WATER SUPPLIES DEPARTMENT
STANDARD SPECIFICATION E-82-12
SIGNAL CONVERTERS

1. GENERAL

Signal converters are used to provide isolation of input analogue circuits and to transmit the output signals at the required range or form.

The signal converters shall comply with the latest version of the relevant international standards listed below:

IEC 60715	Dimensions of low voltage switchgear and controlgear standardised mounting on rails for mechanical support of electrical devices in switchgear and controlgear installations
IEC 60529	Degrees of protection provided by enclosures (IP code)

2. DESIGN

Signal converters shall meet the following design requirements :-

(a) General

Number of signals	: 1 transmitter for up to 2 input signals
Isolation	: Better than 1000V a.c./d.c. between input and output
Power supply	: 220V 50 Hz or 24Vd.c. or loop powered
Operating temperature	: 0 -55°C
Mounting	: DIN rail to IEC 60715
Enclosure (where specified)	: IP54 to IEC60529 with E1W type cable glands

(b) Input

Input signal	: 0-10 mA, 4-20 mA, mV, V or variable resistance as specified
Input resistance	: Not exceeding 250 ohms for current input
	Greater than 1 M-ohms for voltage input

(c) Output

Output signal	: 4-20 mA proportional to input
Accuracy	: Better than ±0.3% of span
Minimum driving output load	: 500 ohms
Open circuit voltage	: <28V d.c.

- End of this Specification -