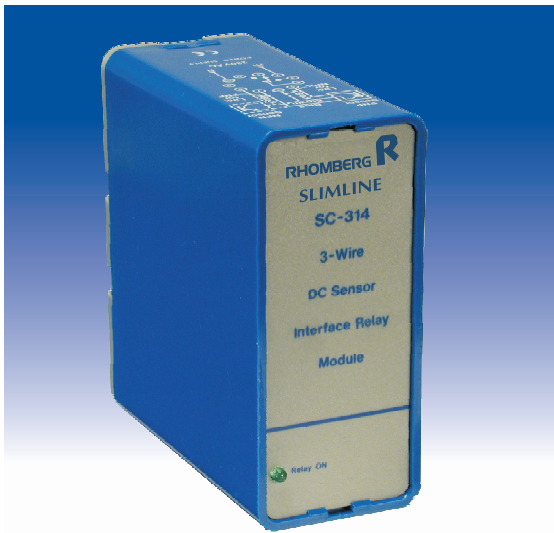


SC-314

3-wire DC Sensor Interface Relay Module

SLIMLINE

MONITORING RELAYS



ORDERING CODE

TYPE	MODEL	VOLTAGE	POWER SUPPLY	RELAY CONTACTS
SC	314	230V	AC	SP

SEE PAGE 94 FOR ORDERING OPTIONS

Application Examples

- For converting a DC sensor signal to a relay output for direct switching of currents up to 10A.
- Where a switching interface is required between a DC sensor and AC circuits.
- For interfacing low voltage DC sensors with AC voltage up to 525V AC.

Features

- Interfaces with all types of 3-wire NPN or PNP DC sensors (inductive, capacitive and opto-electronic).
- LED indication of relay status.
- Robust power supply.
- Cost efficient interface for DC sensors in AC environments.
- Cost efficient module replacement.
- 10A SPDT relay output.

Description of Operation

The **SC-314** has been designed to interface with both NPN and PNP type 3-wire DC sensors. The high output current switching capability provides a robust sensor interface for power switching applications. The unit provides a cost effective interface method for all 3-wire DC type sensors.

When power is applied to the unit, it is ready to operate. If the sensor output should conduct (switch ON), the relay will energise and the LED illuminates.

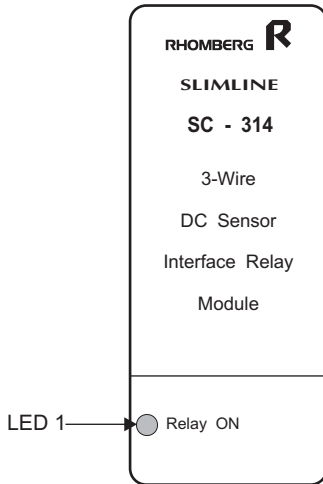
Operational Diagram





Description of Controls

LED 1: The LED marked "Relay ON" illuminates when the relay is energised.

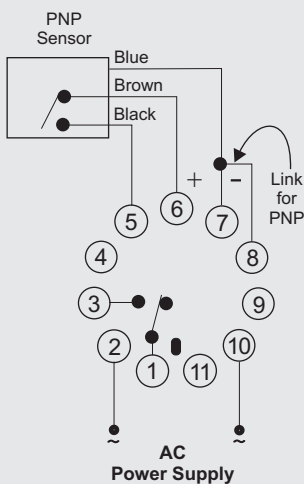


Wiring and Connection

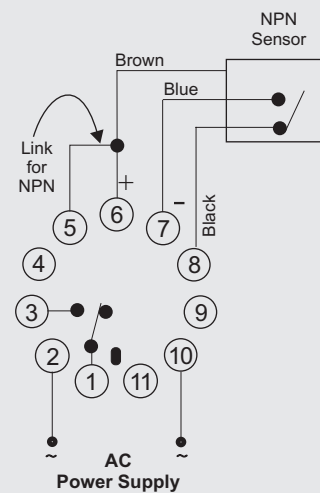
Power Supply	
Phase/Positive	2
Neutral/Negative	10

Relay Contacts SPDT	
Normally open	1+3
Normally closed	1+4

Sensor Input	
PNP sensor input: Connect the brown wire (+ve) to pin 6. Connect the blue wire (-ve) to pin 7. Connect the black wire (output) to pin 5. Link between pins 7+8.	NPN sensor input: Connect the brown wire (+ve) to pin 6. Connect the blue wire (-ve) to pin 7. Connect the black wire (output) to pin 8. Link between pins 5+6.



APPLICATION 1
Interface with PNP sensor



APPLICATION 2
Interface with NPN sensor

Note: For further information on our sensors refer to our Detector catalogue

Technical Specifications

SUPPLY VOLTAGE

AC: 12, 24, 110, 230, 400, 415, 525V ±15%
Isolation (sensor input to power supply): 2kV

Power consumption: 3VA (approx.)
6VA for 415, 525V (approx.)

DC OUTPUT SUPPLY FOR SENSORS

10-15V at 30mA

SENSORS INPUT: (PNP pin 5, NPN pin 8)

Each sensor must be able to conduct at least 80mA to operate the modules internal relay.

Maximum switching speed: 25Hz (when using relay output).

Additional information in Section J, page 131.