DATA-LINC GROUP

NEW
FALL 2004

PlantLinc™ 580D
PlantLinc™ 580DA

WIRELESS I/O EXTENDERS FOR THE 900 MHZ BAND

WIRELESS ANALOG/DISCRETE I/O EXTENDERS

Data-Linc Group's *PlantLinc*™ 580 Wireless I/O Extenders offer the ability to economically transmit 4-20 mA and discrete I/O signals without the cost or inconvenience of adding wires or additional devices. The *PlantLinc* 580 combines an analog/discrete signal digitizer with Data-Linc Group's short range *PlantLinc* industrial grade license free radio modem. The result is a cost effective, simple to implement wireless solution for I/O signal transmission up to 4 miles (6.5 km) away.

The *PlantLinc* 580D Wireless Discrete I/O Extender (model PLR580D) has eight discrete inputs and eight discrete outputs. The *PlantLinc* 580DA Wireless Discrete/Analog I/O Extender (model PLR580DA) includes discrete signals plus eight analog inputs and eight analog outputs. The wireless extenders may be used in pairs for point-to-point signal transmission or in point-to-multipoint configurations, providing I/O signal transmission to multiple locations.

The *PlantLinc* radio section of the extenders operates in the license-free 902-928 MHz spread spectrum band and incorporates frequency hopping transmission techniques with 32-bit CRC error detection. The result is extremely reliable I/O communications even in high noise plant environments and at a range of up to 4 miles (6.5 km) with line-of-sight, using omni-directional antennas. In the event of a communication link failure, discrete outputs will default to open, while analog outputs will default to 4 mA.

PlantLinc 580 Wireless I/O Extenders are ideal for data acquisition and control applications such as tank level monitoring and pump control. Please consult with a Data-Linc Group Applications Specialist by phone at (425) 882-2206; fax your proposed application diagram to us at (425) 867-0865; or email sales@data-linc.com for review.

PLR580 FEATURES

- **Cost effective wireless discrete and analog signal extender**
- **Operates in the license-free 902 - 928 MHz band**
- **Excellent noise immunity using robust frequency hopping technology**
- **Maximum range of 4 miles (6.5 km) with unobstructed line-of-sight**
- **Repeater mode available to communicate around obstructions**
- **Supports point-to-point or point-to-multipoint architectures**
- **No wires to route or trenches to dig**
- **Easy to implement; automatic start and restart**

APPLICATIONS

- **Field and factory floor discrete and analog signal communication for all industries**
- **Wireless connection between instruments or controllers/ relays and PLC or RTU analog/ discrete input and output blocks**
- **Water/Wastewater example— monitor tank levels with 4-20 mA analog signals and control pumps with contact closure discrete signals**

PLR580 Specifications

System Configurations
Point-to-point
Point-to-multipoint (1 Master with up to 8 addressable single channel Remotes)

Channel Functions
Analog. 4-20 mA standard, 24 VDC max. Internal 8 bit A/D yields 2% accuracy of 4-20 mA signals
Discrete Input. Dry contact closure-switch closure detection
Discrete Output. Open collector—sink to ground 100 mA per channel 12-24 VDC

Operating Environment
Standard. 32° to 140° F (0° to 60° C)
Humidity. 0 to 95% non-condensing humidity

Connections
RF Antenna. Standard thread SMA female.
Supplied bench test 0 dB antenna.
Optional external omni or yagi antennas available.
Analog. (4-20 mA input and output): 9 position pluggable terminal blocks
Pluggable terminal blocks standard wire size 12-26 AWG
Digital (Contact Closure input and output): 9 position pluggable terminal blocks
Pluggable terminal blocks standard wire size 12-26 AWG

Power. Barrel jack (2.0 mm center, 6.5 mm barrel) 120 to 12 VDC barrel jack transformer included

Configuration. 6 pin mini-din.
RS232 port for reconfiguration of RF and processor channel parameters. Supplied programming cable and software CD with each Master unit

Radio Specifications
Range. 4 miles (6.5 km), line-of-sight distance using omni directional antennas
Output power. 200 mW maximum (+23 dBm)
Receive Sensitivity. –106 dBm @ 10^{-6} raw BER
Repeater. Repeating can be achieved by using a PLR5000 configured as a Repeater or a PLR580 configured as a Repeater/Remote. Contact Data-Linc Group for further information.

Indicators
Power
CD (Carrier Detect)
Tx (Transmit Data)
Rx (Receive Data)
Status (Error Status, Master unit only)

Voltage and Current
Voltage. 12 VDC nominal, min 10.5, max 18 VDC
Current. 160 mA idle, 660 mA peak on transmit

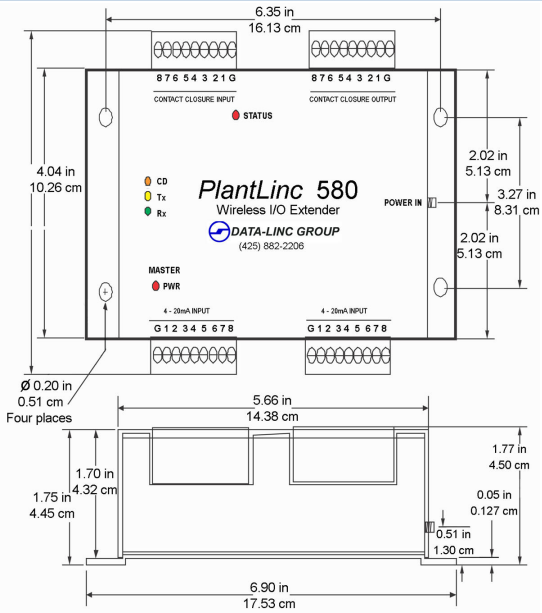
Enclosure
Standard. 18-gauge steel with mounting flanges

Weight. 1.65 lb (0.75 kg)

Shipping Weight. 4 lb (1.82 kg)

Specifications subject to change without notice.

PLR580 Dimensions



PLR580D/M (Master unit)
Discrete signal multiplexer with integral radio modem: 902 to 928 MHz license free radio modem with 8 discrete Inputs and Outputs.
PLR580D/R (Remote unit)
Discrete signal multiplexer with integral radio modem: 902 to 928 MHz license free radio modem with 8 discrete Inputs and Outputs.
PLR580DA/M (Master unit)
Discrete and Analog signal multiplexer with integral radio modem: 902 to 928 MHz license free radio modem with 8 discrete Inputs and Outputs as well as 8 analog Inputs and Outputs.
PLR580DA/R (Remote unit)
Discrete and Analog signal multiplexer with integral radio modem: 902 to 928 MHz license free radio modem with 8 discrete Inputs and Outputs as well as 8 analog Inputs and Outputs

Alliance Partners

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