

**BRAND**  
HYDRAULICS Co.

Made in the Heartland of America  
Serving the World

Engineering & Manufacturing Solutions

# RP100 Series

Radio Receiver

Model: RP100 / RP01000001 / 4 Digital Output

**2.4GHZ**  
Extended Range

Sealed To  
**IP67**

**32-bit**  
Microprocessor



ISO 9001:2008 WITH DESIGN  
Certificate #02.002.1



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# RP Series

Radio Receiver / RP100 / RP0100001 / 4 Digital Outputs

## FEATURES:

- Engineered and manufactured in the USA
- FCC, IC, CE certified by accredited independent laboratory
- RoHS Compliant
- 2.4 GHz with Extended Range and DSSS ( Direct Sequence Spread Spectrum )
- Worldwide license free operation
- 32-bit ARM-Core Digital Microprocessor
- Simple, straight forward, easy to install
- Encapsulated waterproof control package
- 500 ft. range line of sight
- LED diagnostic indicators
- Reverse polarity protection
- Wireless pairing function
- Loss of signal timeout
- Universal for 12VDC or 24VDC systems
- No perceivable delay between transmitter and receiver
- Multiple system may operate within the same area in close proximity without interfering with each other
- Optional factory master output configuration
- Factory configurable for custom applications\*
- Factory custom wire/cable harnesses available\*



## APPLICATION:

The RP Series radio receiver is used to control the ON/OFF functions of hydraulic valves for cylinders and motors from a remote location. This series can also be used to control other devices that meet the electrical requirements. Ex. lights, horns, contactors, relays.

## APPLICATION EXAMPLES:

- |                       |                       |
|-----------------------|-----------------------|
| • Tow Trucks          | • AG Equipment        |
| • Winches             | • Power units         |
| • Boat Lifts          | • Automobile Carriers |
| • Gates               | • Grain Carts         |
| • Conveyor Systems    | • Turf Equipment      |
| • Service Truck Crane | • Paving Equipment    |
| • Stump Grinders      | • Door Lifts          |
|                       | • Lighting/Horns      |

**DESCRIPTION:**

The fully encapsulated RP Series are compact, durable, sealed and easy to install radio receivers. All exposed components on the receiver are made from non corrosive materials. This receiver is designed with Direct Sequence Spread Spectrum (DSSS) modulation for superior performance. It is a perfect complement to the Brand Series 21, Series 36 and Series 38 stackable directional control valves. Other control valves or solenoids meeting the appropriate specifications may be controlled as well.

**SAFETY:**

Our RP Series radio receivers are built with high quality long life components that are designed for use in harsh environments. We use the latest wireless and microprocessor technology including a 32-bit ARM-Core microprocessor to give these small controls some serious digital muscle. Our unique network design allows for operation of multiple units in the same location without interfering with each other. Safety and protection features:

- Watchdog monitor
- Over-current protection
- Short circuit protection
- Loss of signal timeout
- Reverse polarity protection
- Load dump protection
- Back EMF protection on all outputs
- Back-feed protected outputs

**RELIABILITY:**

All Brand Hydraulics Co. products are backed by lifetime technical support from the engineers at the Brand Hydraulics Co. manufacturing facility. Our electrical engineers are ready to assist you before and after the sale with technical support. Brand Hydraulics Co. products are backed by a 2 year Limited Warranty Policy. Please visit our website at [www.brand-hyd.com](http://www.brand-hyd.com) for more information.

**MASTER OUTPUT OPERATION:**

Part number RP01000004 (3 Digital Outputs + 1 Master Digital Output) is factory programmed for master output on OUTPUT #1. With this setup OUTPUT #1 will always go active when any transmitter function button is pressed. The #1 function button on the transmitter will control output #2 on the RP100 receiver. Ex. button #1 controls output #2, button #2 controls output #3 and so on. If you have a 4 function button transmitter being used with a 4 output RP01000004 the last function button, #4, will not have an associated output.

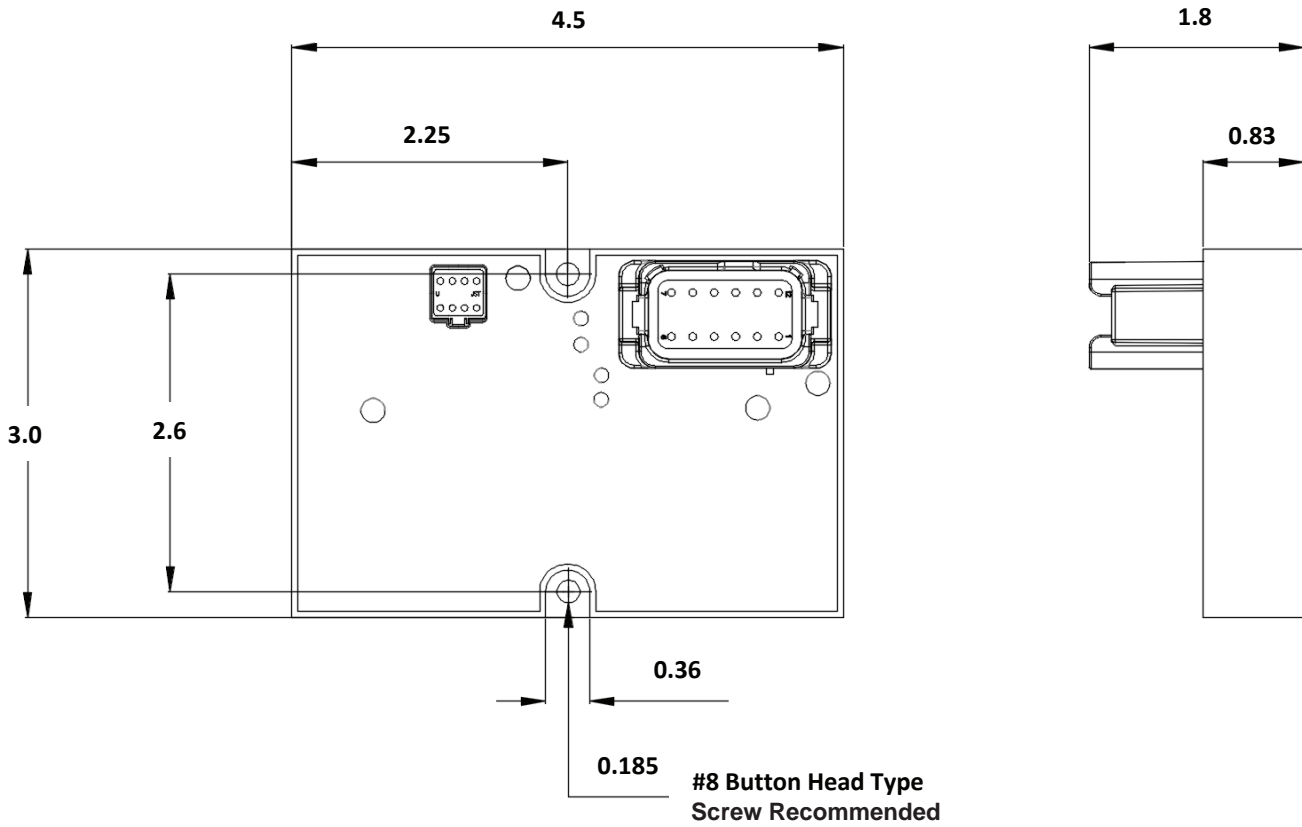
# RP Series

Radio Receiver / RP100 / RP0100001 / 4 Digital Outputs

**SPECIFICATIONS:**

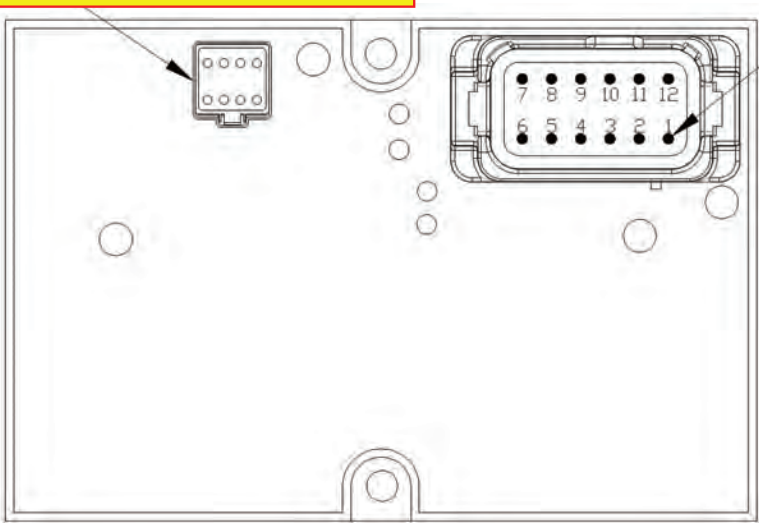
Digital Outputs	4 – ( 1 ON at a time ) Consult factory for other options
Back EMF Protection	Yes
Output Switching Type	Automotive Grade, High side switch
Output current per output	3 Amps
Total Maximum current	6 Amps
Short Circuit Protection Shutdown	10A
Supply Voltage, DC Only	8-30VDC
LED Indicators	Transmit, Reset, Power Good, Reverse Polarity, Output Active (one for each output)
Antenna	Internal
Range	500 ft. line of site. Depends on environment
Operating Temperature	-40°C - 85°C (-40°F - 185°F)
Storage Temperature	-40°C - 85°C (-40°F - 185°F)
Ingress Protection	IP67
Frequency	2.4 – 2.483 GHz
Modulation	DSSS (Direct Sequence Spread Spectrum)
Weight	9.5 oz, less any connector plug assemblies
Enclosure Material	Glass filled plastic
Approvals	USA – FCC Part 15.109 European Union – CE (EN ETSI 301 489-1, V1.9.2) Canada – ICES-003

**RP100 DIMENSIONS DETAILS:**



**RP100 CONNECTOR DETAILS:**

*For factory use only. Do NOT remove this plug or make connections at this location.*

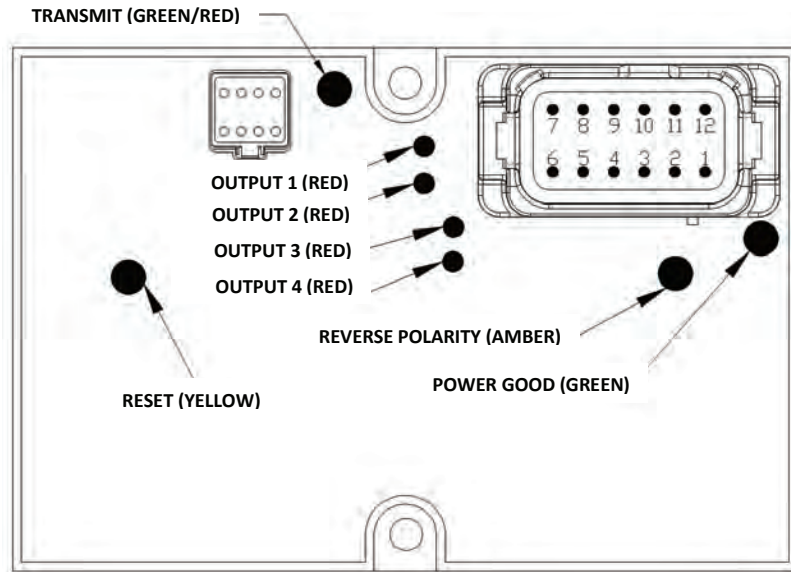


- Receptacle - A**  
 Deutscher DT Series  
 Keyed - A, Gray  
 P/N: DTF15-12PA
- PIN 1 - Power Input
  - PIN 2 - NC
  - PIN 3 - Output 4
  - PIN 4 - Output 3
  - PIN 5 - Output 2
  - PIN 6 - Output 1
  - PIN 7 - Ground
  - PIN 8 - Ground
  - PIN 9 - Ground
  - PIN 10 - Ground
  - PIN 11 - Spare Ground
  - PIN 12 - System Ground



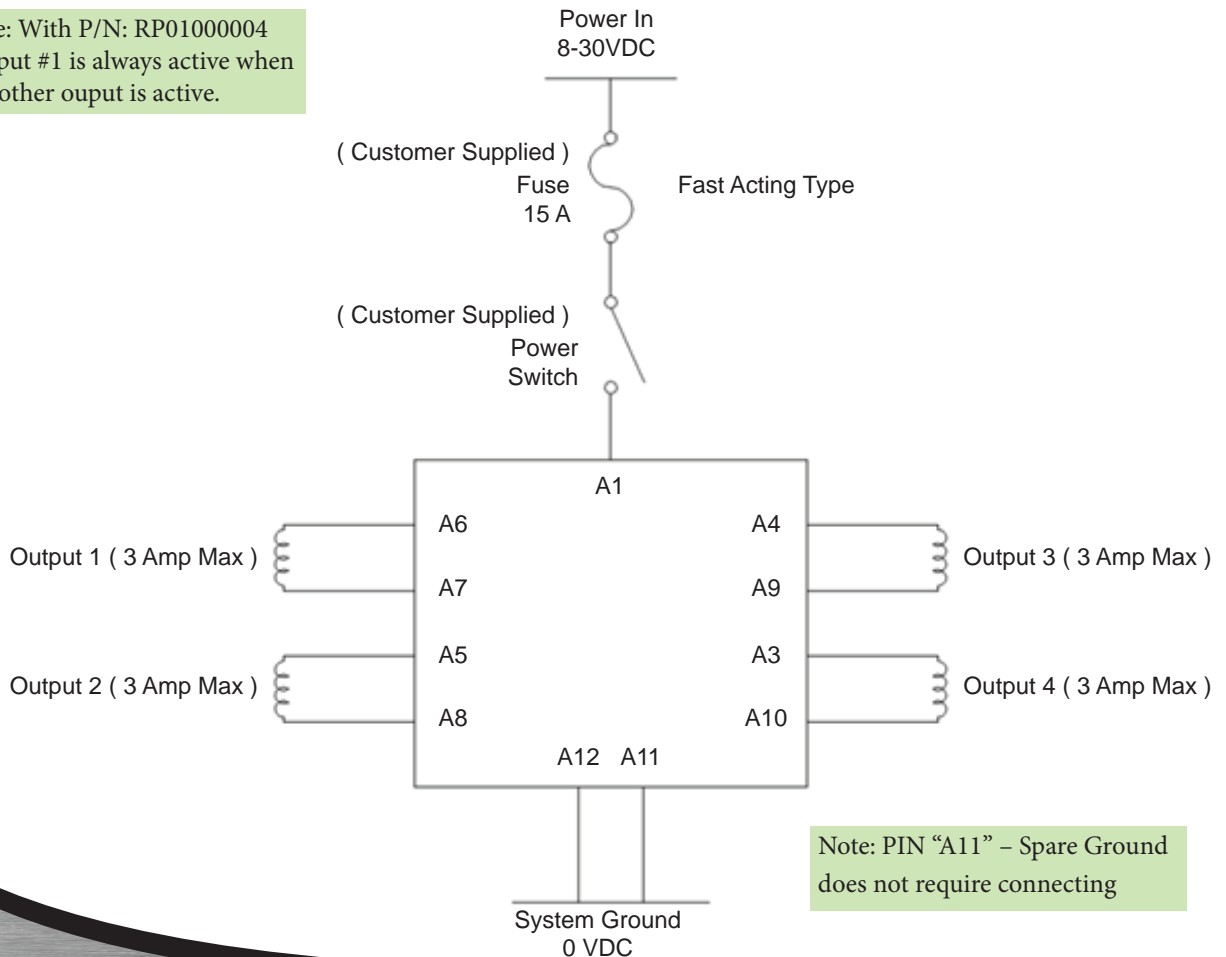
# RP Series Radio Receiver / RP100 / RP0100001 / 4 Digital Outputs

## RP100 DIAGNOSTIC INDICATORS:



## TYPICAL SYSTEM CONFIGURATION:

Note: With P/N: RP01000004  
Output #1 is always active when any other output is active.



Note: PIN "A11" - Spare Ground does not require connecting

**COMMON MODEL CODES:**

- RP01000001** .....( 4 Digital Outputs Digital Outputs)
- RP01000004**.....( 3 Digital Outputs + 1 Master Digital Output)

**MATING BRAND HYDRAULICS TRANSMITTER MODELS:**

- **V100**
- **V200**
- **V300**
- **V400**
- **V500**

**OPTIONAL PARTS:**

- E2368** – Deutsch 12-contact plug body, A-Key, Gray – Deutsch P/N: DT06-12SA
- E2371** – Wedge lock for 12-contact plug, Orange – Deutsch P/N: W12S
- E1827** – Terminal, socket, size 16 – Deutsch P/N: 0462-201-16141
- E2024** – Sealing Plug, Locking, Size 16, White – Deutsch P/N: 0413-217-1605
- E2401** – 8-Contact plug ( For sealing receptacle on RP100 only )

**OPTIONAL ACCESSORIES:**

- E2365** – Deutsch 12-contact flying lead connector assembly, A-Key, 12 – 12” leads

Brand Hydraulics can produce custom wire and cable harnesses  
 Contact your local Brand Hydraulics distributor for pricing

**What is Included:**

Quantity	Description
1	RP100 Series, 4 – Digital Output Radio Receiver

\*Some options and custom changes may require minimum quantities.

It is the purchaser’s responsibility to determine the suitability of any Brand Hydraulics product for an intended application, and to insure that it is installed in accordance with all federal, state, local, private safety, health regulations, and codes and standards. Due to the unlimited variety of machines, vehicles, and equipment on which our products can be used, it is impossible for Brand Hydraulics to offer expert advice on the suitability of a product for a specific application. We believe that it is our customer’s responsibility to undertake the appropriate testing and evaluation to prevent injury to the end user.

*All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.*

