

Version of 05/16/2022

JK 3000

Process Input





Universal power supply



Hot-swappable plug in and out



Sensor power supply

Presentation

The JK 3000 series allows the isolation and conditioning of analog signals.

With the lightning shock protection option, the transmitter protects the PLC inputs from lightning shocks.

JK 3000 are guaranteed for 5 years

Range

Transmitter	**Inputs** Current, Voltage	**Outputs** Current, Voltage	
	Number of inputs	Number of outputs	
	1	1	2
JK 3000A1	✓	✓	
JK 3000A2	✓		✓
JK3000A2I	✓		✓ isolated from each other

Factory settings

Input	**Output 1**	**Output 2**
4-20mA	4-20mA	4-20mA

Other settings on demand

Inputs - Outputs

Input gauges

Current (continuous)	0-20mA ; 4-20mA
Voltage (continuous)	0-100mV ; 0-10V ; ±10V
High voltage (continuous)	Other values on request, 1000V maximum
Sensor supply	2 or 3 wires sensor 24V - 29mA max

Output gauges

Output 1 & Output 2 Current	0-20mA ; 4-20mA
Output 1 Voltage	0-10V
Output 2 Voltage	JK3000A2 : 0-10V ; ±10V JK3000A2I : 0-10V

Characteristics

Input characteristics	
Input maximum voltage	JK 3000Ax : 400V ; JK 3000A2I : 23,5V
Input maximum current	200mA
Current input impedance	4,75Ω
Voltage input impedance	>10MΩ
Output characteristics	
Permissible impedance on the current output	Output 1 : <800Ω Output 2 : <800Ω
Permissible impedance on the voltage output 1 & 2	Output 1 : >4,7kΩ Output 2 (current & 0-10V) : >4.7kΩ Output 2 (+/-10V) : >7kΩ (only for JK3000A2) Output 2 JK3000A2I : >3Ω
Isolation	
Supply / Input-Output(s)	JK 3000AX : 4200Vrms, 50Hz, 1mn
Input / Output(s)	1500Vrms, 50Hz, 1mn
Output x / Output y	JK 3000AX : Without JK 3000A2I : 2500Vrms, 50Hz, 1mn
Auxiliary source	
Voltage supply	22-240Vdc or 90-230Vac 50/60Hz

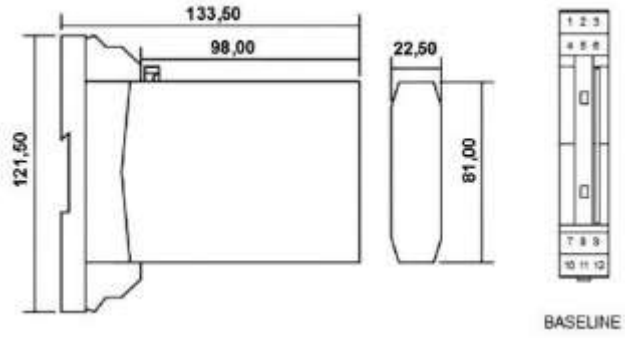
General characteristics	
Precision class	0,1
Response time	Current input : JK 3000AX <100µs ; JK 3000A2I <4ms Voltage input : <5ms
Thermal drift	<50ppm
Residual ripple on current output	<20µA
Residual ripple on voltage output	<20mV
Maximum of consumption	JK 3000AX <7.5VA ; JK 3000A2I <6.25VA
Operating temperature	-10°C … +60°C
Storage temperature	-25°C … +80°C
Protection factor	IP20 Black self-extinguishing polyamide housing V0

Options listing

Option	Code device
Tropicalization in a 22,5mm case	JK300XAX-T, JK3000A2I-T
Auxiliary source 20-60Vac	JK3009AX, JK3009A2I
1 passive output 15V<U<36V – 0…4…20mA	JK300XAX-P (on output 1)
Lightning shock resistance LCIE Report 60031114-529387	JK300XAX-F

Dimensions and wiring

Dimensions

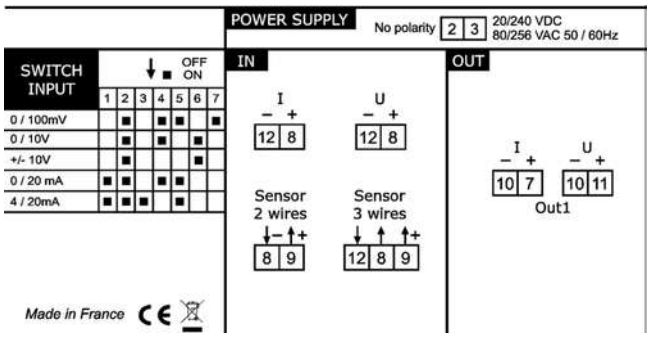


Dimensions: width: 22,5 mm - Height: 81 mm - Depth: 98 mm

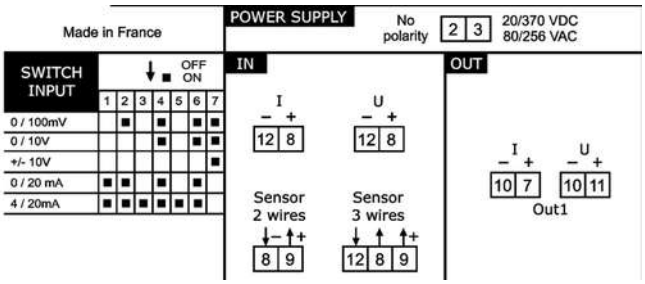
BASELINE boards are to be ordered separately
22,5 mm Case : Reference BL01ALV
For multi-transmitter boards, please consult us.

Wiring

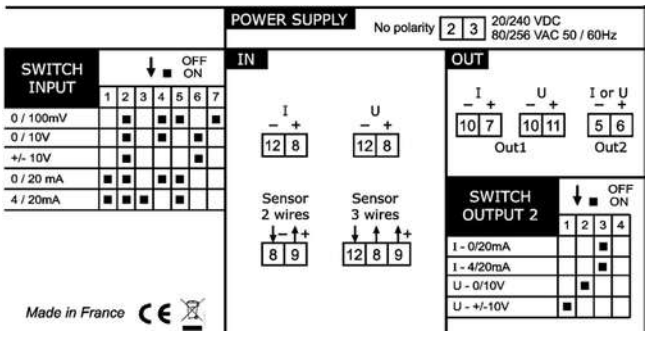
JK 3000A1 (from 08/2011 lot TH)



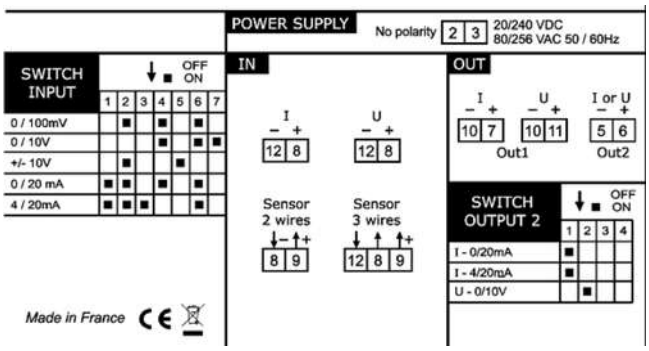
JK 3000A1 (until 07/2011 lot TG)



JK 3000A2



JK 3000A2I



Outputs Adjustments

On the front panel, output 1 is marked S1, output 2 is marked S2 (version JK3000A2 and A2I).

The outputs are independent of each other, so the beginning and end of scale of each of the outputs are to be set independently.

Output Selection:

- Use the input switch to select the type of input
- Use the output switch (for JK3000A2) to select the type of output

Setting:

- Connect a current generator to the input terminals.
- Connect a current multimeter to the terminals of the output.
- Use the generator to inject the signal corresponding to the low value of the input signal.
- Use the "OFFSET" potentiometer to adjust the low scale of the output.
- Use the generator to inject the signal corresponding to the high value of the input signal.
- Use the "SCALE" potentiometer to adjust the top of the scale of the output

Repeat successively these 2 operations as many times as necessary until the correct low and high scale values are obtained.