Honeywell

Installation Instructions for the RDS-DIN1 Series Single Channel Interface Module

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⚠ WARNING

PERSONAL INJURY

- **DO NOT USE** in applications where product failure could result in personal injury or death.
- **DO NOT USE** in fail-safe applications.
- Improper installation of this device can cause personal injury. **STRICTLY FOLLOW** the instructions below.

Failure to comply with these instructions could result in death or serious injury.

GENERAL INFORMATION

The RDS-DIN1 Series Single Channel Interface Module is designed to be used with the 926FS30 Railwheel Proximity Sensor in stand alone applications.

The Interface Module converts the 2-wire DC Normally Closed (NC) output of the Railwheel Proximity Sensor into a Normally Open (NO), open collector output to interface with other equipment.

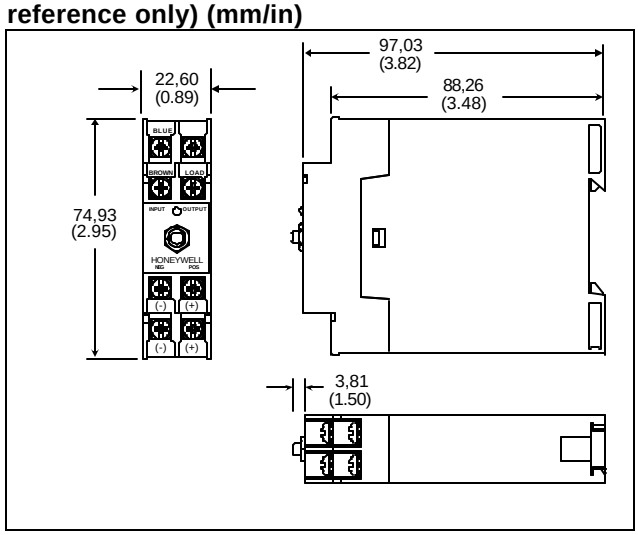
The Interface Module is available with either a NPN (current sinking) or a PNP (current sourcing) output. A 10 ms nominal time delay on the output signal is also available.

INSTALLATION INSTRUCTIONS

Step 1 - Mount Interface Module (see Figure 1):

- Place flanges located on the back of the Interface Module housing over the top flange of the 35 mm DIN rail. Snap securely in place.

FIGURE 1: MOUNTING DIMENSIONS (for reference only) (mm/in)



Step 2 - Wire Interface Module (See Figure 2):

NOTICE

The 926FS30 Railwheel Proximity Sensor is polarity neutral. Each sensor input connection accepts either a blue or a brown leadwire.

The Interface Module provides two supply connections to facilitate installation of multiple Interface Modules (daisy chaining) from a common power supply.

Separate terminal connections are supplied for load pull-up (NPN) or pull-down (PNP). Use of these terminals is optional.

- Connect one Railwheel Proximity Sensor to the input connections.
- Connect an 18 Vdc to 30 Vdc supply to the negative (-) and the positive (+) supply connections using up to12 AWG wire.
- Connect a load to the output connection.

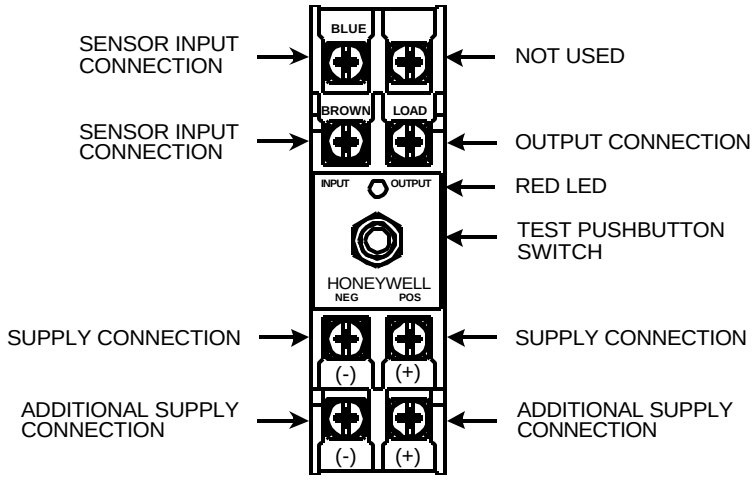
Step 3 - Test Interface Module (see Table 1):

- Apply 18 Vdc to 30 Vdc supply voltage. If the input connection has a Railwheel Proximity Sensor attached, and no target is present, the LED is OFF.
- Apply a target to the Railwheel Proximity Sensor. The LED will turn ON and the output state will change.
- Actuate the test pushbutton switch to simulate Railwheel Proximity Sensor actuation. The LED will turn ON and the output state will change.

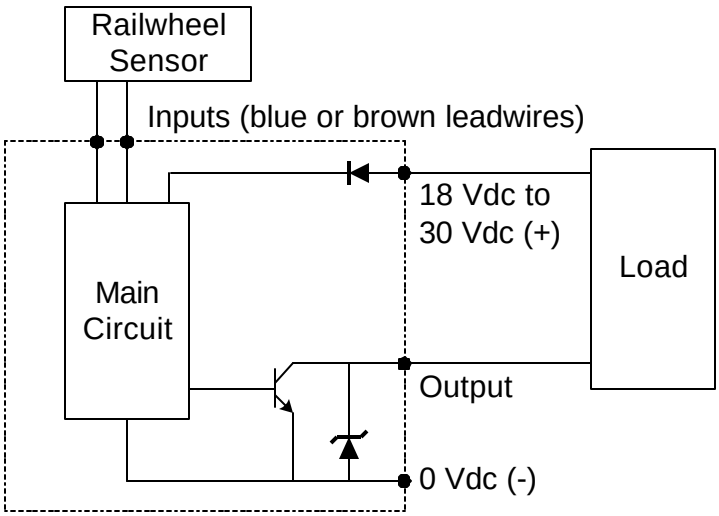
TABLE 1: LED STATUS

Condition (Supply Voltage Applied)	LED Status
Railwheel Proximity Sensor attached to Interface Module - no target present	OFF
Railwheel Proximity Sensor attached to Interface Module - target present	ON
Test pushbutton switch actuated	ON
No Railwheel Proximity Sensor attached to Interface Module	OFF

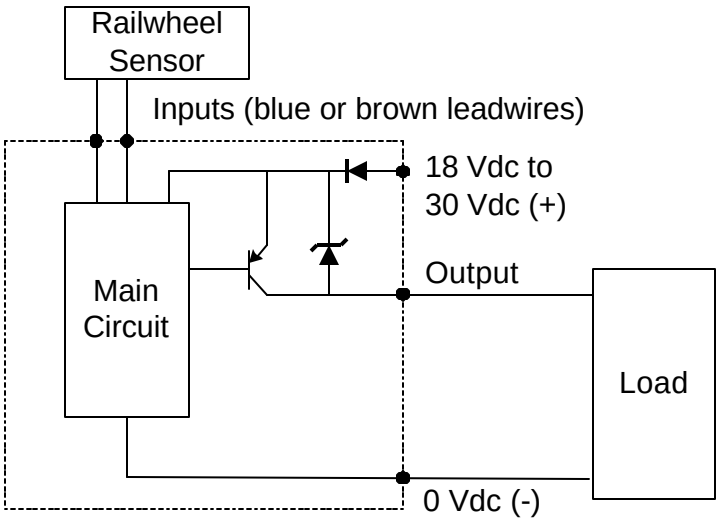
FIGURE 2: CONNECTION DIAGRAM



CIRCUIT DIAGRAM - NPN (CURRENT SINKING)



CIRCUIT DIAGRAM - PNP (CURRENT SOURCING)



SPECIFICATIONS

Parameter	Condition
Electrical	
Supply Voltage	18 Vdc to 30 Vdc
Output Type	Open collector, normally open, NPN or PNP
Saturation Voltage	6.5 V max. @ 20 mA
Output Load Current Per Channel	20 mA max.
Leakage Current	50 μA max.
Power-up Delay Time	50 ms max.
Radiated Immunity Amplitude Modulation Pulse Modulation	EN 61000-4-3, 10 V/m ENV 50140, 80 MHz - 1000 MHz ENV 50140, 900 MHz ± 5 MHz
Fast Transient Burst	EN 61000-4-4, 1 KV
Conducted Disturbance	EN 61000-4-6, 10 KV
Impulse Withstand Voltage	IEC 255-5, 1000 V
Response Time Delay, Typical	100 μs or 10 ms (depending on catalog listing)
Environmental	
Operating Temperature Range	-40 °C to +70 °C (-40 °F to +158 °F)
Shock	6G, 11 ms half sine
Vibration	3G/0.060 in amplitude, 10 to 500 Hz
Sealing	NEMA 1
Humidity	95% RH non-condensation
Housing Material	ABS (plastic)
Protection	Reverse polarity and short circuit

INTERFACE MODULE IDENTIFICATION

Catalog Listing	Output Description
RDS-DIN1-NA-D1	NPN (Current Sinking), Normally Open, 100 μs Nominal Time Delay
RDS-DIN1-NA-D2	NPN (Current Sinking), Normally Open, 10 ms Nominal Time Delay
RDS-DIN1-PA-D1	PNP (Current Sourcing), Normally Open, 100 μs Nominal Time Delay
RDS-DIN1-PA-D2	PNP (Current Sourcing), Normally Open, 10 ms Nominal Time Delay

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While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

For application assistance, current specifications, or name of the nearest Authorized Distributor, check the Honeywell web site or call:

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