

DIN Rail Mount Configurable Signal Conditioners

DRF Series



- ✓ Voltage, Current, Frequency, Resistance, Potentiometer, Thermocouple, RTD and Load Cell Input Modules
- ✓ Field Configurable Signal Ranges
- ✓ Provides up to 3500 Veff Isolation Between Input and Output and Power (Isolation is Model Specific)
- ✓ Compatible with Standard 35 mm DIN Rail

The DRF series DIN rail signal conditioners are designed to accept a broad range of input signals, such as ac and dc voltage and current, frequency, temperature (thermocouple and RTD), and process transducers, and provide standard process outputs of either 4 to 20 mA, or 0 to 10 Vdc. The DRF series feature a modern housing design, that is easily mounted on standard 35 mm DIN rails. Connections are safely and securely made through pluggable screw terminal connectors, with input and output connections on the opposite sides of the module.

Functionality

The DRF series are designed to maximize functionality. The front door of the housing provides easy access to span and offset potentiometers which may be used to field adjust the input and output signal range.

Isolation

The input, output and power circuits are isolated by 3500 volts of galvanic isolation. The isolation protects against potentially damaging voltages from passing through the signal conditioners into connected systems. The isolation also provides improved measurement accuracy by minimizing the effects of ground loops and electrical noise.

Outputs

Each DRF series signal conditioner is available with current and voltage output (only one may be used at a time). Available output types include 4 to 20 mA or 0 to 10 Vdc. Although pre-configured before shipping from the factory, the output may be changed through an internal jumper change.

Standard outputs are linear and proportional to the signal input. Thermocouple input modules feature special circuitry to linearize the output to the actual temperature rather than the non-linear signal produced by thermocouple sensors.



SPECIFICATIONS

(Common to all Models)

Power: 24 Vdc $\pm 10\%$, 230 Vac $\pm 10\%$ 50/60 Hz, 115 Vac $\pm 10\%$ 50/60 Hz

Power Consumption: < 3.8 VA

Output: 4 to 20 mA and 0 to 10 Vdc

Maximum Voltage Output: 11 Vdc approx.

Minimum Voltage Output: -1 Vdc approx.

Minimum Load Resistance (Voltage): ≥ 1 K Ω

Maximum Current Output: 22 mA approx.

Maximum Current Output: -1.5 mA approx.

Maximum Load Resistance (current): $\leq 400\Omega$

Accuracy: $< 0.2\%$ or $< 0.3\%$ depending on model

Linearity: $< 0.1\%$ or $< 0.2\%$ depending on model

Thermal Drift: < 150 ppm/ $^{\circ}\text{C}$ or 250 ppm/ $^{\circ}\text{C}$ typical depending on model

Response Time: 70 mS (Process and DC input models); 250 mS (Temperature and AC input models)

Isolation*:

Input to Output: 3500 Veff

Power to Input: 3500 Veff

Power to Output: 3500 Veff (for AC powered models), 1K Veff (for dc powered models)

Electrical Connections: Plug-in screw terminals

Protection: IP-30

MECHANICAL DIMENSIONS

Weight:

(DC Powered): 120 g (4.2 oz)

(AC Powered): 200 g (7 oz)

Dimensions:

(DC Powered Models): 110 H x 22.5 W x 93 mm D (4.3 x 0.9 x 3.7")

(AC Powered Models):

110 H x 37 W x 93 mm D (4.3 x 1.46 x 3.7")

Operating Temperature: 0 to 60 $^{\circ}\text{C}$ (32 to 140 $^{\circ}\text{F}$)

Storage Temperature: -20 to 70 $^{\circ}\text{C}$ (-4 to 158 $^{\circ}\text{F}$)

*Tested True RMS, 60 sec. leak < 1 mA

Thermocouple Input Signal Conditioner

DRF-TC



- ✓ Models for J, K, E, T, R and S Thermocouples
- ✓ Accuracy 0.3%
- ✓ 250 ms Response Time
- ✓ Upscale Break Protection
- ✓ Linearized Output
- ✓ Galvanic Isolation Between Input, Output and Power

The DRF-TC thermocouple signal conditioners accept thermocouple input and provide a linearized and isolated 0 to 10 Vdc or 4 to 20 mA output. Models are available with three different power options, 24Vdc, 120 Vac and 240 Vac.

The DRF-TC are ideally suited for industrial applications. All models mount on a standard 35 mm DIN rail and provide galvanic isolation between input, output and power up to 3500 Veff (model specific). To insure maximum measurement accuracy the units feature cold junction compensation, 0.2% linearity and less than 0.1°C/1°C thermal drift due to compensation. Module response time is 250 ms or less.



DRF-TCJ-115VAC-0/400C-4/20, shown larger than actual size

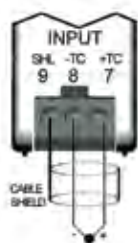
Input Range Table

Range Code	Range	J	K	T	E	R	S
0/100C	0 to 100°C				X		
0/150C	0 to 150°C	X	X				
0/175C	0 to 175°C				X		
0/200C	0 to 200°C			X			
0/250C	0 to 250°C	X	X				
0/300C	0 to 300°C			X	X		
0/400C	0 to 400°C	X	X	X			
0/500C	0 to 500°C				X		
0/700C	0 to 700°C	X	X		X		
0/800C	0 to 800°C				X		
0/1200C	0 to 1200°C		X				
0/1600C	0 to 1600°C						X
850/1700C	850 to 1700°C					X	
Minimum Span*		85°C	85°C	100°C	85°C	100°C	100°C

* Custom ranges may be obtained by adjusting on-board zero and span potentiometers. The minimum range is limited by the minimum span specification.

Specifications

Accuracy: <0.3% full scale
Linearity: <0.2% full scale
Thermal Drift: <250 ppm/°C typical
Thermocouple CJC Drift: 0.1°C/°C
Response Time: <250ms (90% of signal)
Input Impedance: 1 MΩ
Over Voltage Protection: 10 V



Thermocouple probe types: J, K, E, T, R, S (one model for each thermocouple type)

Thermocouple Input

To Order Visit omega.com/drft_series for Pricing and Details

Model No.	Description
DRF-TCJ-(*)-(**)-(***)	Signal conditioner for J type thermocouple
DRF-TCK-(*)-(**)-(***)	Signal conditioner for K type thermocouple
DRF-TCT-(*)-(**)-(***)	Signal conditioner for T type thermocouple
DRF-TCE-(*)-(**)-(***)	Signal conditioner for E type thermocouple
DRF-TCR-(*)-(**)-(***)	Signal conditioner for R type thermocouple
DRF-TCS-(*)-(**)-(***)	Signal conditioner for S type thermocouple

* Specify power, "24Vdc" for 24 Vdc power, "115 Vac" for 115Vac power or "230Vac" for 230 Vac power

** Specify range code from the Input Range Table

*** Specify output, "4/20" for 4 to 20 mA output or "0/10" for 0 to 10 Vdc output

Ordering Example: DRF-TCJ-115VAC-0/400C-4/20, signal conditioner for a J thermocouple with a 0 to 400°C input range, 4 to 20 mA output and 115 Vac power.

RTD Input Signal Conditioner

DRF-RTD



- ✓ 100 Ω Platinum (Pt) RTD Element, 0.00385 Curve
- ✓ 2 or 3 Wire Configuration
- ✓ 0.2% Accuracy
- ✓ Cable Resistance Compensation up to 10 Ω
- ✓ Upscale Break Protection
- ✓ Response Time <250 mS
- ✓ Galvanic Isolation Between Input, Output and Power

The DRF-RTD RTD signal conditioners accept 2 or 3 wire 100 platinum RTDs as input and provide an isolated 0 to 10 Vdc or 4 to 20 mA output. Models are available with three different power options, 24 Vdc, 120 Vac and 240 Vac.

The DRF-RTD are ideally suited for industrial applications. All models mount on a standard 35 mm DIN rail and provide galvanic isolation between input, output and power up to 3500 Veff (model specific). Module response time is 250 mS or less.

Specifications

RTD: 2 or 3 wire 100 Ω platinum RTD, $\Omega=0.00385$

Accuracy: <0.2% full scale

Linearity: <0.1% full scale

Thermal Drift: 250 ppm/ $^{\circ}$ C typical

Response Time: <250mS (90% of signal)

RTD Excitation: 1 Vdc

Input Impedance: Measured with a "Wheatstone" bridge. Bridge to positive through a 100 Ω resistance, Bridge to negative through a 10 K Ω resistance



DRF-RTD-24VDC-0/100C-0/10, shown larger than actual size.

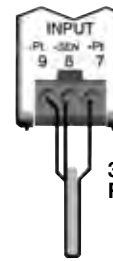
Input Range Table

Range Code	Range
-25/75C	-25 to 75 $^{\circ}$ C
-50/150C	-50 to 150 $^{\circ}$ C
0/100C	0 to 100 $^{\circ}$ C
0/200C	0 to 200 $^{\circ}$ C
0/300C	0 to 300 $^{\circ}$ C
0/450C	0 to 450 $^{\circ}$ C
0/600C	0 to 600 $^{\circ}$ C

* Custom ranges may be obtained by adjusting on-board zero and span potentiometers. The minimum range is 0 to 50 $^{\circ}$ C, maximum range is 0 to 600 $^{\circ}$ C (32 to 1112 $^{\circ}$ F).



2-Wire RTD Input



3-Wire RTD Input

To Order Visit omega.com/drif_series for Pricing and Details

Model No.	Description
DRF-RTD-(*)-(**)-(***)	Signal conditioner for 100 Ω Pt RTD

* Specify power, "24Vdc" for 24 Vdc power, "115Vac" for 115 Vac power or "230Vac" for 230 Vac power

** Specify range code from the Input Range Table

*** Specify output, "4/20" for 4 to 20 mA output or "0/10" for 0 to 10 Vdc output

Ordering Example: DRF-RTD-24VDC-0/100C-0/10, signal conditioner for an RTD with a 0 to 100 $^{\circ}$ C input range, 0 to 10 Vdc output and 24 Vdc power.

DC and AC Voltage Input Signal Conditioners

**DRF-VDC,
DRF-VAC**



- ✓ AC/DC Voltage Input Ranges from 60 mV to 650 V
- ✓ Accuracy 0.3%
- ✓ Response Time for DC Signals, 70 mS
- ✓ Response Time for AC Signals, 250 mS
- ✓ Over Range Protection for Voltage Inputs
- ✓ High Impedance Voltage Inputs
- ✓ Galvanic Isolation Between Input, Output and Power

The DRF-VDC and the DRF-VAC voltage signal conditioners accept dc and ac voltages respectively and provide an isolated 0 to 10 Vdc or 4 to 20 mA output. Models are available with three different power options, 24 Vdc, 120 Vac and 240 Vac.

The DRF-VDC and DRF-VAC are ideally suited for industrial applications. All models mount on a standard 35mm DIN rail and provide galvanic isolation between input, output and power up to 3500 Veff (model specific).

Specifications

Accuracy: <0.2% full scale

Linearity: <0.1% full scale

Thermal Drift: 150 ppm/°C typical (max <200 ppm/°C)

Response Time (dcV Signal Input Models):
< 70 mS (90% of signal)
at 20 Hz -3 dB

Response Time (acV signal input models): <250 mS (90% of signal)

Input Impedance: 1 MΩ
for ranges < 1 V, 10 MΩ
for ranges > 1 V

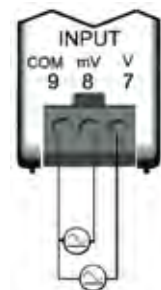
Over Range Protection:
1000 V for ranges greater than
100 V, 500 V for ranges less
than or equal to 100 V



DRF-VDC-230VAC-300V-4/20,
shown larger than actual size.

Input Range Table

Range Code	DRF Vdc Range	DRF Vac Range
75MV	0 to 75 mVdc	0 to 75 mVac
150MV	0 to 150 mVdc	0 to 150 mVac
300MV	0 to 300 mVdc	0 to 300 mVac
650MV	0 to 650 mVdc	0 to 650 mVac
1V	0 to 1 Vdc	0 to 1 Vac
7.5V	0 to 7.5 Vdc	0 to 7.5 Vac
15V	0 to 15 Vdc	0 to 15 Vac
65V	0 to 65 Vdc	0 to 65 Vac
300V	0 to 300 Vdc	0 to 300 Vac
650V	0 to 650 Vdc	0 to 650 Vac



Voltage Input

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Model No.	Description
DRF-VDC-(*)-(**)-(***)	Signal conditioner for DC voltage input
DRF-VAC-(*)-(**)-(***)	Signal conditioner for AC voltage input

* Specify power, "24Vdc" for 24 Vdc power, "115Vac" for 115 Vac power or "230Vac" for 230 Vac power

** Specify range code from the Input Range Table

*** Specify output, "4/20" for 4 to 20 mA output or "0/10" for 0 to 10 Vdc output

Ordering Example: DRF-VDC-230VAC-300V-4/20, signal conditioner for a dc voltage input with a 0 to 300 Vdc input range, 4 to 20 mA output and 230 Vac power.

DC and AC Current Input Signal Conditioners

**DRF-IDC,
DRF-IAC**



- ✓ AC/DC Current Input Ranges from 0 to 100 mA to 0 to 5 A
- ✓ Accuracy 0.3%
- ✓ Response Time for DC Signals, 70 ms
- ✓ Response Time for AC Signals, 250 ms
- ✓ Ranges for x5 and x1 Current Transformers
- ✓ Low Impedance Current Inputs
- ✓ Galvanic Isolation between Input, Output and Power

The DRF-IDC and the DRF-IAC current signal conditioners accept dc and ac currents respectively and provide an isolated 0 to 10 Vdc or 4 to 20 mA output. Models are available with three different power options, 24 Vdc, 120 Vac and 240 Vac.

The DRF-IDC and DRF-IAC are ideally suited for industrial applications. All models mount on a standard 35 mm DIN rail and provide galvanic isolation between input, output and power up to 3500 Veff (model specific).

Specifications

Accuracy: <0.3% full scale

Linearity: <0.2% full scale

Thermal Drift: 250 ppm/°C typical (max <200ppm/°C)

Response Time (DC Signal Input Models):

< 70mS (90% of signal)
at 20Hz -3dB

Response Time (AC Signal Input Models):

<250mS (90% of signal)

Maximum AC Frequency: 1 KHz

Input Impedance: 1Ω for ranges <1 A, 0.02Ω for ranges <5 A

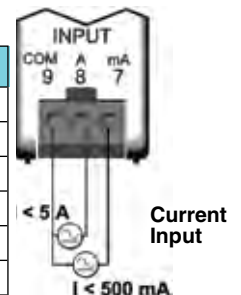
Over Range Protection: 7.5 A for ranges greater than 500 mA and less than or equal to 5 A, 750 mA for ranges less than and equal to 500 mA



DRF-IAC-115VAC-5A-0/10, shown smaller than actual size.

Input Range Table

Range Code	DRF IDC Range	DRF IAC Range
100MA	0 to 100 mAdc	0 to 100 mAac
200MA	0 to 200 mAdc	0 to 200 mAac
300MA	0 to 300 mAdc	0 to 300 mAac
1A	0 to 1 Adc	0 to 1 Aac
2A	0 to 2 Adc	0 to 2 Aac
3A	0 to 3 Adc	0 to 3 Aac
5A	0 to 5 Adc	0 to 5 Aac



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Model No.	Description
DRF-IDC-(*)-(**)-(***)	Signal conditioner for DC current input
DRF-IAC-(*)-(**)-(***)	Signal conditioner for AC current input

* Specify power, "24Vdc" for 24 Vdc power, "115Vac" for 115 Vac power or "230Vac" for 230 Vac power

** Specify range code from the Input Range Table

*** Specify output, "4/20" for 4 to 20 mA output or "0/10" for 0 to 10 Vdc output

Ordering Example: DRF-IAC-115VAC-5A-0/10, signal conditioner for ac current input with a 0 to 5 A ac input range, 0 to 10 Vdc output and 115 Vac power.

Process Input Signal Conditioner

DRF-PR



- ✓ Process Signals up to 10 Vdc and up to 50 mA
- ✓ Accuracy 0.2%
- ✓ Response Time <70 mS
- ✓ Excitation Voltage for Transducers +15 Vdc (20 mA)
- ✓ Galvanic Isolation between Input, Output and Power

The DRF-PR signal conditioner accepts a dc process signal input and provides an isolated 0 to 10 Vdc or 4 to 20 mA output. Models are available with three different power options, 24 Vdc, 120 Vac and 240 Vac.

The DRF-PR are ideally suited for industrial applications. All models mount on a standard 35 mm DIN rail and provide galvanic isolation between input, output and power up to 3500 Veff (model specific). Module response time is 70 ms or less.

Specifications

Accuracy: <0.2% full scale

Linearity: <0.1% full scale

Thermal Drift: 150 ppm/°C typical (max <200ppm/°C)

Response Time (DC Signal Input Models): < 70mS (90% of signal) at 20 Hz -3 dB

Input Impedance: 50Ω for 4 to 20 mA and 0 to 20 mA ranges, 20Ω for 0 to 5 mA and 0 to 50 mA ranges, 5 MΩ for ranges ≤ 1V, 1 MΩ for ranges ≥ 10 V

Over Range Protection: 3.5 Vdc for 4 to 20 mA and 0 to 20 mA ranges, 2.5 Vdc for 0 to 5 mA and 0 to 50 mA ranges, 15 V for ranges ≥ 1 V, 150 V for ranges ≥ 10V

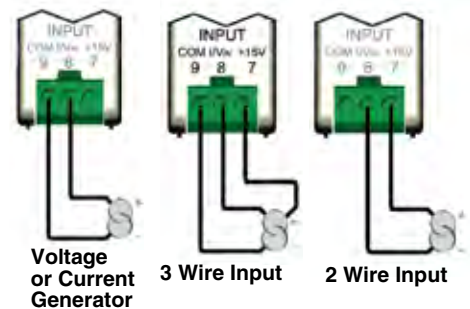
Vexc Output for Transducers: +15 Vdc ±10% (22 mA max.)



DRF-PR-24VDC-0/10C-4/20, shown larger than actual size.

Input Range Table

Range Code	Range
0/5MA	0 to 5 mA
0/50MA	0 to 50 mA
0/20MA	0 to 20 mA
4/20MA	4 to 20 mA
0/1VDC	0 to 1 Vdc
0/10VDC	0 to 10 Vdc



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Model No.	Description
DRF-PR-(*)-(**)-(***)	Signal conditioner for DC process input

* Specify power, "24Vdc" for 24 Vdc power, "115Vac" for 115 Vac power or "230Vac" for 230 Vac power

** Specify range code from the Input Range Table

*** Specify output, "4/20" for 4 to 20 mA output or "0/10" for 0 to 10 Vdc output

Ordering Example: DRF-PR-24VDC-0/10VDC-4/20, signal conditioner for process input with a 0 to 10 Vdc input range, 4 to 20 mA output and 24 Vdc power.

Load Cell Input Signal Conditioner

DRF-LC



- ✓ For Load Cells with 1 mV/V, 2 mV/V and 3 mV/V Output
- ✓ Full Scale at 10 mV, 20 mV and 30 mV
- ✓ Pre-tare Jumpers at 50%, 25% and 0%
- ✓ Accuracy 0.2%
- ✓ Response Time < 75 ms
- ✓ Galvanic Isolation between Input, Output and Power

The DRF-LC signal conditioner accepts a load cell input and provides an isolated 0 to 10 Vdc or 4 to 20 mA output. Models are available with three different power options, 24 Vdc, 120 Vac and 240 Vac.

The DRF-LC are ideally suited for industrial applications. All models mount on a standard 35 mm DIN rail and provide galvanic isolation between input, output and power up to 3500 Veff (model specific). Module response time is 75 ms or less.

Specifications

Accuracy: <0.2% full scale

Linearity: <0.1% full scale

Thermal Drift: 250 ppm/°C typical (max <200ppm/°C)

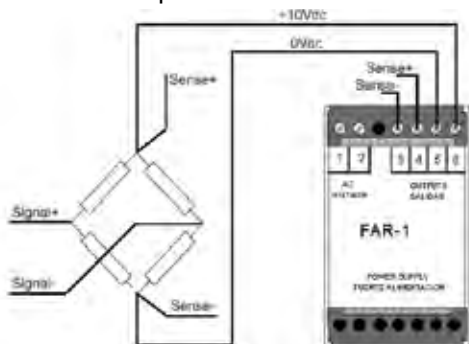
Response Time: <75 ms (90% of signal)

Bandwidth: 20 Hz (-3dB)

Pretare: 50%, 25% and 0% by jumpers

Impedance: 5 MΩ

Over Range Protection: 15 V max differential input



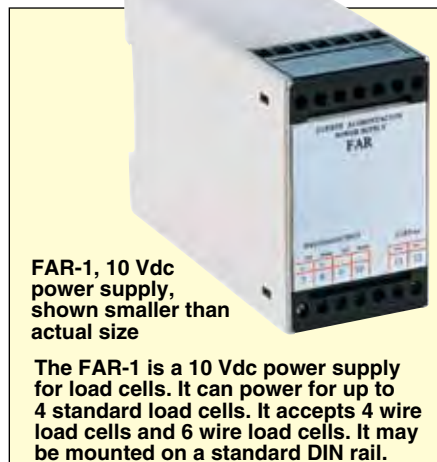
FAR-1 Power Supply with Load Cell

Input Range Table

Range Code	Range
10MV	0 to 10 mV
20MV	0 to 20 mV
30MV	0 to 30 mV

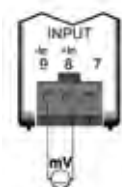


DRF-LC-230VAC-30MV-0/10, shown larger than actual size.



FAR-1, 10 Vdc power supply, shown smaller than actual size

The FAR-1 is a 10 Vdc power supply for load cells. It can power for up to 4 standard load cells. It accepts 4 wire load cells and 6 wire load cells. It may be mounted on a standard DIN rail.



Load Cell Input

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Model No.	Description
DRF-LC-(*)-(**)-(***)	Signal conditioner for load cell input
FAR-1	10 Vdc power supply

* Specify power, "24Vdc" for 24 Vdc power, "115Vac" for 115 Vac power or "230Vac" for 230 Vac power

** Specify range code from the Input Range Table

*** Specify output, "4/20" for 4 to 20 mA output or "0/10" for 0 to 10 Vdc output

Ordering Example: DRF-LC-230VAC-30MV-0/10, signal conditioner for load cell input with a 0 to 30 mV input range, 0 to 10 Vdc output and 230 Vac power.

Frequency Input Signal Conditioner

DRF-FR



- ✓ NPN, PNP, NAMUR, Voltage Pulse, Voltage AC (up to 200 Vac)
- ✓ Frequency Signals from 10 Hz up to 50 KHz
- ✓ Accuracy 0.2%
- ✓ Excitation Voltage 15 Vdc (20 mA) or 9V2 for NAMUR
- ✓ Galvanic Isolation between Input, Output and Power

The DRF-FR signal conditioner accepts a frequency input and provides an isolated 0 to 10 Vdc or 4 to 20 mA output. Models are available with three different power options, 24 Vdc, 120 Vac and 240 Vac.

The DRF-FR are ideally suited for industrial applications. All models mount on a standard 35mm DIN rail and provide galvanic isolation between input, output and power up to 3500 Veff (model specific). Module response time is 250 ms or less.

Specifications

Signal Type: NPN, PNP, NAMUR, Voltage Pulse, AC up to 200 Vac (2 ranges < 24 Vac and < 200 Vac)

Accuracy: <0.2% full scale

Linearity: <0.1% full scale

Thermal Drift: 250 ppm/°C typical (max <200ppm/°C)

RESPONSE TIME

0 to 100 Hz: <300 mS (90% of signal)

0 to 500 Hz: <250 mS (90% of signal)

0 to 5 KHz: <200 mS (90% of signal)

0 to 50 KHz: <150 mS (90% of signal)

IMPEDANCE

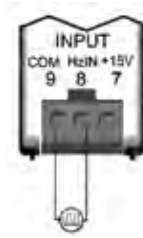
Voltage Input:

(<24 Vac Range): 100 K

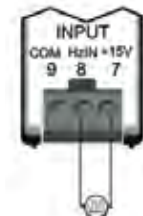
(<200 Vac Range): 1 M

PNP and NPN Input: 10 K Ω

NAMUR Input: 1 K Ω



Externally Powered Sensor



NAMUR or PNP Sensor Powered from the DRF-FR Signal Conditioner

DRF-FR-115VAC-1KHZ-4/20, shown larger than actual size.



Input Range Table

Range Code	Range
20HZ	0 to 20 Hz
40HZ	0 to 40 Hz
60HZ	0 to 60 Hz
100HZ	0 to 100 Hz
200HZ	0 to 200 Hz
300HZ	0 to 300 Hz
500HZ	0 to 500 Hz
1KHZ	0 to 1 KHz
2KHZ	0 to 2 KHz
3KHZ	0 to 3 KHz
5KHZ	0 to 5 KHz
10KHZ	0 to 10 KHz
20KHZ	0 to 20 KHz
30KHZ	0 to 30 KHz
50KHZ	0 to 50 KHz

OVER RANGE PROTECTION

Voltage Input;

(<24 Vac Range): 75 V

(<200V ac Range): 300 V

PNP and NPN Input: 35 V

NAMUR Input: Always powered by 9V2

* Custom ranges may be obtained by adjusting on-board zero and span potentiometers. The minimum span is 10 Hz.

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Model No.	Description
DRF-FR-(*)-(**)-(***)	Signal conditioner for frequency input

* Specify power, "24Vdc" for 24 Vdc power, "115Vac" for 115 Vac power or "230Vac" for 230 Vac power

** Specify range code from the Input Range Table

*** Specify output, "4/20" for 4 to 20 mA output or "0/10" for 0 to 10 Vdc output

Ordering Example: DRF-FR-115VAC-1KHZ-4/20, signal conditioner for frequency input with a 0 to 1000 Hz input range, 4 to 20 mA output and 115 Vac power.

Resistance Input and DRF-PT Potentiometer Input Signal Conditioners

DRF-RES



- ✓ Resistances between 1 K Ω and 10 K Ω
- ✓ Excitation Current 0.2 mA
- ✓ Potentiometers between 100 Ω min and 1 M Ω max
- ✓ Response Time < 70 mS
- ✓ Accuracy 0.2%
- ✓ Galvanic Isolation Between Input, Output and Power

The DRF-RES and DRF-PT signal conditioners accept resistance and potentiometer input respectively and provide an isolated 0 to 10 Vdc or 4 to 20 mA output.

The DRF-RES is available with four standard ranges from 0 to 1500 Ω to 0 to 10,000 Ω . The DRF-PT can work with a variety of potentiometers from 100 Ω up to 1 M Ω .

Models are available with three different power options, 24 Vdc, 120 Vac and 240 Vac.

The DRF-RES and DRF-POT are ideally suited for industrial applications. All models mount on a standard 35 mm DIN rail and provide galvanic isolation between input, output and power up to 3500 Veff (model specific). Module response time is 70 ms or less.



DRF-RES-24VDC-0/10K-0/10, and DRF-POT-24VDC-0/100P-0/10, shown larger than actual size.

Specifications

Signal:

DRF-RES: 2 wire

DRF-PT: 3 wire

Excitation:

for DRF-RES: 0.2 mA

DRF-PT: 1 Vdc

Accuracy: <0.2% full scale

Linearity: <0.1% full scale

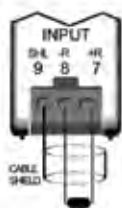
Thermal Drift: 250 ppm/ $^{\circ}$ C typical (max <200ppm/ $^{\circ}$ C)

Response Time: 70 mS (90% of signal)

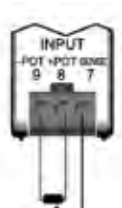
Input Range Table

Range Code	Range
0/1.5K	0 to 1500 Ω
0/3K	0 to 3000 Ω
0/5K	0 to 5000 Ω
0/10K	0 to 10000 Ω

* Custom ranges may be obtained by adjusting on-board zero and span potentiometers. The minimum range is 0 to 750 Ω



Resistance Input



Potentiometer Input

To Order Visit omega.com/drif_series for Pricing and Details

Model No.	Description
DRF-RES-(*)-(**)-(***)	Signal conditioner for resistance input
DRF-POT-(*)-0/100P-(***)	Signal conditioner for resistance input

* Specify power, "24Vdc" for 24 Vdc power, "115Vac" for 115 Vac power or "230Vac" for 230 Vac power

** Specify range code from the Input Range Table for the DRF-RES (the DRF-PT works with potentiometers from 100 Ω to 1 M Ω)

*** Specify output, "4/20" for 4 to 20 mA output or "0/10" for 0 to 10 Vdc output

Ordering Example: DRF-RES-24VDC-0/10K-0/10, signal conditioner for resistance input with a 0 to 10 K Ω input range, 0 to 10 Vdc output and 24 Vdc power.