



BM800 Series Signal Conditioner

■ 6.2mm Ultra-thin

■ Flexible config of signals

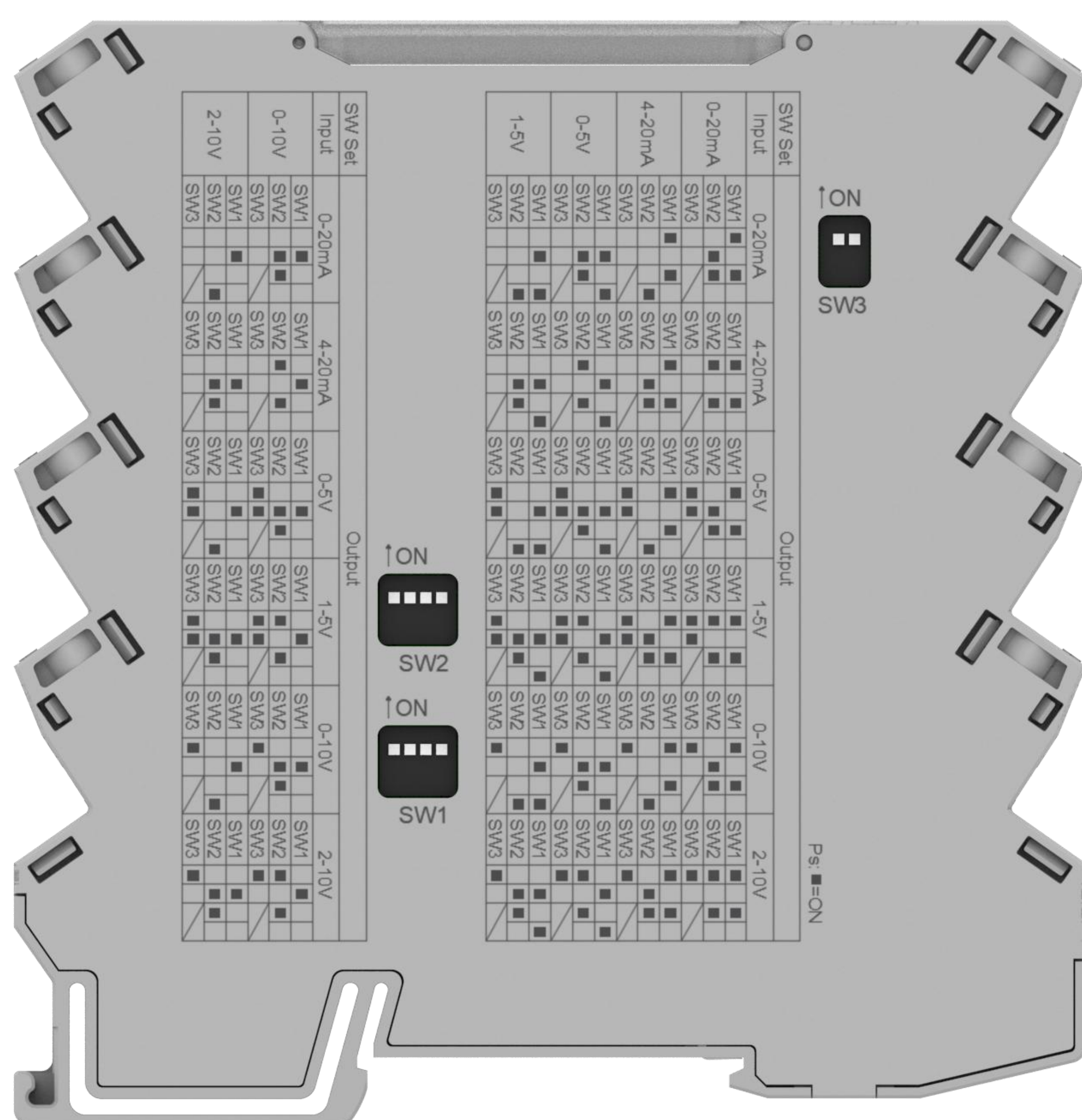
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Product feature



BM800 Series Signal Conditioner saves 50% of the space compared to the previous generation product



DIP Switch

Flexible config of input and output signals

Technical data

Analog input

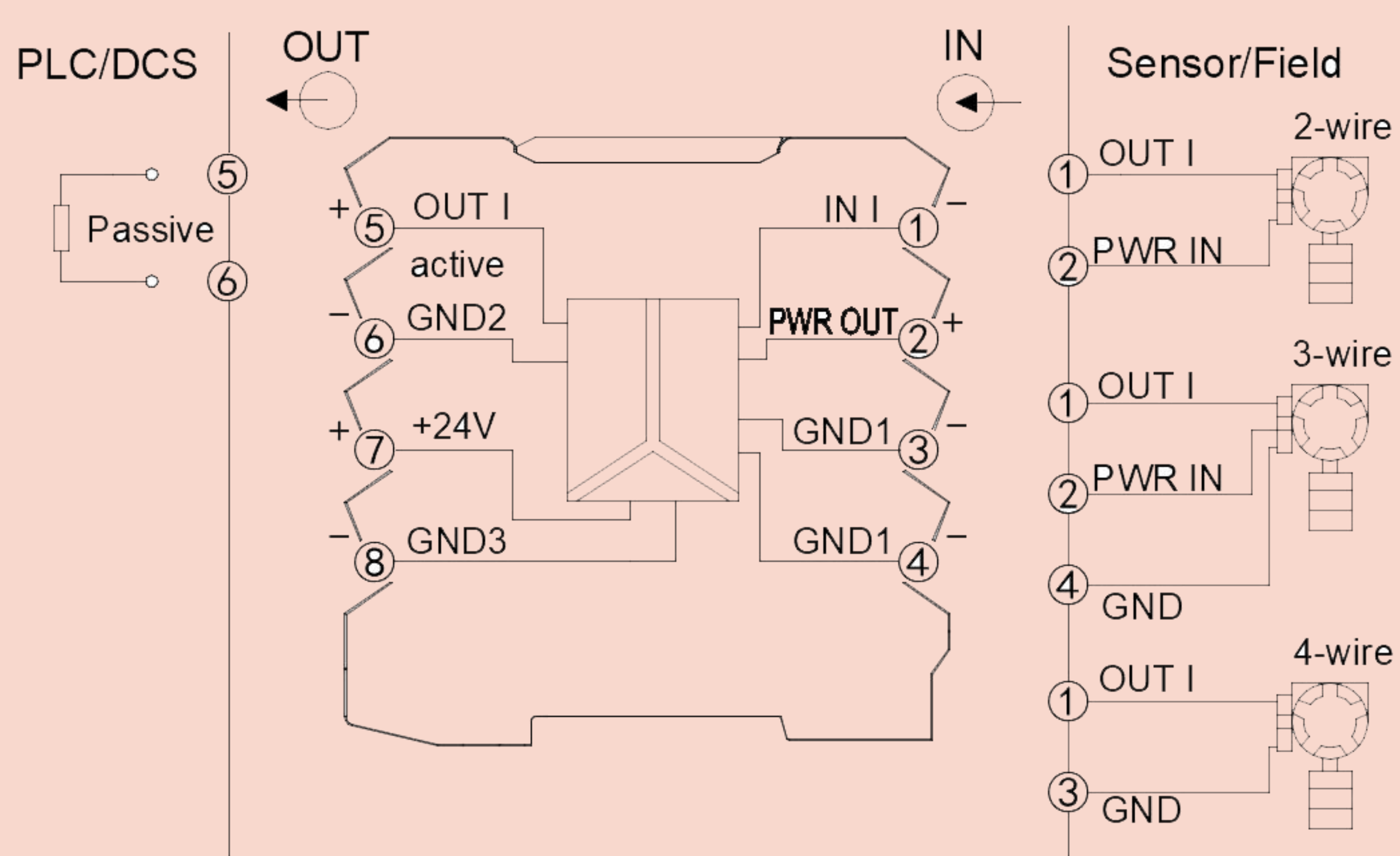
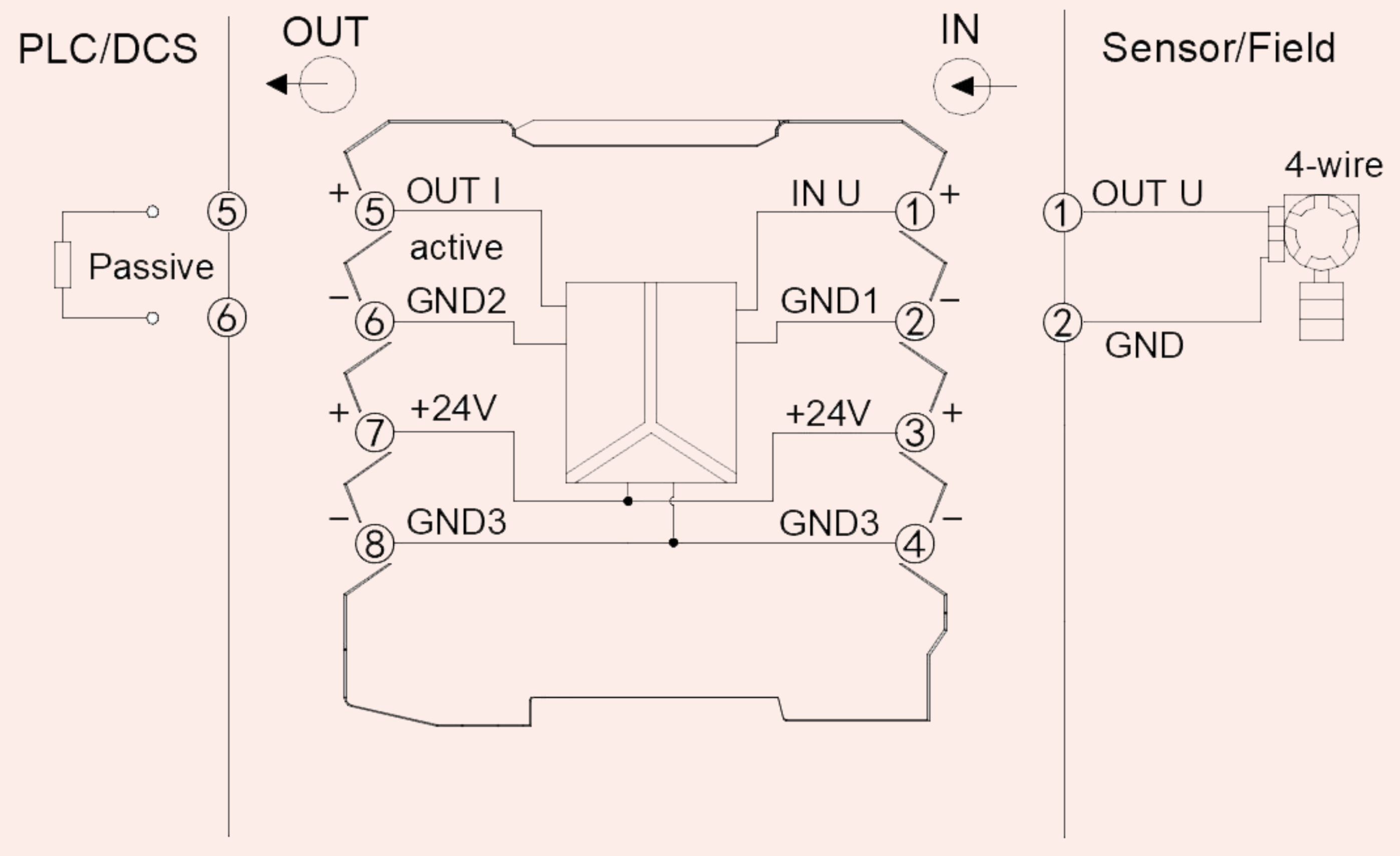
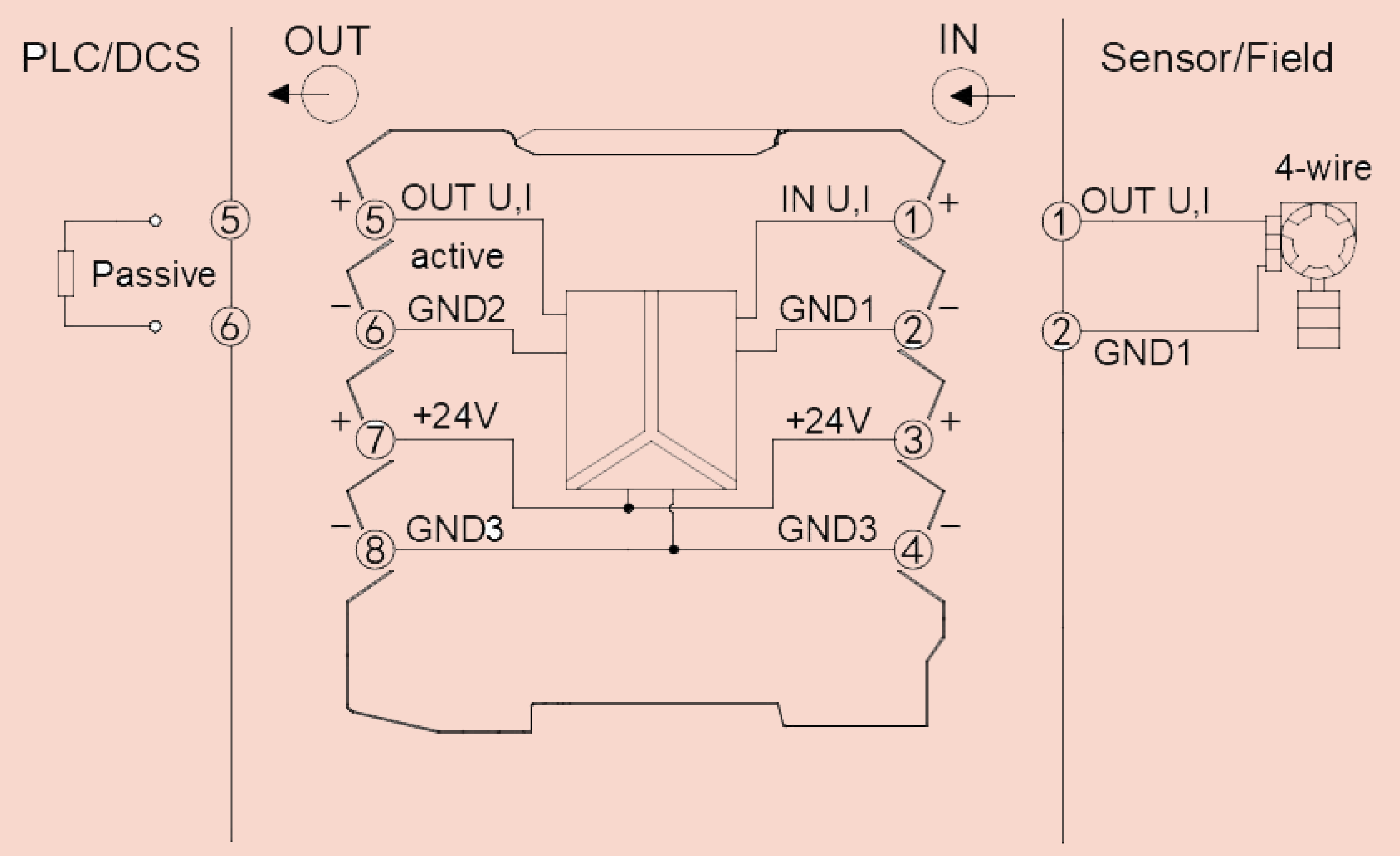
Model	BM800-RPSI/I-11	BM800-V/I-11	BM800-VI/VI-11
Signal channel	1/1		
DIP Switch	No		Yes
Input signal	0/4~20mA(2-wire、3-wire、 4-wire transmitter)	0/2~10V	0~20mA,4~20mA, 0~5V,1~5V,0~10V,2~10V (DIP Switch config)
Input resistance	Approx. 16 Ω plus 0.7 V diode voltage drop	2MΩ	Current Input: 50 Ω ; 0/1-5 V Input: 1 MΩ ; 0/2-10 V Input: 2 MΩ
Transmission error,typical	0.1%		
Output signal	DC 0/4~20mA		DC 0/4~20mA,DC 0/1 ~ 5V, DC 0/2 ~ 10V (DIP Switch config)
Power consumption	≤1.8W	≤2W	
Transmitter supply voltage	≥20V, @20mA output	/	
Output load	≤550Ω		≥10kΩ
Output ripple	≤50mVpp(Current output,@250Ω)		
Temperature coefficient	50ppm/°C		
Step response	5ms (10-90%)		
Supply voltage	24V DC		
Ambient temperature	operation temperature: -20°C ~ +60°C; storage/transport temperature :-40°C ~ +80°C		
Insulation voltage	input/output/supply ≥1500V AC		
Degree of protection	IP20		
Weight	approx.70g		
EMC	IEC61000-6-2 ; IEC61000-6-4		
Product dimension	6.2mm*97mm*100mm		

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Connection example

Analog input

Model	Connection Diagram
BM800-RPSI/I-11	
BM800-V/I-11	
BM800-VI/VI-11	

Technical data

Temperature Sensor input

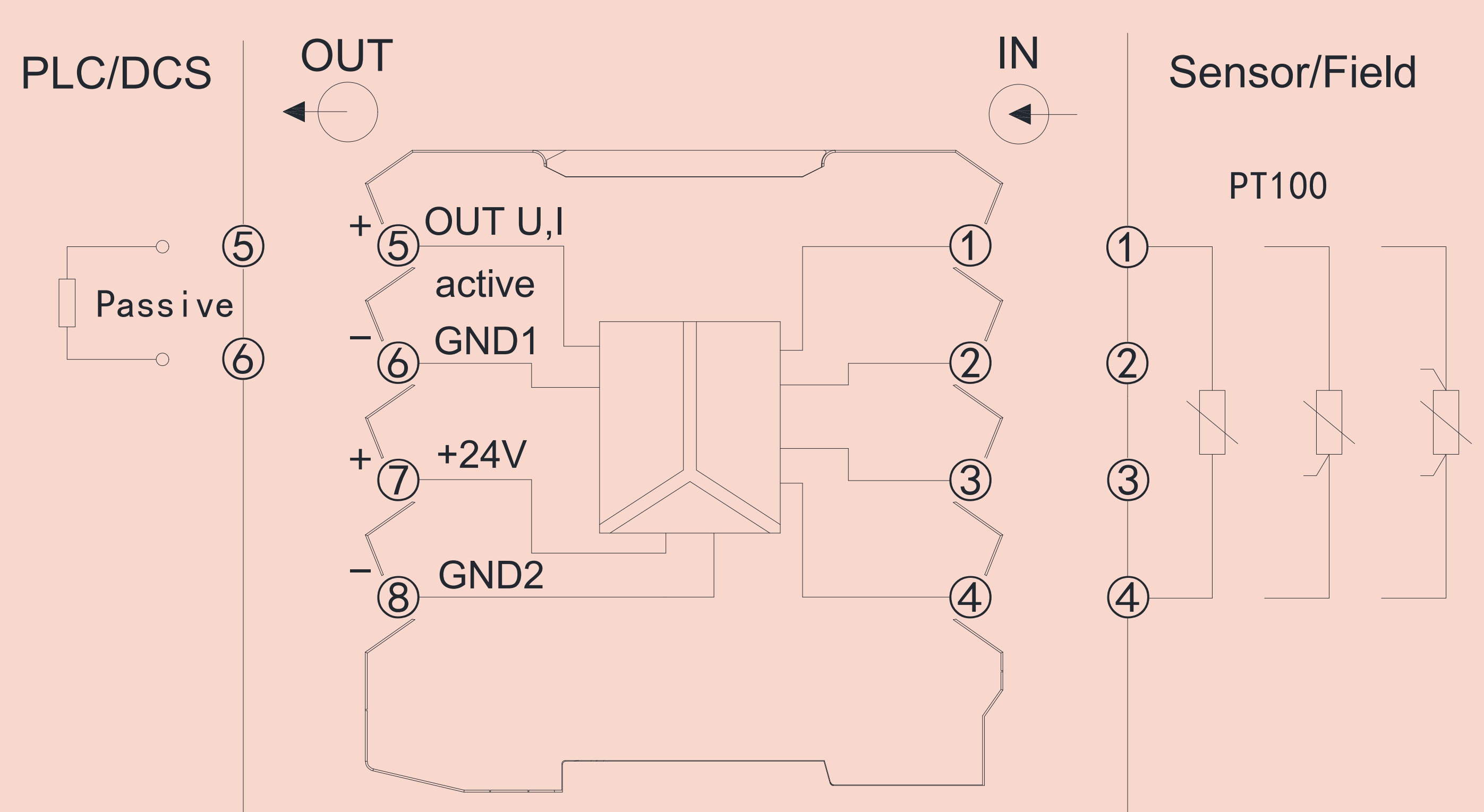
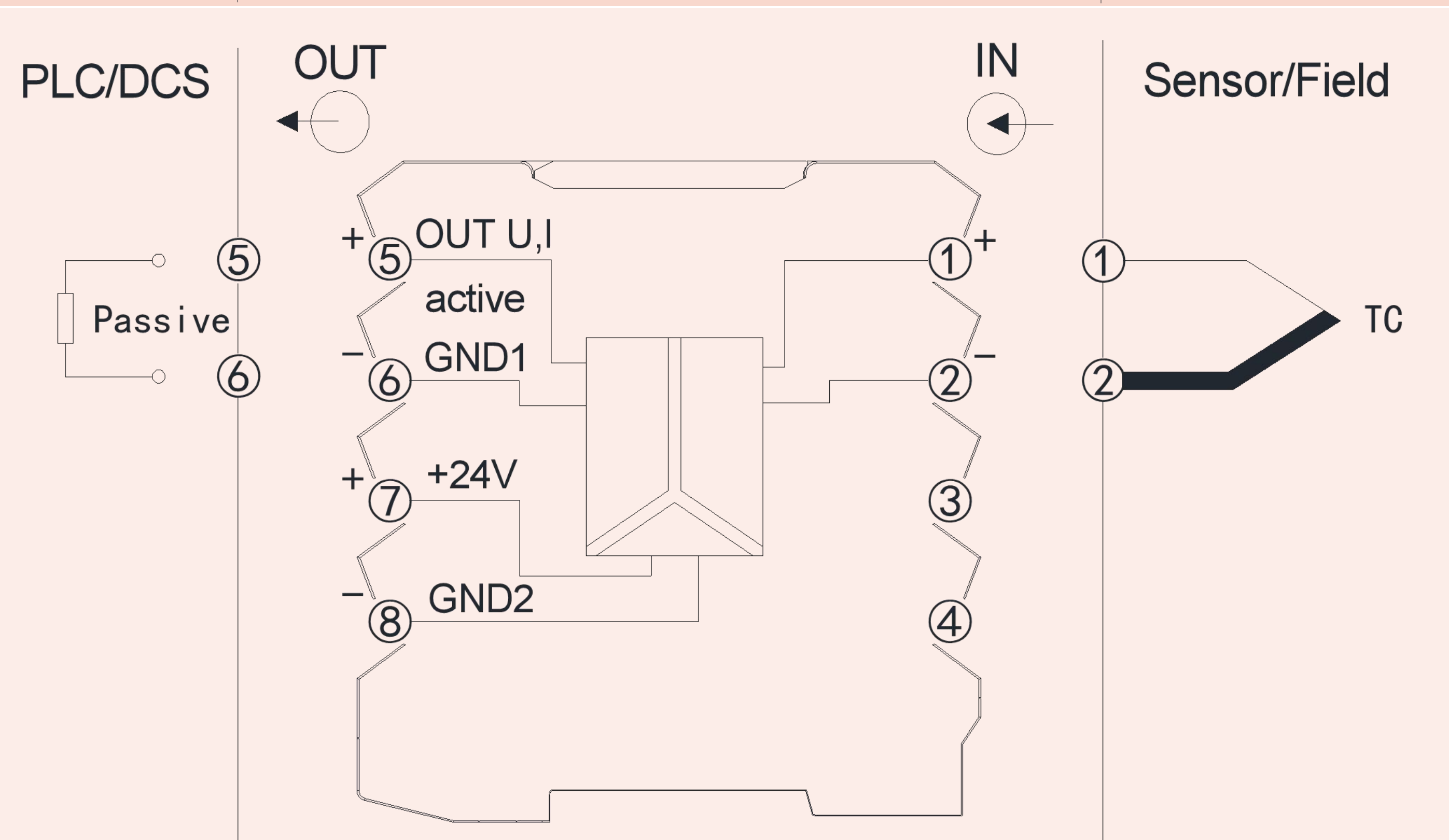
Model	BM800-TR/VI-11	BM800-TC/VI-11
Signal channel	1/1	
DIP Switch	Yes	
Input signal	Pt100(2/3/4-wire) (DIP Switch config)	Thermocouples (Type K, Type J) (DIP Switch config)
Minimum configurable span	50°C	300°C
Transmission error,typical	≤0.1% F.S. (≥200°C full scale, 3/4-wire input) ≤0.2°C/FS×100% F.S. (<200°C full scale, 3/4-wire input)	≤0.1% F.S. (Input range ≥ 1000°C) ≤0.2°C / Input Range × 100% F.S. (Input range < 1000°C)
Output signal	DC 0/4~20mA	DC 0/4~20mA,DC 0/1 ~ 5V, DC 0/2 ~ 10V (DIP Switch config)
Power consumption	≤1.8W (Iout=20mA, 24VDC, 550Ω load)	
Output load	Current output ≤550Ω; Voltage output ≥10kΩ	
Output ripple	≤50mVpp(Current output,@250Ω)	
Temperature coefficient	100ppm/°C	
Step response	1s (10-90%)	
Supply voltage	24V DC	
Ambient temperature	operation temperature: -20°C ~ +60°C; storage/transport temperature :-40°C ~ +80°C	
Insulation voltage	input/output/supply ≥1500V AC	
Degree of protection	IP20	
Weight	approx.70g	
EMC	IEC61000-6-2 ; IEC61000-6-4	
Product dimension	6.2mm*97mm*100mm	

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Connection example

Temperature Sensor input

Model	Connection Diagram
BM800-TR/VI-11	 The diagram shows the connection for the BM800-TR/VI-11 model. On the left, the PLC/DCS terminal block has terminals 5 and 6 labeled 'Passive'. On the right, the Sensor/Field terminal block has terminals 1 through 4. The internal wiring shows a PT100 sensor connected to terminals 1 and 2. The PLC/DCS output is connected to terminal 5, and the sensor's other terminal is connected to terminal 1. The internal circuitry includes a +24V supply and GND2 connection.
BM800-TC/VI-11	 The diagram shows the connection for the BM800-TC/VI-11 model. On the left, the PLC/DCS terminal block has terminals 5 and 6 labeled 'Passive'. On the right, the Sensor/Field terminal block has terminals 1 and 2. The internal wiring shows a TC sensor connected to terminals 1 and 2. The PLC/DCS output is connected to terminal 5, and the sensor's other terminal is connected to terminal 1. The internal circuitry includes a +24V supply and GND2 connection.