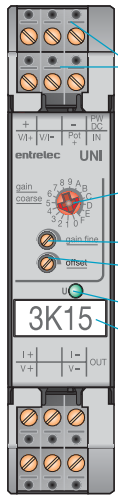


Analog signal converters C.A.I.S. series 40 000



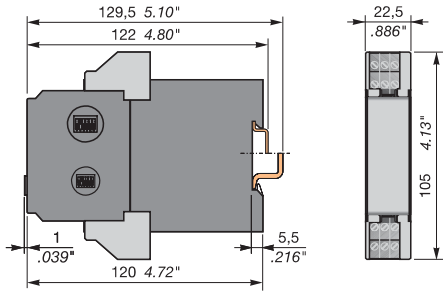
Plug-in omniconnect terminals

Gain coarse

Gain fine

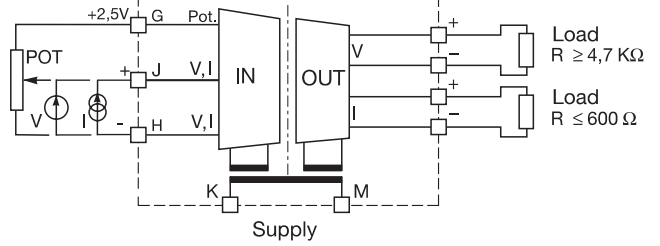
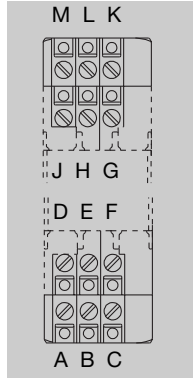
Offset

U: Supply voltage, LED green
Marker



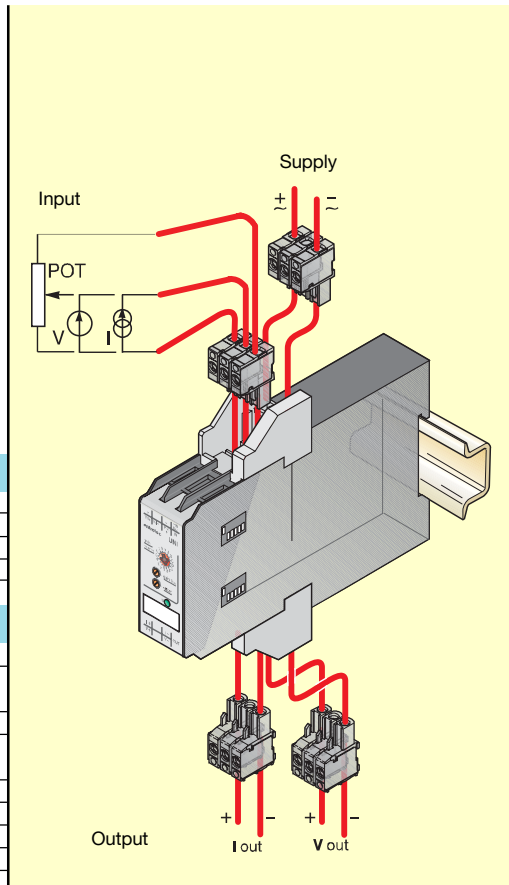
Universal signal converter for standard signals (electrical 3-way isolated) C.A.I.S. UNI

Width 22.5 mm .886"



- More than 120 different configurations of standard signal conversion, e. g., for PLC inputs and outputs.
- Configurable output signals in case of interrupts (LOW FAIL SAFE/ HIGH FAIL SAFE).
- Easy wiring with plug-in omniconnect terminals for inputs, outputs and supply
- 3-way isolation
- Short-circuit proof signal outputs prevents damage
- Supply voltages: 24...48 V DC or 110...240 V AC
- CE certified.

Approvals: UL, CE UL1604 Class I and II, Div. 2



Supply voltage

24...48 V DC / 24 V AC, 50/60 Hz
110...240 V AC, 50/60 Hz / 100...300 V DC

Type

C.A.I.S. UNI	P/N	0 040 000 17
C.A.I.S. UNI	P/N	0 040 001 04

Technical data

Input circuits G - J - H		Current	Voltage	Potentiometer
Input signals (see also configuration diagram)		0...20mA/4...20mA	0...100mV/0...1V/0...5V	470 Ω
Input signal limitation		10...50mA/0...1mA	1...5V/0...10V/2...10V/±10V	... 1MΩ
Adjusting range of amplification		± 55 mA	± 11 V	10 KΩ*
Offset		0.9 ...110 mA continuously	45 mV ... 22 V continuously	
Input impedances		Adjustable range -137.5 % ... +62.5 % continuously		
Without detection of input interrupt		for different fields		
With detection of input interrupt		51 Ω	6 MΩ	3 GΩ
Output circuits D - F A - C		Current		
Output signal		0...20 mA / 4...20 mA	Voltage	
Output load		≤ 600 Ω	0...5V/1...5V/0...10V/2...10V/±10V	
Accuracy		≥ 4.7 KΩ		
Temperature coefficient		0.1 % of end value		
Residual ripple		± 150 ppm / °C		
Response time		< 0.15 %		
Transmission frequency		200 μS		
Supply circuits K - M		1 KHz		
Supply voltages		24...48 V DC / 24 V DC	110...240 V AC / 100...300 V DC	
Supply voltage tolerance		DC : -15% ... +15%	AC : -15% ... +10%	
Power consumption		2 W at 24 V DC	4.5 VA at 230 V AC	
General data		1.5 kV		
Isolation between all isolated circuits		EN 50 081-2; EN 50 082-2		
EMC tests		-20 °C ... +60 °C		
Operating temperature range		-40 °C ... +80 °C		
Storage temperature range		any		
Mounting position		Snap-on mounting/ Screw mounting by adapter		
Mounting on DIN rail (EN 50 022)		omniconnect plug connectors with screw terminals 1.5 mm ²		
Wire size stranded with end ferrules		*with detection of an input signal interrupt and resistance values > 10 KΩ the non linearity is ± 0.2 %		

Accessories

R See section on markers for omniconnect terminals

Type of marker ② Marker strips RB 5 A

DIP switch configuration, switch settings

INPUT	SW1								Gain Coarse	Typ
	1	2	3	4	5	6	7	8		
Potentiometer	■	■							A...D	C
0...100 mV									4...5	5
0...1 V									3...4	3
0...5 V									5...7	6
0...10 V									2...4	2
2...10 V									7...9	3
1...5 V									0	0
-10...+10 V									2...4	3
0...20 mA									4...5	4
4...20 mA									0...1	1
10...50 mA									-	-
LOW FAIL SAFE									-	-
HIGH FAIL SAFE									-	-
NO FAIL SAFE									-	-

OUTPUT	SW2					
	1	2	3	4	5	6
0...10 V						
2...10 V						
0...5 V						
1...5 V						
-10...+10 V						
-5...+5 V						
0...1 mA						
0...20 mA						
4...20 mA						
0...10 mA						
2...10 mA						

Legend	
■	ON
□	OFF
□	no influence

C.A.I.S. UNI

Additional converter functions

Tab. 1

a) INPUT STANDARD	SW1								Gain coarse	
	1	2	3	4	5	6	7	8	A ... D	typ. C
Potentiometer		■							A ... D	C
0 ... 50 mV									A ... D	C
0 ... 100 mV									4 ... 5	5
0 ... 250 mV									0 ... 1	1
0 ... 500 mV		■							7 ... 9	8
0 ... 1 V		■							3 ... 4	3
0 ... 2,5 V		■							0	0
0 ... 5 V			■						5 ... 7	6
0 ... 10 V			■						2	2
1 ... 5 V			■		■	■			7 ... 9	8
2 ... 10 V			■		■	■			2 ... 4	3
-10 ... 10 V			■	■	■	■			0	0
0 ... 1 mA	■								A ... D	B
0 ... 20 mA	■	■							2 ... 4	3
4 ... 20 mA	■	■			■	■			4 ... 5	4
10 ... 50 mA	■	■			■	■			0 ... 1	1
High fail safe							■			
Low fail safe								■		
No fail safe										
b) NONSTANDARD										
0 ... 125 mV									3 ... 4	3
0 ... 8 V			■						3 ... 4	3
-22,5 ... +22,5 mV			■	■	■				B ... F	D
-11 ... +11 V			■	■	■				0	0
2,5 ... 7,5 V			■		■				5 ... 7	6
3,33 ... 9,99 V			■		■				3 ... 4	4
10 ... 0 V			■	■					2	2
100 ... 0 mV				■					4 ... 5	5
20 ... 4 mA	■	■		■					4 ... 5	4
20 ... 0 mA	■	■		■					4 ... 2	3
-0,45 ... +0,45 mA	■	■		■					B ... F	D
-55 ... +55 mA	■	■	■	■	■				4 ... 6	5

Tab. 2

a) OUTPUT STANDARD	SW2					
	1	2	3	4	5	6
0 ... 5 V			■		■	
0 ... 10 V					■	
1 ... 5 V	■	■	■		■	
2 ... 10 V	■	■	■			
-10 ... 10 V				■		
0 ... 1 mA					■	
0 ... 20 mA					■	■
4 ... 20 mA	■	■	■			■
b) NONSTANDARD						
-5 ... 5 V				■	■	
-10 ... 0 V			■	■		
-5 ... 0 V			■	■	■	
0 ... 6,66 V		■			■	
-10 ... 3,33 V		■		■		
-5 ... 1,66 V		■		■	■	
0 ... 8 V		■	■			
0 ... 4 V		■	■		■	
-10 ... -2 V		■	■	■		
-5 ... -1 V		■	■	■	■	
1,25 ... 6,25 V	■		■		■	
-7,5 ... 2,5 V	■		■	■		
-3,75 ... 1,25 V	■		■	■	■	
1,66 ... 8,33 V	■	■			■	
-6,66 ... 6,66 V	■	■		■		
-3,33 ... 3,33 V	■	■		■	■	
-8 ... 0 V	■	■	■	■		
-4 ... 0 V	■	■	■	■	■	
0 ... 10 mA			■		■	■
0 ... 0,5 mA			■		■	■
0 ... 13,33 mA		■			■	■
0 ... 666 μ A		■			■	■
0 ... 16 mA		■	■			■
0 ... 800 μ A		■	■			■
0 ... 8 mA		■	■		■	■
0 ... 400 μ A		■	■		■	■
2,5 ... 12,5 mA	■	■	■		■	■
125 ... 625 μ A	■	■	■		■	■
3,33 ... 16,66 mA	■	■			■	■
166 ... 833 μ A	■	■			■	■
0,2 ... 1 mA	■	■	■			
2 ... 10 mA	■	■	■		■	■
100 ... 500 μ A	■	■	■		■	

Legend:

■	ON
	OFF