

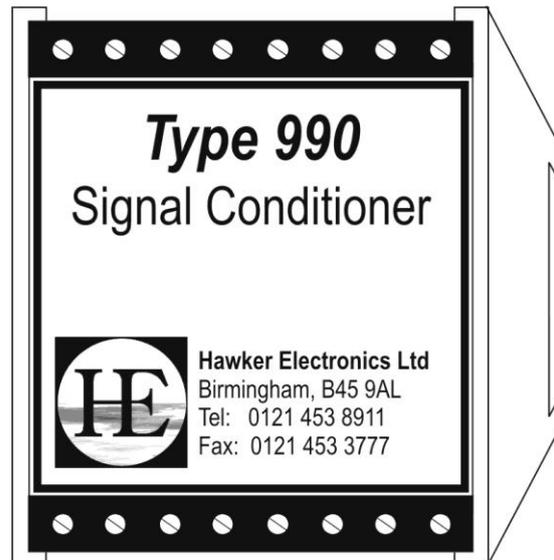


# HAWKER LEVEL CONTROL SYSTEMS

## ***Type 990 Signal Processor***

*For use with all standard liquid sensors*

- Simple set up menu
- Isolated output
- mV and mA transducers
- 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. 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 two pushbuttons and the LCD on the front of the unit, which provides very accurate and fast commissioning.



# HAWKER

## TECHNICAL SPECIFICATION

### Technical Data

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

Power input: 230/110/24V A.C. ±10% 50Hz  
24V D.C. ±10%

Consumption: 5vA max

#### Signal Inputs

Current: 4-20mA / 4-21mA / 0-21mA

Voltage: -2 to 100mV D.C.

Min input span: Not restricted depends on application

Supplies: 10V D.C. @ 10mA for transducer  
24V D.C. @ 25mA for transmitter  
current limit @ 25mA

Impedance: >100K ohm voltage, 4.7ohm current

#### Signal Output

Current volts 4-20mA, 1-5V  
4-21mA, 1-5.25V  
0-21mA, 0-5.25V  
Current into 650 ohms, volt >10K ohms.

L.C.D. 4 digit, 9mm

Resolution: 0.1% FS

Repeatability: 100%

Accuracy: 0.1% FS

None linearity: <0.1% FS

Response time: <0.5S

Op temp: -10°C to +40°C

#### Enclosure

Material: Polycarbonate, IP20

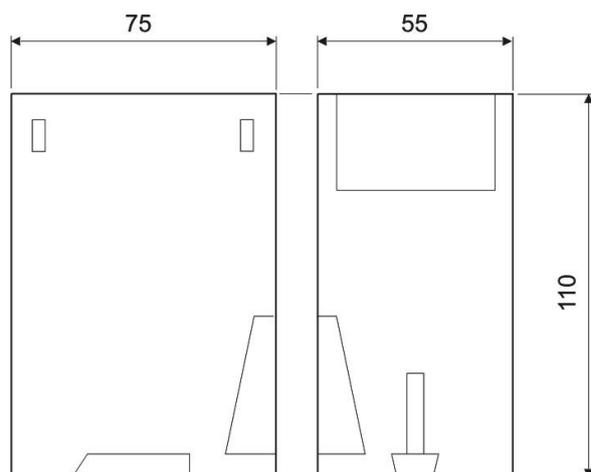
Mounting: Snap fastener for DIN rail mounting  
DIN 46277

Weight: 375g

Terminals: Captive self-locking screws, accepts up-to  
4mm<sup>2</sup> conductor.

Dimensions: 55W x 110D x 75mmH

### 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	
990	1	B	Input voltage see above e.g. 230V A.C. Typical Ordering Information

*This product has been designed and complies to the relevant standards as listed in its certificate of conformity. The installer/user must ensure compliance. The crossed out bin symbol, placed on the product, reminds you of the need to dispose of the product correctly at the end of its life. Because of continuing development we reserve the right to change the specifications without notice.*

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