

5. Scope of Supply

The set of the Transducer is consist of :

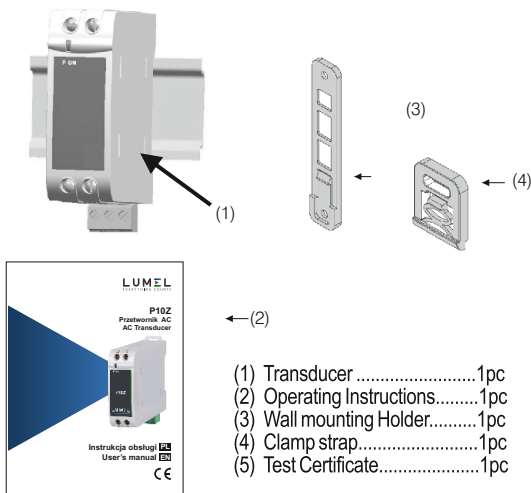


Fig. 2: Transducer Set

6. Technical Data

Measuring Input X:

Voltage Transducer :

Final value of Nominal input

$$63.5V \leq U_N \leq 500 V.$$

Voltage U_N (X2,AC RMS)

Nominal Frequency F_N

50 or 60 Hz.

Nominal input Voltage burden

$< 0.6 VA$ at U_N .

Overload Capacity:

$1.2 * U_N$ continuously,
 $2 * U_N$ for 1 second, repeated
 10 times at 10 second intervals.

Current Transducer :

Final value of Nominal input Current I_N (X2,ACRMS)	1 A or 5 A.
Nominal Frequency F_N	50 or 60 Hz.
Nominal input Current burden	< 0.2VA at I_N .
Overload Capacity:	1.2 * I_N continuously, 10 * I_N for 3 second, repeated 5 times at 5 minute intervals, 20 * I_N for 3 second, repeated 5 times at 5 minute intervals, 50 * I_N for 1 second.

Measuring Output Y:

Output type	Load independent DC Voltage/Current.
Load independent DC output (Y2)	0...10mA,0...20mA,2...10mA, 4...20mA,0...5V or 0...10V.
Output burden with DC current output Signal	$0 \leq R \leq 15 \text{ V/Y2}$
Output burden with DC voltage output Signal	$Y2/(2 \text{ mA}) \leq R \leq \infty$
Current limit under overload $R=0$	$\leq 1.6*Y2$ with Current output. $\leq 25 \text{ mA}$ with Voltage output.
Voltage limit under $R = \infty$	$\leq 1.6*Y2$ with Voltage output. $\leq 25 \text{ V}$ with Current output.
Residual Ripple in Output signal	$\leq 1\%$ pk-pk.
Response Time	< 250 ms.

Auxiliary Supply H:

Rated operating voltage	40-300V AC/DC or 24-60V AC/DC
Rated operating range of frequency	45... <u>50...60</u> ...65 Hz
Power consumption	< 4 VA

Accuracy:(Acc. to IEC/EN 60 688)

Reference Value	Output end Value Y2 (Voltage or Current)
Accuracy class	0.2

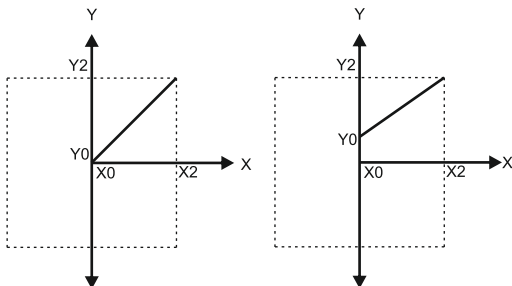
Reference conditions for Accuracy :

Ambient temperature	23°C +/- 1°C
Pre-conditioning	30 min acc. to IEC/EN 60 688
Input Variable	Rated Voltage Range /Rated Current Range.
Input waveform	Sinusoidal, Form Factor 1.1107
Input signal frequency	50....60Hz
Auxiliary supply voltage	Rated Value $\pm 1\%$
Auxiliary supply frequency	Rated Value $\pm 1\%$
Output Load	$R_N = 7.5 \text{ V} / Y_2 \pm 1\%$ With DC current output signal. $R_N = Y_2 / 1 \text{ mA} \pm 1\%$ With DC voltage output signal. Acc. to IEC/EN 60 688
Miscellaneous	

Additional Error :

Temperature influence	$\pm 0.2\% / 10^\circ\text{C}$
Influence of Variations:	As per IEC/EN 60 688 standard.

Output characteristics:



X0 = Start value of input
X2 = End value of input
 U_N = Nominal input voltage

Y0 = Start value of output
Y2 = End value of output
 I_N = Nominal input current

Safety:

Protection Class	II (Protection Isolated, EN 61 010)
Protection	IP 40, housing according to EN 60 529 IP 20 ,terminal according to EN 60 529
Pollution degree	2
Installation Category	III II - for input range above 300V AC
Insulation Voltage	50Hz, 1min. (EN 61 010-1) 3510V, Input versus outer surface 3510V, Input versus all other circuits 3510V, Auxiliary supply versus input and output circuits.

Installation Data:

Mechanical Housing	Lexan 940 (polycarbonate) Flammability Class V-0 acc. To UL 94, self extinguishing, non dripping, free of halogen
Mounting position	Rail mounting / wall mounting
Weight	Approx. 0.12kg

Connection Terminal:

Connection Element	Conventional Screw type terminal with indirect wire pressure
Permissible cross section of the connection lead	≤ 4.0 mm ² single wire or 2 x 2.5 mm ² fine wire

Environmental:

Nominal range of use	0 °C...23 °C... 45 °C (usage Group II)
Storage temperature	-40 °C to 70 °C
Relative humidity of annual mean	≤ 75%
Altitude	up to 2000 m

Ambient tests:

IEC 60 068-2-6	Vibration
Acceleration	± 2 g
Frequency range	10...150...10Hz,
Rate of frequency sweep	1 octave/minute
Number of cycles	10, in each of the three axes
IEC 60 068-2-27	Shock

Acceleration	3 x 50g
	3 shocks in each direction
EN 60 068-2-1/-2/-3	Cold, Dry, Damp heat
IEC 61000-4-2/-3/-4/-5/-6	
EN 55 011	Electromagnetic compatibility.

7. Mounting

The Transducer can be mounted either on a top-hat rail or directly onto a wall or mounting plate.



Make sure that the ambient temperature stays within the permissible limits :
0° C and 45° C

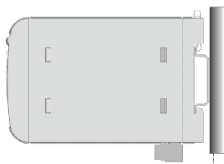


Fig. 3 Top-hat rail Mounting

Fig. 4 Wall Mounting

As the front of the enclosure conforms to IP 40. The terminals of the product should be protected from liquids. Transducer should be mounted in a reasonably stable ambient temperature and where the operating