

TEMPERATURE/PRESSURE CORRECTING TRANSDUCER

CLTP1 - □ □ □

Use

A transducer that takes in temperature, pressure and differential pressure, then processes them for measurement of flow rate. By a programming unit (CCM-1), it is possible to change a parameter or output a simulated output for a loop test.

Features

1. Constant voltage/current output.
2. Withstand voltage between electric circuit and outer case AC2, 000V (50/60Hz), AC1, 500V (50/60Hz) for 1 minute between input/output and auxiliary supply, or AC1, 500V (50/60Hz) for 1 minute between input and output.
3. Plus/minus input/output is not manufacturable.
4. Impulse withstands voltage 5kV, 1.2/50µs (between electric circuit and outer case), and positive/ negative polarity 3 times each is guaranteed.

Specification

Input (input resistance)	Output (load resistance)	Auxiliary supply	Common specification
<p>AS : DC1-5V (approx.1M)</p> <p>C7 : DC4-20mA (approx.100)</p> <p>00 : other than those above</p>	<p>1 : DC0-100mV (200)</p> <p>2 : DC0-1V (200)</p> <p>3 : DC0-5V (1k)</p> <p>4 : DC 0-10V (2k)</p> <p>5 : DC1-5V (1k)</p> <p>A : DC0-1mA (12k)</p> <p>B : DC0-5mA (2.4k)</p> <p>C : DC0-10mA (1.2k)</p> <p>D : DC0-16mA (750)</p> <p>E : DC1-5mA (3k)</p> <p>F : DC4-20mA (750)</p> <p>H : DC4-20mA (800)</p> <p>DC1-5V (250k)</p> <p>SW switching</p> <p>0 : other than those above</p>	<p>1 : AC100V(+10%, -15%),50/60Hz</p> <p>2 : AC110V(+10%, -15%),50/60Hz</p> <p>3 : AC200V(+10%, -15%) 50/60Hz</p> <p>4 : AC220V(+10%, -15%), 50/60Hz</p> <p>5 : DC24V(+10%, -15%)</p> <p>0 : other than those above</p>	<p>Tolerance (when gain is 1) :</p> <p>± 0.25%</p> <p>(only when each input is more than or equal to 5%)</p> <p>Consumption VA:</p> <p>AC power source:2.5VA</p> <p>DC power source:3.0W</p> <p>Weight:</p> <p>AC power source:500g</p> <p>DC power source:400g</p>

Open of current output: even if the current output terminal is used in a state of regular open, there is no problem. Also, a voltage of approx. 25V occurs on the output terminal.

Operational expression

$$X_0 = K_1 X_1 \sqrt{\frac{K_2 X_2 + A_2}{K_3 X_3 + A_3}} \quad \text{or} \quad K_1 X_1 \sqrt{\frac{K_2 X_2 + A_2}{K_3 X_3 + A_3}}$$

- X₀: output signal
- X₁: differential pressure input signal
- X₂: pressure input signal
- X₃: temperature signal
- Gain: K₁-K₃ (±29.999)
- Bias: A₂, A₃ (±299.99%)

Factory preset

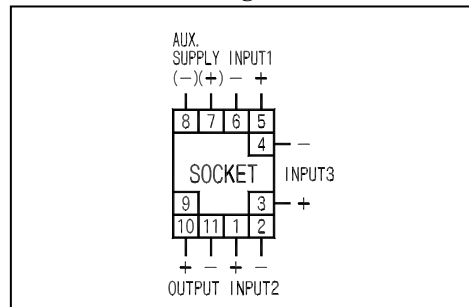
Products are shipped in the following setting.
(Can be changed by specification)
Without square root extracting function.

PARAMETER	
NO.	DATA
A ₂	0.0%
A ₃	0.0%
K ₁	1.0
K ₂	1.0
K ₃	1.0

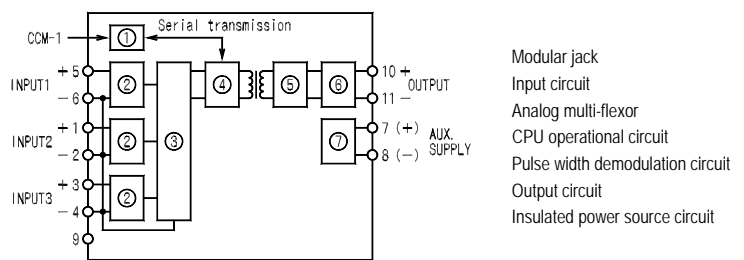


CLTP1-C7H1
(80 × 50 × 133mm/500g)

Connection diagram



Block diagram



Purchase specifications

