



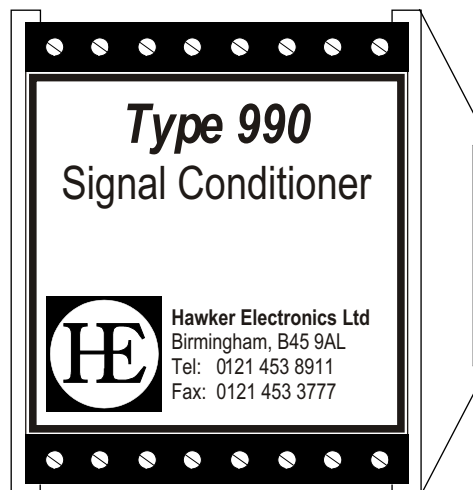
HAWKER

LEVEL CONTROL SYSTEMS

Type 990 Signal Processor

For use with all Standard
Liquid Level Sensors

- Simple set up menu
- Isolated output
- mV and mA transducers
- RS232 serial communications
- Built in simulator
- Negative offset compensation
- Unique display feature
- Forward or reverse acting
- DIN mounting



Applications

The Type 990 is a signal processing unit that takes a signal from an input device such as a level sensor, normally situated in a vessel. It provides an analogue and digital retransmission output, which is generally used for indication, control or alarm applications.

The unit accepts signals from a wide range of remote instruments, including the Hawker Flexicap, Sondaloop and other pressure transducers and transmitters.

Once it has been calibrated, the input signal is displayed on the internal LCD as a percentage in the range of 0 to 100.0. The user may calibrate the LCD full scale percentage over any part of the vessel. The retransmission output provides an analogue current and voltage proportional to the user calibrated input, as well as a digital transmission communications link via RS232. Other special functions can be programmed by the user, such as a reverse acting display or reverse acting transmission output, which are accessed through the Type 990 menus.

The Type 990 provides power for transducers or loop powered transmitters and can accept a direct signal input for a transmitter with an external power supply, ask for connection drawings.

The Type 990 can be set to run in 'simulator mode' where it effectively becomes a precision current or voltage source, this is useful for calibration during commissioning, and for diagnostic purposes.

Setting up is simple using only 2 pushbuttons and the LCD on the front of the unit, which provides very accurate and fast commissioning.



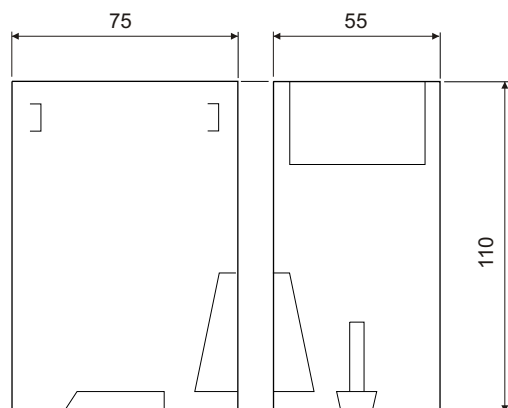
HAWKER TECHNICAL SPECIFICATIONS

Technical Data

Specifications given at 25°C over full input span, rights are reserved to change.

Power Input	230/110/24V AC $\pm 10\%$ 50Hz 24V DC $\pm 10\%$
Consumption:	5VA max
Signal Inputs	
Current:	4-20mA/4-21mA/0-21mA
Voltage:	-2 to 100mV DC
Min Input Span:	Not restricted depends on application
Supplies:	10V DC @ 10mA for transducer 24V DC @ 25mA for transmitter current limit @ 25mA
Impedance:	>100K Ohm voltage, 4.7 Ohm current
Signal Output	
Current, Volts:	4-20mA, 1-5V 4-21mA, 1-5.25V 0-21mA, 0-5.25V Current into 650 Ohms, volts >10K Ohms
Digital:	RS232C EIA-232-E data and ground
Baud:	Fixed 9600Kb
Connection:	Serial port 9/25 pin COM 1, 2 or 3, user selectable Op system W98/ME/2000/XP req. Microsoft.net framework 25Mb HD space, 32Mb Ram, 233MHz processor or better.
LCD:	4 digit, 9mm
Resolution:	0.1% FS
Repeatability:	100%
Accuracy:	0.1% FS
None Linearity:	<0.1% FS
Reponse Time:	<0.5S
Op Temp:	-10°C to +60°C
Enclosure	
Material:	Polycarbonate, IP20
Mounting:	Snap fastener for DIN rail mounting DIN 46 277
Weight:	375g
Terminals:	Captive self-locking screws, accepts upto 4mm ² conductor.
Dimensions:	55 x 110 x 75mm W x D x H
Extras	
CD-ROM	Hawker 990 Digital Communication Software.

Enclosure Dimensions



Ordering Information

MODEL	DESCRIPTION			
990	Signal Conditioner			
	CODE	Input Range		
	1	0-100mV		
	2	4-20mA		
	3	0-20mA		
		CODE	Output Range	
		A	0-21mA	
		B	4-20mA	
		C	RS232C EIA-232-E	
	990	1	B	Typical ordering information

Because of continuing development we reserve the right to change the specifications without notice

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