

NEWPORT

iSeries



\$795
Basic Unit

BiG Display
iLD Series



NEWPORT

1
2
°C
°F



- ✓ **BIG Bright 2.25" (57.2 mm) or 4.00" (101.6 mm) LED Digits**
- ✓ **Program to Change Colors: RED, AMBER, GREEN**
- ✓ **Many Input Choices**
- ✓ **Optional Relays for Alarm and Full PID Control**
- ✓ **Communications Via Ethernet, RS-232, RS-485, and MODBUS**
- ✓ **Embedded Web Server**
- ✓ **Free Software, Active X Controls**

The award-winning **iSeries** meters and controllers now features a new **BIG Display**.

Like all **iSeries** meters, the new **BIG Display** can be programmed to change colors between **RED**, **AMBER**, and **GREEN** at any set point or alarm point. For example, the instrument can be programmed to display the process value in **GREEN** during warm-up, switching to **AMBER** to signal the normal operating range, and in **RED** to signal an alarm condition.

The changes in color are quickly seen from a distance, and equipment operators can intuitively react to changing conditions.

The **BIG Display** can be mounted flush in a panel or surface mounted with the included brackets. The entire **BIG Display** enclosure provides NEMA 4/IP65 protection. Whether panel-mounted or surface-mounted, the **BIG Display** does not need to go inside a bulky and expensive NEMA enclosure.

iSeries Big Display

The **BIG** Displays can handle a wide variety of signal inputs directly from transducers or process transmitters as well as display data transmitted from other NEWPORT devices via Serial Communications or Ethernet.



The "**Universal Temperature + Process BIG Display**" is designed for Thermocouples, RTD's, and Process (DC) Voltage or Current. It handles TEN (10) thermocouple types: K, J, T, E, R, S, B, C, N, & J DIN. It works with a wide selection of RTD's, both Pt. 0.00385 and 0.00392 curves for 100 Ohm, 500 Ohm, and 1000 Ohm and it measures with 2, 3, or 4 wire connections for the highest accuracy. This model also measures process voltage: 0-100 mV, 0-1 Volt, 0-10 Volt ranges and process current, 0-20 mA (4-20 mA) with built-in excitation of 10 Vdc and 24 Vdc standard.

The "**Universal Strain + Process BIG Display**" handles a wide variety of DC voltage and current outputs from all common load cells, pressure transducers, and most any strain gauge type of transducer. The meter measures input ranges of 0 to 100 mV, -100 mV to 1V, 0 to 10 V, 0-20 mA (4-20 mA) with built-in excitation of 5 Vdc and 10 Vdc standard. This model also features Ten (10) Point Linearization enabling accurate measurements from a wide assortment of unique and nonlinear transducers.

Totally Programmable Color Display



The "**AC BIG Displays**" provide accurate isolated measurement of AC Voltage and Current signals. The AC Voltage model can be scaled for ranges from 0-400mVAC through 0-400VAC. The AC Current model covers ranges from 0-10 mA through 0-5 Amps AC.

The "**Frequency Pulse BIG Display**" provides accurate isolated measurement of frequency (from 200 Hz to 50 kHz) and pulse signals (up to 200M pulses full scale) that can be scaled to any engineering units.

The "**Ethernet BIG Display**" can display data transmitted via an Ethernet Network or via serial communications from NEWPORT instruments, from a computer, or from other devices which transmit ASCII data via RS-232, RS-422, or RS-485. The Ethernet **BIG** Display is compatible with virtually all Newport devices that feature serial communications including: **iSeries** meters and controllers, **INFINITY**® Series digital panel meters, **MICRO-INFINITY**® controllers, **iDRX** & **iDRN** DIN-RAIL mounted signal conditioners, and many more.

The **BIG** Displays are easy to configure and scale to virtually an engineering units with the push buttons on the front panel, or with a personal computer using the free configuration software and the optional Ethernet connectivity or Serial Communications. The Ethernet option allows the device to be connected on a standard Ethernet network and communicates using standard TCP/IP protocol.

The Ethernet option also includes RS-485 (and RS-422) Serial Communications. The serial communications option includes both RS-232 and RS-485 (and RS-422) on one instrument. It communicates with a straightforward ASCII communicates protocol, as well as MODBUS protocol.

The **BIG** Display features a choice of two optional outputs: Form C SPDT (single pole double throw) mechanical relays, Solid State Relays, DC pulse, and/or programmable analog output selectable as either a controlling function or as retransmission of the process value.

The new **iSeries** are the world's first Panel Meters and Controllers with an embedded Web Server and can connect directly to Ethernet/Internet. You can "see" your meter and control your process through a web browser over the Internet from halfway around the world. With the new **BIG** Display, you can also see your meter from a hundred feet away.



Universal Temperature & Process Input (Model UTP)

Accuracy: $\pm 0.5^{\circ}\text{C}$ temp; 0.03% reading process
Resolution: $1^{\circ}/0.1^{\circ}$: 10 μV process
Temperature Stability:
1) RTD: $0.04^{\circ}\text{C}/^{\circ}\text{C}$
2) TC @ 25°C (77°F): $0.05^{\circ}\text{C}/^{\circ}\text{C}$ - Cold Junction Compensation
3) Process: 50 ppm/ $^{\circ}\text{C}$
NMRR: 60 dB
CMRR: 120 dB
A/D Conversion: Dual slope
Reading Rate: 3 samples per second
Digital Filter: Programmable
Display: 4-digit or 6-digit, 7-segment LED 57.2 mm (2.25") or 101.6 mm (4.00") red, green and amber programmable colors for process variable, set point and temperature units
Input Types: Thermocouple, RTD, Analog Voltage, Analog Current
Thermocouple Lead Resistance: 100 ohm max
Thermocouple Type (ITS 90): J, K, T, E, R, S, B, C, N, L
RTD Input (ITS 68): 100/500/1000 ohm Pt sensor, 2-, 3- or 4-wire; 0.00385 or 0.00392 curve
Voltage Input: 0 to 100 mV, 0 to 1 V, 0 to 10 Vdc
Input Impedance: 10 Mohm for 100 mV 1 Mohm for 1 or 10 Vdc
Current Input: 0 to 20 mA (5 ohm load)
Configuration: Single-ended
Polarity: Unipolar
Step Response: 0.7 sec for 99.9%
Decimal Selection: None, 0.1 for temperature. None, 0.1, 0.01 or 0.001 for process
Setpoint Adjustment: -1999 to 9999 cts
Span Adjustment: 0.001 to 9999 cts
Offset Adjustment: -1999 to 9999

Universal Strain & Process Input (Model SP)

Accuracy: 0.03% reading
Resolution: 10/1 μV
Temperature Stability: 50 ppm/ $^{\circ}\text{C}$
NMRR: 60 dB
CMRR: 120 dB
A/D Conversion: Dual slope
Reading Rate: 3 samples per second
Digital Filter: Programmable
Input Types: Analog Voltage, Analog Current
Voltage Input: 0 to 100 mVdc, -100 mVdc to 1 Vdc, 0 to 10 Vdc
Input Impedance: 10 Mohm for 100 mV; 1 Mohm for 1 V or 10 Vdc
Current Input: 0 to 20 mA (5 ohm load)
Linearization Points: Up to 10 Linearization Points
Configuration: Single-ended
Polarity: Unipolar
Step Response: 0.7 sec for 99.9%
Decimal Selection: None, 0.1, 0.01 or 0.001
Setpoint Adjustment: -1999 to 9999 cts
Span Adjustment: 0.001 to 9999 cts
Offset Adjustment: -1999 to 9999
Excitation (optional in place of Communication): 5 Vdc @ 40 mA; 10 Vdc @ 60 mA.



Ethernet, Serial Communications Input (Model EI)

Temperature Stability: 50 ppm/ $^{\circ}\text{C}$
Alarm: Alarm 1 and 2 programmable, Latch/Unlatch, High, Low, High/Low
Standards Compliance: IEEE 802.3 10Base-T
Supported Protocols: TCP/IP, ARP, HTTPGET
SERIAL INTERFACE
Communication Standard: RS485, RS422
Transfer speed (Baud rate): 300, 600, 1200, 2400, 4800, 9600, 19200 bps
Data Format:
7O1-7 bit: Odd, 1 stop bit
7E1-7 bit: Even, 1 stop bit
8N1-8 bit: No parity, 1 stop bit
Multi-point Address (RS-485): 0 to 199
Flow Control: No Flow control
Screw Terminals: For RS232/485/422 interface
NETWORK INTERFACE
10Base-T port (RJ45 connector)
Socket Port number: 1000
HTTP Port number: 80

AC Current Input (Model ACC)

Input Ranges: 10 mA, 100 mA, 1 Amp, 5 Amp AC current dedicated input terminals for (10, 100 mA same input), 1 Amp and 5 Amp. Return terminal common to all ranges
Frequency Range: 30Hz to 1 KHz
Input Impedance: 3.3 Ohms for 10, 100 mA input; 0.2 Ohms for 1 amp input; 0.04 Ohms for 5 Amp input
Isolation: Dielectric strength to 1000 Vrms transient per 1 min. test based on EN 61010 for 50 Vdc or Vrms working voltage
Three way Isolation: Power to input; Power to Analog output/ communication; Input to Analog output/communication
Input Over-Current Protection: 10% Above full scale continuously; 100% Above full scale for 10 sec.
Analog to Digital Technique: Dual slope
Read Rate: 3 readings/sec.
Accuracy at 25°C : $\pm 0.2\%$ of FS; 30 Hz to 1Hz
Temperature Stability: 10, 100 mA Range 100 ppm/ $^{\circ}\text{C}$ typical; 1 Amp Range 150 ppm/ $^{\circ}\text{C}$ typical; 5 Amp Range 200 ppm/ $^{\circ}\text{C}$ typical
Step Response: 2 sec. to 99% of the final value (filter time constant = 64)

AC Voltage Input (Model ACV)

Input Ranges: 400 mV, 4V, 40 V, 400 V
Frequency Range: 30Hz to 1 KHz
Input Impedance: 2.1 Meg for all ranges
Isolation: Dielectric strength to 1000 Vrms transient per 1 min. test based on EN 61010 for 50 Vdc or Vrms working voltage
Input Over-Voltage Protection: 10% Above full scale continuously; 100% Above full scale for 10 sec.
Analog to Digital Technique: Dual slope
Read Rate: 3 readings/sec.
Accuracy at 25°C : 400 mV, 4V, 40V and 400 V ranges: 49 Hz to 500 Hz $\pm 0.2\%$ of FS; 30 Hz to 1KHz $\pm 0.2\%$ of FS ± 10 counts
Temperature Stability: 400 mV and 40 Volt range, 150 ppm/ $^{\circ}\text{C}$ typical; 4 V and 400 Volt range, 100 ppm/ $^{\circ}\text{C}$ typical
Step Response: 2 sec. to 99% of the final value (filter time constant = 64)

Frequency Pulse Input (Model FP)

Input Types: Min. Low level signal input (magnetic pickups): From 0 mV to 120 mV

- Open Collector NPN
- Open Collector PNP
- TTL/CMOS Input
- NAMUR Sensors: 8.2 V Excitation

Operating Modes:
Frequency: Range = 0.2 Hz to 50 KHz

Frequency	Resolution
0 to 9.99999 Hz	0.00001 Hz
10 to 99.9999 Hz	0.0001 Hz
100 to 999.999 Hz	0.001 Hz
1000 to 9999.99 Hz	0.01 Hz
10000 to 50000.0 Hz	0.1 Hz
0 to 50000 Hz	1 Hz

Totalize with Reset:
Range = 0 to 999999*
A-B Totalize (Reset input used as a +A input): Range = -99999 to 999999*
Quadrature (Reset input used as second input):
Range = -99999 to 999999*
*Resolution is 1 count
Input Impedance: Input: 1 Mohm to +EXC; Reset: 100K to +5V
Isolation: Dielectric strength to 1000 Vrms transient per 1 min. test based on EN 61010 for 50 Vdc or Vrms working voltage
Input Over-Voltage Protection: With 1K pull down: 14V; With 3K pull up: 20V; Without pull up/down: 60V
Excitation: 5, 8.2 or 12.5V at 25mA, programmable
Accuracy at 25°C : $\pm 0.1\%$ of FS Crystal time base accuracy: ± 50 ppm
Temperature Stability: ± 50 ppm/ $^{\circ}\text{C}$ typical; Time base stability: ± 1 ppm/ $^{\circ}\text{C}$
Step response for RS485 Output: 0.1 second to 99% of the final value (Filter time constant = 0, Gate time = 0.05 Sec)

FOR ALL MODELS:

NETWORK & COMMUNICATION

(optional -C24, -C4EI, -EI)
Ethernet: Standards Compliance IEEE 802.3 10Base-T
Supported Protocols: TCP/IP, ARP, HTTPGET
RS-232/RS-422/RS-485/MODBUS: Selectable from menu; both ASCII and modbus protocol selectable from menu. Programmable 300 to 19.2 K baud; complete programmable setup capability; program to transmit current display, alarm status, min/max, actual measured input value and status.
RS-485: Addressable from 0 to 199
Connection: Screw terminals

CONTROL for UTP, SP

Action: Reverse (heat) or direct (cool)

ALARM 1 & 2 (programmable)

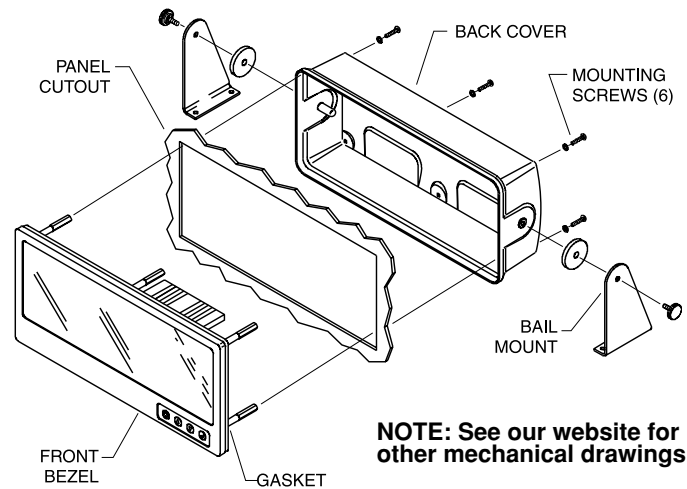
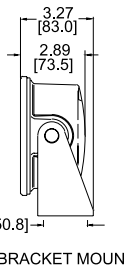
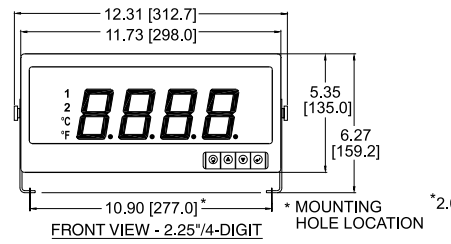
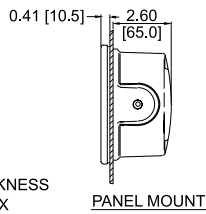
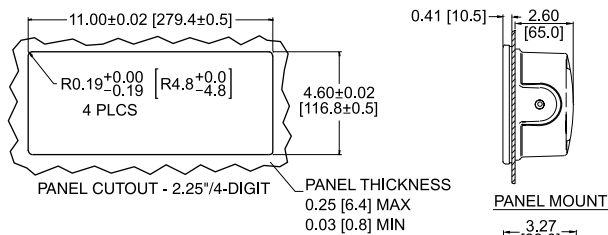
Operation: High/low, above/below, band, latch/unlatch, normally open/normally closed and process/deviation; front panel configurations

ISOLATION

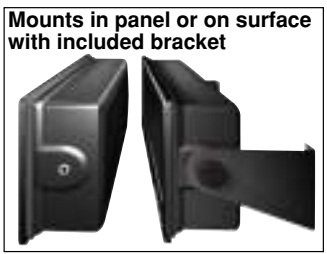
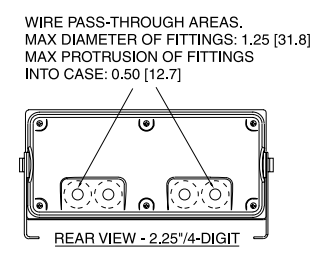
Power to Input/Output: 2500 Vac per 1 minute test (RS-232/485, Input or Output)
Between Inputs: 500 Vac per 1 min. test

GENERAL

Power: 100-240 Vac $\pm 10\%$, 50/60 Hz
22.5 W
Environmental Conditions: 0 to 40°C (32 to 104°F), 90% RH non-condensing
Warm up to rated Accuracy: UTP, SP, FP, ACC, ACV = 60 minutes.
Installation Category: II per EN61010-1
Equipment Class: II per EN61010-1
Pollution Degree: 2 per EN61010-1
Protection: NEMA-4 (IP65) front bezel



NOTE: See our website for other mechanical drawings.



ORDERING MATRIX - OPTIONAL OUTPUTS				
	METER	2 RELAYS	SERIAL OUT	ETHERNET
T+P	X	X	X	X
S+P	X	X	X	X
FP	X		X	X
ACC	X		X	X
ACV	X		X	X
EI	X			

To Order (Specify Model No.)

Basic Model	Description	Price
UNIVERSAL TEMPERATURE THERMOCOUPLE, RTD + PROCESS INPUT		
iLD24-UTP	2.25" 4-digit display, Universal Temperature/Process, Monitor/Controller	795
iLD44-UTP	4" 4-digit display, Universal Temperature/Process, Monitor/Controller	995
STRAIN GAUGE + PROCESS INPUT		
iLD24-SP	2.25" 4-digit display, Strain Gauge/Process, Monitor/Controller	795
iLD44-SP	4" 4-digit display, Strain Gauge/Process, Monitor/Controller	995
CONTROL OUTPUTS for UTP & SP INSTRUMENTS		
-33	2 relays: Form "C" SPDT 3A @ 120/240 Vac. (Available on UTP and SP models only)	100
NETWORK OPTIONS for UTP & SP INSTRUMENTS*		
-C24	Isolated RS-232 and RS-485/422 with baud rate from 300 to 19.2k	100
-C4EI	Ethernet with embedded Web Server + RS-485/422 hub for up to 31 devices	150
-FS	Factory Scaling	N/C

FREQUENCY/PULSE/RATE/TOTAL INPUT		
iLD24-FP	2.25" 4-digit display with Frequency/Pulse Totalize input, RS485 Output	795
iLD26-FP	2.25" 6-digit display with Frequency/Pulse Totalize input, RS485 Output	995
iLD44-FP	4" 4-digit display with Frequency/Pulse Totalize input, RS485 Output	995
iLD46-FP	4" 6-digit display with Frequency/Pulse Totalize input, RS485 Output	1,195

AC CURRENT AND VOLTAGE INPUT		
iLD24-ACC	2.25" 4-digit display with AC Current input, RS485 Output	795
iLD44-ACC	4" 4-digit display with AC Current input, RS485 Output	995
iLD24-ACV	2.25" 4-digit display with AC Voltage input, RS485 Output	795
iLD44-ACV	4" 4-digit display with AC Voltage input, RS485 Output	995

NETWORK OPTIONS for FP & AC INSTRUMENTS		
-C2A	RS-232 + Isolated Analog Output (replaces standard RS-485)	100
-EI	Ethernet, RS-232, RS-485/422 Output	100
-FS	Factory Scaling	N/C

REMOTE DISPLAYS		
iLD24-EI	2.25" 4-digit display with Ethernet, RS-485/422 Input	795
iLD44-EI	4" 4-digit display with Ethernet, RS-485/422 Input	995
iLD26-EI	2.25" 6-digit display with Ethernet, RS-485/422 Input	995
iLD46-EI	4" 6-digit display with Ethernet, RS-485/422 Input	1,195

SOFTWARE (Requires Network Option)		Price
OPC-SERVER LICENSE	OPC Server/Driver Software License	295

Ordering Example: iLD24-UTP is a Large 2.25" display, Universal Temperature/Process, Monitor \$795
 *Network Options cannot be combined.
 Contact sales for custom Control or Alarm Outputs.

LARGE DISPLAY DIGITAL PANEL METER



L2Q / L4Q

- ✓ Large 57 mm (2 1/4") or 102 mm (4") Digit Display for Easy Visibility
- ✓ 3 1/2 - or 4-Digit Models Available
- ✓ Wide Variety of Inputs to Work with Most Common Sensors
- ✓ Displays Readings in Engineering Units



NEWPORT PRODUCT INFO

- [MANUAL](#)
- [QUICK START](#)
- [MECHANICAL](#) 2" or 4" Case
- [MECHANICAL](#) Connections Diagram
- [PRICE](#)

 REQUIRES ADOBE ACROBAT - [HELP](#)

The **L2Q Series** and **L4Q Series** are multi-purpose large display digital meters, housed in extruded aluminum, suitable for panel mounting or free standing installations. The L2Q has 2 1/4" (57 mm) digits, which are visible from 50' (15 m) away. The L4Q has 4" (102 mm) digits and can be seen from 200' (61 m). Versions are available with 3 1/2 digits (L2Q2/L4Q2) or 4 digits (L2Q9/L4Q9).

The **L2Q9** and **L4Q9** use the signal conditioner modules, which makes them compatible with most common sensor types. The P signal conditioner module accepts voltage inputs up to 10 Vdc or current inputs up to 50 mA. For use with millivolt sensors, such as load cells or strain gages, the S signal conditioner accepts inputs up to 500 mV. Both the P and S models are fully scalable to read out in engineering units from ± 9999 counts. The S models also have a 20 Vdc power supply for transducer excitation. Additional models for J, K, and T thermocouples and 100 Ohm platinum RTDs are also available. All large displays utilize a switching power supply which enables them to operate on any ac voltage between 95 and 265 Vac and 45 to 440 Hz.

SPECIFICATIONS

Power: 95 to 265 Vac, 45 to 440 Hz

Power Consumption: 10 watts

Display Type: High efficiency red LED

Digit Height: L2Q: 2 1/4" (57 mm); L4Q: 4" (102 mm)

Operating Temperature: 32 to 122°F (0 to 50°C) (reduced to 40°C if maximum display brightness is selected)

Storage Temperature: -4 to 185°F (-20 to 85°C)

Humidity: 85% RH non-condensing

Dimensions: L2Q: 10.4" W x 4.7" H x 4.6" D (264 x 120 x 117 mm); L4Q: 19" W x 7" H x 4.6" D (480 x 180 x 117 mm)

Panel Cutout: L2Q: 10.2" W x 4.5" H (258 x 114 mm); L4Q: 18.6" W x 6.8" H (474 x 174 mm)

Depth Behind Panel: 4.2" (107 mm)

Weight: L2Q: 5.5 lb. (2.5 kg); L4Q: 9.9 lb. (4.5 kg)

Case Material: aluminum extrusion, black anodized finish

Power Connector: IEC fused connector, 6' (1.8 m) power cord included

Signal Connector: mating 9 pin sub-miniature D-type or thermocouple input socket (SMP) for signal conditioner types J, K and T, included

To Order (Specify Model No.) *Prices Shown in U.S. Dollars*

Model No.	Description	Price
L2Q2-R-*	3 1/2-digit large display panel meter with 2 1/4" (57 mm) high digits	\$1415
L4Q2-R-*	3 1/2-digit large display panel meter with 4" (102 mm) high digits	\$2105
L2Q9-R-*	4-digit large display panel meter with 2 1/4" (57 mm) high digits	\$1415
L4Q9-R-*	4-digit large display panel meter with 4" (102 mm) high digits	\$2105

* Insert Signal Conditioner Order Code from table above.

Comes complete with power cord, mating input connectors, operator's manual and ferrite cores.

Ordering Example: L2Q9-R-JDC1 is a 4-digit large display meter with a 2 1/4" (57 mm) high display, and type J thermocouple input with -40 to 760°C range, \$1415 + 125 = **\$1540**.**SIGNAL CONDITIONERS**

Model No.	Order Code	Range	Price
Process Current/Voltage	P	Scalable	\$100
Strain Gage/Millivolt	S	Scalable	\$175
Frequency/Rate Inputs	H	Scalable	\$125
J Thermocouple (°F)	JDF1	-40 to 1400°F	\$125
J Thermocouple (°C)	JDC1	-40 to 760°C	\$125
K Thermocouple (°F)	KDF1	-40 to 1999°F	\$125
K Thermocouple (°C)	KDC1	-40 to 1260°C	\$125
T Thermocouple (°F)	TDF1	-300 to 700°F	\$125
T Thermocouple (°C)	TDC1	-184 to 371°C	\$125
RTD 1° Resolution (°F)	MDF1	-328 to 1526°F	\$125
RTD 1° Resolution (°C)	MDC1	-200 to 830°C	\$125
RTD 0.1° Resolution (°F)	RDF1*	-199.9 to 199.9°F	\$125
RTD 0.1° Resolution (°C)	RDC1*	-199.9 to 199.9°C	\$140

*Not recommended for use with L2Q9 or L4Q9 4-digit meters.

NOTE: Maximum temperature range for L2Q9 and L4Q9 is 999.9[NEXT](#)
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LARGE DISPLAYS WITH SERIAL ASCII INPUT



NEWPORT PRODUCT INFO

- [MANUAL](#)
- [QUICK START](#)
- [MECHANICAL](#) 2" or 4" Case
- [MECHANICAL](#) Connections Diagram
- [PRICE](#)

 [REQUIRES ADOBE ACROBAT - HELP](#)

L2S / L4S

- ✓ 57 mm, 102 mm AND 144 mm LED Display
- ✓ Full Four or Six Digit Display
- ✓ Wide AC Voltage Input Range
- ✓ RS-232 or RS-422/485 or 20 mA Current Loop
- ✓ 300, 2300, 2400 or 9600 Baud
- ✓ 95 to 265 Vac (45-440 Hz)
- ✓ ASCII Serial Data Input
- ✓ Red LED Display



OPTIONS

- ✓ **Suspended Mounting**
- ✓ **NEMA-4 (IP65) Housing (L2S4 & L4S4 Only)**

The **LXS Series** are multi-purpose large displays of 4 or 6 characters which may be numeric or limited alpha type symbols. The housings are rugged aluminum extrusions suitable for panel mounting, hanging or free standing use. LXS accepts serial ASCII data from an RS-232 or RS-422/485 link at various commonly used Baud rates. The protocol supports both point to point and multidrop use, with up to 31 addresses plus a master address allowing all units to receive simultaneously. Further optional protocols accept information in the form generated by **NEWPORT's INFINITY®** Series, Model 269 and the programmable, universal counter, timer and rate meter Model P5000.

SPECIFICATIONS

Display Type (LED, red) Height: 7 segment, 57 mm, 102 mm or 144 mm

Display: -9999 or -999999

Brightness: Set via the serial link

Polarity: LED bar indicator

Overload/alarm: LED block indicator

Decimal Points: Set via the serial link at any position

POWER SUPPLY

AC: 95 to 265 Vac 45-440 Hz

Power Consumption: 10 watts (4 digit)

Connectors Mains: IEC fused ac receptacle

Signal: 9 pin subminiature D connector

ENVIRONMENTAL

Operation Temperature: 0-50°C

Storage Temperature: -20 to + 85°C

Relative Humidity: 0 to 85% (non-condensing Case option): IP65 L2S4 & L4S4 only

MECHANICAL

Case Material: aluminum extrusion

Case Finish: Black anodized

WEIGHT

L2S4: 2.5 Kg

L2S6: 3 Kg

L4S4: 4.5 Kg

L4S6: 6.5 Kg**SIGNAL FORMAT**

Serial ASCII coded data string at 300, 1200, 2400 or 9600 Baud; 1 start bit, 8 data bits (or 7 bits plus parity—parity ignored) and 1, 1 1/2 or 2 stop bits. Signal inputs determined by internal jumper switches.

TTL: above +2 V = logic 0; below .8 V at -1 mA = logic 1

2 mA Loop: above 1.5 mA = logic 1; below 0.5 mA = logic 0; compliance 1 V max at 2 mA; maximum loop current 0.5 mA

20 mA Loop: above 15 mA = logic 1; below 5 mA = logic 0; compliance 1 V max at 20 mA; maximum loop current 0.5 mA

Bipolar ±5 V RS423: above +0.5 V = logic 1; below 0V = logic 0; open line = space, loading between 4 and 10 kilohms maximum input ±7 volts

Bipolar ± 15 V: above +3 V = logic 1; below -3 V = logic 0; open line = space, loading between 4 and 7 kilohms maximum input ±30 volts

Differential RS422/485: Diff. threshold less than ±0.2 V; hysteresis 50 mV typical, loading 12 kilohms minimum maximum diff. input ±12 V; maximum voltage relative to signal common +12/-7V

Termination Received Loop Source: 120 ohms jumper switchable; 2 mA or 20 mA ±20%; open circuit voltage 5 V ±5%; compliance at 2 or 20 mA 3.5 V min.

To Order (Specify Model No.) *Prices Shown in U.S. Dollars*

Model No.	Description	Price
L2S4-R	4-digit LED display with 2 1/4" high digits	\$1250
L2S6-R	6-digit LED display with 2 1/4" high digits	\$1385
L4S4-R	4-digit LED display with 4" high digits	\$1940
L4S6-R	6-digit LED display with 4" high digits	\$2350
A9	NEMA-4 housing for L2S4-R	\$285
A10	NEMA-4 housing for L2S6-R, L4S4-R	\$430



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CALL 714-540-4914

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LARGE CLOCK DISPLAY



L2C / L4C

The **L2C** and **L4C** are dedicated large display clocks, which can be configured for real-time or elapsed time indication. Four-digit or 6-digit units are available offering displays indicating minutes/seconds or hours/minutes (4-digit) and hours/minutes/seconds or days/hours/minutes (6-digit).



NEWPORT PRODUCT INFO	
•	MANUAL
•	QUICK START
•	MECHANICAL 2" or 4" Case
•	MECHANICAL Connections Diagram
•	PRICE
	REQUIRES ADOBE ACROBAT - HELP

Remote controls and preset capability along with an alarm output make the run time clock an ideal process timer. An RS-232-C output of the display is provided to permit connection of a number of slave clock displays to a master clock with only 3 wires.

SPECIFICATIONS

Resolution: One (1) minute or one (1) second (jumper-selectable)

Time Setting: By internal pushbuttons or external volt-free contacts to advance hours and minutes

Control Lines: 3 independent opto-isolated lines

Sensitivity: 4-50 Vdc

Functions: 4 modes (user-selectable): 1- Start, stop, reset (3 lines) 2- Run/stop, reset (2 lines) 3- Reset/run/stop (1 line) 4- Reset/start, stop (2 lines)

Count Modes: 2 each - user-selectable: 1- Count-up, reset to zero (count to preset value) 2- Countdown, reset to preset value (count to zero)

Presetting: Via internal pushbutton or external volt-free contacts

Alarm Output: Open-collector 30 volts @ 50 mA maximum

Power: Switching power supply accepting 95 Vac to 265 Vac

To Order (Specify Model No.) *Prices Shown in U.S. Dollars*

Model No.	Description	Price
L2C-0-R-0	4-digit LED display with 2 1/4" high digits	\$1315
L2C-2-R-0	6-digit LED display with 2 1/4" high digits	\$1450
L4C-0-R-0	4-digit LED display with 4" high digits	\$1995
L4C-2-R-0	6-digit LED display with 4" high digits	\$2415
A9	NEMA-4 housing for L2C-0-R-0	\$285
A10	NEMA-4 housing for L2C-R-0, L4C-0-R-0	\$430

Ordering Example: L4C-0-R-0 is a 4-digit clock display with 4" high digits, \$1995.

LARGE DISPLAYS WITH PARALLEL LOGIC



NEWPORT PRODUCT INFO
<ul style="list-style-type: none"> • MANUAL • QUICK START • MECHANICAL 2" or 4" Case • MECHANICAL Connections Diagram • PRICE
REQUIRES ADOBE ACROBAT - HELP

L2P / L4P

- ✓ 57 mm, 102 mm AND 144 mm LED Display
- ✓ Full Four or Six Digit Display
- ✓ Wide AC Voltage Input Range
- ✓ 95 to 265 Vac (45-440 Hz)
- ✓ 5, 12, 24, or 48V logic
- ✓ 4 bit Binary address
- ✓ BCD or Binary coded data
- ✓ Red LED Display



OPTIONS

- ✓ Suspended Mounting
- ✓ NEMA-4 (IP65) Housing (L2P4 & L4P4 Only)

The **LXP Series** are multi-purpose large displays of 4 or 6 characters which may be numeric or limited alpha type symbols. The housings are rugged aluminum extrusions suitable for panel mounting, hanging or free standing use.

SPECIFICATIONS

Display Type (LED, red) Height: 7 segment, 57 mm, 102 mm or 144 mm

Display: -9999 or -999999

Polarity: LED bar indicator

Overload/alarm: LED block indicator

POWER SUPPLY

AC: 95 to 265 Vac 45-440 Hz

Power Consumption: 10 watts (4 digit)

CONNECTORS

Power: IEC fused ac receptacle

Signal: Plug-in screw terminals

ENVIRONMENTAL

Operation Temperature: 0-50°C

Storage Temperature: -20 to + 85°C

Relative Humidity: 0 to 85% (non-condensing Case option): IP65 L2P4 & L4P4 only

MECHANICAL

Case Material: aluminum extrusion

Case Finish: Black anodized

Weight: L2P4: 2.5 Kg / L2P6: 3 Kg / L4P4: 4.5 Kg / L4P6: 6.5 Kg

LOGIC INPUTS

Serial ASCII coded data string at 300, 1200, 2400 or 9600 Baud; 1 start bit, 8 data bits (or 7 bits plus parity—parity ignored) and 1, 1 1/2 or 2 stop bits. Signal inputs determined by internal jumper switches.

To Order (Specify Model No.) *Prices Shown in U.S. Dollars*

Model No.

Description

Price

L2P4-R	4-digit LED display with 2 1/4" high digits	\$1470
L2P6-R	6-digit LED display with 2 1/4" high digits	\$1605
L4S4-R	4-digit LED display with 4" high digits	\$2160
L4SP-R	6-digit LED display with 4" high digits	\$2570
A9	NEMA-4 housing for L2P4-R	\$285
A10	NEMA-4 housing for L2P6-R, L4P4-R	\$430




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LARGE DISPLAYS WITH UP / DOWN TOTALIZER



NEWPORT PRODUCT INFO
<ul style="list-style-type: none">• MANUAL• QUICK START• MECHANICAL 2" or 4" Case• PRICE
 REQUIRES ADOBE ACROBAT - HELP

L2T / L4T

- ✓ 57 mm, 102 mm AND 144 mm LED Display
- ✓ Full Four or Six Digit Display
- ✓ Wide AC Voltage Input Range
- ✓ 95 to 265 Vac (45-440 Hz)
- ✓ Up/Down Totalizer
- ✓ Predivider
- ✓ Contact Debounce
- ✓ Red LED Display



OPTIONS

- ✓ Suspended Mounting
- ✓ NEMA-4 (IP65) Housing (L2P4 & L4P4 Only)

The **LXP Series** are multi-purpose large displays of 4 or 6 characters which may be numeric or limited alpha type symbols. The housings are rugged aluminum extrusions suitable for panel mounting, hanging or free standing use.

SPECIFICATIONS

Display Type (LED, RED)

Height: 7 segment, 57 mm, 102 mm or 144 mm

Display: -9999 or -999999

Polarity: LED bar indicator

Overload/alarm: LED block indicator

POWER SUPPLY

AC: 95 to 265 Vac 45-440 Hz

Power Consumption: 10 watts (4 digit)

CONNECTORS

Power: IEC fused ac receptacle

Signal: Plug-in screw terminals

ENVIRONMENTAL

Operation Temperature: 0-50°C

Storage Temperature: -20 to + 85°C

Relative Humidity: 0 to 85% (non-condensing Case option): IP65 L2P4 & L4P4 only

MECHANICAL

Case Material: aluminum extrusion

Case Finish: Black anodized

Weight: L2T4: 2.5 Kg / L2T6: 3 Kg / L4T4: 4.5 Kg / L4T6: 6.5 Kg

SIGNAL INPUTS

Threshold: Rising: +2.2V min, +3.5V max. Falling: +1V min, +2.4V max.

Signal hysteresis: 0.4V min

Maximum signal: ±30V

Loading: 100kohms to common for +5V pulses

Load: Internal 2kohm load may be internally jumpered to common or to the excitation supply for each control line.

Active Level: Internally jumpered to be active either with low level/falling edge or a high level/rising edge inputs

Debounce: Internal debounce for contact closure input restricts count rate to 10 pulses per sec.

Count rate: 20,000 pulses per second maximum gated mode, 1000 pulses per sec. up/down mode

Count Capacity: over 9 decades before scaling

Overrange: Indicator lights for 1 decade

Count store: Count is retained but not updated for 2 months minimum when power is removed

Scaling: Count is divided by a whole number from 1 to 255

Excitation supply: 8.5V \pm 10% 20mA max load, 12V \pm 10% 30mA max load, 24V \pm 10% 50mA max load, excitation is set by jumper switch

To Order (Specify Model No.) *Prices Shown in U.S. Dollars*

Model No.	Description	Price
L2T4-R	4-digit LED display with 2 1/4" high digits	\$1345
L2T6-R	6-digit LED display with 2 1/4" high digits	\$1480
L4T4-R	4-digit LED display with 4" high digits	\$2035
L4TP-R	6-digit LED display with 4" high digits	\$2445
A9	NEMA-4 housing for L2T4-R	\$285
A10	NEMA-4 housing for L2T6-R, L4T4-R	\$430



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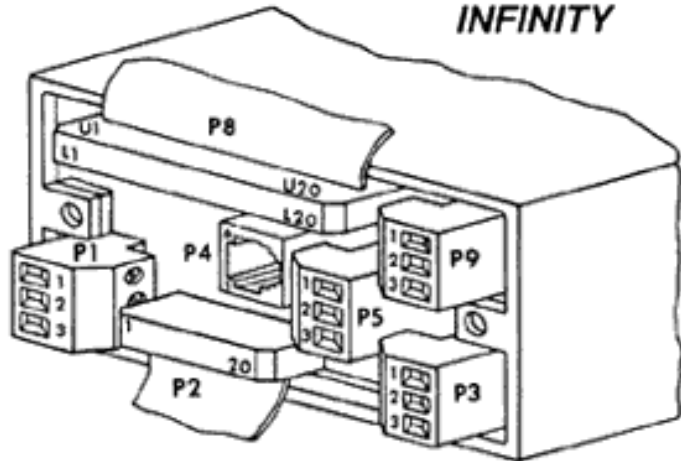
INFINITY, L2CX, L4CX, L2PE, L4PE

P2, P5, P8, S1, TB1, TB2

INFINITY

BCD OUTPUT OPTION

P8		
BCD 400K	L1 U1	BCD 800K
BCD 100K	L2 U2	BCD 200K
ISO GND	L3 U3	SPARE
BCD 40K	L4 U4	BCD 80K
BCD 10K	L5 U5	BCD 20K
BCD 4K	L6 U6	BCD 8K
BCD 1K	L7 U7	BCD 2K
D.P. 2	L8 U8	D.P. 4
BCD 400	L9 U9	BCD 800
BCD 100	L10 U10	BCD 200
BCD 40	L11 U11	BCD 80
BCD 10	L12 U12	BCD 20
BCD 4	L13 U13	BCD 8
BCD 1	L14 U14	BCD 2
ISO GND	L15 U15	D.P. 1
DATA READY	L16 U16	POLARITY
ISO V+	L17 U17	HOLD
SPARE	L18 U18	OVERFLOW
ADDRESS B4	L19 U19	ADDRESS B8
ADDRESS B1	L20 U20	ADDRESS B2



GENERAL INPUTS & OUTPUTS

P2		
TARE (T)	1 2	PEAK (P)
VALLEY (V)	3 4	SW LIN 2
EXT RESET	5 6	PUSH TO CAL
DIG GND	7 8	+5 V
DISPLAY HOLD	9 10	LOCKOUT EEPROM
PRINT COMMAND	11 12	NONSTANDARD RX
NONSTANDARD TX	13 14	PUSH TO CAL
+V EXT	15 16	SETPOINT 1
SETPOINT 2	17 18	ALARM 1
ALARM 2	19 20	GND EXT

ANALOG OUTPUT OPTION

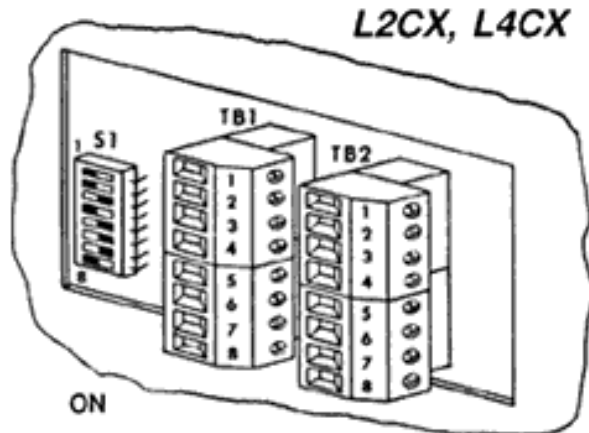
P5	
1	RETURN
2	4-20 mA OUT
3	0-10 V OUT

L2CX, L4CX

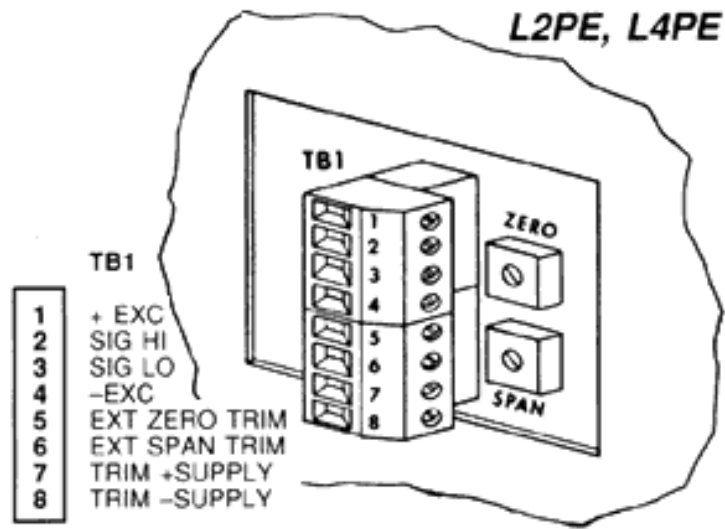
CLOCK FUNCTIONS

TB1	TB2		
1	ALARM -	1	SET 3
2	ALARM +	2	SET 2
3	N/C	3	SET 1
4	AUX +	4	COMMON
5	CONTROL 1	5	N/C
6	CONTROL 2	6	SERIAL B
7	CONTROL 3	7	SERIAL A
8	COMMON	8	COMMON

S1	OFF	ON
1	ALARM	DISABLE
2	TIMER	UP
3	DISPLAY BRIGHTNESS	50%
4	DISPLAY BRIGHTNESS	50%
5	DISPLAY RANGE (4-DIGIT)	MM:SS
5	DISPLAY RANGE (6-DIGIT)	24 HR
6	NOT USED	
7	NOT USED	
8	NOT USED	



L2PE, L4PE



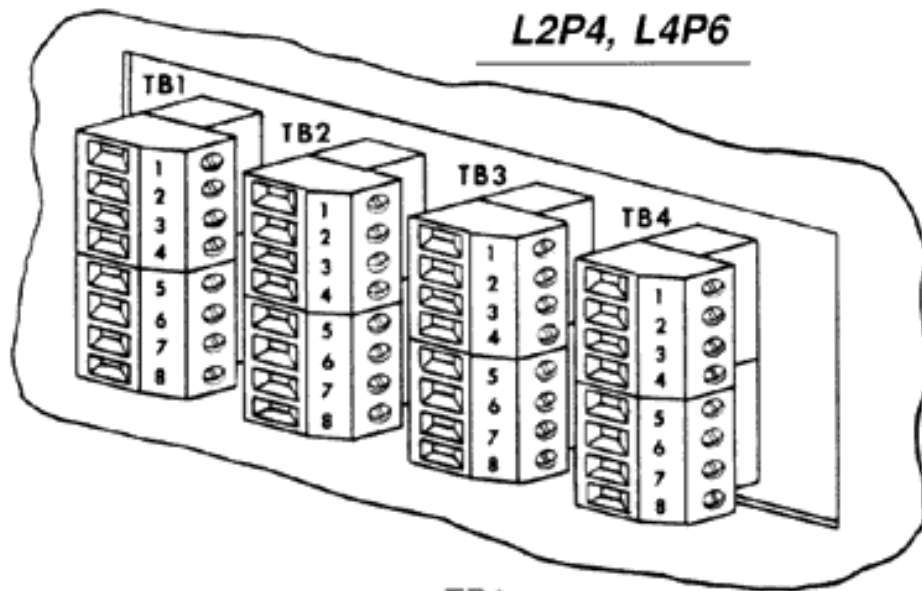
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L2P4, L4P6
TB1, TB2, TB3, TB4 (L2P6 Only), D1



MODE 0		MODE 1		MODE 2		MODE 3		MODE 4	
1	BCD 1	1	BCD 1/100	1	BCD 1/1K	1	DATA 1	1	BIN 1
2	BCD 2	2	BCD 2/200	2	BCD 2/2K	2	DATA 2	2	BIN 2
3	BCD 4	3	BCD 4/400	3	BCD 4/4K	3	DATA 4	3	BIN 4
4	BCD 8	4	BCD 8/800	4	BCD 8/8K	4	DATA 8	4	BIN 8
5	BCD 10	5	BCD 10/1K	5	BCD 10/10K	5	DISP 1	5	BIN 16
6	BCD 20	6	BCD 20/2K	6	BCD 20/20K	6	DISP 2	6	BIN 32
7	BCD 40	7	BCD 40/4K	7	BCD 40/40K	7	DISP 4	7	BIN 64
8	BCD 80	8	BCD 80/8K	8	BCD 80/80K	8	N/C	8	BIN 128

**TB4
(L2P6 Only)**

MODE 0

1	BCD 10K
2	BCD 20K
3	BCD 40K
4	BCD 80K
5	BCD 100K
6	BCD 200K
7	BCD 400K
8	BCD 800K

MODE 4

1	BIN 65536
2	BIN 131072
3	BIN 262144
4	BIN 524288
5	N/C
6	N/C
7	N/C
8	N/C

TB2

1	DP1
2	DP2
3	DP4
4	STROBE 1
5	POL
6	O/L
7	ADDRESS
8	COMMON

TB3

MODE 0

1	BCD 100
2	BCD 200
3	BCD 400
4	BCD 800
5	BCD 1K
6	BCD 2K
7	BCD 4K
8	BCD 8K

MODE 1

1	BCD 10K/100K
2	BCD 20K/200K
3	BCD 40K/400K
4	BCD 80K/800K
5	STROBE 2
6	STROBE 3
7	N/C
8	N/C

MODE 2

1	BCD 100/100K
2	BCD 200/200K
3	BCD 400/400K
4	BCD 800/800K
5	STROBE 2
6	N/C
7	N/C
8	N/C

MODE 4

1	BIN 256
2	BIN 512
3	BIN 1024
4	BIN 2048
5	BIN 4096
6	BIN 8192
7	BIN 16384
8	BIN 32768



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L2QX, L4QX, L2RX, L4RX, L2S4, L2S6, PID 81, 82
TB1, TB2

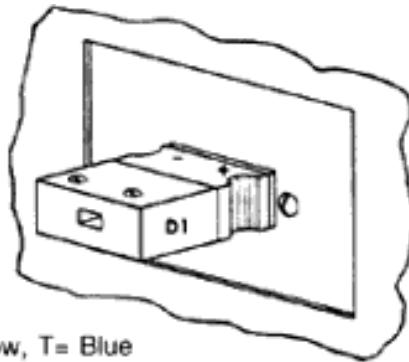
L2QX, L4QX

L2QJ,K,T/L4QJ,K,T

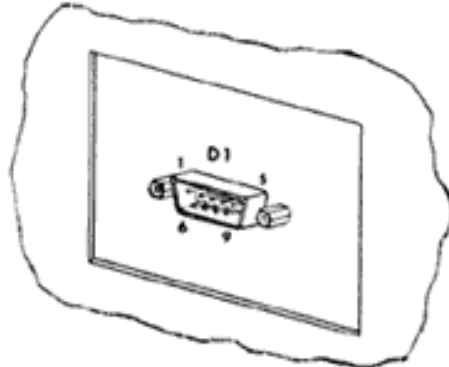
D1

WIRE COLOR

TC (-) Red
 TC (+) J=White, K=Yellow, T= Blue



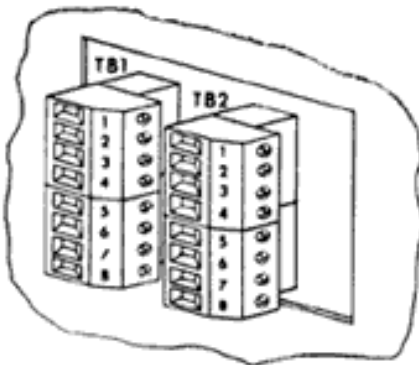
L2QX, L4QX



SIGNAL CONDITIONER TYPE

	A, C, F, H, P D1	B, D, G, D1	E, Q D1	L, M, O, R, S D1	N D1
1	SIG HI	SIG HI	SIG HI	SIG HI	LO
2	N/C	SIG HI	+EXC	+EXC	N/C
3	N/C	N/C	N/C	N/C	N/C
4	N/C	N/C	N/C	N/C	N/C
5	N/C	N/C	N/C	N/C	N/C
6	N/C	N/C	N/C	N/C	N/C
7	SIG LO	SIG LO	SIG LO/-EXC	SIG LO	HI
8	N/C	SIG LO	N/C	-EXC	N/C
9	N/C	N/C	N/C	N/C	N/C

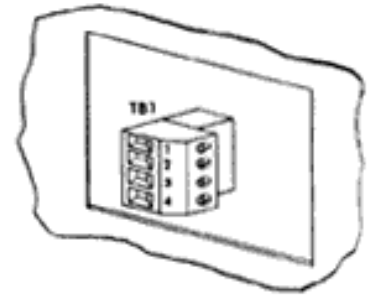
L2RX, L4RX



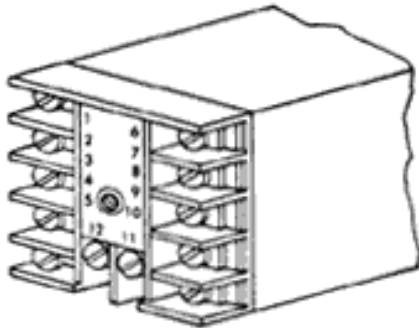
	TB1	TB2
1	ALARM (-)	ISOLATED (+)
2	ALARM (+)	ISOLATED (-)
3	SET 3	N/C
4	SET 2	N/C
5	SET 1	AUX
6	"B"	LD
7	"A"	SIG
8	COM	COM

L2S4, L2S6

TB1	TTL	2/20 mA LOOP PWR	2/20 mA RECR PWR	RS-232 RS-423	RS-422 RS-485	NEWPORT 269/P6000
1	SIG COM	LOOP RTN	N/C	SIG COM	SIG COM	COM
2	N/C	LOOP IN	LOOP RTN	SIG IN	SIG "B"	SIG IN
3	SIG IN	N/C	LOOP IN	+5 V OUT	SIG "A"	SIG IN



PID 81, 82



1	RELAY (N.O.)
2	RELAY (COMMON)
3	N/C
4	RELAY (COMMON)
5	RELAY (N.O.)
6	RESET SWITCH INPUT

7	RESET SWITCH INPUT
	TC RTD
8	N/C V + (SENSE)
9	TC (+) V +
10	TC (-) V -
11	AC LO
12	AC HI

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