TELEMETRY EQUIPMENT

MODEL 50388/A2

ALERT2 Data Transmitter

General Description

The HydroLynx Model 50388/A2 ALERT2 Data Transmitter uses the HydroLynx ALERT2 Encoder to transmit ALERT2 data reports, implementing the design goals of ALERT2: increased data throughput and flexibility while eliminating erroneous data reports. ALERT2 combines a high baud rate, advanced data encryption with Forward Error Correction (FEC), and Time Division Multiple Access (TDMA) communications.

High baud rate transmissions allow the ALERT2 data packet to include more information than standard ALERT, and FEC ensures reliable RF delivery. TDMA eliminates data report collisions, requiring a GPS antenna/receiver to keep the transmitter clock within its allocated time slot. The GPS time-sync state can itself be transmitted as a data value.

The 50388/A2 uses the same program logic as the proven 50386SLB across ALERT1, ALERT2, and ScadaLynx protocols. It is programmable with the ScadaLynx Toolbox software. Sensor values can be reported in engineering units as unsigned integer, signed integer, single- and double-precision floating point. The ALERT2 Station ID range is 1 to 65,534, with individual Sensor Numbers (0–254) per station. The unit includes a battery-backed RTC and memory, 4 COM ports, USB-A, USB-B, micro SD, and Ethernet. ALERT2 technology has been licensed from Blue Water Design LLC.

Model 50388/A2 ALERT2 Encoder

The HydroLynx ALERT2 Encoder installed between the 50388SLB PCB and the radio provides an ALERT2 Protocol-compliant data packet. The GPS antenna/receiver keeps the transmitter clock within the allocated TDMA time slot. HydroLynx recommends a 5033-0.6B Solar Panel with a 22 amp/hr battery at all 50388/A2 sites. ALERT2 technology has been licensed from Blue Water Design LLC.

Specifications

ALERT2 Capabilities

Data Formats	Unsigned / Signed Integer, Single & Double Float
Station ID (SID) Range	1 to 65,534
Sensor Number (SN)	0 to 254 per station
Communications	4 COM, USB-A, USB-B, Ethernet, micro SD
GPS	Time-sync state transmittable as data value

Ordering Information

50388/A2-54	Transmitter in Round Canister, 1 Precipitation Input
50388/A2-88	Same as 50388/A2-54 with 2 Digital Inputs
50388/A2-90	Same as 50388/A2-54 with 2 Digital & 1 Analog Inputs
50388/A2-81	Same as 50388/A2-54 with 3 Digital & 7 Analog Inputs
50388/A2-N	Transmitter in NEMA 4X Enclosure
50388/A2-Panel	Transmitter on metal panel
50388/A2-B	12 x 10 NEMA Enclosure, 1 Precipitation and 1 SDI
50388/A2-H	ALERT2 High Data Rate (HDR)
50388/A2-SAT	Use satellite radio
50388/A2-UP	Upgrade 50386 to 50388 Data Transmitter
50388/A2-UG	Upgrade 5096 or 50386 to new 50388 PCB in existing chassis

Radio Options

Default	Maxon 5W with Enclosure
Supported	Ritron 5W without Enclosure; Ritron 30W with Enclosure