



Tachometer Relay

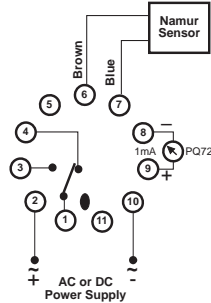
Pulse input via Namur sensor
or via potential-free contact

SC 320



WIRING EXAMPLE

(requires optional S3-B base)



Application Examples

- Back-up system for tacho generators on mine hoists
- Over-speed detection on mine loco's, fork lift trucks etc.
- Sequence starting on interdependent conveyor belts
- Starter motor disabling on diesel engines
- Conveyor belt slip detection
- Conveyor belt tearing detection
- Indication of production speed or manufacturing feed rates
- Indication of rotational speed
- Low power signal to DIN 19234
- Supply voltages from 12VDC up to 525VAC.

ORDERING CODE

TYPE	SUPPLY VOLTAGE	AC/DC	RELAY CONTACTS
SC320	240	AC	S

Technical Specification

Power Supply:

AC: 12, 24, 110, 240 (ie. 220-240), 400, 415, 525V ±15%
 Isolation (sensor input to power supply): 2kV
 DC: 10-30V, 48, 60, 110V ± 15%
 Isolation (sensor input to power supply): no galvanic isolation.

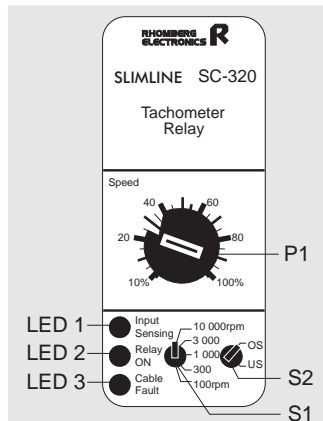
Proximity Sensor Input:

Type: NAMUR (DIN 19234) eg. Rhomberg RI0-1805F
 Short circuit current: 20 mA DC.

Open circuit voltage: 8.2 VDC
 Hysteresis: 10% (fixed)
Start-up delay: approx 10 sec
 (0-15 sec avail. on special order)
Analogue output: 0-1mA (prop)
 (4-20mA available on special order, or refer to C320P relay)
 Maximum load: 7k ohm
 Accuracy: 5% of full scale

Range [RPM]	Response time [sec]
10-100	10
30-300	10
100-1000	1
300-3000	1
1000-10000	1

Description of Controls



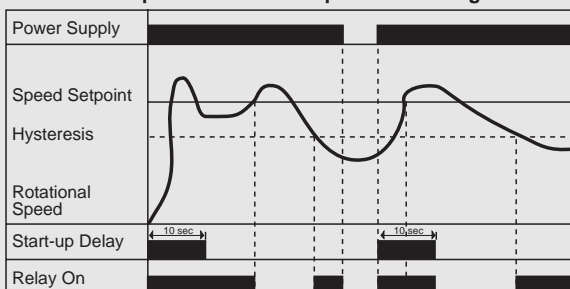
- P1: The Over-speed/Under-speed Threshold** is adjusted on P1. Maximum setting of 100% corresponds with the speed selected on S1.
- S1: The RPM Speed Range** is set on S1.
- S2: The Mode of Operation** is set on S2. If set to "OS" the unit operates as an over-speed detector. If set to "US" the unit provides under-speed detection.
- LED 1: The LED marked "Input Sensing"** illuminates when the NAMUR sensor detects a target. It also illuminates if the sensor is disconnected or the sensor leads are severed (open circuit).

- LED 2: The LED marked "Relay ON"** illuminates when the relay is energised.
- LED 3: The LED marked "Cable Fault"** illuminates when:
- a short circuit occurs on the sensor leads.
 - an open circuit occurs on the sensor leads or the sensor is disconnected.

Note: An Open Circuit condition will cause **both** LED1 as well as LED 3 to illuminate.
A Short Circuit condition will cause only LED 3 to illuminate.

Operational Diagrams

Example of SC320 Overspeed Monitoring



Example of SC320 Underspeed Monitoring

