



RLS1

ROTARY LIMIT SWITCH



RLS1 Rotary Limit Switch Overview

The RLS1 Rotary Limit Switch, developed by Bradshaw Communication Systems, provides three independently adjustable cam driven limit switches coupled to an input shaft and is typically used for limiting mechanical travel of an earth station antenna. The thru shaft design allows for coupling attachment at either end or for the addition of a bracket to support a position encoder opposite the pickoff point; thus allowing one pickoff point to serve both limit switch and position encoder functions.

The RLS1 Rotary Limit Switch is housed in a NEMA 4X enclosure utilizing all stainless steel hardware; thus supporting the most rugged outdoor applications. A single watertight cable entry gland is provided which supports the use of a wide range of cable diameters.

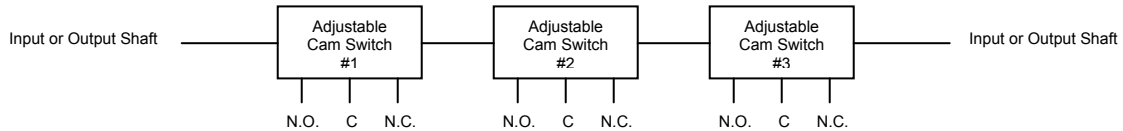
Two versions of the RLS1 are available. The first version provides three cams, each adjustable in a 180-degree range with two opposing trip points at 180-degrees. The second version also provides three cams, each adjustable in a 360-degree range with a single activation point. The single activation point provides a ~15 degree activation window and may be used for systems requiring more than 180-degree travel as well as for determining center position. All three limit switches are Form C and are terminated to a pluggable terminal block allowing for easy wiring. Internal jumpers allow for series common applications as well as isolated applications.

The RLS1 Rotary Limit Switch has been designed to provide long life and ease of adjustment while still allowing the system integrator great flexibility in configuration and mounting.

BRADSHAW COMMUNICATION SYSTEMS

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RLS1 Rotary Limit Switch Functional Block Diagram



RLS1 Rotary Limit Switch Specifications

- **Coupling Shaft Size**
 - O.D.: 0.2500 (+0.0/-0.0002) inches
 - Exposed Length: 0.50 inches (each side)
- **Shaft Rotation**
 - 360° Degrees Continuous
 - Maximum Rotation Speed: 5 RPM
- **Adjustability**
 - 3 – 180° Adjustable Cams (-1 version)
 - 3 – 360° Adjustable Cams (-2 version)
- **Switches**
 - 3 Form C
 - 3 Amps @ 125VAC Maximum
- **Cable Entry**
 - Cable O.D. Range: 0.230-0.530 inches
- **Electrical Termination**
 - Pluggable Terminal Block
 - 28-16 AWG Wire Size
- **Environmental**
 - -40° F to +122° F, 95% humidity, condensing (-40° C to +50° C, 95% humidity, condensing)
- **Physical**
 - Enclosure Dimensions 4.5" wide x 3.5" high x 3.125" deep (114.3mm wide x 88.9mm high x 79.4mm deep)
 - Weight: 1 LB (0.45 Kg)
 - Overall Shaft Length: 6.0 inches
- **Approvals**
 - The RLS1 has been designed to meet or exceed CE, UL, & CSA safety requirements.

RLS1 Rotary Limit Switch Configurations & Options

- **RLS1 Rotary Limit Switch**
 - P/N 03-02000-1
RLS1 w/ three 180° Adjustable Cams
 - P/N 03-02000-2
RLS1 w/ three 360° Adjustable Cams

An optional cable gland location that is parallel to the RLS1 input/output shaft may be ordered by special request only at time of order. Please refer to the RLS1 Outline Mounting Drawing for specific cable gland location details for this option.

Conclusion

With over 40 years of combined experience in the Satellite Communications Industry, Bradshaw Communication Systems (BCS) has the solution to get your job done right and on time. By providing extremely high quality products and services at economical prices, BCS has become a respected name in the industry and the right choice when it comes to satellite earth station antenna products and services. BCS has provided custom solutions for numerous customers and stands ready to provide components, systems, and services to best fit your specific requirements. Please contact BCS today regarding your requirements.