

## Thermocouple Splitter v3 TCS726

### DESCRIPTION

The thermocouple splitter TCS726 takes one thermocouple input and provides two fully isolated outputs. Both outputs can retransmit the thermocouple or one can produce a process signal (4-20mA) for remote data logging and supervision. Final calibration can be trimmed by using the front accessible SPAN (S) and ZERO (Z) potentiometers. The optional alarm point is also set by potentiometer utilising the adjacent test socket. The voltage at the test socket (referenced to terminal 13) gives a 0-5V trip set range representing 0-100% input. The wide swing DC/DC converter allows for two power supply ranges: 10-60Vdc (16-42Vac), 80-280Vac (80-300Vdc). Isolation is 2kV rms between all 5 ports.



### General Specifications

Mounting: 35mm DIN-Rail.  
 Termination: Plug-in screw terminals.  
 Weight: 0.300 kg.  
 Protection class: IP40 (IP65 Enclosure optional.)  
 Size: 60W x 70H x 110D (mm).  
 Housing material: ABS, aluminium.  
 Accuracy: 0.2% of span for > 100°C span.  
 Linearity: 0.15% of span.  
 Repeatability: 0.1% of span.  
 Operating ambient: 0...+60°C.  
 Storage temp. range: -20...+70°C.  
 Temperature effect: 0.02% per °C.  
 Cold junction compensation error: 0.02% per °C  
 Output drive: 0 to 22mA (20V drive).  
 0 to 20V (100 kΩ min)  
 Response time: 500ms standard (5ms link).  
 Zero/Span adjust: Typically ±20%  
 Contact rating: 10A/250Vac resistive.  
 Trip repeatability: <0.5% of range.  
 Trip response time: <100ms.  
 Switching hysteresis: 1 to 25% of range (default 1%).  
 Power requirements: 4VA.  
 6-way Isolation: 2kV rms.  
 Electromagnetic compatibility: AS/NZS 4251.1 (EN 50081.1) ✓

**Ordering code: TCS726 - X X X X X**

**Supply:** \_\_\_\_\_  
 1 = 80-300Vdc / 80 - 280Vac.  
 2 = 10-60Vdc / 16 - 42Vac  
**Input:** \_\_\_\_\_

**Specify - type (B E J K N R S T ?)**  
 - calibration (20 - 300°C ?).  
 1 = Thermocouple  
 2 = Thermocouple with up scale burnout.  
 3 = Thermocouple with down scale burnout

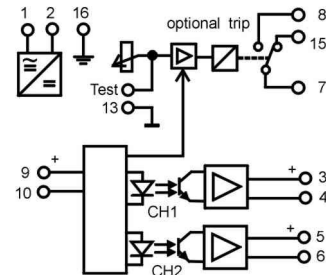
**Output:** \_\_\_\_\_  
 1 = CH1 Thermocouple.  
 CH2 Thermocouple.  
 \*) 2 = CH1 Link selectable (default 4-20mA).  
 CH2 Thermocouple.  
 \*) 3 = CH1 Process signal specify range.  
 CH2 Thermocouple.

**Alarm:** \_\_\_\_\_  
 0 = Not fitted.  
 \*) 1 = Change over 1% hysteresis.

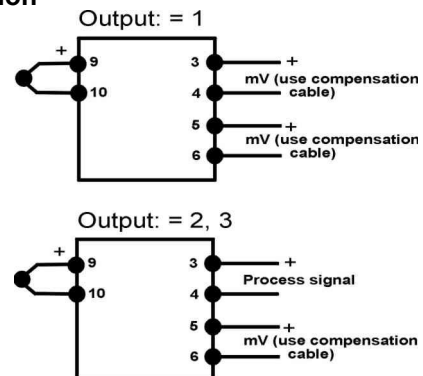
**Option:** \_\_\_\_\_  
 0 = none.  
 \*) 2 = Customised response time.

\*) = Price Extra..

### Block Diagram



### Connection



### Changing link selectable output

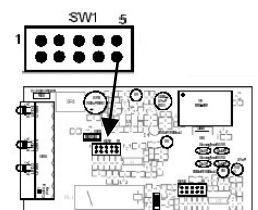
This procedure only applies when ordering output option 2.

- 1) Disconnect power to unit.
- 2) Unscrew right-side cover and withdraw PCB assembly.
- 3) Set the coding plugs SW1 as required.
- 4) Reassemble unit and connect power.
- 5) Adjust "span" and "zero" pots to recalibrate.
- 6) Change the label information to the new input/output values.

### CH1 Output Selection C204 PCB

Output	1	2	3	4	5
4-20mA	X		X		
0-20mA		X			
0-5V		X			X
1-5V	X		X		X
0-10V		X		X	

X = coding plug inserted



The process output is not linearised.

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