

LOOP POWERED RATE TOTALISER

Model 202A



Intrinsically Safe

The Model 202A is certified as intrinsically safe to European ATEX Standards, and CSA_{US/C} standard for both the USA and CANADA.

Watertight Enclosure

The 202A Rate Totaliser is housed in a rugged, yet attractive, IP67 (Neme 4X) polycarbonate enclosure which is completely watertight.

A wall mounting bracket is supplied as standard, while a 2" pipe mounting bracket is available as an option.

Alternatively, the Model 202A can be supplied as a panel mount instrument.

Overview

The 202A Loop Powered Rate Totaliser is designed to operate with any flowmeter which produces a 4-20mA output, including differential pressure devices, magnetic or vortex flowmeters.

The 202A is powered entirely from the 4-20mA current loop and has a maximum of 2.5 volts drop across the input.

The Rate Totaliser is fully programmable with linear or square law input relationships, programmable span, cutoffs and conversion factors.

A non-volatile memory stores all set up parameters and totals without the need for internal batteries or external power.

High and low alarms are standard via optically isolated solid state relay outputs. Alternatively, the high alarm output can be programmed to provide a scaled pulse output proportional to the total.

Specifications

General

Display	LCD which is continuously powered
Resettable Total	7 digitals with 10mm (0.4") high digits. Resettable from front panel
Accumulated Total	Displayed when the Accumulated Total button is pressed
Rate	4 digits with 8.5mm (0.33") high digits.
Span	The units of measure per timebase (eg. Gallons/sec) is programmable up to 999,999
Decimal Points	Decimal point positions are fully programmable for both rate and total
Timebase	Span can be programmed in units per second, minute, hour or day
Signal Type	4-20mA

Alarm / Pulse Outputs

Type	Two solid state relay outputs suitable for driving DC solenoids or external relays. The outputs provide high and low flow alarms; or pulse output and low flow alarm
Switching Power	200mA. 30VDC maximum
Saturation Voltage	0.8VDC typical across the output in the "on" state
Isolation	Both outputs are separately opto-isolated
Pulse Duration (for pulse output)	a. 1ms if output frequency > 50Hz b. 10ms if output frequency is 5...50Hz c. 100ms if output frequency is <5Hz

4-20mA Input

Resolution and Linearity	0.05% of span
Accuracy	0.05% of span @ 25°C. 0.1%(typ) of span, full temperature range
Update Time	0.5 second
Connection	Two wire
Voltage Drop	2.5 volts maximum

Physical

Temperature	Operating temperature: -20°C to 60°C
Dimensions	98mm (3.9") high x 152mm (6.0") wide x 43mm (1.7") deep (cable glands not include)
Protection	Sealed to Nema 4X or IP67 standards
Cable Entry	By cable glands
Wall Mounting	Universal mounting bracket supplied as standard
Pipe Mounting	A galvanised metal bracket is available which enables the Model 202A to be attached to a 2" vertical or horizontal pipe
Panel Mounting	Supplied with mounting brackets. Terminals accessible from rear. (Note that the panel mount version is not watertight)

Terminal Descriptions

Number	Description
3	4-20mA (-) Input
4	4-20mA (+) Input
5	Low Alarm (-)
6	Low Alarm (+)
7	High Alarm (-) or Pulse (-)
8	High Alarm (+) or Pulse (+)

Intrinsically Safe Parameters

ATEX Approval	Type II 2G EEx ia IIB T4
CSA _{US/C} Approval	Type Class 1, Groups C & D
4-20mA Input	U _i = 28V maximum I _i = 93mA maximum P _i = 653mW maximum
Relay / Pulse Outputs	U _i = 28V I _i = 93mA P _i = 653mW maximum

Product Codes

202A	.		Flowrate Totaliser
Intrinsic Safety	i		Intrinsically safe Not intrinsically safe
Enclosure And Mounting	0		Wall Mounting (no glad holes)
	1		Panel Mount
	2		Wall Mounting (Standard glands)
	6		Pipe Mount
Hazardous Approvals		C	CSA US and Canadian Approval
		M	ATEX Approval
		S	Australian SAA No Approvals

Important: Specifications are subject to change without notice.

