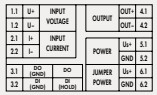
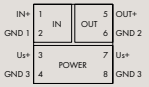
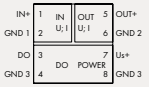
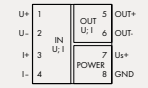
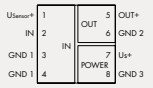
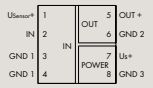
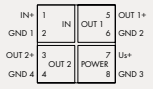
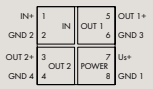
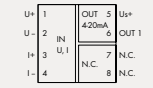
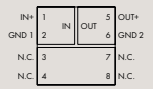
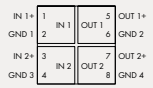
TECHNICAL DETAILS

See page 45 for an explanation of the symbols used.

	Description	Item No.	Image	Circuit Diagram	Input			Output			Special Functions				Configuration					Power Supply
Isolation Amplifiers	**Isolation Amplifiers**				A	V		A	V		DO		ZERO SPAN	S						
	Universal isolation amplifier	2857-401			0 … 1 mA 0 … 10 mA 2 … 10 mA 0 … 20 mA 4 … 20 mA 0 … 100 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V 0 … 220 V	±1 mA ±10 mA ±20 mA ±100 mA ±1 V ±10 V ±30 V ±100 V ±200 V	0 … 10 mA 2 … 10 mA 0 … 20 mA 4 … 20 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V	±10 mA ±20 mA ±5 V ±10 V	x	x		x	x		x		x	24 VDC
	Isolation amplifier, configurable, with zero/span adjustment	857-400			0 … 10 mA 2 … 10 mA 0 … 20 mA 4 … 20 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V		0 … 20 mA 4 … 20 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V				x			x					24 VDC
	Isolation amplifier, configurable, with digital output	857-401			0 … 10 mA 2 … 10 mA 0 … 20 mA 4 … 20 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V	±20 mA ±10 V	0 … 10 mA 2 … 10 mA 0 … 20 mA 4 … 20 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V		x	x				x		x	x		24 VDC
	Universal isolation amplifier	857-402			0 … 0.3 mA to 0 … 100 mA	0 … 60 mV to 0 … 200 V	±0.3 mA to ±100 mA ±60 mV to ±200 V	0 … 20 mA 4 … 20 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V	±10 mA ±20 mA ±5 V ±10 V		x	x			x	x				24 VDC
	Bipolar isolation amplifier	857-409			0 … 10 mA 2 … 10 mA 0 … 20 mA 4 … 20 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V	±10 mA ±20 mA ±5 V ±10 V	0 … 10 mA 2 … 10 mA 0 … 20 mA 4 … 20 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V	±10 mA ±20 mA ±5 V ±10 V			x			x					24 VDC
	Isolation amplifier, pre-configured	857-411			0(4) … 20 mA			0(4) … 20 mA												24 VDC
		857-412				0(2) … 10 V			0(2) … 10 V											
		857-413				0 … 10 V		0 … 20 mA												
		857-414				0 … 10 V		4 … 20 mA												
		857-415			0 … 20 mA				0 … 10 V											
		857-416			4 … 20 mA				0 … 10 V											

TECHNICAL DETAILS

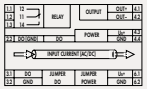
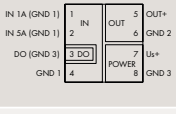
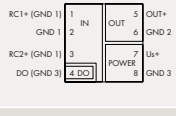
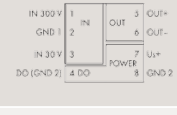
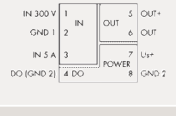
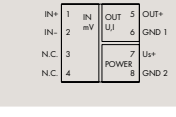
See page 45 for an explanation of the symbols used.

	Description	Item No.	Image	Circuit Diagram	Input			Output			Special Functions				Configuration					Power Supply
	Isolation Amplifiers				A	V		A	V		DO		ZERO SPAN	S						
Repeater Power Supplies	**Repeater power supply**	857-420			0 ... 20 mA 4 ... 20 mA			0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V						x					24 VDC
	HART repeater power supply	857-421			4 ... 20 mA			4 ... 20 mA												24 VDC
Signal Splitters	**Signal splitter, with current output**	857-423			0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		2 x 0(4) ... 20 mA							x					24 VDC
	Signal splitter, with voltage/ current output	857-424			0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		2 x 0 ... 20 mA 4 ... 20 mA	2 x 0 ... 10 V 2 ... 10 V						x					24 VDC
Passive Isolators	**Loop-powered isolation amplifier**	857-450			0 ... 5 mA 0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 1 V 0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V	±5 mA ±10 mA ±20 mA ±1 V, ±5 V ±10 V ±20 V	4 ... 20 mA					x		x					Power via output circuit
	Passive isolator, 1-channel	857-451			0(4) ... 20 mA			0(4) ... 20 mA												Power via input circuit
	Passive isolator, 2-channel	857-452			2 x 0(4) ... 20 mA			2 x 0(4) ... 20 mA												Power via input circuit

TECHNICAL DETAILS

See page 45 for an explanation of the symbols used.

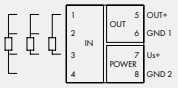
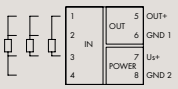
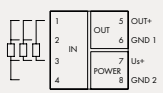
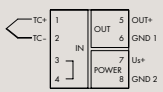
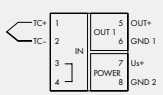
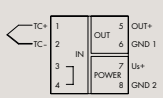
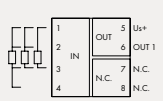
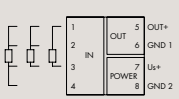
Current and Voltage Signal Conditioners

Description	Item No.	Image	Circuit Diagram	Input			Output			Special Functions				Configuration					Power Supply
Current and Voltage Signal Conditioners				A	V		A	V		DO		ZERO SPAN	S						
Through-hole current signal conditioner	2857-550			100 A AC/DC			0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V	±10 mA ±20 mA ±5 V ±10 V	x	x	x	x	x		x	x	x	24 VDC
Current signal conditioner	857-550			1 A AC/DC 5 A AC/DC			0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		x	x			x		x	x		24 VDC
Current signal conditioner, for Rogowski coils	857-552			Rogowski coils 500 AAC 2000 AAC 4000 AAC			0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		x	x			x		x	x		24 VDC
Voltage signal conditioner	857-560			300 V AC/DC			0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		x	x			x		x	x		24 VDC
Power signal conditioner	857-569			300 V AC/DC (5 A)			0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		x	x			x		x	x		24 VDC
Millivolt signal conditioner	857-819				0 ... 200 mV 0 ... 1000 mV	±100 mV	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V			x			x		x	x		24 VDC

TECHNICAL DETAILS

See page 45 for an explanation of the symbols used.

Temperature Signal Conditioners

Description	Item No.	Image	Circuit Diagram	Input			Output			Special Functions				Configuration					Power Supply
Temperature Signal Conditioners																			
Temperature signal conditioner, for Pt and resistance sensors	857-800			Pt100 Pt200 Pt500 Pt1000	0 … 1 kΩ 0 … 4.5 kΩ	2 conductors 3 conductors 4 conductors	0 … 10 mA 2 … 10 mA 0 … 20 mA 4 … 20 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V			x			x					24 VDC
Temperature signal conditioner, for Pt and resistance sensors	857-801			Pt100 Pt200 Pt500 Pt1000	0 … 1 kΩ 0 … 4.5 kΩ	2 conductors 3 conductors 4 conductors	0 … 10 mA 2 … 10 mA 0 … 20 mA 4 … 20 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V			x			x		x	x		24 VDC
Temperature signal conditioner, for Pt46 and Cu53 sensors	857-808			Pt46 Cu53		2 conductors 3 conductors 4 conductors	0 … 10 mA 2 … 10 mA 0 … 20 mA 4 … 20 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V						x					24 VDC
Temperature signal conditioner, for thermocouples	857-810			Type J, K			0 … 10 mA 2 … 10 mA 0 … 20 mA 4 … 20 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V			x			x					24 VDC
Temperature signal conditioner, for thermocouples	857-811			Type J, K, E, R, N, S, T, B, S			0 … 10 mA 2 … 10 mA 0 … 20 mA 4 … 20 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V			x			x		x	x		24 VDC
Temperature signal conditioner, for thermocouples	857-812			Type K, S, B, R			0 … 10 mA 2 … 10 mA 0 … 20 mA 4 … 20 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V						x					24 VDC
Loop-powered RTD temperature signal conditioner	857-815			Pt100 Pt200 Pt500 Pt1000	0 … 1 kΩ 0 … 4.5 kΩ	2 conductors 3 conductors 4 conductors	0 … 10 mA 2 … 10 mA 0 … 20 mA 4 … 20 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V						x					Power via output circuit
Temperature signal conditioner, for Ni sensors	857-818			Ni100 Ni120 Ni200 Ni500 Ni1000		2 conductors 3 conductors 4 conductors	0 … 10 mA 2 … 10 mA 0 … 20 mA 4 … 20 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V			x			x					24 VDC
Temperature signal conditioner, for KTY sensors	857-820			KTY sensors		2 conductors	0 … 10 mA 2 … 10 mA 0 … 20 mA 4 … 20 mA	0 … 5 V 1 … 5 V 0 … 10 V 2 … 10 V		x	x			x					24 VDC

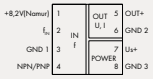
TECHNICAL DETAILS

See page 45 for an explanation of the symbols used.

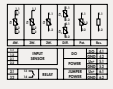
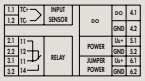
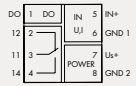
Temperature Signal Conditioners

Description	Item No.	Image	Circuit Diagram	Input		Output			Special Functions			Configuration				Power Supply
Temperature Signal Conditioners										DO						
RTD/TC temperature signal conditioner, analog	2857-535			RTD sensors Potentiometers Resistors Thermocouples	2 conductors 3 conductors 4 conductors Differential measurement Potentiometer	-24 ... +24 mA (load impedance ≤ 600 Ω)	-12 ... +12 V (load impedance ≥ 2 kΩ)		1 changeover contact (1 u) 250 VAC / 6 A	X	X	X	X	X		9.6 ... 31.2 VDC
RTD/TC temperature signal conditioner, serial	2857-535/ 000-001							Modbus RTU			X	X	X	X	X	

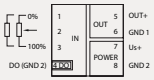
Frequency Signal Conditioners

Description	Item No.	Image	Circuit Diagram	Input	Output			Special Functions				Configuration					Power Supply
Frequency Signal Conditioners									DO								
Frequency signal conditioner	857-500			Frequency signals, NAMUR, NPN, or PNP sensors: 0.1 ... 120 kHz	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V			x			x		x			24 VDC

Threshold Value Switches

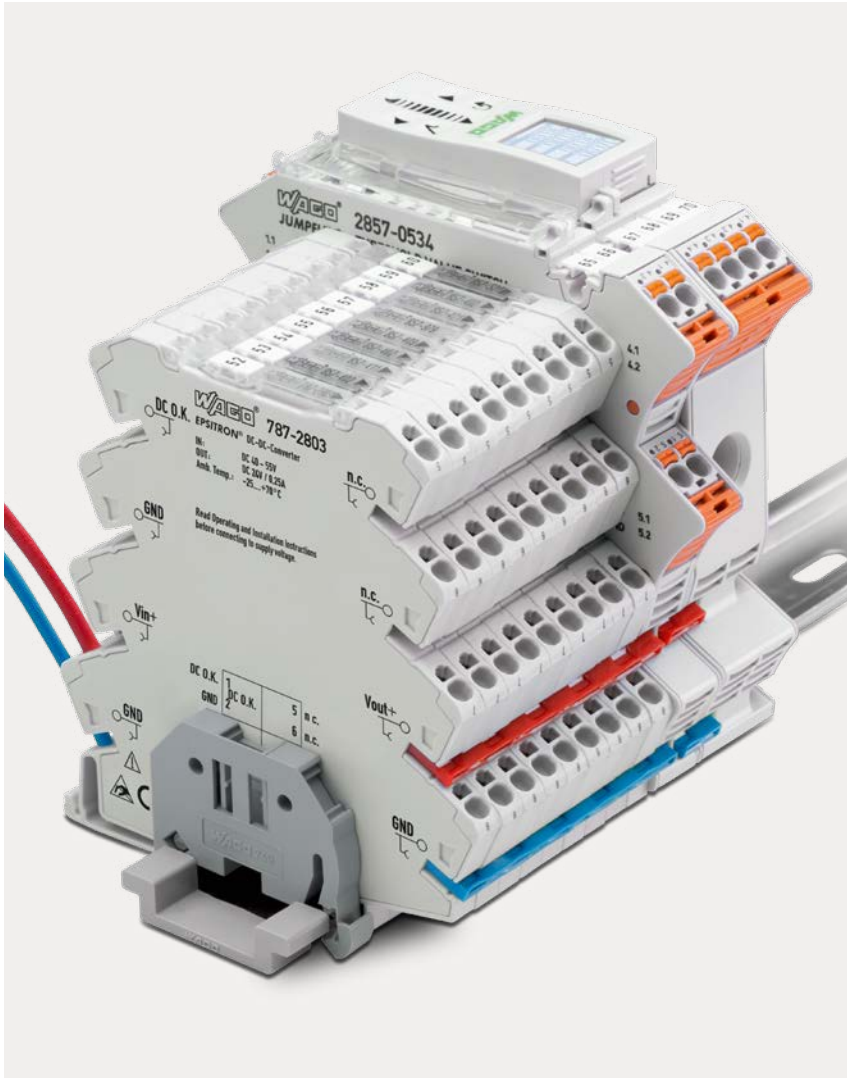
Description	Item No.	Image	Circuit Diagram	Input							Special Functions					Configuration					Power Supply
Threshold Value Switches													DO								
RTD threshold value switch	2857-533						2 conductors 3 conductors 4 conductors	Potentiometer 0 ... 100 kΩ	0 ... 100 kΩ	Pt100 Pt200 Pt500 Pt1000 Pt5000 Pt10,000 Pt10 ... 20,000	250 VAC 6 A		x		x	x		x	x	x	24 VDC
Thermocouple threshold value switch	2857-534									Type J, K, E, N, R, S, T, B, C		250 VAC 6 A	x		x	x		x	x	x	24 VDC
Analog threshold value switch	857-531			0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V 0 ... 15 V 0 ... 30 V	±10 mA ±20 mA ±5 V ±10 V						250 VAC 6 A	x				x	x	x	x	x	24 VDC

Potentiometer Signal Conditioners

Description	Item No.	Image	Circuit Diagram	Input			Output			Special Functions				Configuration					Power Supply
Potentiometer Signal Conditioners										DO									
Potentiometer signal conditioner	857-809			Potentiometer 0 ... 100 kΩ	10 ... 100 kΩ		0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V		x	x			x	x	x	x		24 VDC

EPSITRON® – DC/DC CONVERTERS

Packaged in a 6 mm Wide Housing



The DC/DC Converter in a 6 mm housing is ideal for applications in which only one power supply can be installed in the control cabinet, yet an additional voltage is needed for smaller devices.

This is particularly applicable if 857 Series relays or JUMPFLEX® Signal Conditioners need to be supplied, but only one 48 V power supply is available in the control cabinet.

Advantages:

- Saves control cabinet space
- Can be commoned to the 857 and 2857 Series
- Eliminates the need for an extra power supply
- Ready for global use in many industries thanks to both UL* and GL* approvals

*pending

Item Number	U IN	U OUT	I OUT
787-2801	24 VDC	5 VDC	0.5 A
787-2802	24 VDC	10 VDC	0.5 A
787-2803	48 VDC	24 VDC	0.5 A
787-2805	24 VDC	12 VDC	0.5 A
787-2810 (configurable)	24 VDC	5/10/12 VDC	0.5 A

JUMPFLEX® SIGNS AND SYMBOLS

Signal Conditioners and Isolation Amplifiers


Isolation amplifier


Temperature signal conditioner


Threshold value switch


Frequency signal conditioner


Potentiometer signal conditioner


Resistance signal conditioner


Current signal conditioner


Voltage signal conditioner

Isolation Technologies


Disconnecting


Amplifying


Filtering


Converting

Special Functions


Zero/span adjustment


Clipping capability


Digital output (DO)


Relay, 1 changeover contact


Relay, 1 make contact

Configuration


DIP switch


Rotary coding switch


Interface configuration software


Interface configuration app


Configuration display for interface modules


Push/slide switch


Save


Simulation

General


Temperature sensors


Connection technology


Supply voltage

Input Signals


Frequencies


Potentiometer


Resistors


Current


Voltage


Bipolar signals Current and voltage

Output Signals


Current


Voltage


Bipolar signals Current and voltage


RS-485 interface