

Laurel Serial to Analog Transmitter

- RS-232/485 or Ethernet Input
- Isolated 4-20mA or 0-10V Output
- ASCII & Modbus Protocols
- AC or DC Power
- DIN Rail Mount
- Dual Relay Outputs



The Laurel LTS transmitter converts digital data to an analog signal. It accepts Modbus and ASCII protocols. Using the custom Laurel protocol, digital data can be retrieved from long character strings by specifying the character positions, start and stop ASCII characters, how many characters to skip and how many characters to pass. The 16 bit analog output is isolated from the power and digital sections. Span is field adjustable using the free Laurel setup software. Input data rate determines the output update rate (up to 75/sec).

SPECIFICATIONS

Serial Input:	RS-232, RS-485 (2- or 4-wire) or Ethernet
Baud Rate:	300-19200
Analog Out:	4-20mA, 0-20mA, 0-10VDC, $\pm 10V$ (user selectable)
Compliance (mA):	10V (0-500 Ω load)
Compliance (V):	2mA (>5k Ω load)
Accuracy:	$\pm 0.02\%$ of output span (16 bit resolution)
Isolation:	250Vrms between power/analog/digital
Relay Outputs:	Two SPST-NO (Form A) solid-state relays 120mA@140VAC/180VDC
Temperature:	0-55°C operating; <95% at 40°C, non condensing
Size:	129 x 104 x 22.5 mm
Mounting:	35mm DIN rail. Leave 6mm btwn modules or fan cool
Connections:	Detachable screw terminal plugs, RJ45 for Ethernet

ORDERING INFORMATION

To Order—Insert Code for Each Letter to Select Catalog Number.
Order Example: LTS60

LTS	<input type="checkbox"/> A	<input type="checkbox"/> B
A	Serial Input	
6	RS232/485 in, 4-20mA out	
E6	Ethernet in, 4-20mA out	
B	Power	
0	85-264VAC (47-63Hz), 90-300VDC; 3W max.	
1	12-32VAC (47-63Hz), 10-48VDC	

Accessories:

CBL04	RS-232 cable to PC serial port
CBL02	USB to RS-232 cable adapter

API Frequency to DC Transmitters

- 0-1mA, 4-20mA, 0-1V or $\pm 10V$ Output
- 2000V Isolation
- Simple field setup (7580)
- Input & Output Status LEDs
- Functional Test Button
- Lifetime Warranty

7580



These API transmitters accept a frequency input and provide an optically isolated DC voltage or current output that is linearly proportional to the input.

ORDERING INFORMATION

To Order—Insert Code for Each Letter to Select Catalog Number. Order Example: API 7010GDU

<input type="checkbox"/> A	<input type="checkbox"/> B
A	Model
API 7010G	Frequency to DC Transmitter, 115VAC, factory ranged
API 7580G	Frequency to DC Transmitter, 115VAC, field rangeable
B	Options
A230	Powered by 230VAC $\pm 10\%$, 50/60Hz, 2.5W max
D	Powered by 9-30VDC, 2.5W typical
U	Conformal coating for moisture resistance
HC	High current output to 50mA (7010G only)
M09	High voltage output to 24VDC (7010G only)
EXTSUP	Open collector [sink] output (7010G only)
Accessories:	
API 008	8-pin octal socket
API 008FS	Finger safe 8-pin octal socket
API TK36	35mm DIN rail, 39" long, aluminum

Full three-way isolation makes these modules useful for ground loop elimination, common mode signal rejection and noise pickup reduction. The input and output ranges on the 7580 are field configured via switches - no software required. Ranges on the 7010 are factory set and must be specified when ordered. The internal loop supply can be used to power external devices, often eliminating the need for a separate supply.

SPECIFICATIONS

7010 Input Range:	Factory set - specify on order Minimum 0-25Hz, maximum 0-20kHz
7580 Input Range:	Field selectable via rotary switches and tables Low range: Min 0-100Hz, max 0-1500Hz High range: Min 0-2kHz, max 0-30kHz
Input Voltage:	100mVrms - 150Vrms
Input Impedance (min):	10k Ω (7580), 100k Ω (7010)
Input Sensitivity:	25mV to 2.5V (pot adjustable)
Output Ranges:	0-1V min, 0-10V max, $\pm 1V$ min, $\pm 10V$ max (bipolar mode), 0-2mA min, 0-20mA max (current mode). Factory set on 7010 - specify on order, Field settable on 7580
Compliance (mA):	20V, 1000 Ω
Output Zero Adjust:	$\pm 15\%$ of span
Output Span Adjust:	$\pm 10\%$ of span
Accuracy:	Better than $\pm 0.2\%$ of span
Response Time (typ):	70msec (7010), 110msec (7580 hi range), 600msec (7580 lo range)
Isolation:	2000Vrms power/input/output
Loop Supply:	18VDC unregulated, 25mA max.
Power (standard):	115VAC $\pm 10\%$, 50/60Hz, 2.5W max
Temperature:	-10 to 60°C operating
Status Indicators:	Variable brightness LEDs indicate level & status
Connections:	8-pin octal socket (order separately)

Plug-in API Transmitters and Isolators are available for most sensors and process signals.