

The **BA337B**, **BA338B** and **BA339B** panel mounting totalisers will count and display the number of input pulses received from a wide variety of input transducers, including switch contacts and 2-wire proximity detectors. Voltage pulses can also be counted. The totaliser display is incremented by one digit for each input pulse, and may be reset to zero by an external contact closure.

Main application of the BA337B, BA338B and BA339B is to count and display a total within a hazardous area. Apart from display and enclosure size the three instruments are identical. The BA337B and the BA338B have four digit 12.7mm and 25mm high displays respectively. The BA339B has an eight digit 12.7mm high display. All the instruments will count and display any variable which can be converted into a series of pulses, for example the output from a turbine flowmeter can be counted to show total flow, or the output from a proximity detector counted to indicate the total number of operations or revolutions.

Intrinsic safety of the totalisers allows installation within a hazardous area. The pulse input terminals have a safety description which allows most 2-wire certified proximity detectors to be directly connected without the need for further certification. The totalisers may be reset from a manually operated switch within the hazardous

area, or from the safe area via a Zener barrier or galvanic isolator.

Panel mounting enclosures are moulded in glass filled Noryl. Two clamps secure the instrument into the panel aperture, and a removable terminal block allows wiring to be completed before the instrument is installed.

Reliability is ensured by an ISO9001 approved quality control system supported by a three year guarantee. The totalisers are protected from reverse connection and incorporate extensive radio frequency filtering to comply with the European EMC Directive.



BA338B

For field mounting totalisers see BA333B / BA334B datasheet.

BA337B BA338B and BA339B

4 and 8 digit panel mounting totalisers

*Intrinsically safe for use
in all hazardous areas*

- *Intrinsically safe*
- *Display:*
 - BA337B**
4 digit 12.7mm high
 - BA338B**
4 digit 25mm high
 - BA339B**
8 digit 12.7mm high
- *Proximity detector, switch or voltage input*
- *3 year guarantee*



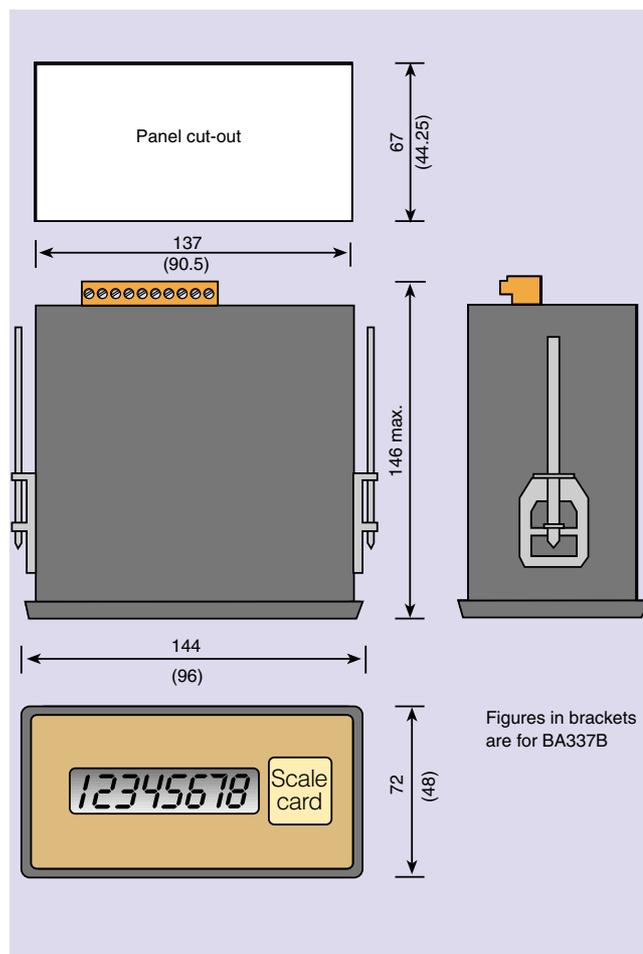
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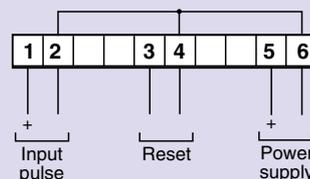
SPECIFICATION

Power supply	
Voltage between terminals 5 & 6	10 to 24V Totaliser must be powered via a Zener barrier or galvanic isolator.
Current	Typ 30mA with 24V supply via 28V 300Ω barrier.
Input	Type selected by internal plug-in links
2-wire proximity detector	Complies with NAMUR standard low <1.2mA; high >2.1mA Closed <100Ω; open >1k Low <1V; high >3V 10V max Counter is incremented on positive or negative edge of input pulse selected by internal plug-in link.
Switch contact	
Voltage pulse	
Counting edge	
Frequency	100Hz max, special versions up to 5kHz
Reset	Contact closure with resistance less than 1k for 1sec. Display resets to zero at power on
Display	
Type	Liquid crystal
BA337B	4 digits 12.7mm high
BA338B	4 digits 25.4mm high
BA339B	8 digits 12.7mm high
Decimal point	Between 3 least significant digits, or absent, selected by internal plug-in link.
Overrange	Colons and unselected decimal points activated.
Leading zero blanking	Selected by internal plug-in link
Intrinsic safety	
Standard	BS 5501:Part 7:1977 EN50 020
Code	EEx ia IIC T4
Certificate numbers	
apparatus	BAS Ex90C2408
system	BAS Ex902410
IS supply to totaliser	
Umax:in	30V
Imax:in	0.5A
Wmax:in	1.2W
Safety description	
Pulse input terminals 1 & 2	11.86V, 16.5mA, 49mW
Reset terminals 3 & 4	5.4V, 5.7mA, 7.7mW
Installation	See certificates and Application Guide AG330 for full details.
Location	Zone 0; 1 or 2
Environmental	
Operating temp	-20 to +60°C
Humidity	To 95% at 40°C non-condensing
Enclosure	
Front	IP52 see accessories for additional protection.
Rear	IP20
EMC	In accordance with EU Directive 89/336/EEC, full report available.
Immunity	No degradation for 10V/m field strength between 27MHz & 1GHz.
Emissions	Undetectable above background noise. Class B equipment.
Mechanical	
Terminals	Screw clamp for 0.5 to 1.5mm ² cables
Weight	
BA337B	0.3kg
BA338B & BA339B	0.4kg
Accessories	
Typeset scale card	Blank scale card fitted to each totaliser can be supplied typeset with units of measurement.
Tag strip	Thermally printed tag strip secured by screws to the rear of the instrument.
Front cover	See accessory datasheet for sizes
BA397	Provides IP54 protection for a BA337B totaliser.
BA398	Provides IP65 protection for: 2 BA337B totalisers 1 BA338B totaliser 1 BA339B totaliser

DIMENSIONS (mm)



TERMINAL CONNECTIONS



Terminals 2, 4 and 6 are connected together within the totaliser.

HOW TO ORDER

Model number	Please specify BA337B (4 digits 12.7mm high) or BA338B (4 digits 25.4mm high) or BA339B (8 digits 12.7mm high)
Input type*	Proximity detector or Switch contact or Voltage pulse
Leading zero blanking*	Specify on or off
Decimal point*	Specify position required, or absent.
Accessories	Please specify if required
Scale card	Legend
Tag strip	Legend
Front cover	BA397 or BA398

*Will be set for proximity detector input with no leading zero blanking or decimal point if conditioning information is not supplied.

Example	
Model number	BA339B (8 digits)
Input type	Proximity detector
Leading zero blanking	Off
Decimal point	Absent
Scale card	Litres
Tag strip	FI-1298