

# RIM SS2 Signal Splitter

- Eliminates the need for two encoders
- Routes signals to multiple locations, repeats and amplifies
- · Provides two independent, isolated 5-26 VDC line driver outputs
- · Compatible with virtually all incremental encoders



# APPLICATION/INDUSTRY

The NorthStar brand Signal Splitter isolates and duplicates encoder outputs, It is designed to route one encoder's signals to multiple, isolated locations.

# **DESCRIPTION**

The Signal Splitter will accept 4-26 VDC signals and provide two independent and completely isolated line driver outputs of 5-26 VDC based on user defined voltage levels. Its optically isolated inputs accept quadrature or single channel inputs, with or without their complements, from differential line drivers, open collector, and even from proximity probes. The Signal Splitter also has the ability to repeat and amplify signals.

Each output of the Signal Splitter is user definable from 5 to 26 VDC. In addition to short circuit protection, outputs are ESD protected according to MIL-STD-883. Each connector of the Signal Splitter is equipped with two positions for +VCC and common, as well as two extra field accessible tie points, making power supply connections simple and quick. Capable of driving the output signal up to 26 VDC, the Signal Splitter will also function with either output disconnected.

### FEATURES AND BENEFITS

- Eliminates the expense and maintenance of two separate encoders
- Optically isolated outputs can be sent to a motor drive and a display at the same time
- Compatible with virtually every incremental digital encoder
- Combats long distance and electrical interference problems

# **SPECIFICATIONS**

#### STANDARD OPERATING CHARACTERISTICS

**Input Signal:** 2 or 3 channel quadrature signal, sine or square wave, open collector, differential, or single ended line driver

#### **ELECTRICAL**

Input Signal Voltage: 4 - 26 VDC

Input Signal Current: 2.2 mA minimum, 3.5 mA

typical

**Input Impedance:** Optically isolated, 1 kOhm at 4V, 6.8 kOhms at 24V typical. Current limited.

Frequency Range: 0 - 120 kHz

**Output Signal:** Two independent, isolated line driver output sets (A/A, B/B)

Supply Voltage: 5 - 26 VDC

Output Current: 150 mA (maximum per channel)

Wire Gauge Accepted: 26 -16 AWG

Output Protection: ESD to MIL-STD-883 and short

circuit protected

#### **MECHANICAL**

**Enclosure Material:** PVC **Mounting Options:** DIN 32 or 35

#### **ENVIRONMENTAL**

Operating Temperature: 0°C to 50°C Storage Temperature: -20°C to 70°C Operational Humidity: 98% non-condensing

## **ORDERING INFORMATION**

Part Number: RIM SS2

## **DIMENSIONS**

inches [mm]



