Power Multimeter (PX series)

WKM-PX□□

This multimeter measures 1-phase 2-wire / 1-phase 3-wire / 3-phase 3-wire electric energy and displays it on the LCD panel.

Features

★ High-visibility 4.2-inch large LCD and white LED backlight
★ Display 4 elements at once. (1 bar graph & 3 numeral display)
★ Mesures 20 elements (Harmonic wave, Demand, Current, electric energy, etc.)

Ordering code

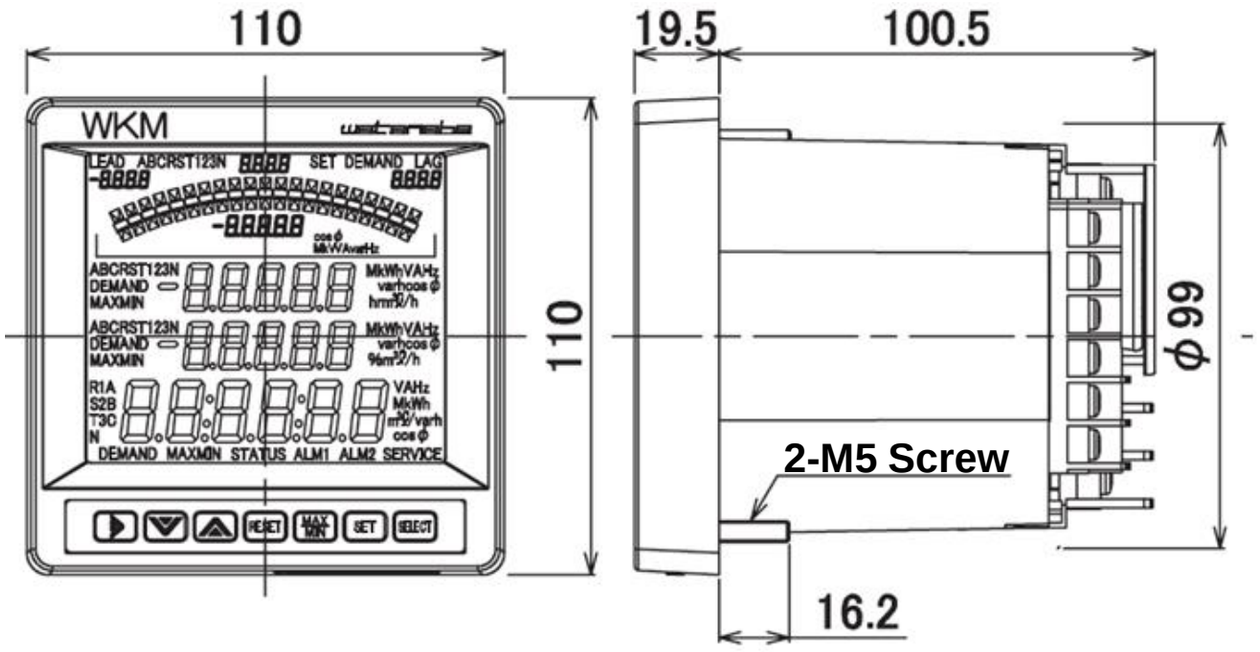
WKM-PX□□ N-□ A□ 00-□□□□

Series	Type	Option	LDC direction	Rated curren	Power supply	Test report	Rank suffix	Phase wire	Rated voltage	Display pattern	Description
WKM											110mm multimeter
	PX										Power measuring with Demand & Harmonic measuring
		NN									None
		RA									Analog output 4 point (4~20mADC) + 2 digital input
		RH									Analog output 4 point (1~5VDC) + 2 digital input
			N								The upper row installation (bottom up)
				1							1AAC
				5							5AAC
					A						85 to 242Vac (50 / 60Hz), 90 to 132Vdc
						X					None
						T					With test report
							00				Standard
								12			[Default settings] 1-phase 2-wire
								13			[Default settings] 1-phase 3-wire
								33			[Default settings] 3-phase 3-wire
									1		[Default settings] 110Vac
									2		[Default settings] 220Vac
									4		[Default settings] 440Vac
										01	[Default settings] Display pattern 1
										02	[Default settings] Display pattern 2
										03	[Default settings] Display pattern 3
										04	[Default settings] Display pattern 4
										05	[Default settings] Display pattern 5
										06	[Default settings] Display pattern 6
										07	[Default settings] Display pattern 7

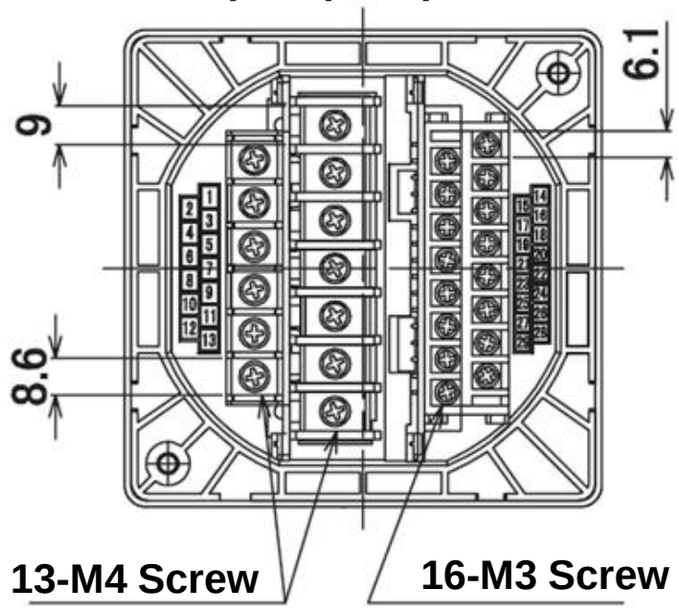
Specifications

Input signal	Voltage : 1-phase 2-wire 110V / 220V / 440V (configurable) 1-phase 3-wire 110V (between 1-2 220VAC) / 220V (between 1-2 440VAC) (configurable) 3-phase 3-wire 110V / 220V / 440V (configurable) Current : 1AAC / 5AAC (Specify when ordering)
Measuring circuit	1-phase 2-wire / 1-phase 3-wire / 3-phase 3-wire (configurable)
Measuring element	Active/reactive power, active/reactive electric energy, current, voltage, power factor, frequency, demand current, demand power, harmonic wave effective value, total harmonic distortion maximum of each factor (except electric energy), minimum of each factor (except electric energy, harmonic wave)
Input frequency	50/60 Hz sharing
Power supply voltage	85 to 242Vac / 90 to 132Vdc
Operating temperature	-5 to +55°C
Operating relative humidity	90% or less (non-condensing)
Temperature coefficient	±0.01% FS of span per °C
Insulation resistance	100MΩ or more with a 500Vdc megger
Withstand voltage	2000 Vac for 1 minute
Power consumption	Approx. 7.7VA (220V) / Approx. 6VA (100Vac) / Approx. 70mA (110Vdc)
Dimention	110(H) X 110(W) X 120(D)mm
Weight	Approx. 600g
Mounting	Panel mount

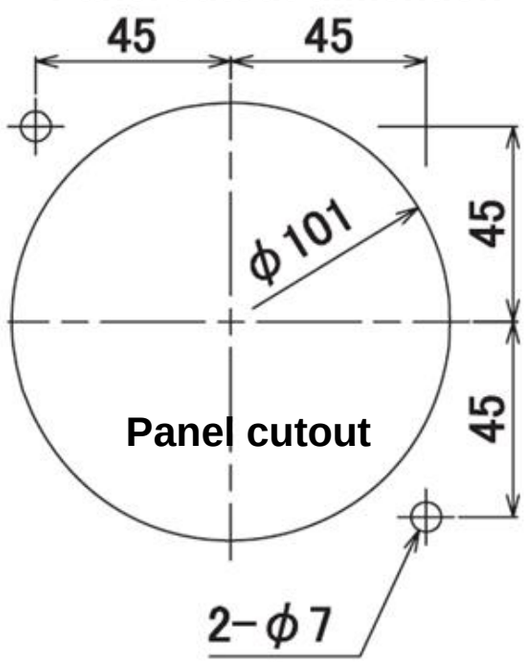
Dimensions



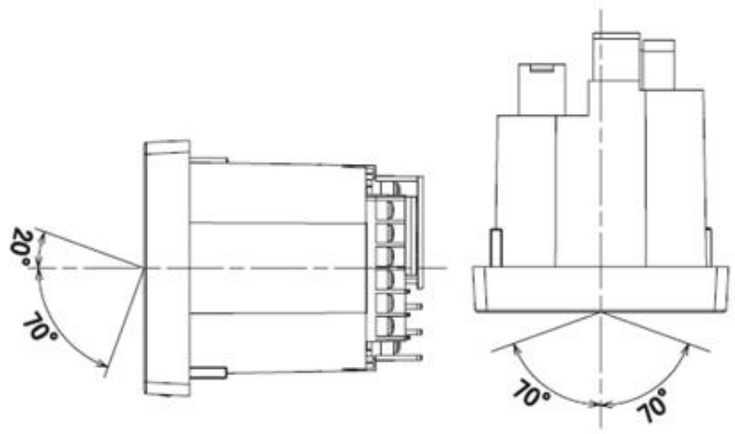
Back view (no option)



Panel cutout dimention



Viewing angle

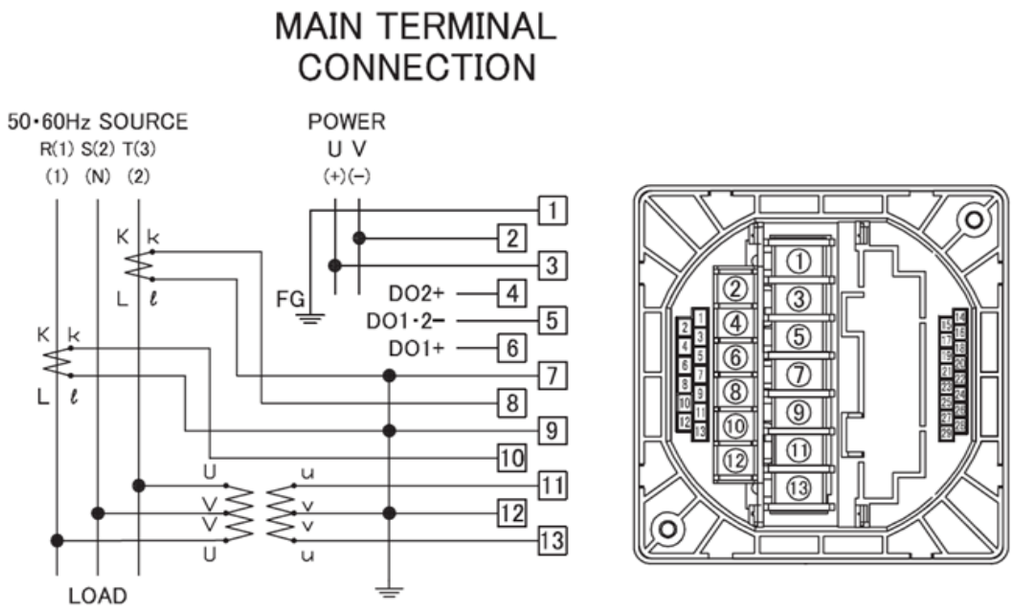


Side view **Top view**

(mm)

Terminal Connections

○ **WKM-PXNNN (Without option)**



1-phase 3-wire / 3-phase 3-wire

No	Signal	Description
1	POWER (FG)	Power Supply
2	POWER V(-)	
3	POWER U(+)	
4	D-OUTPUT 2 (DO2+)	DO2 output
5	D-OUTPUT COM (DO1・2-)	DO1/2 common
6	D-OUTPUT 1 (DO1+)	DO1 output
7	I (3L)	Current input terminal
8	k (3S)	
9	I (1L)	
10	k (1S)	
11	T(2) (P3)	Voltage input terminal
12	S(N) (P2)	
13	R(1) (P1)	

1-phase 2-wire

No	Signal	Description
1	POWER (FG)	Power Supply
2	POWER V(-)	
3	POWER U(+)	
4	D-OUTPUT 2 (DO2+)	DO2 output
5	D-OUTPUT COM (DO1・2-)	DO1/2 common
6	D-OUTPUT 1 (DO1+)	DO1 output
7	-	No connection
8	-	
9	I (1L)	Current input terminal
10	k (1S)	
11	-	No connection
12	N (P2)	Voltage input terminal
13	1 (P1)	

Display pattern

Pattern	Display	Display 1	Display 2	Display 3	Display 4	Display 5	Display 6 (Wh)	Display 7 (varh)	Display 8 (varh)	Display 9 (varh)	Display 10 (DI 1ch(1))	Display 11 (DI 1ch(2))
1	Top Low	A	A	A	A	A					Harmonic order	Harmonic order
	Middle Low	W	W	cosφ	DA	DW					Harmonic distortion rate	Harmonic distortion rate
	Bottom Low	V	cosφ	V	W	W					Harmonic effective value	Harmonic effective value
2	Top Low	A	A	A	A	A	-				Harmonic order	Harmonic order
	Middle Low	V	W	cosφ	DA	DW	-				Harmonic distortion rate	Harmonic distortion rate
	Bottom Low	Wh	Wh	Wh	Wh	Wh	Wh				Harmonic effective value	Harmonic effective value
3	Top Low	A	A	A	A	A					Harmonic order	Harmonic order
	Middle Low	cosφ	cosφ	cosφ	cosφ	cosφ					Harmonic distortion rate	Harmonic distortion rate
	Bottom Low	V	W	var	Hz	DW					Harmonic effective value	Harmonic effective value
4	Top Low	A	A	A	A	A	-	-	-	-	Harmonic order	Harmonic order
	Middle Low	V	W	var	cosφ	Hz	-	-	-	-	Harmonic distortion rate	Harmonic distortion rate
	Bottom Low	Wh	Wh	varh	Wh	h	Wh	varh	varh	varh	Harmonic effective value	Harmonic effective value
5	Top Low	cosφ	Hz	DW							Harmonic order	Harmonic order
	Middle Low	W	W	W							Harmonic distortion rate	Harmonic distortion rate
	Bottom Low	var	var	var							Harmonic effective value	Harmonic effective value
6	Top Low	A	V	A	DA						Harmonic order	Harmonic order
	Middle Low	A (phase +1)	V (phase +1)	DA	DA (phase +1)						Harmonic distortion rate	Harmonic distortion rate
	Bottom Low	A (phase +2)	V (phase +2)	V	DA (phase +2)						Harmonic effective value	Harmonic effective value
7	Top Low	A	A	V	A	A					Harmonic order	Harmonic order
	Middle Low	V	A (phase +1)	V (phase +1)	DA	W					Harmonic distortion rate	Harmonic distortion rate
	Bottom Low	W	A (phase +2)	V (phase +2)	W	WD					Harmonic effective value	Harmonic effective value
A	Top Low	optional	optional	optional	optional	optional					Harmonic order	Harmonic order
	Middle Low	optional	optional	optional	optional	optional					Harmonic distortion rate	Harmonic distortion rate
	Bottom Low	optional	optional	optional	optional	optional	Wh	varh	varh	varh	Harmonic effective value	Harmonic effective value
B	Top Low	optional	optional	optional	optional	optional					Harmonic order	Harmonic order
	Middle Low	optional	optional	optional	optional	optional					Harmonic distortion rate	Harmonic distortion rate
	Bottom Low	optional	optional	optional	optional	optional	Wh	varh	varh	varh	Harmonic effective value	Harmonic effective value

1) '-' is no display.
2) DA = Demand current, DW = demand power
3) '(Phase + ?)' displays phase number +? .
4) 'A phase +1', 'A phase +2', 'V phase +1', 'V phase +2' displays nothing when 1-phase 2-wire
5) 'DA phase +1', 'DA phase +2' displays same as 1 phase when 1-phase 2 wire.
6) 'Wh', 'varh' displays only measuring elements of electric power.
7) Press SELECT switch on operating mode to change Display 1 to 11.