

DUAL RATEMETER/TOTALISER

Two Separate Ratemeters, Totalisers with Combination Function



DPF82, £330, shown larger than actual size.

DPF82
Starts at
£330



- ✓ Displays A, B, and C Rate and A, B, and C Total
- ✓ Separate Scaling Factors for A and B Inputs
- ✓ C Displays A + B, A - B, A ÷ B, and A ÷ (A + B)
- ✓ Pulse Input: 10 kHz Max
- ✓ Security Lockout
- ✓ IP66 (NEMA 4X) Front Panel
- ✓ 30 mV Magnetic Pickup Inputs
- ✓ 4 to 20 mA or 0 to 20 mA Analogue Output
- ✓ CSA Approved

The DPF80 Series (dual-rate totaliser) consists of 5-digit ratemeters and 6-digit totalisers in a 1/2 DIN package. The user can select 1 of 6 displays to show A, B, or C rate and A, B, or C total. Inputs A and B have separate scaling to read in engineering units. A 4 to 20 mA (0 to 20 mA) output of the C rate or total is optional. The user can also press the VIEW button to see 6 separate items: total A, total B, total C, rate A, rate B, rate C. Negative values are displayed with a negative symbol (e.g., -12345). For the C value, the user can choose from the following combination of A and B inputs: TOTAL; with a choice of A + B or A - B, RATIO; with choice of A ÷ B (x100) to show percent of A to B quantity or A ÷ [A + B (x100)] to show percent of A to total quantity. Two independent presets are standard. The user selects whether output A is activated by total or rate value of input B or selected C. Outputs activated by A or B total can be set to latch or auto-recycle with an adjustable output duration from 00.1 to 99.9 seconds. For rate, ratio, or C total, outputs pull in when value (equal to or above the preset and drop out when value) is below the preset minus the selected 0 to 99.9 hysteresis.

SPECIFICATIONS

Display: 5-digit, 14 mm high LED

Input Power:

110 Vac ±15% or 12 to 15 Vdc
220 Vac ±15% or 12 to 15 Vdc (optional)
24 Vac ±15% or 12 to 15 Vdc (optional)

Current: 250 mA DC max or 6.5 Vac

Output Power:

(AC-powered units only) + 12 Vdc
@ 50 mA, unregulated -10 + 50%

Temperature

Operating: 0 to 54°C

Storage: -40 to 93°C

Humidity: 0 to 90%, non-condensing

Memory: EEPROM stores data for 10 years if power is lost

Inputs

DPF82: High-impedance DC pulse input 4 to 30 Vdc (high), open or 0 to 1 Vdc (low), 10 k impedance, 10 kHz max speed; accepts simultaneous inputs

DPF83: Mag. input, input A only, accepts 30 mV input (50 V max P/P), signals 10 k impedance, 5 kHz max, (input B, 4 to 30 V)

DPF84: Mag. input, inputs A and B, accepts 30 mV input (950 V max P/P) signals 10 k impedance 5 kHz max

Reset

Front Panel: Reset displayed value and control output

Remote: 4 to 30 Vdc negative edge resets all counters, "A" counter or "B" counter (user selectable)

K Factor/Scaling

The DPF80 Series has 2 separate K factors that are used to convert the input pulses to engineering units. The 5-digit K-factor dividers, with decimal keyed into any position, allow easy direct entry of any K factor from 0.0001 to 99999. Separate factors may be entered for the 2 separate input channels.

CONTROL OUTPUTS

Relays:

2 each NO Relay; 10 A 120/240 Vac or 28 Vdc. (NC relay contacts and NPN transistor output available with solder jumpers. Transistor output is internally pulled up to 10 Vdc through relay coil, sinks from 10 Vdc to 0.5 V @ 100 mA.)

Analogue Output:

An optional 4 to 20 mA (0 to 20 mA) output is available. The output can be programmed to track rate or total of the C display. This feature is available by adding suffix "A" to the model number. Connections are via a 2-terminal pluggable screw connector. Programming is accomplished by using the front panel in conjunction with rear DIP switches.

Accuracy: 50 µA worst case

Compliance Voltage

3 to 30 Vdc non-inductive

Presets

Two control outputs are provided. To set relay values, press "menu" button until "Relay" appears on the display; the A and B outputs can be assigned to the A, B or C displays. A 5-digit value can be entered for both presets, and the decimal point location is the same as the counter. The outputs can be set to energise from 0.1 to 99.9 seconds or latch (0.0). If a value other than 0.0 is entered, the counters will auto reset at the preset (for A and B counters).

Lockout

Unauthorised front panel changes can be prevented by entering a user-selected 5-digit code. The front panel can be completely locked out or the presets can remain accessible.

Ratometer

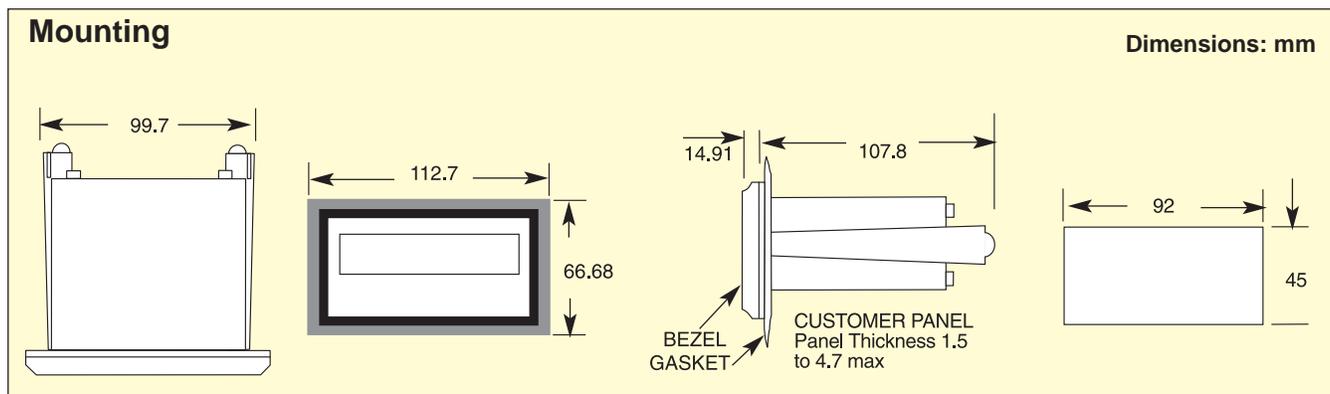
Accurate to 4½ digits (±1 display digit). The ratemeter uses 1/tau with 8-digit math, can sample from 2 to 24 seconds maximum, and auto-range up to 5 digits of significant information. In the "RPS" mode, the ratemeter displays in units per second, and in the "scale" mode, units per hour or per minute. The unit will display the rate of the A and B Inputs.

Counter

The two 6-digit counters can count at 10 kHz speed. Each has a separate 5-digit dividing scale factor. The counters advance on the positive edge of each pulse. Besides being able to step through the total and rate values of A and B inputs, the user can see a selected combination of total and rate of A + B, A - B, A ÷ B x 100 (percent of A to B), A ÷ (A + B) x 100 (percent of A to total). A negative display will be viewed as a 5-digit display with a negative symbol (-12345).



OMEGACARESM extended warranty programme is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARESM covers parts, labour and equivalent loaners.



Terminals:

1. COMMON
2. N.O.(N.C./NPN) — A
3. COMMON — B
4. N.O.(N.C./NPN)
5. A INPUT
6. B INPUT
7. 12 VDC OUT/+DC IN
8. -DC (GROUND)
9. RESET INPUT
10. 6 to 14 Vdc @ 50 mA
11. AC INPUT
12. AC INPUT
13. V+ — ANALOG OUTPUT
14. I-SINK —

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To Order (Specify Model Number)		
Model No.	Price	Description
DPF82-CE	£330	Dual simultaneous 4 to 30 Vdc pulse inputs, 115 Vac*
DPF83-CE	370	Magnetic pulse input A, and 4 to 30 Vdc pulse input B, 115 Vac*
DPF84-CE	470	Dual simultaneous magnetic pulse inputs, 115 Vac*

Accessory

Model No.	Price	Description
CE-1921	£35.50	Reference Book: Upgrading Water Treatment Plants

Comes with complete operator's manual.

* To order unit with 24 Vac power, add "-24V" to model number. For units with 230 Vac, add "-220V" to the model number (these voltage options are at no extra charge).

To order units with analogue output, add "-A" to the model number and add £88 to the price.

Ordering Examples: DPF82-CE-220V, dual simultaneous 4 to 30 Vdc pulse inputs and 230Vac powered, £330. DPF84-CE, dual magnetic pulse input ratemeter, £370.

OCW-3 OMEGACARESM extends standard 2-year warranty to a total of 5 years, £71, £370 + 71 = £441.



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• Flow and Level

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