

Version 17

TELIS 1000

Strain gauge input





Universal power supply



Hot-swappable plug in and out



Sensor power supply



ModBus RTU

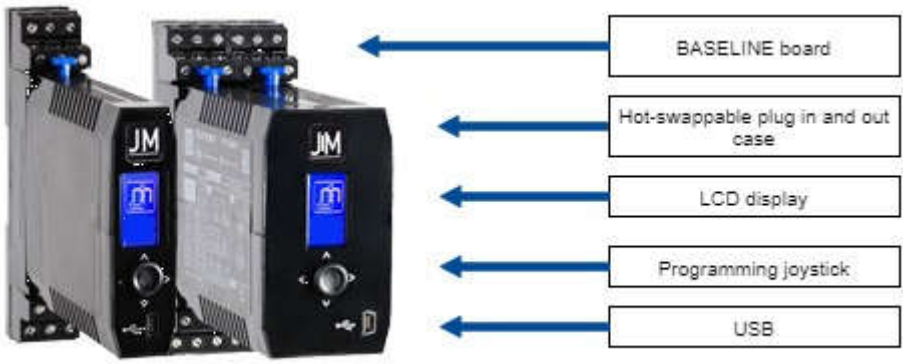
- Presentation
- Range
- Dimensions
- Factory settings
- Inputs - Outputs
- Characteristics
- Options listing
- Functions
- Wiring

Presentation

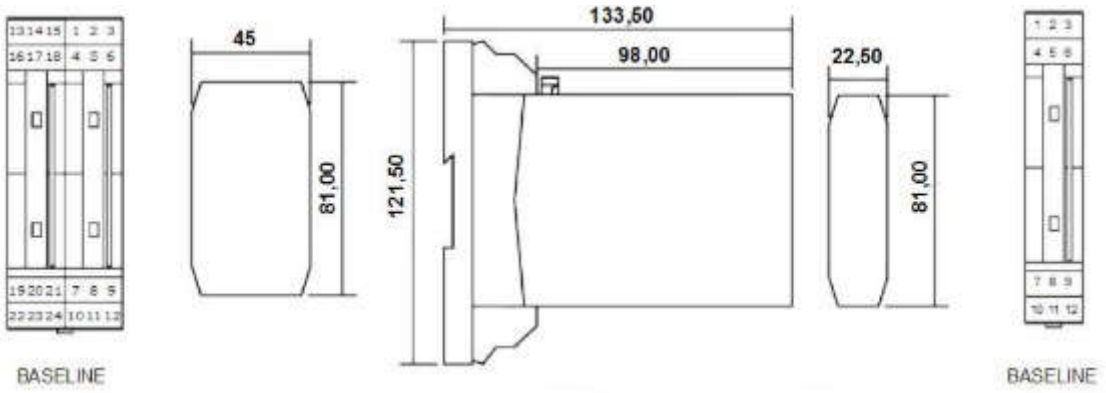
TELIS 1000 is an isolated converter (quadruple galvanic isolation) dedicated to the measurements of Strain-gauges.

Range

Converter with graphic display	Input Strain gauge	Outputs		Communication	Case width (mm)		Converter without graphic display
		Number of Analogs	Number of Relays				
		1	2	RS485 USB	22,5	45	
TELIS 1000U1	✓	✓		✓	✓		TELIS 1000T1
TELIS 1200U1	✓	✓	✓	✓		✓	TELIS 1200T1



Dimensions



Dimensions : width : 22,5 or 45 mm - Height : 81 mm - Depth : 98 mm

BASELINE boards are to be ordered separately

22,5 mm Case : Reference BL01ALV ; 45 mm Case : Reference BL02ALV

For multi-converter boards, please consult us.

Factory settings

Input	Output	Relay
±300mV	4-20mA	Alarm : High
Display : 0.00 -100.00	Display : 0.00 -100.00	Threshold : 50

Communication speed : 9600 bauds, Slave address : n°1

Other settings on demand

Inputs - Outputs

Input gauges

Voltage (continuous)	Standard scales : ±18 mv; ±35mv ; ±75mv ; ±150mv, ±300mv ; ±600mv ; ±1V ; ±2V Adjustable scales : ±18mv ; ±35mv; ±75mv ; ±150mv ; ±300mv ; ±600mVdc ; ±1V ; ±2V
Digital Input	Potential-free contact for calibration
Sensor supply	Tension adjustment of the strain gauge : 2V to 10V Max consumption of the strain gauge : 100mA to 10V, 50mA to 5V

Output gauges

Output Current	Standard scales : 0-10mA ; 0-20mA ; 4-20mA Adjustable scales from 0mA to 22mA
Output Voltage	Standard scales : 0-10V ; 0-5V ; 1-5V ; 2-10V ; Adjustable scales from 0 to 11V
Output Relay	2 Relays 1RT 2A-250Vac
Communication	Isolated USB in Front Panel / Isolated RS485 Modbus RTU

Characteristics

Display	
Type	LCD backlit
Color	Blue
Number of characters	5
Numbers of lines	5
Programming joystick	5 positions
Input characteristics	
Voltage input impedance	50MΩ
Output characteristics	
Permissible impedance on the current output	< 300Ω
Permissible impedance on the voltage output	>700Ω
Isolation	
Supply / Input(s)-Output(s)-Relay- RS485-USB	4200Vrms, 50Hz, 1mn
Input / Output / RS485	2500Vrms, 50Hz, 1mn
USB / Input	Without
USB / Output	2500Vrms, 50Hz, 1mn
USB / RS485	2500Vrms, 50Hz, 1mn
Auxiliary source	
Voltage supply	22-240Vdc or 90-230Vac 50/60Hz

General characteristics	
Precision class	0,1
Input analog / digital conversion	24 bits
Output analog / digital conversion	16 bits
Response time	4-wires or 6-wires mounting : <200ms
Thermal drift	<25ppm
Residual ripple on current output	<20µA
Residual ripple on voltage output	<10mV
Maximum of consumption	<5VA
Operating temperature	-10°C … +60°C
Storage temperature	-25°C … +80°C
Protection factor	IP20 Black self-extinguishing polyamide housing V0

Options listing

Option	Device code
Tropicalization for 22,5mm or 45mm cases	TELIS 1XXXX1-T
Auxiliary source 20-60Vac	TELIS 1XX9X1

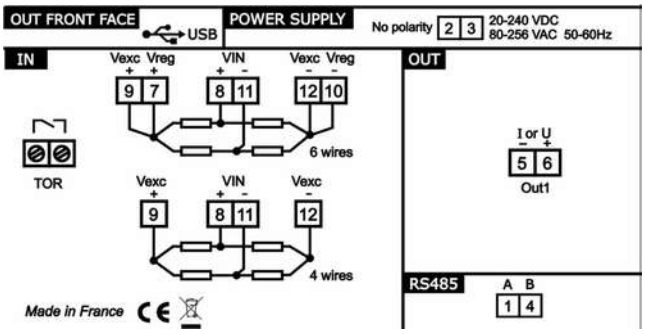
Functions

Display functions	
LCD display	Graphic display by LCD screen
LED indicators	1 green LED on devices without display
5 positions joystick	Allows you to configure the parameters displayed on the front panel screen
Programming lock	Locking of the programming on the front panel or by the IXLOG software Unlock by long press on the joystick
Programming	Programming via joystick on the front panel, or via USB with IXLOG software
Unit	Choice from a list of units
Memory Mini / Maxi	Storage of the maximum and minimum value of the measurement on each input channel
Customizing the display	Resolution, Comma, Contrast adjustment, Display off
Input	
Input display	The display allows to visualize the input in physical value and in programmed value (gross value measured or on the displayed value)
Adjustable input scale	Allows to zoom on the input either in manual or automatic mode
Offset	Manual adjustment of the input offset
Taring	Taring function at process input (by validation)
Cut Off	Threshold below which the input is considered as null
Smart functions	
Sensor signal loss	Translates the sensor signal loss on : • the display, • each of the analog outputs, • the digital output, • the status of the relays
Filtering	Integration of the measurement over the defined time
Pilot function/simulation	The pilot function makes it possible to act on the display value influencing the output(s), independently of the input The Pilot function is activated either by the digital link (RS485 or USB) or by the joystick on the front panel
Segmentation in 99 points	Linearization in 99 points (free choice for each point), allows to create an output function by segmentation of the signal of each input channel

Outputs	
Visualization of the outputs	The display allows to visualize the outputs, in physical value and percentage; as well as the status of the relays
Outputs assignment	Assignment of outputs to inputs or to the control function, independently for each channel
Adjustable output scale	Allows you to zoom in on the outputs
Outputs limitation	Possibility to limit the value of the outputs - High limit and Low limit
Relays assignment	Assignment of relays to inputs or to the control function, independently for each channel
Thresholds	Single or band mode, with positive or negative safety Adjustment of thresholds, hysteresis and time delay (independent on rise or fall) Direct access to the thresholds
Acknowledgement of alarms	Independently for each alarm
Storage of alarms and/or relay status	Independently for each alarm
Links and communication	
RS485 MODBUS RTU	RS485 MODBUS RTU bidirectional digital link allowing to : • recover the measurements and transmit them in digital format • configure and control the device
Digital bus	Access to the digital bus via the USB socket (when converters are used on the interface boards)
USB front	USB front panel to connect directly to the USB port of a PC for programming via the IXLOG software
Mapping of Modbus addresses	Mapping of Modbus addresses, allowing you to choose your own variable address

Wiring

TELIS 1000U1



TELIS 1200U1

