

MODEL 50386RP Repeater

General Description

The HydroLynx Model 50386RP Data Repeater is an intelligent repeater that performs the same role as an ALERT repeater while adding the utility of the 50386. An ALERT repeater is used to relay data from a remote site to the central site where a direct line-of-sight radio path does not exist. The 50386RP adds multiple communication pathways and sensor inputs.

As an intelligent repeater, the 50386RP decides to repeat data reports based on three criteria: 1) the report is a valid message, 2) the ID number is in the programmable Repeat Range list, and 3) the same report is NOT in the Talk Back Buffer. The ScadaLynx Toolbox software package is used to configure all of the 50386 programmable parameters; this allows the user to reconfigure the Repeat Range list in the field. A sensor ID offset value can also be added to a sensor report before it is repeated.

The multiple communication pathway feature allows data repeating with different types of telemetry equipment, each employing its own communication protocol. Communication configurations include the standard ALERT repeater types: single frequency store and forward, and dual frequencies for simultaneous receive and transmit capability. Examples of additional configurations include OES transmitters, two-way SCADA radios, telephone modems and microwave relays.

On-site data collection capability is accomplished with sensor input packages that can add up to 14 analog inputs, four low speed counters (rain sensor inputs), four high speed counters (AC or DC wind inputs), twelve digital status inputs, six digital outputs and an SDI-12 port.

Specifications

General

Output power:

RTR only: 5 Watts
RTR with RPA: 20 Watts
Standby Current: 65 mAmps

Transmit Current Drain:

RTR only: 2 Amps
RTR with RPA: 7 Amps

Repeater processor: See 50386 specifications

Radio specifications: See RTR specifications

Power Amp specifications: See RPA specifications

Model 50386RP

Enclosure: Aluminum canister
Size: 8 in. diameter x 23 in. high
Weight: 25 lbs with battery
Shipping weight: 12 lbs (battery shipped separately)
Sensor inputs: Keyed MS connectors
Battery: 12 Vdc, 18 Amp-hour rechargeable gel cell
External 12 Vdc connector: 3 pin MS male connector
Antenna: BNC female bulkhead connector
Serial port: 7 pin MS male connector

Models 50386RP-B and 50386RP-N

Enclosure: NEMA-4X fiberglass
Size: 5.5 in. x 13.5 in. x 6.5 in.
Weight: 25 lbs with battery
Shipping weight: 12 lbs (battery shipped separately)
Sensor Inputs: Enclosure with cable strain reliefs and screw terminal interconnect PCB or keyed MS connectors
Battery: 12 Vdc, 18 Amp-hour rechargeable gel cell
External 12 Vdc connector: Two 3 pin MS male connectors
Antenna: N-type female lightning arrestor
Serial ports: Two onboard DB9 male connectors

Model 50386RP-K

Enclosure: Aluminum 4U Rack Mount with handles
Size: 19 in. x 8.75 in. x 13 in.
Weight: 26 lbs with battery
Shipping weight: 13 lbs (battery shipped separately)
Battery: 12 Vdc, 18 Amp-hour rechargeable gel cell
External 12 Vdc connector: Two 3 pin MS male connectors
Antenna: N-type female lightning arrestor
Serial ports: Two onboard DB9 male connectors

Ordering Information

50386RP Repeater in Round Canister with 1 Antenna Connector
50386RP-2 Same as 50386RP with 2 Antenna Connectors
50386RP-54 Same as 50386RP with 1 Precipitation Input, 1 SDI-12 Input
50386RP-90 Same as 50386RP with 1 Precipitation Input, 1 Up/Down Counter Input, 2 Analog Inputs, 1 SDI-12 Input
50386RP-81 Same as 50386RP with 1 Precipitation Input, 1 Up/Down Counter Input, 7 Analog Inputs, 2 Wind Inputs, 1 SDI-12 Input
50386RP-B Repeater in NEMA 4X Enclosure with 1 Antenna Connector
50386RP-B2 Same as 50386RP-B with 2 Antenna Connectors
50386RP-N Same as 50386RP-B with 2 Up/Down Counter Inputs, 7 Analog Inputs, 2 Wind Inputs, 8 Digital Inputs, 2 Digital Outputs, 1 SDI-12 Input
50386RP-NZ Same as 50386RP-B with 4 Up/Down Counter Inputs, 14 Analog Inputs, 4 Wind Inputs, 12 Digital Inputs, 6 Digital Outputs, 1 SDI-12 Input
50386RP-N-CP Same as 50386RP-N with MS Connector Package
50386RP-K Repeater in Rack Mount Enclosure with 1 Antenna Connector
50386RP-K2 Same as 50386RP-K with 2 Antenna Connectors

Specify receive and transmit radio frequencies.

Options

RTR Radio Link (Specify frequency)
RPA-T Power Amplifier, 20 Watts @ 50% duty
5073TBX 50386 Toolbox Software
50386-OP1 7 Pin MS Male RS232 Connector
50386-OP2 10 Pin MS Female Digital Status Connector
50386-OP3 3 Pin MS Male SDI-12 Connector
50386-OP4 6 Serial Port Expansion
50386-OP5 Leased Line Modem
50386-OP6 Internal Power Supply
50386-OP7 GOES Radio
50386-OP8 ScadaLynx Radio
50386-OP9 Microwave Interface
50386-OP10 GOES Antenna
50386-OP11 Industrial Dial-up Modem
50386-OP12 Digital Input Expansion
50386-OP13 Analog/Digital Output
50386-OP14 Network Connector