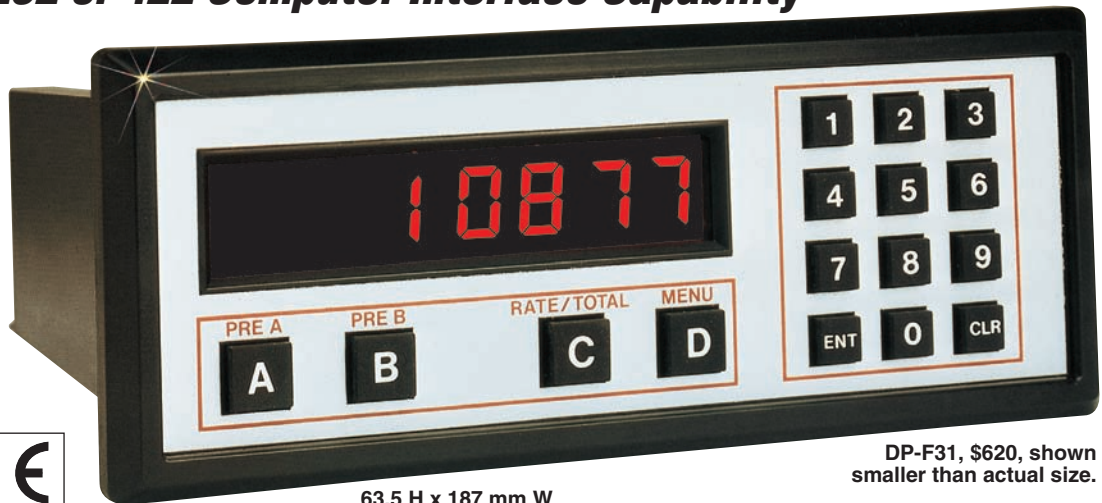


# TWO-STAGE BATCH CONTROLLER/RATEMETER

## Optional RS232 or 422 Computer Interface Capability

DP-F31  
Starts at  
**\$620**

Ideal for use with all OMEGA® mass flowmeters, controllers, turbine and paddlewheel flow sensors, vortex meters, magmeters, and pitot tubes.



DP-F31, \$620, shown smaller than actual size.

63.5 H x 187 mm W  
(2.5 x 7.375") cutout

- ✓ Displays Rate, Batch Total, and Grand Total
- ✓ Separate K Factors for Rate and Total
- ✓ 12 to 24V Output
- ✓ Optional 16-Point Linearization
- ✓ NEMA 4X (IP65) Front-Panel Cover

The DP-F31 ratemeter/totalizer accepts 3 to 30 Vdc pulses, dry-contact closure, voltage, or milliamp inputs, and provides 2-stage SPDT relay outputs for batch control. The display is fully scalable for engineering units and may be toggled between batch total, rate, and grand total. The linearization option allows the user to select up to 16 different K factors over the input range for accurate indication of non-linear signals.

Other features include 12 to 24 Vdc output for powering up flowmeters; pulsed (0.1 to 9.9 s) or maintained outputs; input filtering for dry-contact closure (such as reed relays); local/remote reset; excitation for open-collector or mechanical contacts; user-programmable auto-reset of batch total (repeat cycles, 10 Hz max); security lockout to prevent unauthorized changes; factored pulse output; and analog output for rate or total (analog output not available with square root -SQRT option).

The DP-F30 series indicates rate to 5½-digits and total to 8-digits, with program and count data stored for up to 10 years if power is lost.

### SPECIFICATIONS

**Input Power:** 110 Vac ±15% or 12 to 27 Vdc std.; 220 Vac ±15% optional  
**Current:** Max 250 mA DC or 3.2 VA  
**Output Power:** On AC-powered units only: +24 or +12 Vdc @ 100 mA; unregulated (±5% worst case)

#### Pulse Inputs:

DP-F31: 0 to 1 Vdc (low), 3 to 30 Vdc (high), 20 kHz max (min on/off 35 µs)

DP-F32: 4.7 kΩ pull up to +5 Vdc on input for pulsing with contact to ground or NPN collector transistor

**Factored Output:** Min on/off: 0.013 ms; open collector sinks 100 mA max from 1 to 30 Vdc max; max factored count speed is 20 kHz

#### Temperature:

**Operating:** 0 to 54°C (32 to 130°F)  
**Storage:** -40 to 93°C (-40 to 200°F)

#### Accuracy: ±0.5% FS

**Relay Outputs:** 2 SPDT contacts rated for 10 A at 120/240 Vac or 28 Vdc  
**4 to 20 mA Output:** ±0.5% FS accuracy; requires 3 to 24 Vdc supply voltage, non-inductive



OMEGACARE<sup>SM</sup> extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARE<sup>SM</sup> covers parts, labor and equivalent loaners.

### MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)		
Model No.	Price	Input Type
DP-F31	\$620	High level pulse; 3 to 30 Vdc, 20 kHz max
DP-F32	620	High level pulse; 3 to 30 Vdc, 20 kHz max with 4.7 kΩ pull-up resistors to +5 Vdc for NPN
DP-F33	709	4 to 20 mA, 250 Ω impedance
DP-F33-SQRT	709	4 to 20 mA with square root extraction
DP-F34	709	0 to 5 Vdc; 15 kΩ impedance
FW-343	140	Reference Book: Maintenance of Instruments and Systems

### Options

Ordering Suffix	Add'l Cost	Description
-MA	\$132	4 to 20 mA analog output, not available with DP-F33-SQRT
-LIN	63	16 point linearization
-220VAC	N/C	220 Vac power
-RS232	142	RS232 communications
-RS422	142	RS422 communications

Comes complete with operator's manual.

**Ordering Examples:** DP-F33-RS422 ratemeter/totalizer with 4 to 20 mA input, and RS422 computer communications option, \$709 + 142 = **\$851**. OCW-3 OMEGACARE<sup>SM</sup> extends standard 2-year warranty to a total of 5 years (**\$177**), \$742 + 177 = **\$919**.

DP-F31-LIN, ratemeter/totalizer with 16-point linearization, \$620 + 63 = **\$683**.

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