



Data Sheet

679.D.101.04

Digital Multifunctional Power Meter with LED Display

WPM 600B-Z



Application

The digital **Weigel Power Meters** have been designed to display electrical parameters in low voltage systems.

WPM 600 B - Z is suitable for use in 3-phase 4-wire systems 230/400 V.

This panel meter displays the following electrical parameters: voltage, current, active power, reactive power, power factor, frequency, active energy and reactive energy. The ratings are displayed one after the other or can be selected by pressing a button.

Using the front-side buttons, the current transformer ratio can be set and the energy values can be reset.

Functional Principle

Microprocessor-controlled digital measuring device that measures, calculates and indicates electrical ratings.

WPM 600 B - Z has 3 voltage inputs and 3 current inputs to enable simultaneous evaluation of voltage, current and power for all three phases. The meter must be connected via current transformers.

General Technical Data

Case

case details	suitable to be mounted in switch gear panels
material of case	plastics, black
panel fixing	plastic clips
enclosure code	IP 50 front of case IP 20 rear of case

insulation voltage	2 kV
insulation resistance	50 M Ω
MTBF	50000 h
operating elements	4 membrane keys

Terminals	2 screw-terminal barrier strips
wire-cross section	2.5 mm ² max.

Dimensions	WPM 600 B - Z
bezel	□ 96 mm
bezel height	12 mm
panel cutout	□ 90 ^{+0.5} mm
mounting depth	58 mm minus panel thickness
panel thickness	≤ 4 mm
weight	approx. 0,5 kg

Electrical Data

system type	3-phase 4-wire system, unbalanced loads
rated voltage	230/400 V
rated current	5 A
current connection	via CTs N/5 A
CT ratio	adjustable 1 to 1999
overload capacity	
current	1.2 times continuously 10 times for 1 sec.
voltage	1.2 times continuously 2 times for 1 sec.
frequency range	35 ... 65 Hz

Display

display 3x 4-digit 7-segment LED display, red, and 8 red LEDs for measuring unit

digit height 15 mm

Measured Quantity	LED	WPM 600 B - Z	Unit
voltage	U	4 digits	V
current	I	4 digits	A
active power	P	4 digits	kW
reactive power	Q	4 digits	kvar
power factor (cos φ)	PF	3 digits	–
frequency	F	4 digits	Hz
active energy	E _P	9 digits*)	kWh
reactive energy	E _Q	9 digits*)	kvarh

*) spread over 3 displays

Auxiliary Supply

auxiliary voltage	85 ... 265 V AC or 80 ... 300 V DC
power consumption	<2 VA

Accuracy at Reference Conditions

voltage	0.5%
current	0.5%
power	1.0%
active energy	class 1

Environmental

operating temperature range	–25 ... +70 °C
storage temperature range	–40 ... +85 °C
relative humidity	5% ... 95% non-condensing

Standards

DIN EN 61010–1	Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements
DIN EN 61326–2–1	Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 2–1: Particular requirements – Test configurations, operational conditions and performance criteria for sensitive test and measurement equipment for EMC unprotected applications



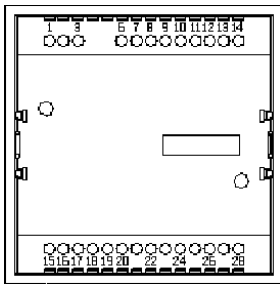
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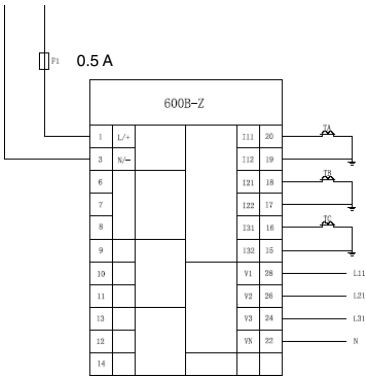
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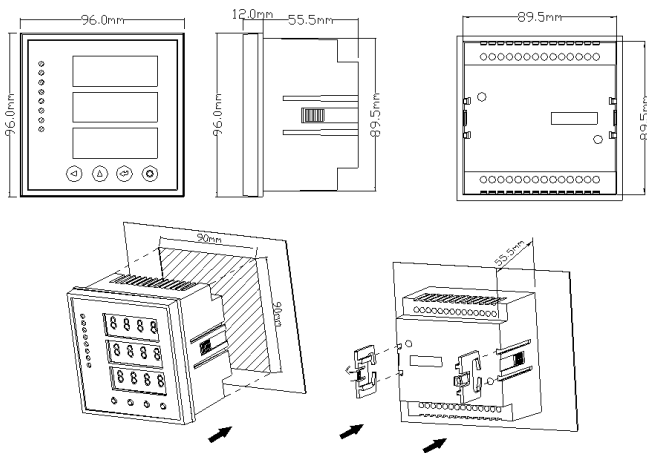
Terminals/Connection Diagram



- 1 L/+ auxiliary supply
- 3 N/- auxiliary supply
- 6-14 reserved
- 15 I32 current L3
- 16 I31 current L3
- 17 I22 current L2
- 18 I21 current L2
- 19 I12 current L1
- 20 I11 current L1
- 22 N neutral
- 24 L3 phase L3
- 26 L2 phase L2
- 28 L1 phase L1



Dimensions



Ordering Information

Type	Multifunctional Power Meter with LED Display
WPM 600 B - Z	for use in 3-phase 4-wire systems, for voltage, current, active power, reactive power, power factor, frequency, active energy, reactive energy, 96 mm x 96 mm

Ordering Example

WPM 600B - Z
Multifunctional Power Meter with LED Display
for use in 3-phase systems

– specifications subject to change without notice; date of issue 06/10 –

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