adapted to be installed on a 35 mm rail acc. EN 60715 standard. The transducer housing is made of a self-extinguishing plastics. On the external side of the transducer there is a screw or self-locking terminal strip (depending on the execution and the order) which enables the connection of external leads with a maximal 2.5 mm² cross-section.

The lighted diode situated on the upper front of the transducer signals the connection of this transducer to the mains.

TECHNICAL DATA

Basic parameters:

- input voltage	60, 100, 150, 250, 400, 500, 600 V a.c.
- input current	1 A (x/1 A), 5 A (x/5 A)
- output signal	0...5 mA, R load = 0...2000 Ω
	0...20 mA, R load = 0...500 Ω
	4...20 mA, R load = 0...500 Ω
	0...10 V, R load ≥ 500 Ω
- accuracy class	0.2
- transducer pre-heating time	15 min

Power consumption:

- in the supply circuit	≤ 4 VA
- in the voltage circuit	≤ 0.6 VA
- in the current circuit	≤ 0.1 VA

Voltage supply 85...253 V or 18...40 V d.c. or a.c.

Protection level ensured:

- by the housing	IP 50
- from the terminal side	IP 20

Insulation test voltage	3.25 kV a.c.
Weight	125 g
Overall dimensions	22.5 × 120 × 100 mm
Fixation	on a 35 mm DIN rail
Maximal lead cross-section	2.5 mm²

Reference and rated service conditions:

- input signal	0...0.01...1.2 In, 0...0.01...1.2 Un
- frequency of the input signal	45...65...500 Hz
- ambient temperature	-20...23...55°C
- relative humidity	25... 95% (condensation inadmissible)
- supply	85...253 V d.c. or a.c., 40...400 Hz
	18...40 V d.c. or a.c. 40...400 Hz
- acceptable peak factor:	
- current	2
- voltage	2
- storage temperature	-25...+ 85°C
- external magnetic field	0...40...400 A/m.
- short duration overload capacity (5 s):	
- voltage input	2 Un (max 1000 V)
- current input	10 In
- work position	optional

Additional errors (in multiplication factor of the class index):

- from the ambient temperature changes	< 0.5 k /10 K
- from the magnetic field	< 2 k

Standards fulfilled by the transducer:
Electromagnetic compatibility:

- immunity	EN 61000-6-2
- emission	EN 61000-6-4

Security requirements acc. EN 61010-1:

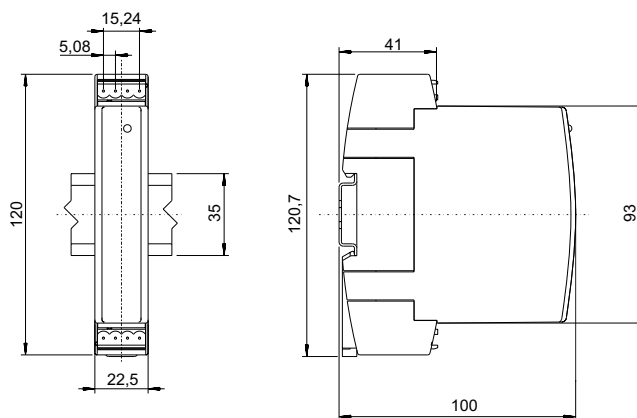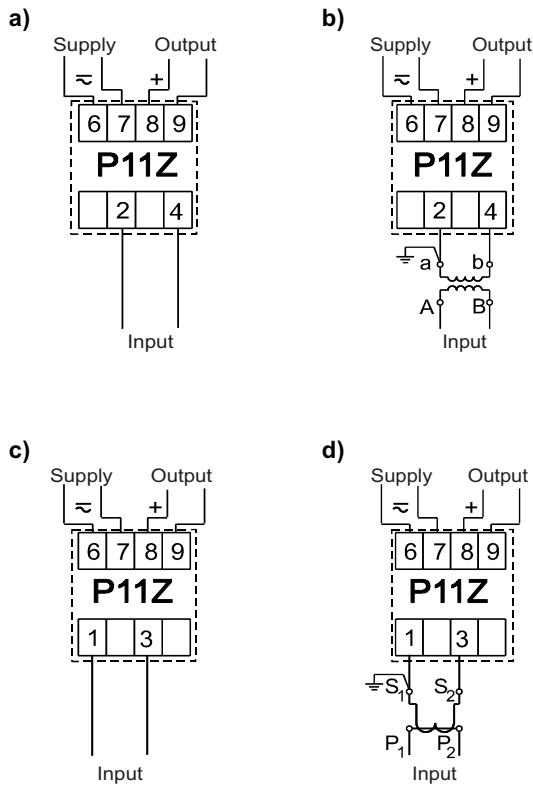|	
- insulation ensured by the	
- housing	double
- insulation between circuits	basic
- pollution level	2
- for work voltage in respect to the earth:	
- up to 300 V	installation category III
- up to 600 V	installation category II

EXTERNAL AND ASSEMBLY DIMENSIONS

Fig 1. Overall dimensions and fixing way

EXTERNAL CONNECTION DIAGRAMS

a)

Supply   Output

| 6 | 7 | 8 | 9 |

P11Z

| 2 | 4 |

Input

b)

Supply   Output

| 6 | 7 | 8 | 9 |

P11Z

| 2 | 4 |

a   b
A   B

Input

c)

Supply   Output

| 6 | 7 | 8 | 9 |

P11Z

| 1 | 3 |

Input

d)

Supply   Output

| 6 | 7 | 8 | 9 |

P11Z

| 1 | 3 |

S_1 S_2
P_1 P_2

Input

a) Direct measurement of the voltage
b) Indirect measurement of the voltage
   through a voltage transformer
c) Direct measurement of the current
d) Indirect measurement of the current
   through a current transformer

ORDERING CODINGS

TRANSDUCER P11Z -	XX	X	X	X	XX	X

Input range:

0... 60 V	**01**
0... 100 V	**02**
0... 150 V	**03**
0... 250 V	**04**
0... 400 V	**05**
0... 500 V	**06**
0... 600 V	**07**
0... 1 A	**08**
0... 5 A	**09**
on order*	**99**

Output range:

0... 5 mA	**1**
0... 20 mA	**2**
4... 20 mA	**3**
0... 10 V	**4**
on order*	**9**

Supply voltage:

85... 253 V a.c./d.c.	**1**
18... 40 V a.c./d.c.	**2**
on order*	**9**

Kind of terminals:

inseparable screws	**1**
socket-screw plug	**2**
socket-self-locking plug	**3**

Version:

standard	**00**
custom-made	**XX**

Acceptance tests:

without a quality inspection certificate	**0**
with a quality inspection certificate	**1**
acc. user´s agreements	**X**

* After agreeing by the producer

** The producer will settle the ordering code number

Coding example:
The **P11Z-09-3-1-1-00-0** code means: the version of a P11Z transducer with an input signal: 5 A (x/5 A), output signal: 4...20 mA, supply voltage: 85...253 V a.c./d.c., with inseparable screws, standard version, without a quality inspection certificate.