

# C60-FL-RA Rate/Total/Batch Meter

Digital flow meter for panel mount :

- for measuring INSTANT FLOW with total flow in the background
- for measuring TOTAL FLOW with instant flow in the background
- for BATCH MODE application
- for measuring simple COUNTER

Accepts impulse signal types NPN, PNP, pick-up, mVac, reed switch, mechanical contact, push-pull and others. Standard 96x48mm (1/8 DIN) size. Scalable reading with 6 digits ('99999' to '-19999') and configurable decimal point. Provides excitation voltage +15Vdc (@50mA). 'Fast access' function to alarm setpoints and preset value, reset function for total flow by rear contact and /or front key, rear contact to switch reading values, 'Eco' mode for reduced consumption, 5 brightness levels. Single universal power supply 18 to 265 Vac/dc. With integrated relay and isolated 4/20mA analog output.



## How to order

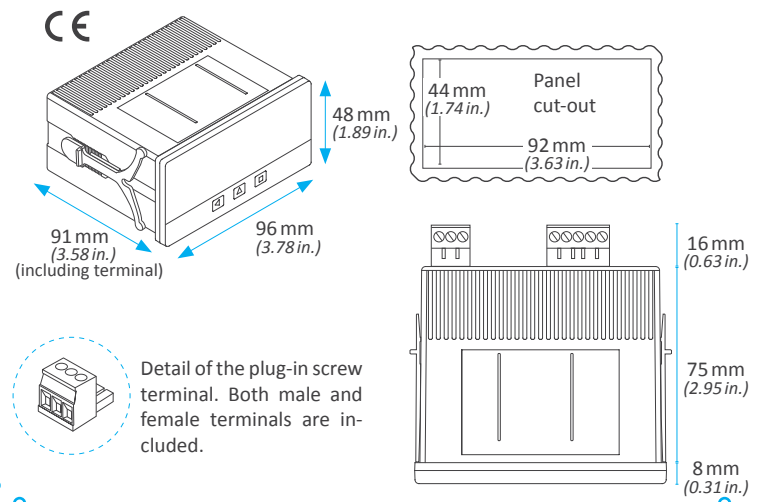
Series      Model      Outputs

C60 - FL - RA

## Technical specifications

Digits	6
Reading	999999 / -199999
Decimal point	configurable
Led color	red
Digit height	14 mm
Accepted signal	NPN, PNP, pick-up*, push-pull, reed contact, mechanical contact, ... (* minimum 10 mVac RMS)
Maximum frequency	500 Hz
Minimum frequency	0.06 Hz (with parameter 'Gate' at 16 seconds)
Maximum voltage at input	±30 Vdc
Input impedance	4.4 KOhms with pull-up, pull-down resistances 120 KOhms without resistances
Quartz accuracy	±0.01 %
Thermal stability	20 ppm/°C
Excitation voltage	+15 Vdc (max. 50 mA)
Value refresh	each time an impulse is detected
Display refresh	15 refresh / second
Memory retention	yes, retains total flow value in case of power loss
Configuration	from front keypad
Front protection	IP65
<b>Analog output</b>	
output signal	4/20 mA active and passive output is proportional to the reading scalable with positive and negative slopes
active output	connect terminal A (+15Vdc) and B (mA) max. load resistance RL < 350 Ohms
passive output	connect terminal C (Gnd) and B (mA) max. load resistance RL < 700 Ohms accuracy < 0.5% FS
response time	< 100 mSec. + meter response time
isolation	1000 Vdc

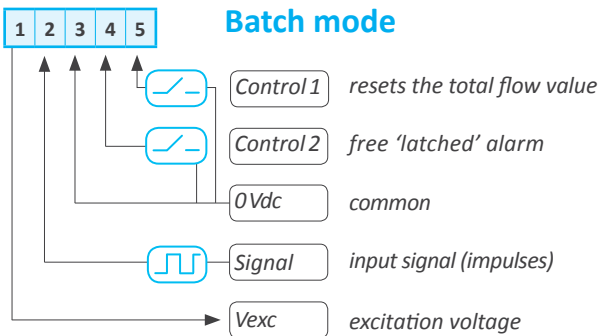
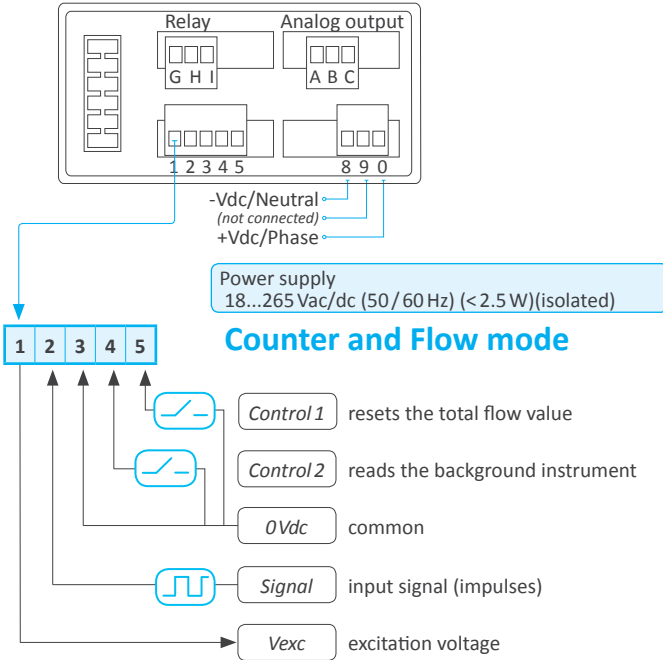
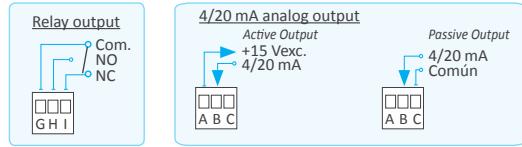
## Dimensions (mm / in.)



### Relay output

type of relay	3 contacts relay (NC, NO, common)
current maximum	8 A (resistive load)
voltage maximum*	250 Vac continuous
isolation	2500 Veff
Power 'U'	18 to 265 Vac/dc (50/60 Hz) (isolated 1500 Veff @60 seconds)
Power wiring	1 mm <sup>2</sup> to 2.5 mm <sup>2</sup> (AWG17 to AWG14)
Consumption (normal mode)	<1.0 W (meter only) <2.5 W (meter with options)
Consumption ('Eco' mode)	<0.3 W (meter only) <1.5 W (meter with options)
Connections	plug-in screw terminals
Mount	panel
Weight	<150 grams
Housing material	ABS, polycarbonate
Operation temperature	0 to 50 °C
Storage temperature	-20 to 70 °C
Warm-up time	15 minutes
Packaging	120x114x51 cm carton box
Material included	1x instrument C60-FL-RA 1x signal terminal 1x power terminal 1x set of units 1x 'Quick installation guide'

## Connections and rear view



## Functions included

- 'Fast access' menu . . . . . configurable menu at the 'UP' (▲) front key to access and modify the alarm setpoints, and preset values.
- 'Rear controls' . . . . . two rear controls, activated by shortcircuit to the '0V' terminal, to apply a reset to the total flow value, and switch display reading between instant flow and total flow values.
- 'Eco' mode . . . . . automatic turn-off of the display leds, to reduce the consumption of the instrument when the operator does not need reading.
- Alarm . . . . . configurable as maximum or minimum, with setpoint, hysteresis and 'on alarm' functions.
- Simplified scaling . . . . . easy scaling of the meter by using the 'K factor' parameter of the flow sensor, and independent multiplier and divider parameters for the instant flow and total flow values.
- Analog output . . . . . 1 analog 4/20 mA isolated output.
- Brightness . . . . . configurable 5 levels of brightness intensity.
- Password . . . . . blocks the configuration menu.
- Front Units . . . . . set of labels 'Units 9' included

## Additional documentation

User's manual C60-FL-RA	<a href="http://www.fema.es/docs/5046_C60-FL_manual_en.pdf">www.fema.es/docs/5046_C60-FL_manual_en.pdf</a>
Datasheet C60-FL-RA	<a href="http://www.fema.es/docs/5058_C60-FL_datasheet_en.pdf">www.fema.es/docs/5058_C60-FL_datasheet_en.pdf</a>
Quick installation guide C60-FL-RA	<a href="http://www.fema.es/docs/5060_C60-FL_installation_en.pdf">www.fema.es/docs/5060_C60-FL_installation_en.pdf</a>
CE declaration of conformity	<a href="http://www.fema.es/docs/5047_CE-Declaration_C60-FL_en.pdf">www.fema.es/docs/5047_CE-Declaration_C60-FL_en.pdf</a>
Warranty	<a href="http://www.fema.es/docs/4153_Warranty1_en.pdf">www.fema.es/docs/4153_Warranty1_en.pdf</a>

## Other signals we work

Pt Temperature	tc Temperature	NTC PTC Temperature	Kg Weight	mA Vdc Process	Vdc
Speed	160 Counter	Flow	Potentiometer	Time	Acd
Period	Custom	Vac	Aac	Integrators	Frequency
Resistances	RS-485 RS-232 Digital	Modbus RTU Digital	BCD Parallel Digital	BCD Multiplex Digital	