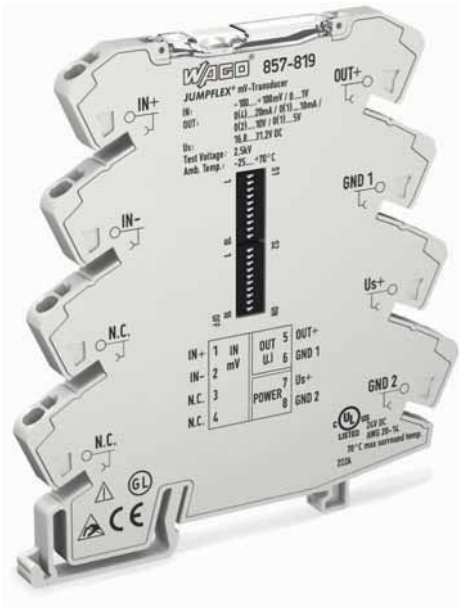
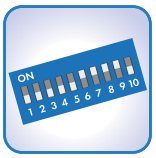
JUMPFLEX® Transducers

Millivolt transducer; Records all mV signals ranging from -100 mV to +100 mV; 0 mV ... 1000 mV. Application: Recording of lambda probes



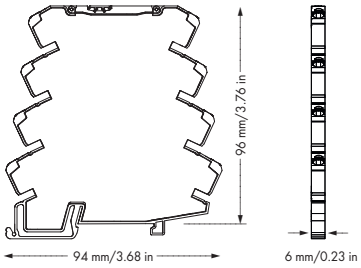
Configuration via:

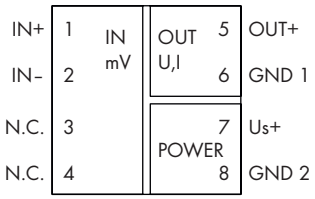


DIP Switches

PC Configura-tion Software

Smartphone App





Short description:
The 857-819 Millivolt Transducer converts input millivolt signals into an analog standard signal on the output side.

Characteristics:
- PC configuration interface
- Calibrated scale switching
- Clipping capability allows analog standard signal limitation to upper range values
- Safe 3-way isolation with 2.5 kV test voltage to EN 61140

Description	Item No.	Pack. Unit
***JUMPFLEX*® transducers, for DIN 35 rail**	**857-819**	1
Millivolt transducer, with millivolt input as well as current and voltage output		

Technical Data

Configuration:	
Configuration	DIP switches, PC configuration software, smartphone app
Input:	
Input signal	-100 mV ... +100 mV, 0 mV ... 200 mV, 0 mV ... 1000 mV * (in 100 mV increments)
Input resistance	> 1MΩ
Max. input signal	31.2V
Output:	
Output signal	0 ... 10 mA, 2 ... 10 mA, 0 ... 20 mA, 4 ... 20 mA, 0... 5 V, 1 ... 5 V, 0 ... 10 V, 2 ... 10 V *
Load impedance	≤ 600 Ω (I output) ≥ 2 kΩ (U output)
Step response	50ms
General specifications:	
Voltage supply V_S	24 V DC
Supply voltage range	16.8 V ... 31.2 V
Current consumption at 24 V DC	≤ 40 mA
Min. measuring span	10 mV (configurable)
Transmission error	≤ 0.1 % of upper range value
Temperature coefficient	≤ 0.01 %/K

Technical Data

Environmental requirements:	
Ambient operating temperature	-25 °C ... +70 °C
Storage temperature	-40 °C ... +85 °C
Safety and protection:	
Test voltage (input/output/supply)	2.5 kV AC, 50 Hz, 1 min
Connection and type of mounting:	
Wire connection	CAGE CLAMP® S
Cross sections	solid: 0.08 mm² ... 2.5 mm² / AWG 28 ... 14 fine-stranded: 0.34 mm² ... 2.5 mm² / AWG 22 ... 14
Strip lengths	9 ... 10 mm / 0.37 in
Dimensions and weight:	
Dimensions (mm) W x H x L	6 x 96 x 94
	Height from upper-edge of DIN 35 rail
Weight	50 g
Standards and approvals:	
Conformity marking	CE
UL 508	
ANSI/ISA 12.12.01	(pending)
Shipbuilding	GL
Accessories	see pages 268 ... 271

(* Additional setting options via PC configuration software or smartphone app)

DIP Switch Adjustability

● = ON

857-819

Input Start value																							
DIP S1																							
1	2	3	4	5	6	7	mV	1	2	3	4	5	6	7	mV	1	2	3	4	5	6	7	mV
									●				●		-34			●				●	34
●							-100	●	●				●		-32	●		●				●	36
	●						-98			●			●		-30		●	●				●	38
●	●						-96	●		●			●		-28	●	●	●				●	40
		●					-94		●	●			●		-26				●			●	42
●		●					-92	●	●	●			●		-24	●			●			●	44
	●	●					-90				●		●		-22		●		●			●	46
●	●	●					-88	●			●		●		-20	●	●		●			●	48
			●				-86		●		●		●		-18			●	●			●	50
●			●				-84	●	●		●		●		-16	●		●	●			●	52
	●		●				-82			●	●		●		-14		●	●	●			●	54
●	●		●				-80	●		●	●		●		-12	●	●	●	●			●	56
		●	●				-78		●	●	●		●		-10					●		●	58
●		●	●				-76	●	●	●	●		●		-8	●				●		●	60
	●	●	●				-74					●	●		-6		●			●		●	62
●	●	●	●				-72	●				●	●		-4	●	●			●		●	64
				●			-70		●			●	●		-2			●		●		●	66
●				●			-68	●	●			●	●		0	●		●		●		●	68
	●			●			-66			●		●	●		2		●	●		●		●	70
●	●			●			-64	●		●		●	●		4	●	●	●		●		●	72
		●		●			-62		●	●		●	●		6				●	●		●	74
●		●		●			-60	●	●	●		●	●		8	●			●	●		●	76
	●	●		●			-58				●	●	●		10		●		●	●		●	78
●	●	●		●			-56	●			●	●	●		12	●	●		●	●		●	80
			●	●			-54		●		●	●	●		14			●	●	●		●	82
●			●	●			-52	●	●		●	●	●		16	●		●	●	●		●	84
	●		●	●			-50			●	●	●	●		18		●	●	●	●		●	86
●	●		●	●			-48	●		●	●	●	●		20	●	●	●	●	●		●	88
		●	●	●			-46		●	●	●	●	●		22						●	●	90
●		●	●	●			-44	●	●	●	●	●	●		24	●					●	●	92
	●	●	●	●			-42							●	26		●				●	●	94
●	●	●	●	●			-40	●						●	28	●	●				●	●	96
					●		-38		●					●	30			●			●	●	98
●					●		-36	●	●					●	32	●		●			●	●	100

Input End value																															
DIP S1			DIP S2					DIP S1			DIP S2					DIP S1			DIP S2					DIP S1			DIP S2				
8	9	10	1	2	3	4	mV	8	9	10	1	2	3	4	mV	8	9	10	1	2	3	4	mV	8	9	10	1	2	3	4	mV
									●				●		-34			●				●	34	●		●			●	●	100
●							-100	●	●				●		-32	●		●				●	36		●	●			●	●	200
	●						-98			●			●		-30		●	●				●	38	●	●	●			●	●	300
●	●						-96	●		●			●		-28	●	●	●				●	40				●		●	●	400
		●					-94		●	●			●		-26				●			●	42	●			●		●	●	500
●		●					-92	●	●	●			●		-24	●			●			●	44		●		●		●	●	600
	●	●					-90				●		●		-22		●		●			●	46	●	●		●		●	●	700
●	●	●					-88	●			●		●		-20	●	●		●			●	48			●	●		●	●	800
			●				-86		●		●		●		-18			●	●			●	50	●		●	●		●	●	900
●			●				-84	●	●		●		●		-16	●		●	●			●	52		●	●	●		●	●	1000
	●		●				-82			●	●		●		-14		●	●	●			●	54								
●	●		●				-80	●		●	●		●		-12	●	●	●	●			●	56								
		●	●				-78		●	●	●		●		-10					●		●	58								
●		●	●				-76	●	●	●	●		●		-8	●				●		●	60								
	●	●	●				-74					●	●		-6		●			●		●	62								
●	●	●	●				-72	●				●	●		-4	●	●			●		●	64								
				●			-70		●			●	●		-2			●		●		●	66								
●				●			-68	●	●			●	●		0	●		●		●		●	68								
	●			●			-66			●		●	●		2		●	●		●		●	70								
●	●			●			-64	●		●		●	●		4	●	●	●		●		●	72								
		●		●			-62		●	●		●	●		6				●	●		●	74								
●		●		●			-60	●	●	●		●	●		8	●			●	●		●	76								
	●	●		●			-58				●	●	●		10		●		●	●		●	78								
●	●	●		●			-56	●			●	●	●		12	●	●		●	●		●	80								
			●	●			-54		●		●	●	●		14			●	●	●		●	82								
●			●	●			-52	●	●		●	●	●		16	●		●	●	●		●	84								
	●		●	●			-50			●	●	●	●		18		●	●	●	●		●	86								
●	●		●	●			-48	●		●	●	●	●		20	●	●	●	●	●		●	88								
		●	●	●			-46		●	●	●	●	●		22						●	●	90								
●		●	●	●			-44	●	●	●	●	●	●		24	●					●	●	92								
	●	●	●	●			-42							●	26		●				●	●	94								
●	●	●	●	●			-40	●						●	28	●	●				●	●	96								
					●		-38		●					●	30			●			●	●	98								
●					●		-36	●	●					●	32	●		●			●	●	100								

DIP Switch S2

Output signal						Measuring Range Underflow	Measuring Range Overflow
6	7	8		9	10		
			0 ... 20 mA			Lower limit of output range - 5 % *	Upper limit of output range + 2,5 % *
●			4 ... 20 mA			(0 mA / 1,9 mA / 3,8 mA / 0 V / 0,95 V / 1,9 V)	(10,25 mA / 20,5 mA / 5,125 V / 10,25 V)
	●		0 ... 10 mA	●		Lower limit of output range	Upper limit of output range + 2,5 %
●	●		2 ... 10 mA			(0 mA / 2 mA / 4 mA / 0 V / 1 V / 2 V)	(10,25 mA / 20,5 mA / 5,125 V / 10,25 V)
		●	0 ... 10 V		●	Lower limit of output range	Upper limit of output range
●		●	2 ... 10 V			(0 mA / 2 mA / 4 mA / 0 V / 1 V / 2 V)	(10 mA / 20 mA / 5 V / 10 V)
	●	●	0 ... 5 V	●	●	Lower limit of output range	Upper limit of output range
●	●	●	1 ... 5 V			(0 mA / 2 mA / 4 mA / 0 V / 1 V / 2 V)	(10 mA / 20 mA / 5 V / 10 V)

*acc. to NAMUR NE 43

Default Settings

All DIP switches are in “OFF“ position for delivery. This is the position used to parameterize the device via PC configuration software.	
Input signal	0 ... 100 mV
Output signal	0 ... 20 mA
Measuring range underflow	0 mA
Measuring range overflow	20.5 mA