

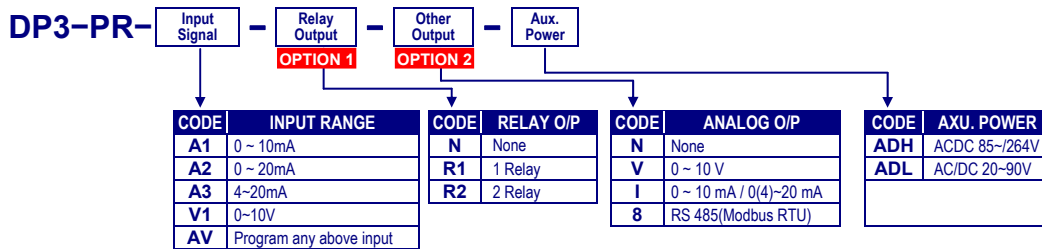
► FEATURES

- Measures and Displays 0~10V / 0~10mA, 0~20mA and 4~20mA
- Accuracy: $\pm 0.04\%$; Display range: -19999~29999
- Easily programmable via the front panel
- **Up to 2 relays available with latching and time delay programmable**
- Analogue output and RS 485 Modbus options
- **1 external control inputs for Reset, tare and hold functions**
- Inbuilt 24Vdc excitation for loop power
- CE Approved



Note:- This product has many state of art functions. Please download our 'common functions' document from the customer portal for explanations

► ORDER CODING



■ TECHNICAL SPECIFICATIONS

Input		Measuring Range		Input Impedance	
Measuring Range	Input Impedance	Measuring Range	Input Impedance	Measuring Range	Input Impedance
Voltage 0 ~ 10 V	$\geq 1M \text{ ohm}$	Current 4(0)~20 mA	250 ohm		

► The Meter can be wired for both Voltage (eg 0~10V) and Current (eg 4~20mA) inputs

Calibration: Digital calibration by front key
A/D converter: 16 bits resolution
Accuracy: $\leq \pm 0.04\%$ of FS $\pm 1C$;
Sampling rate: 15 cycles/sec
Response time: $\leq 100 \text{ msec.}$ (when AvG = "1") as standard
Input types: 0~10V / 0~5V / 1~5V / 0~10mA / 0~20mA / 4~20mA programmable for AV option
Input range: Input High and Low programmable with square root function
 Ai.Hi: Settable range: 0.00~100.00% of input range
 Ai.Lo: Settable range: 0.00~100.00% of input range

Display & Functions
LED: Numeric: 5 digit, 0.4"(10.0mm)H red high-brightness LEDs
 Relay output indication: 2 square red LEDs
 RS 485 communication: 1 square orange LEDs
 E.C.I. function indication: 1 square green LEDs
 -19999~+29999;
Display range: Lo.SC: Low Scale; Settable range: -19999~+29999
 Hi.SC: High Scale; Settable range: -19999~+29999
 Programmable from 0 / 0.0 / 0.00 / 0.000 / 0.0000
Scaling function: ovFL, when input is over 20% of input range Hi
 -ovFL, when input is under 20% of input range Lo
Decimal point: Maximum and Minimum value storage during power on.
Over range indication: PV / Max(Mini) Hold / RS 485 programmable
Under range indication: Up key can be set to be a function as ECI.1
Max / Mini recording: Settable range: -19999~29999 counts
Display functions: Pv.Zro: Settable range: -19999~+29999
Front key functions: Pv.SPn: Settable range: -19999~+29999
Low cut:
Digital fine adjust:

Reading Stability Function

Average: Settable range: 1~99 times
Moving average: Settable range: 1(None)~10 times
Digital Filter: Settable range: 0(None)/1~99 times

Control Functions (optional)

Set points: Two set-points
Control relay: 2 Relays FORM-C, 1A/230Vac, 3A/115V
Relay energized mode: Energized levels compare with set-points:
 Hi / Lo / Hi.HLd / Lo.HLd programmable
Energized by RS485 command of master: DO programmable
Energized functions: Start delay / Energized & De-energized delay / Hysteresis
 Energized Latch
Start band(Minimum level for Energizing): 0~9999counts
Start delay time: 0.00.0~9(Minutes):59.9(Second)
Energized delay time: 0.00.0~9(Minutes):59.9(Second)
De-energized delay time: 0.00.0~9(Minutes):59.9(Second)
Hysteresis: 0~5000 counts

External Control Inputs(ECI)

Input mode: 1 ECI points, Contact or open collect input, Level trigger
Functions: Relative PV(Tare) / PV Hold / Reset for Max or Mini. Hold / DI / Reset for Relay latching
Debounce time: Settable range 5 ~255 x 8m seconds

Analogue output(option)

Accuracy: $\leq \pm 0.1\%$ of F.S.;
Ripple: $\leq \pm 0.1\%$ of F.S.
Response time: $\leq 100 \text{ msec.}$ (10~90% of input)
Isolation: AC 1.5 KV between input and output
Output range: Specify either Voltage or Current output
Voltage: 0~5V / 0~10V / 1~5V programmable
Current: 0~10mA / 0~20mA / 4~20mA programmable
Output capability: **Voltage: 0~10V: $\geq 1000\Omega$;**
Current: 4(0)~20mA: $\leq 600\Omega \text{ max}$

Functions:

Ao.HS (output range high): Settable range: -19999~29999
 Ao.LS (output range Low): Settable range: -19999~29999
 Ao.LMt (output High Limit): 0.00~110.00% of output High
 Ao.Zro: Settable range: -38011~+27524
 Ao.Spn: Settable range: -38011~+27524

Digital fine adjust:

RS 485 communication(option)

Protocol: Modbus RTU mode
 Baud rate: 1200/2400/4800/9600/19200/38400 programmable
 Data bits: 8 bit
 Parity: Even, odd or none (with 1 or 2 stop bit) programmable
 Device no: 1 ~ 255 programmable
 Remote display: to show the value from RS485 command of master
 Distance: 1200M
 Terminate resistor: 150Ω at last unit.

Electrical Safety

Dielectric strength: AC 1.5 KV for 1 min, Between Power / Input / Output / Case
 Insulation resistance: ≥ 100M ohm at 500Vdc, Between Power / Input / Output
 Isolation: Between Power / Input / Relay / E.C.I./ Analogue or RS485
 EMC: EN 55011:2002; EN 61326:2003
 Safety(LVD): EN 61010-1:2001

Environmental

Operating temp.: 0~60 °C
 Operating humi.(%RH): 20~95 %RH, Non-condensing
 Temp. coefficient: ≤100 PPM/°C
 Storage temperature: -10~70 °C
 Enclosure: Front panel: IEC 549 (IP54); Housing: IP20

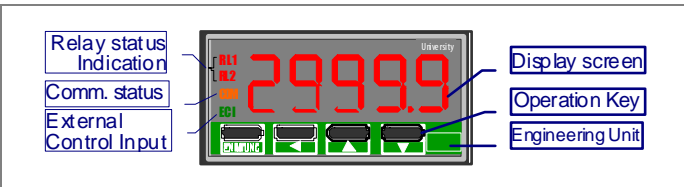
Mechanical

Dimensions: 48mm(W) x 24mm(H) x 102mm(D)
 Panel cutout: 45mm(W) x 22.5mm(H)
 Case materiel: ABS fire-protection (UL 94V-0)
 Mounting: Panel flush mounting
 Terminal block: Plastic NYLON 66 (UL 94V-0)
 5A 300Vac, M2.0, 0.5~1.3mm²(22~16AWG)
 Weight: About 110g

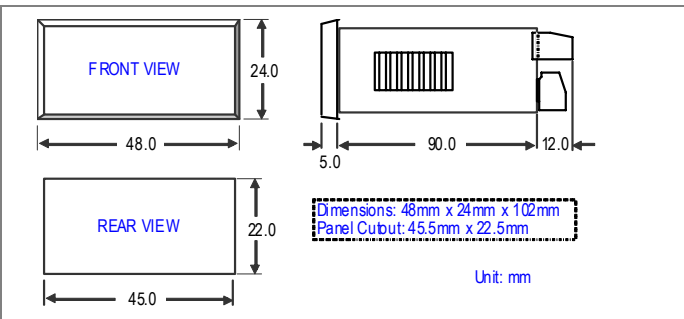
Power

Power supply: AC/DC 85~264V or AC/DC 20~90V
 Excitation supply: DC 24V, 30mA maximum in standard
 Power consumption: 4.5VA max.
 Back up memory: By EEPROM

FRONT PANEL

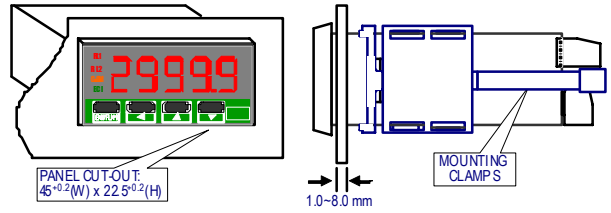


DIMENSIONS

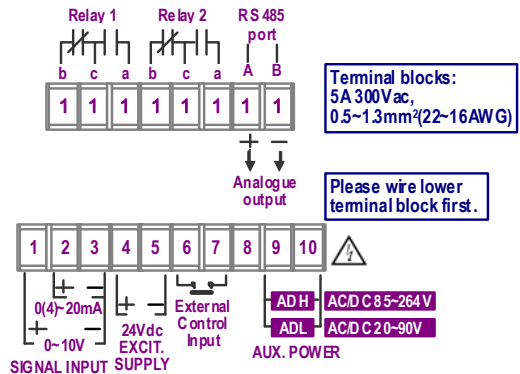


INSTALLATION

The meter should be installed in a location that does not exceed the maximum operating temperature and provides good air circulation.

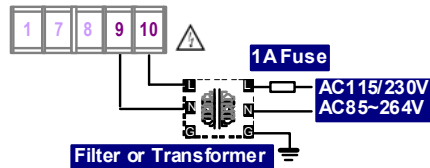


CONNECTION DIAGRAM

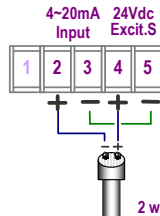


Please check the voltage of power supplied first, and then connect to the specified terminals. It is recommended that power supplied to the meter be protected by a fuse or circuit breaker.

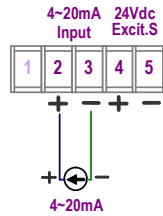
Power Supply (Recommendation)



2 wire Transmitter connection



4~20mA source connection



RS485 Communication Port

