

Programmable DC Process Meter



Feature

- True Process DC rate monitor
- Wide standard DC voltage & current input
- Rangeable of display scale for engineering unit
- High accuracy of 0.2%
- Two wire application
- 4-1/2 digits of maximum ± 19999 counts
- Display with super rate LED

Description

The model UMDF is designed under micro base, and it also specially designed as DC versa meter for process system, it features

1. Wide standard DC input ranges of over 200 voltage & current ranges as 0-200mA, 0-100mA or 50mA ect.
2. With bottom pressing rangeability for display scale to suit required engineering unit range from 0 to ± 19999 units.

Specification

Accuracy ($23\pm 3^{\circ}\text{C}$)	0.2% fs
Stability	Temperature coefficient < 50 ppm per degree C. Long term draft < 0.1% per year
Display & resolution	0.56" super rate LED, 4-1/2 digits of maximum ± 19999 counts
Response time	Sample rate 1 sec typically
Input resistance	> $1\text{M}\Omega$ for voltage input, < 20Ω for current input
Input over	Maximum 1 ampere for current input, maximum 250V for voltage input
Noise rejection	CMRR > 120dB, NMRR > 100dB
Common mode voltage	2KV rms / 1 minute
Operating condition	Temperature range -10 to 55°C , 0 to 99% RH non-condensed Storage -25 to 70°C , 20-99% RH non-condensed
Auxiliary power	AC / DC version < 3.5VA, DC option version $\pm 20\%$ < 5 watts



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Order from

Model UMDF

Frame (in mm)

96X48	U

Auxiliary power

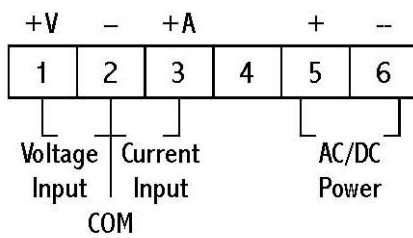
AC / DC 30-250V	★	S
DC option 24V		1

Input ranges

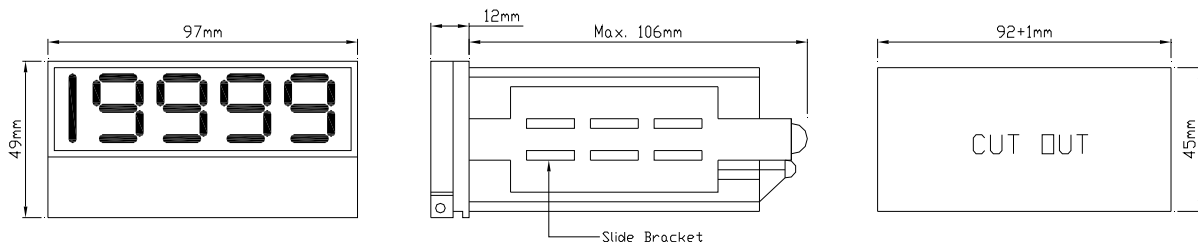
Version	Voltage (Vdc)	Current (mAdc)	
1	0-200 / 0-100 / 0-50	0-200 / 0-100 / 0-50 / 10-50	1
2	0-20 / 0-10 / 0-5	0-20 / 4-20 / 0-10 / 2-10	2
3	0-1 / 0-0.5 / 0-0.2	0-5 / 1-5 / 0-1	3
4	0-0.1 / 0-0.05 / 0-0.02		

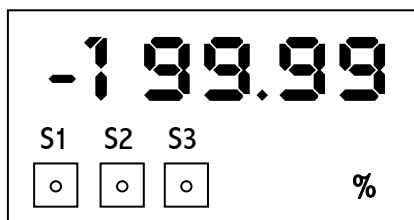
★ : This segment was originally used in the circuit of traditional transformer, and new model uses switching power circuit where in the wide range power system

Terminal connection



Dimension





Function key

S1 : Previous status, back to main display

S2 : Numeric up 0-9

S3 : Enter or execution

∫ : Keying Sx (S1 、 S2 、 S3)

-Par : S-U = Voltage

S-A = Mill ampere

-Sr : SL = Input low

SH = Input high

-Dr : DP = Decimal point selection

DL = Display low count

DH = Display high count

Example : input DC 4-20mA

Display -100.0 to +1400.0

-Par setting : S-A

-Sr setting : SL = 04.00

SH = 20.00

-Dr setting : DP = 1999.0

DL = -100.0

DH = +1400.0

Example : input 12mA

$$\text{Formula} = \frac{DH - DL}{SH - SL} \times (X - SL) + DL$$

$$= \frac{1400.0 - (-100.0)}{20\text{mA} - 4\text{mA}} \times (12\text{mA} - 4\text{mA}) + (-100)$$

$$= \frac{1500.0}{16\text{mA}} \times (8\text{mA}) - 100.0$$

$$= 750.0 - 100.0$$

$$= 650.0$$

Function setting

⊙ Enter Password

∫S3 → → ∫S3 →

⊙ Write Password (0011)

S2 → S3 S2 → S3 S2 → S3 S2 → S3

⊙ Input setting (SL)

Example = 4mA ·

⊙ Input setting (SH)

Example = 20mA ·

⊙ Decimal point setting (DP)

Example = 1400.0 ·

⊙ Decimal count low (DL)

Example = -100.0 ·

⊙ Decimal count high (DH)

Example = 1400.0 ·