

# Yokogawa Dual Display Digital Meters

## ProPlus Series

- Large Dual-Line 6-Digit Display, 0.60" & 0.46"
- Universal 85-265 VAC or 12/24 VDC Power
- 1/8 DIN case with NEMA 4X, IP65 Front
- Programmable Displays & Function Keys
- 2 or 4 Relays + Isolated 4-20 mA Output Options
- External 4-Relay & Digital I/O Expansion Modules
- USB, RS-232, RS-485 Serial Communication Options
- Modbus® RTU Communication Protocol Standard
- Free Windows Software for Setup & Operation



## Process Meters

- 0-20 mA, 4-20 mA, 0-5 V, 1-5 V, and ±10 V Ranges
- Dual-Scale for Level Applications – Single Input
- Isolated 24 VDC @ 200 mA Transmitter Power Supply
- Signal Conditioning for Flow & Round Horizontal Tanks
- 32-Point, Square Root, or Exponential Linearization
- Multi-Pump Alternation Control
- Tare Function

YPP6000



## Dual Input Process Meters

- Two Process Inputs: 0-20 mA, 4-20 mA, 0-5 V, 1-5 V, ±10 V
- Math Functions: Addition, Difference, Multiplication, Division, Average, Min, Max, Weighted Average, Ratio, Concentration, & More

## ACCESSORIES

P/N	Description
YPPA1002	DIN Rail Mounting Kit for Two Expansion Modules
YPPA1004	4-Relay Expansion Module
YPPA1044	4 Digital Inputs & 4 Digital Outputs Expansion Module
YPPA1200	Meter Copy Cable
YPPA1232	RS-232 Serial Adapter
YPPA1485	RS-485 Serial Adapter
YPPA8008	USB-Serial Adapter
YPPA7485-I	RS-232 to RS-422/485 Isolated Converter
YPPA7485-N	RS-232 to RS-422/485 Non-Isolated Converter
YPPA8232-N	USB to RS-232 Non-Isolated Converter
YPPA8485-I	USB to RS-422/485 Isolated Converter
YPPA8485-N	USB to RS-422/485 Non-Isolated Converter
YPPX6901	Suppressor (snubber): 0.01µF/470Ω, 250 VAC

## Temperature Meters

- J, K, T, E, R, S, B, N, C Thermocouples
- 100 or 1000Ω Pt, 10Ω Cu, 120Ω Ni RTDs
- 1° or 0.1° Resolution
- Averages up to 10 RTD Sensors
- Automatic Cold Junction Compensation
- Sensor Break Detection



YPP7000

## AC/DC Meters

- (1) High Voltage and (1) High Current Input
- Multiplication for Apparent Power Calculation
- 0-300 VAC or VDC Voltage Input
- 0-5 AAC or ADC Current Input
- Fixed or Alternating Display



YPP6400

## SPECIFICATIONS

Display Assignments:	YPP6000: PV1, PV2, PCT (percent), max/min, alternate max & min, set points, units (lower display only), or Modbus input.
Display Assignments:	YPP6060: Ch-A, Ch-B, Ch-C, toggle between (Ch-A & Ch-B, Ch-A & Ch-C, Ch-B & Ch-C, and Ch-A, Ch-B, & Ch-C), toggle between Channel & units, show channel gross value (no tare) or toggle net (tare) and gross values, show relay set points, max & min values, or Modbus input. The second display may also be set to show engineering units or off (no display).
Sensor Excitation:	Process Meters: 24V @ 200mA, can be jumpered for 5 or 10 V
Accuracy:	Process Meters: ±0.03% of calibrated span ±1 count
Accuracy (YPP6400):	ADC: 0.03% FS ±1 count, AAC: 0.1% FS ±1 count, VDC: 0.05% FS ±1 count, VAC: 0.15% FS ±1 count
Accuracy (YPP7000):	J,K,T,E: ±1°C; R,S,B,N,C: ±2°C; Cu/Ni: ±0.1°C; Pt: ±0.4°C
Programming Method:	4 front panel buttons, digital inputs, ProPlus PC software, Modbus registers, or clone setting using Copy function
Display:	200ms update rate, eight intensity levels
Noise Filter:	Programmable from 2 to 199, (0 will disable filter)
Min/Max:	Readings stored until reset by user or power is interrupted
Memory:	All programmed settings are stored in non-volatile memory
Serial Communication:	Modbus RTU protocol, slave ID 1-247. 300-19200 baud rate. Requires serial communication adapter (see Accessories list)
Operating Environment:	-40 to 65°C, <90% RH, non-condensing
Power Line Fuse:	Requires external 5A slo-blow fuse (up to 6 meters per fuse)
Isolation:	4kV input/output to power line, 500V input to output; YPP6400: 500V between inputs, 500V input to output
Connections:	Removeable screw terminal blocks, RJ45 for serial comm.
Dimensions:	4.68" W x 2.45" H x 5.64" D (119 x 62 x 143 mm)
Warranty:	3 years
Isolated 4-20 mA Output:	Loop power: internal 24VDC @40mA max, external 35VDC max Loop resistance: 10-700Ω @24V, 100-1200Ω @35V
Installed Relays:	2 or 4 SPDT, 3A @ 250VAC/30VDC resistive, 1/14 HP
Relay Expansion Module:	Four SPST, 3A @ 250VAC/30VDC resistive, 1/14 HP
Relay Parameters:	Channel, setpoint, hi/lo, deadband, on/off delay, operating mode, reset condition, power-up state
Digital Expansion Module:	Input: hi 3-5 V, lo <1.25V; Output: hi 3.1-3.3V, lo <0.4V; Source 10mA max, sink 1.5mA min; 5V pullup available

## ORDERING INFORMATION

Options Installed	Process		Dual Input		AC/DC		Temperature	
	85-265 VAC	12/24 VDC	85-265 VAC	12/24 VDC	85-265 VAC	12/24 VDC	85-265 VAC	12/24 VDC
None	YPP6000-6R0	YPP6000-7R0	YPP6060-6R0	YPP6060-7R0	YPP6400-6R0	YPP6400-7R0	YPP7000-6R0	YPP7000-7R0
2 Relays	YPP6000-6R2	YPP6000-7R2	YPP6060-6R2	YPP6060-7R2	YPP6400-6R2	YPP6400-7R2	YPP7000-6R2	YPP7000-7R2
4-20 mA Output	YPP6000-6R3	YPP6000-7R3	YPP6060-6R3	YPP6060-7R3	YPP6400-6R3	YPP6400-7R3	YPP7000-6R3	YPP7000-7R3
4 Relays	YPP6000-6R4	YPP6000-7R4	YPP6060-6R4	YPP6060-7R4	YPP6400-6R4	YPP6400-7R4	YPP7000-6R4	YPP7000-7R4
2 Relays & 4-20 mA Output	YPP6000-6R5	YPP6000-7R5	YPP6060-6R5	YPP6060-7R5	YPP6400-6R5	YPP6400-7R5	YPP7000-6R5	YPP7000-7R5
4 Relays & 4-20 mA Output	YPP6000-6R7	YPP6000-7R7	YPP6060-6R7	YPP6060-7R7	YPP6400-6R7	YPP6400-7R7	YPP7000-6R7	YPP7000-7R7

for Sunbright Display, change R to H