

Version of 05/21/2026

ULCOS 800

Frequency Transmitter





Universal power supply



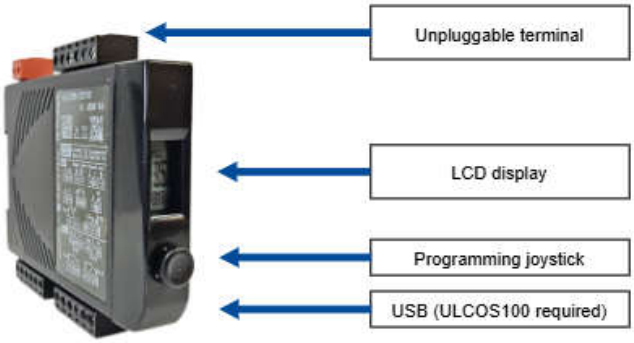
Sensor power supply

JM Concept - 18 Chemin des Tard-Venus - 69530 Brignais - France
Contact : +33 (0) 4 72 318 318 - jmc@jmconcept.com
www.jmconcept.com

Presentation

ULCOS 820F2 is a frequency transmitter, coupled with a sensor power supply, with 2 analog outputs and 2 relays.

ULCOS is guaranteed for **10 years**



Factory settings

Input	**Input type**			**Input gauge**		
	Voltage			From 0 to 10 KHz		
Display	**Function**	**Minimum**	**Maximum**	**Resolution**	**Comma position**	**Offset**
	Linear	0	9999	1	0000	0
Outputs	**Display**		**Output type**		**Limitation**	
	0-9999		4-20mA		No	
Relays (2RT)	**Alarm**	**Threshold**	**Storage**	**On alarm**	**Hysteresis**	
	High	9999	No	Indication is on Coil is energized	Low/zero amplitude	

Other settings on demand

Inputs - Outputs

Input gauges

NPN voltage and PNP dry contact	Sine, square, triangular, trapezoidal: from 1V to 500V
Frequency ranges	1Hz-100Hz ; 1Hz-1KHz ; 10Hz-10KHz ; 100Hz-100KHz
Sensor supply	Sensor 2 wires 15V - 25mA

Output gauges

Current Output 1&2	Standard scales: 0-20mA ; 4-20mA Adjustable scales: from 0mA to 22mA
Voltage Output 1&2	Standard scales: 0-10V Adjustable scales: from 0V to 11V
Output Relay	Relay 1RT - Max current: 500mA Max voltage: 250Vac/220Vdc - Max power: 60Vac/30W
Communication	USB cable (ULCOS 100) on front panel

Characteristics

Display	
Type	Non-backlit LCD
Color	Green
Number of characters	4
Numbers of lines	4
Programming joystick	5 positions
Input characteristics	
10V Voltage input impedance	3MΩ
NPN input impedance	1kΩ
PNP input impedance	3kΩ
Output characteristics	
Permissible impedance on the current output	<700Ω
Permissible impedance on the voltage output	>700Ω
Isolation	
Supply / Input-Output 1-Output 2-USB	4200Vrms, 50Hz, 1mn
Input / Output 1-Output 2	2500Vrms, 50Hz, 1mn
Input / USB	Without
Output 1-Output 2 / USB	2500Vrms, 50Hz, 1mn
Output 1 / Output 2	Without
Auxiliary source	
Voltage supply	22-240Vdc or 90-230Vac 50/60Hz

General characteristics	
Output precision class	0.1
Input precision class	0.3
Input analog/digital conversion	16 bits
Output analog/digital conversion	16 bits
Response time	<300ms
Thermal drift	<25ppm
Residual ripple on current output	<20µA
Residual ripple on voltage output	<10mV
Maximum of consumption	<7VA
Operating temperature	-10°C … +60°C
Storage temperature	-25°C … +80°C
Relative humidity	<80% HR (non-condensing)
Protection factor	IP20 Black self-extinguishing polyamide housing V0

Options listing

Option	Device code
Tropicalization (500h protection for 95% humidity excluding display)	ULCOS 820F2-T

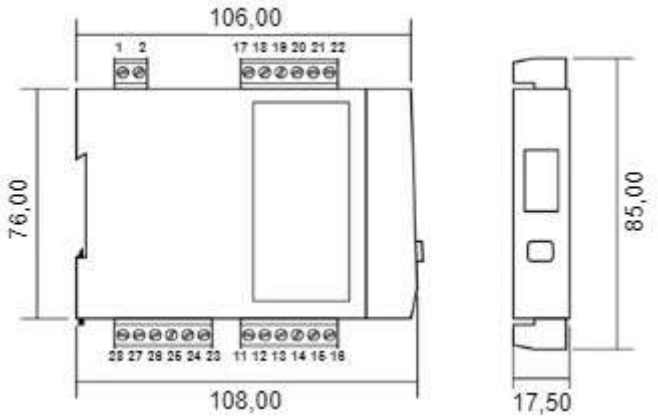
Functions

Display functions	
LCD display	Graphic display by LCD screen
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 by Joystick on the front panel or by USB via the special cable **ULCOS 100** and the **IXLOG** software
Memory Mini / Maxi	Storage of the maximum and minimum value of the measurement on each input channel
Customizing the display	Resolution, Comma, Contrast adjustment
Input	
Inputs display	The display allows to visualize the input in physical value and in programmed value
Adjustable input scale	Allows to zoom on the input either in manual or automatic mode
Offset	Manual adjustment of the input offset
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 (in seconds)
Square root	The output(s) are function of the square root of the input
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 joystickon 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	
Indirect USB on the front panel	USB on the front panel allowing to connect to the USB socket of a PC via a special **ULCOS 100** cable for programming with the **IXLOG** software

Dimensions and wiring

Dimensions



Dimensions: Width: 17.5 mm - Height: 76 mm - Depth: 106 mm

Case connecting on DIN rail

Wiring

ULCOS 820F2

