

Installation Instructions for the RDS-DIN3 Series Three Channel Interface Module

ISSUE 2

PK 80133

▲ 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-DIN3 Series Three Channel Interface Module is designed to be used with 926FS30 Railwheel Proximity Sensors in standalone applications. Up to three Railwheel Proximity Sensors may be wired to each Interface Module.

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.

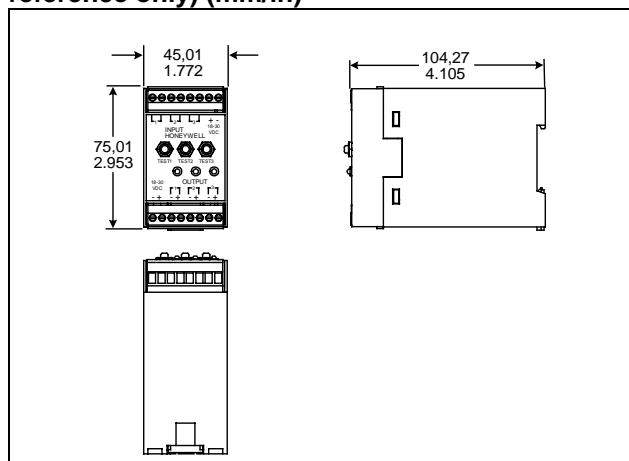
The Interface Module is available with either a NPN (current sinking) or a PNP (current sourcing) output. A 10 ms nominal time delay on the output signal is also available.

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 of the three input channels on the Interface Module consists of two connections. Each connection accepts either a blue or a brown leadwire.

The Interface Module provides two supply voltage 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 each input channel.
- Connect supply voltage to either the 18-30 Vdc input side voltage connection or the 18-30 Vdc output side voltage connection using up to 12 AWG wire.
- Connect one load per output channel.

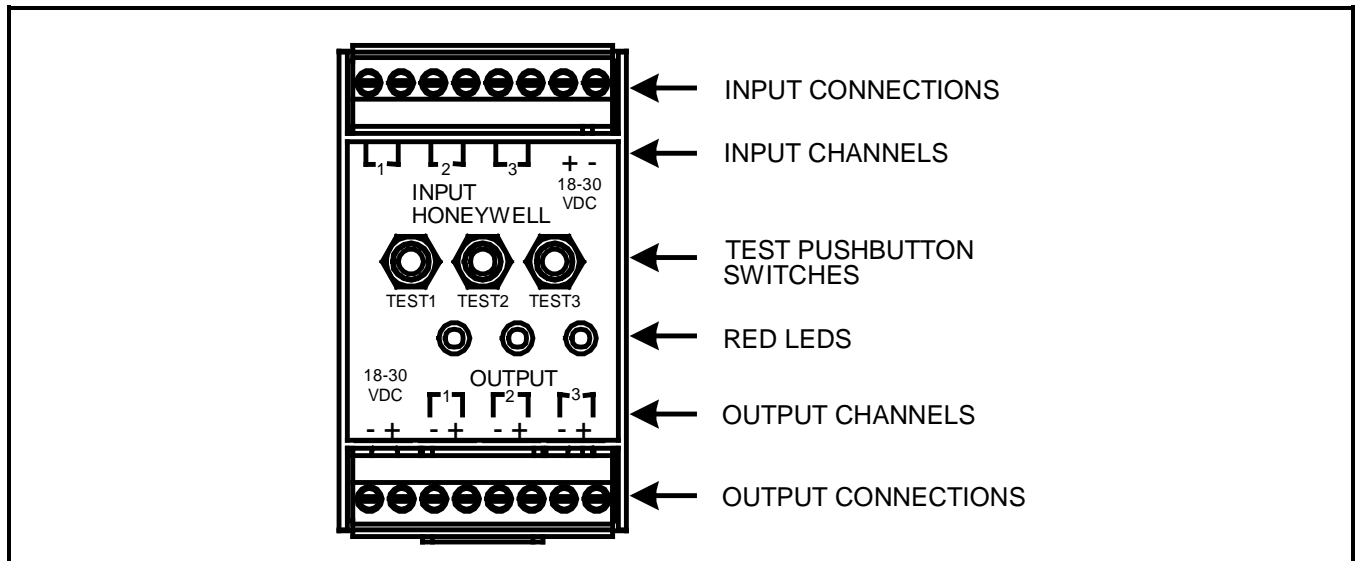
Step 3 - Test Interface Module (see Table 1):

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

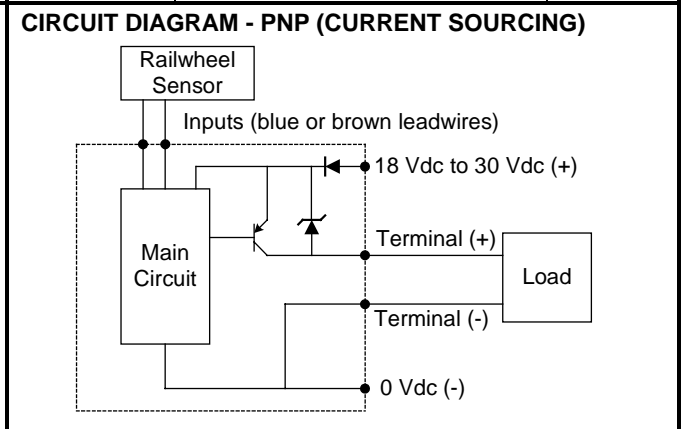
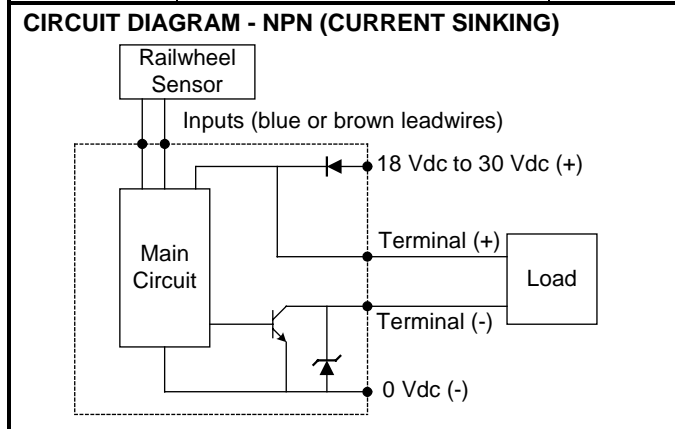
TABLE 1: LED STATUS PER CHANNEL

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



Connection Function	Connection Description for NPN (Current Sinking) -NA Catalog Listings	Channel Number	Connection Function	Connection Description for PNP (Current Sourcing) -PA Catalog Listings	Channel Number
Output	Negative supply 0 Vdc	—	Output	Negative supply 0 Vdc	—
	Positive supply 18 Vdc to 30 Vdc	—		Positive supply 18 Vdc to 30 Vdc	—
	Open collector sinking output	1		Negative supply for load	1
	Positive supply for load	2		Open collector sourcing output	2
	Open collector sinking output			Negative supply for load	
	Positive supply for load	3		Open collector sourcing output	3
	Open collector sinking output			Negative supply for load	
	Positive supply for load	—		Open collector sourcing output	—
Input	Railwheel Proximity Sensor blue/brown inputs	1	Input	Railwheel Proximity Sensor blue/brown inputs	1
	Railwheel Proximity Sensor blue/brown inputs	2		Railwheel Proximity Sensor blue/brown inputs	2
	Railwheel Proximity Sensor blue/brown inputs	3		Railwheel Proximity Sensor blue/brown inputs	3
	Positive supply 18 Vdc to 30 Vdc	—		Positive supply 18 Vdc to 30 Vdc	—
	Negative supply 0 Vdc	—		Negative supply 0 Vdc	—



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 μ A max.
Power-up Delay Time	50 ms max.
Radiated Immunity	EN 61000-4-3, 10 V/m
Amplitude Modulation	ENV 50140, 80 MHz - 1000 MHz
Pulse Modulation	ENV 50140, 900 MHz \pm 5 MHz
Fast Transient Burst	EN 61000-4-4, 1 KV
Conducted Disturbance	EN 61000-4-6, 10KV
Impulse Withstand Voltage	IEC 255-5, 1000 V
Response Time Delay, Typical	100 μ s or 10 ms (depending on catalog listing)
Environmental	
Operating Temperature Range	-40 °C to +70 °C (-40 °F to +158 °F)
Shock	10 G, 11 ms half sine
Vibration	10 G/0.060 inch 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-DIN3-NA-D1	NPN (Current Sinking), Normally Open, 100 μ s Nominal Time Delay
RDS-DIN3-NA-D2	NPN (Current Sinking), Normally Open, 10 ms Nominal Time Delay
RDS-DIN3-PA-D1	PNP (Current Sourcing), Normally Open, 100 μ s Nominal Time Delay
RDS-DIN3-PA-D2	PNP (Current Sourcing), Normally Open, 10 ms Nominal Time Delay

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective material and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during that period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is Buyer's sole remedy and is **in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.**

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

Specifications may change at any time without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

SALES AND SERVICE

Honeywell serves its customers through a worldwide network of sales offices and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact a nearby sales office or call:

1-800-537-6945 USA
1-800-737-3360 Canada
1-815-235-6847 International

FAX

1-815-235-6545 USA

INTERNET

www.honeywell.com/sensing
info.sc@honeywell.com

Honeywell

Sensing and Control

Honeywell Inc.
11 West Spring Street
Freeport, Illinois 61032



Printed with Soy Ink
on 50% Recycled Paper

www.honeywell.com/sensing