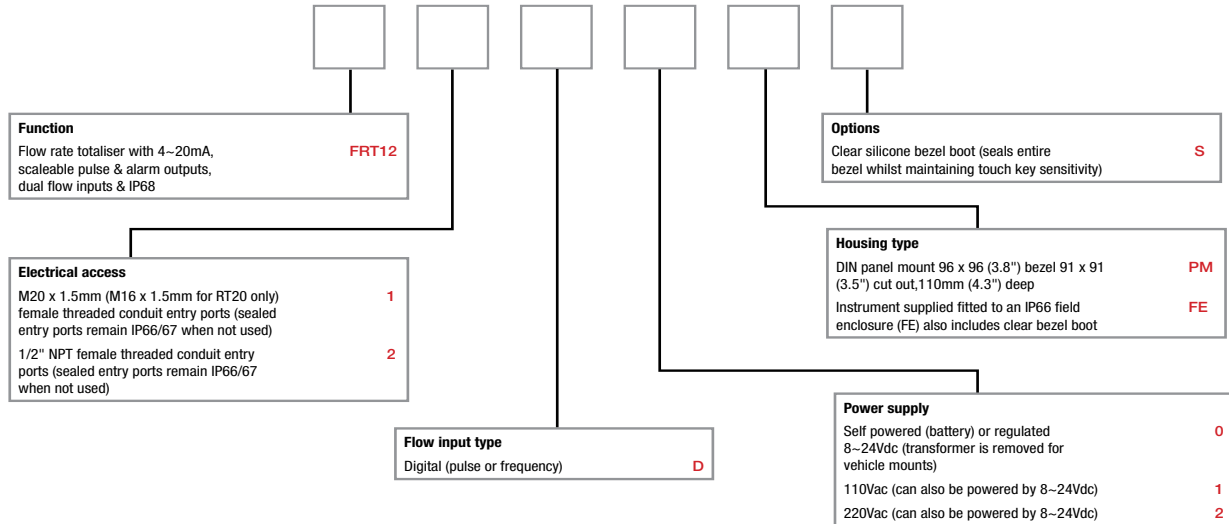


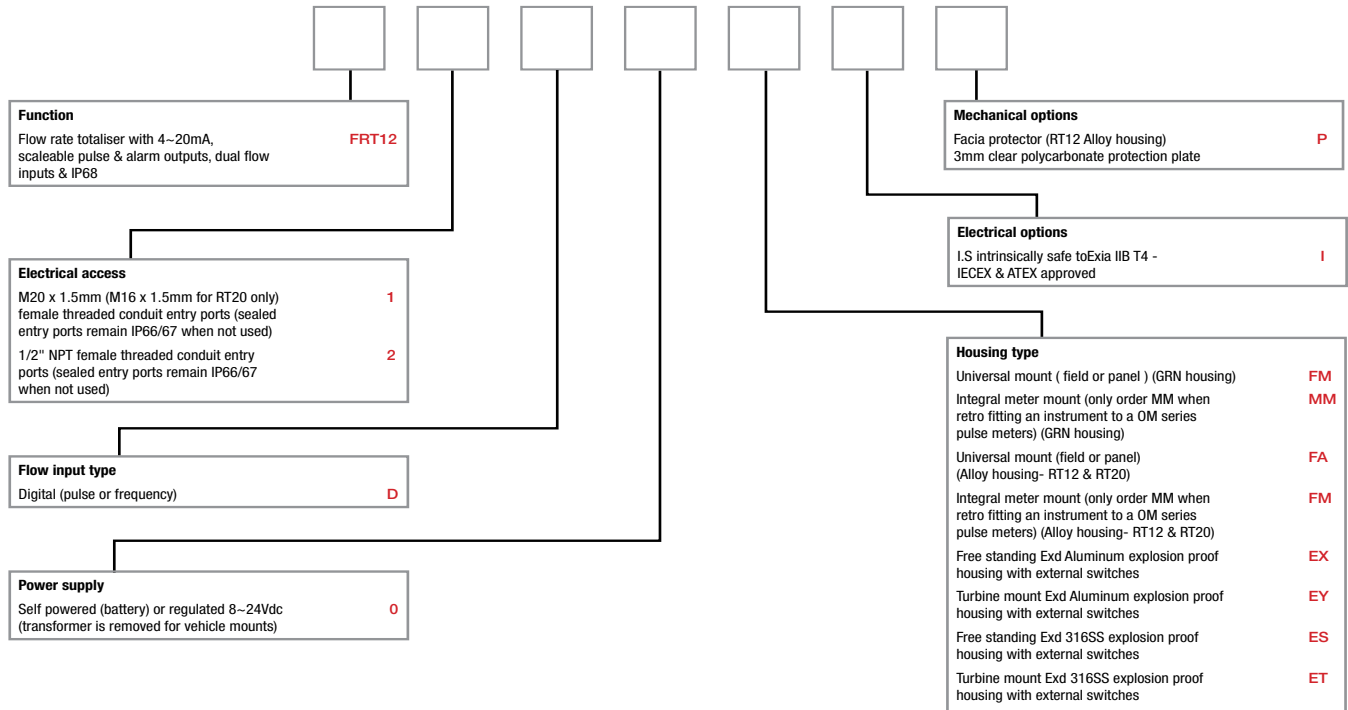
Instrumentation

RT Universal or DIN mount dual input rate & total LCD display

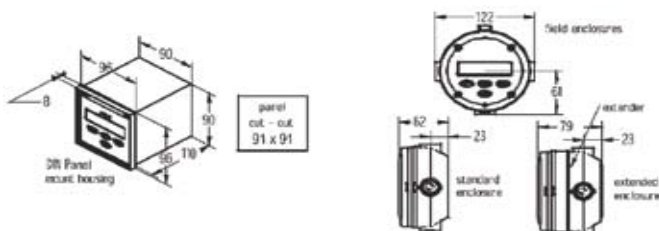
Options & Ordering Information DIN panel mounting version



Options & Ordering Information Universal mounting versions



Dimensional Information



Instrumentation

CT34 low cost pulse counter, RPM meter & batch controller

CT34 is a sophisticated new-generation counter equipped with a 6-digit display, which can hold up to 999999 count units or batches, and may have up to 2 programmable relay outputs and an analog output for alarm signaling or process controlling. CT34 is available as a counter, as an R.P.M. meter, and as a combination of both. As a counter, this model allows programming of 7 different counting and output-relay-action modes (including dosing mode) as well as counting pulses or pulse batches. The R.P.M. meter variant has 6 operating modes. Besides its counting input, CT34 has 3 additional inputs – CLEAR, GATE, and DIRECTION – and a user programmable software input filter. Other useful features include fraction number coefficient prescaler and programmable actual and displayed counting directions. With its various features and flexible programmable internal structure, the CT34 counter is a widely applicable device.



- Available as a totaliser, RPM meter or combined
- One or two 6-digit LED displays
- Pulse and analogue input versions
- Programmable divider and multiplier
- Pulse counting and batch counting
- 6 selectable modes plus dosing mode
- Up to 2 programmable relay outputs

Technical Information

pulse input, w/ programmable	mechanical contact (NO) or active front electronic (from PNP / NPN sensor)
analogue input, programmable(1)	0(4)...20 mA or 0...5(10) V
Input CLEAR	resets counter to '0' (4 functions)
Input GATE	enables pulse counting
Input DIRECTION(2)	changes counting direction
Maximum input frequency	5 kHz
Input filter	for suppression of contact bouncing
Prescaler coefficients	1...9999, multiplying and dividing
Input isolation (option)	optical, 1500 VAC
Relay electromechanical o/p	5A/250V w/ N.O/N.C (2) contact
Solid state relay o/p(4)	1A/250VAC
MOS gate	0.1A/60V, optically isolated
Transistor gate(5)	open collector, 40mA/40V
Output for external SSR	5...24 V, 30 mA
Relay action	according to the mode (7)
Output pulse duration	0.1...99.9 s, programmable
Analog output(6)	0(4)...20 mA or 0...10 V, isolated

PV display	6 LED indicators, 9mm
SP display(1)	6 LED indicators, 9m
LEDs	2 LEDs for output state
Mains supply voltage(1)	230 VAC or 115 VAC
SMPS voltage	90...250 VAC/DC (5)
Isolated low voltage	12...24 VAC/DC or 24 VAC (1)
Non-isolated low voltage	12...24 VAC/DC
Consumption	max. 6 VA
Operating temperature	-10...65 °C
Operating humidity	0...85 %RH
Storage temperature	-20...65 °C
Storage humidity	-20...65 °C 0...95 %RH, non-condensing
Operating modes	7 (incl. dosing mode)
Counting modes	pulse counting and batch counting
Counting range	0...2147483647
Programming	through keyboard

(1) Available ONLY for case 'H'
 (2) Only with pulse input type!
 (3) N.O for case 'L'

(4) Ask for availability!
 (5) ONLY with isolated power supply!
 (6) Instead of second relay

Options & Ordering Information

Feature or option	Order Code CT34-X.X.X.X.X
Variant	C - totalizing counter, R - R.P.M. meter, CR - combined
Case (front size)	H - 96x48 mm, S - 48x48 mm, L - 72x36 mm
Power supply	A - 230 VAC(1), B - 115 VAC(1), C - 90...250 V, P - 12...24 V, non-isolated, Q - 12...24 V, isolated(4), R - 24 VAC(1)
Counting input	P - pulse, A - analogue(1)
Relay output	X - none, C - relay N.O/N.C(3), D - SSR(4), E - open collector NPN(5), J - for external SSR, M - isolated MOS gate
Analogue output(6)	X - none, E - 0...20 mA, F - 4...20 mA, K - 0...10 V
Input isolation	X - none, I - input isolation
Increased front protection	X - none, P - IP65 front protection (9)

Ordering Example

CT34-C.H.C.P.C.X.X.X

Instrumentation

FT500 series wall mount batch controller



The FT500-Series is a batching flow processor with additional output controls. It is designed for use with flow meters and flow sensors which have frequency output proportional to flow. In addition to batch functions, the FT500-Series indicates flow rate, and other data in large 3/8" (9.66 mm) digits on an easily-read, backlit display.

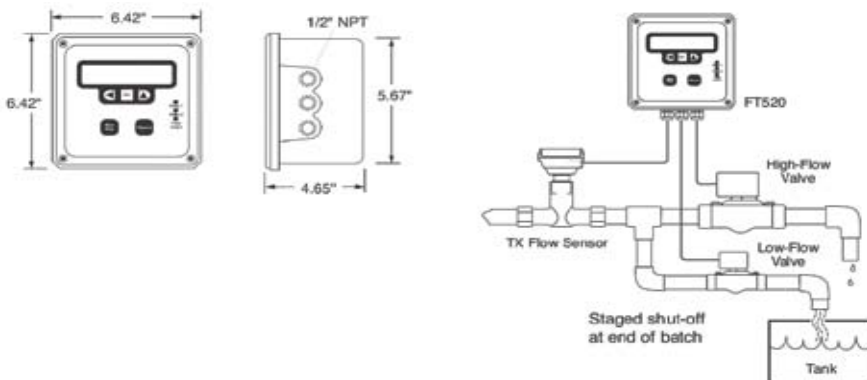
Units of measure are user selectable, and range from milliliters per second to millions of gallons per day. The unit can be 110 Vac powered with a standard 3-wire cord (included), 220 Vac powered (optional), or DC powered through an internal terminal strip (battery not included).

- Rugged industrial IP66 housing
- 2x change-over relays for 2 stage control
- Dual line alphanumeric display

Technical Information

Power	115 Vac, 50/60 Hz @ 125 mA, 12 Vdc @ 750 mA or 10-16 Vdc (220 Vac optional)
Temperature	0° - 55° C
Enclosure	Precision cast aluminium, NEMA 4X, panel or wall mount configuration
Batch Outputs	Two form C (SPDT) relays, 115 Vac 6A max
Max Pulse Output	100 mA at 60 Vac/Vdc, opto-isolated, open-collector
Memory Type	Non-volatile EEPROM with auto-backup
Sensor Power	12 Vdc, 10 mA
Display	Totalizer = 8 digit Rate = 5 digit, backlit
Units	Volume = Gallons, cubic feet, cubic meters, millions of gallons, millilitres, fluid ounces, pounds, litres Time = Seconds, minutes, hours, days
Analog Output	4-20 mA passive opto-isolated; 4-20 mA active; 0-5 Vdc, or 0-10 Vdc
Sensor Input	1-1000 Hz, ESD protected, interfaces to current sinking sensor output
Environmental	NEMA 4X
Setup Memory	Non-volatile EEPROM, auto-backup

Dimensional Information



Options & Ordering Information

MODEL

AC/DC Power, Rate/Total/Batch Indicator = **FT520**
Usage Monitor = **FT522**

MOUNTING

Wall mount = **W**

OPTIONS

Regeneration Control = **-84 (FT520 Only)**
Alarm Relay Output = **-86 (FT520 Only)**
220 vac Input = **-121**

Instrumentation

EB series two stage batch controller



- Large 8 digit batch & cumulative total LCD
- Robust IP66/67 wall/meter or panel mount
- Simple PIN protectable programming
- Scaleable flow inputs
- 2x switches for dual stage control
- Automatic overrun compensation
- Missing pulse (no flow) alarm
- Maximum batch size limiting
- Non volatile memory
- Multiple batcher interlock function
- Remote Run, Stop, batch set, etc version

The EB Ecobatch is a fully programmable high speed batch controller specifically designed to operate with common pulse producing flowmeters such as positive displacement, turbine, mass, vortex or magnetic style. The instrument displays batch value, batch progress & cumulative total in engineering units as programmed by the user, it also logs the total number of batches performed and total volume dispensed.

Ecobatch scrolls messages to prompt the user at each stage of operation. Batch limiting and no-flow detection are “safeguards” against erroneously high batch entries, loss of the flow input signal or control valve or pump failure.

Control outputs

Two independent outputs can be programmed to provide stepped control at the start and/or end of each batch. DC powered models have two solid state control outputs, DIN models can be AC or DC powered and have two single pole double throw (SPDT) control 5A relays. An Automatic Overrun Compensation feature corrects for any batch errors attributed to slow closing valves or flow rate variations.

Network interlocks

As many as 9 Ecobatch controllers may be networked together, typical applications are where one liquid is being dispensed to a number of outlets or a number of different liquids are being batched via one common flowmeter. Ecobatch will also take an “inhibit start” signal from other control or plant equipment.

Programming

Simple PIN protected flow chart programming with English prompts guide you through the programming routine greatly reducing the need to refer to the instruction manual.

Technical Information

Liquid crystal display (LCD)	9mm high alpha numeric characters + subscripts
Batch & accumulated totals	8 digit, programmable to 3 decimal places
Engineering units displayed	litres, MLitres, gallons, Mgallons, m3, lbs, kgs or no engineering units displayed
Input types (pulse & frequency)	reed switch, open collector, coil (15mV P~P min.), voltage, current, namur & other proximities. Max. frequency 10kHz
Input scaling range	0.001~9,999,999.999 with 3 floating decimal points
Control outputs (field mount)	Two 1A NPN open collectors, 24Vdc max.
(panel mount)	Two SPDT 5A relays (with DIN versions)
Alarm output (no flow alarm)	1A open collector (NPN/PNP selectable), 24Vdc max.
Operating temperature	-10~+80°C (14~176°F), refer factory for higher / lower temp.
Power requirements	12~24Vdc, 50mA, 95~260Vac (DIN version)
Status interlocks	Batch status output, batch inhibit input, network looping
Enclosures (two styles)	IP66/67 (NEMA 4X) GRN field mount or DIN panel mount
Mounting flexibility	meter mount, wall, surface, pipe or panel mount
Batching systems example	Ecobatch with flowmeter & control valve eg: UM020 system