DRF Series DIN Rail Mount Configurable Signal Conditioners

$170
Basic Modules

1 YEAR WARRANTY

- **Voltage, Current, Frequency, Resistance, Potentiometer, Thermocouple, RTD and Load Cell Input Modules**
- **Field-Configurable Signal Ranges**
- **Provide 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 features 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 is designed to maximize functionality. The front door of the housing provides easy access to span and offset potentiometers that 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. Isolation protects against potentially damaging voltages from passing through the signal conditioners into connected systems. It 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 and 0 to 10 Vdc. Although pre-configured before shipping from the factory, the output may be changed by moving an internal jumper.

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 to the non-linear signal produced by thermocouple sensors.

Specifications

(COMMON TO ALL MODELS)
Power: 24 Vdc ±10%, 230 Vac ±10% 50/60 Hz, 115 Vac ±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 KΩ
Maximum Current Output: 22 mA approx.
Maximum Current Output: -1.5 mA approx.
Maximum Load Resistance (current): ≤400 Ω
Accuracy: <0.2% or <0.3% depending on model
Linearity: <0.1% or <0.2% depending on model
Thermal Drift: <150 ppm/°C or 250 ppm/°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)
*Tested True RMS, 60 sec. leak <1 mA
Electrical Connections: Plug-in screw terminals
Protection: IP-30
MECHANICAL DIMENSIONS
Weight:
(DC Powered Models): 120 g (4.2 oz)
(AC Powered Models): 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°C (32 to 140°F)
Storage Temperature: -20 to 70°C (-4 to 158°F)

DRF-TC Thermocouple Input Signal Conditioner

1 YEAR WARRANTY

$185
Basic Module

- **Models for J, K, T, E, 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 conditioners 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, $185, shown larger than actual size

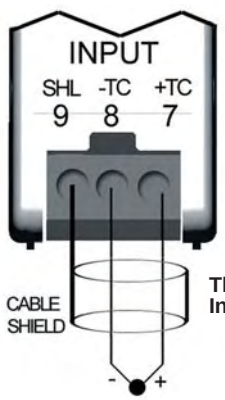
Range Code Table

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				
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: <250 mS (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 thermoucouple type)

Thermocouple Input

ALL MODELS AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*		
Model No.	**Price**	**Description**
DRF-TCJ-(*)-(**)-(***)	**$185**	Signal conditioner for J type thermocouple
DRF-TCK-(*)-(**)-(***)	**185**	Signal conditioner for K type thermocouple
DRF-TCT-(*)-(**)-(***)	**185**	Signal conditioner for T type thermocouple
DRF-TCE-(*)-(**)-(***)	**185**	Signal conditioner for E type thermocouple
DRF-TCR-(*)-(**)-(***)	**185**	Signal conditioner for R type thermocouple
DRF-TCS-(*)-(**)-(***)	**185**	Signal conditioner for S type thermocouple
CS-3767	**100**	Reference Book: Electrical Engineers Handbook

** Specify Power, "24Vdc" for 24 Vdc power, "115Vac" for 115 Vac power or "230Vac" for 230 Vac power*
*** Specify range code from the Range Code 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, **$185.

DRF-RTD
RTD Input Signal Conditioner

$180
Basic Module

1 YEAR WARRANTY

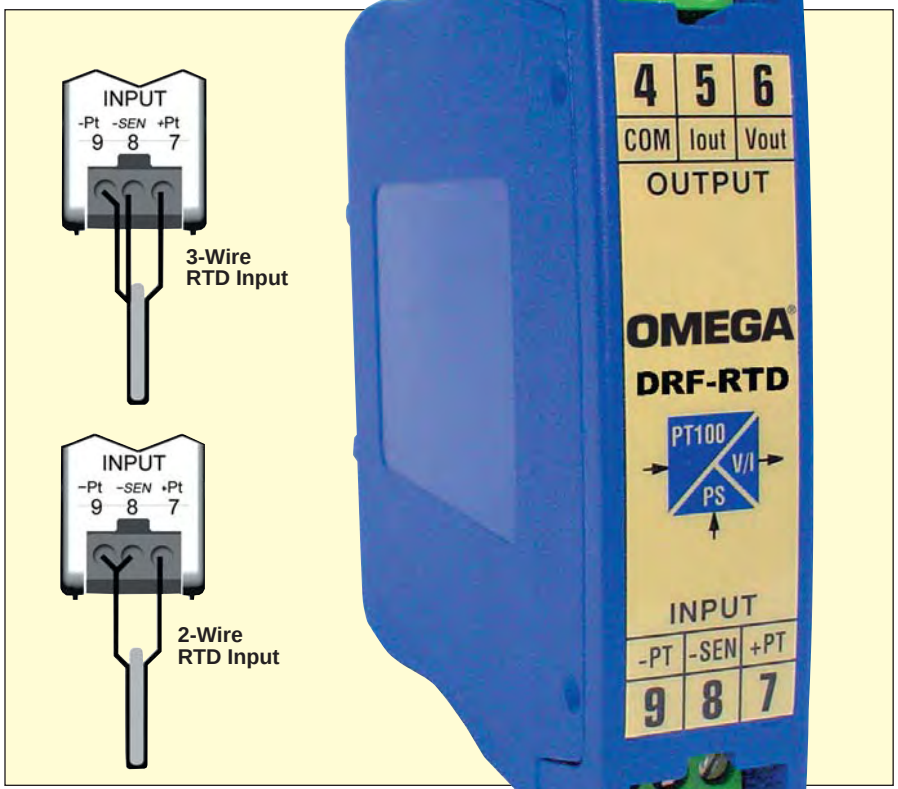
- **100 Ω Platinum (Pt) RTD Element, 0.00385 Curve**
- **2 or 3 Wire Configuration**
- **0.2% Accuracy**
- **Cable Resistance Compensation up to 10 Ω**
- **Upscale Break Protection**
- **Response Time <250 mS**
- **Galvanic Isolation Between Input, Output and Power**

DRF-RTD RTD signal conditioners accept 2 or 3 wire 100 Ω 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.

DRF-RTD conditioners 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, α=0.00385
Accuracy: <0.2% full scale
Linearity: <0.1% full scale
Thermal Drift: 250 ppm/°C typical
Response Time: <250 mS (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 KΩ resistance



Range Code Table

Range Code	Range
-25/75C	-25 to 75°C
-50/150C	-50 to 150°C
0/100C	0 to 100°C
0/200C	0 to 200°C
0/300C	0 to 300°C
0/450C	0 to 450°C
0/600C	0 to 600°C

** Custom ranges may be obtained by adjusting on-board zero and span potentiometers. The minimum range is 0 to 50°C (32 to 122°F), maximum range is 0 to 600°C (32 to 1112°F)*

DRF-RTD-24VDC-0/100C-0/10, $180, shown larger than actual size

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
DRF-RTD-(*)-(**)-(***)	**$180**	Signal conditioner for 100 Ω Pt RTD
CS-3775	**80**	Reference Book: Control System Design Guide

** 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°C input range, 0 to 10 Vdc output and 24 Vdc power, **$180.

DRF-VDC, DRF-VAC DC and AC Voltage Input Signal Conditioners

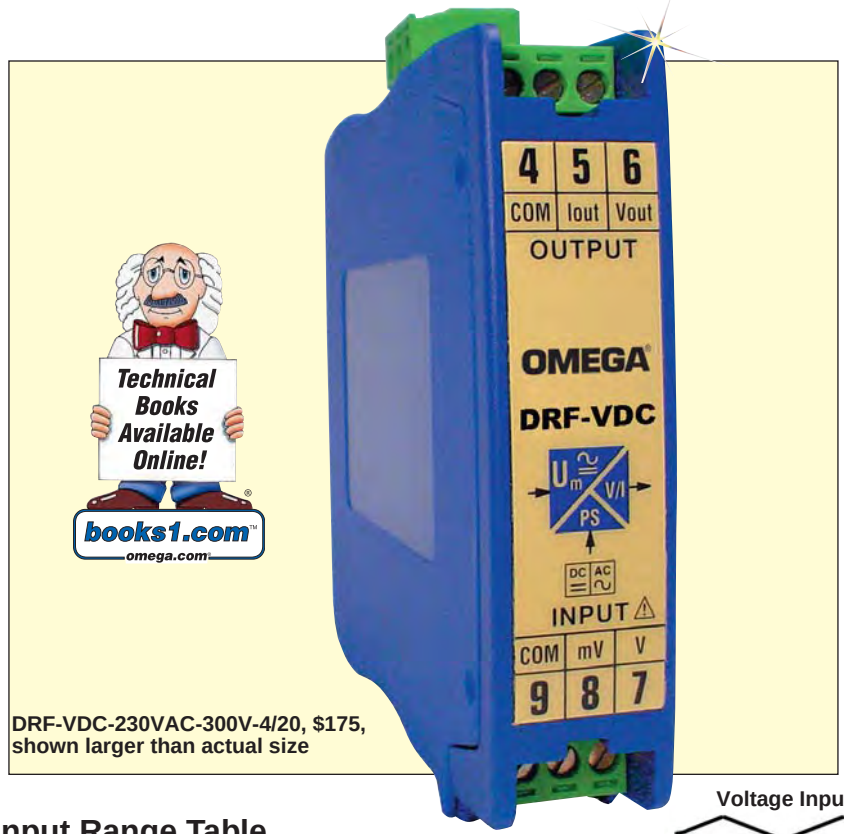
$175
Basic Module

1 YEAR WARRANTY CE

- **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**

DRF-VDC and 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 35 mm DIN rail and provide galvanic isolation between input, output and power up to 3500 Veff (model specific).

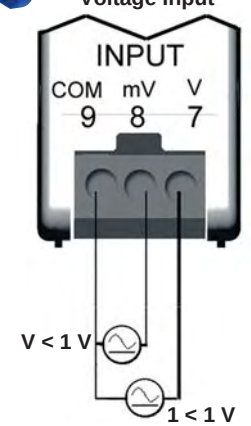


DRF-VDC-230VAC-300V-4/20, $175, shown larger than actual size

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



Specifications

Accuracy: <0.2% full scale
Linearity: <0.1% full scale
Thermal Drift: 150 ppm/°C typical (max <200 ppm/°C)
Response Time
DC Signal Input Models):
<70 mS (90% of signal)
at 20 Hz -3 dB
Response Time (AC signal input models): <250 mS (90% of signal)
Input Impedance: 1 M Ω
for ranges < 1 V, 10 M Ω
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

ALL MODELS AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
DRF-VDC-(*)-(**)-(***)	**$175**	Signal conditioner for DC voltage input
DRF-VAC-(*)-(**)-(***)	**175**	Signal conditioner for AC voltage input
CS-3776	**50**	Reference Book: Analog & Digital Circuits for Control System Applications

** 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, **$175**.*

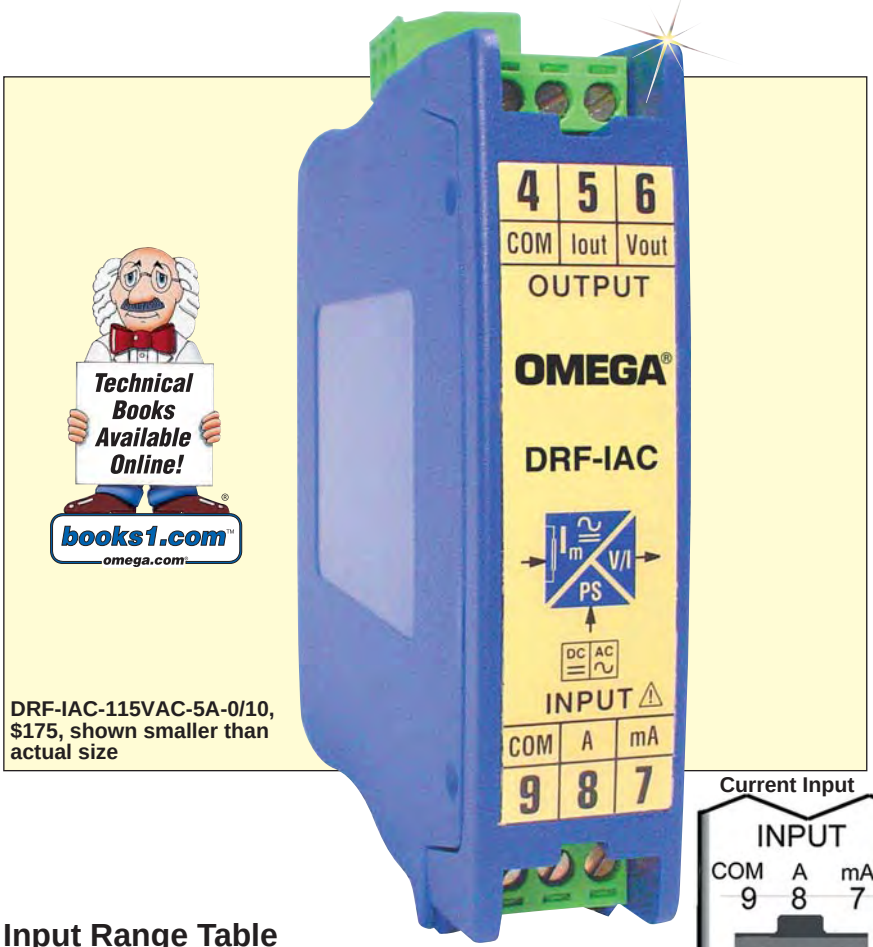
DRF-IDC, DRF-IAC DC and AC Current Input Signal Conditioners

NEW®

$175
Basic Module

1 YEAR WARRANTY

- **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**



DRF-IAC-115VAC-5A-0/10, $175, shown smaller than actual size

DRF-IDC and 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).

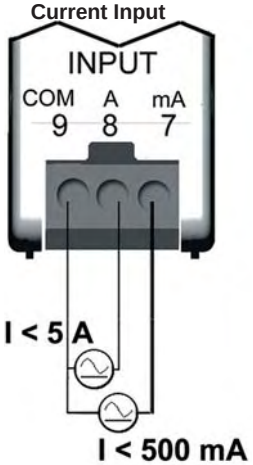
Specifications

Accuracy: <0.3% full scale
Linearity: <0.2% full scale
Thermal Drift: 250 ppm/°C typical (max <200 ppm/°C)
Response Time (DC Signal Input Models):
<70mS (90% of signal) at 20 Hz -3 dB
Response Time (AC Signal Input Models):
<250 mS (90% of signal)
Maximum AC Frequency: 1 KHz
Input Impedance: 1 Ω for ranges <5 A, 0.02 Ω for ranges <1 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 or equal to 500 mA

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

Current Input



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To Order *(Specify Model Number)*

Model No.	Price	Description
DRF-IDC-(*)-(**)-(***)	**$175**	Signal conditioner for DC current input
DRF-IAC-(*)-(**)-(***)	**175**	Signal conditioner for AC current input
CS-3785	**150**	Reference Book: McGraw-Hill Dictionary of Scientific and Techinical Terms

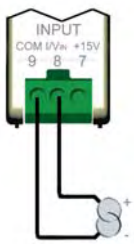
** Specify Power, "24Vdc" for 24 Vdc power, "115Vac" for 115 Vac power or "230Vac" for 230 Vac power*
*** Specify range code from the Input Range Table*
**** Specify output, "4/20" for 4 to 20 mA output or "0/10" for 0 to10 Vdc output*
Ordering Example: DRF-IAC-115VAC-5A-0/10,** signal conditioner for AC current input with a 0 to 5 Aac input range, 0 to 10 Vdc output and 115 Vac power, **$175.

DRF-PR Process Input Signal Conditioner

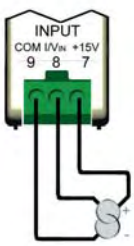
$170
Basic Module

1 YEAR WARRANTY CE

2 Wire Input



Voltage or Current Generator



3 Wire Input

- **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 is 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 <200 ppm/°C)
Response Time (DC Signal Input Models): < 70 mS (90% of signal) at 20 Hz -3 dB
Input Impedance: 50 Ω for 4 to 20 mA and 0 to 20 mA ranges, 20 Ω for 0 to 5 mA and 0 to 50 mA ranges, 5 M Ω for ranges ≥ 1V, 1 M Ω for ranges ≥ 10 V
Vexc Output for Transducers: +15 Vdc ±10% (22 mA max.)

Range Code 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

DRF-PR-24VDC-0/10C-4/20, $170, shown larger than actual size

Impedance and Overvoltage Table

Range Code	Impedance	Overvoltage (max)
4 to 20 mA	50 Ω	3.5 Vdc
0 to 20 mA	50 Ω	3.5 Vdc
0 to 50 mA	20 Ω	2.5 Vdc
0 to 5 mA	20 Ω	2.5 Vdc
0 to 10 Vdc	5 MΩ	150 Vdc
0 to 1 Vdc	1 MΩ	15 Vdc

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*		
Model No.	**Price**	**Description**
DRF-PR-(*)-(**)-(***)	**$170**	Signal conditioner for DC process input
CS-3790	**20**	Reference Book: McGraw-Hill Dictionary of Electrical and Computer Engineering

** Specify Power, "24Vdc" for 24 Vdc power, "115Vac" for 115 Vac power or "230Vac" for 230 Vac power*
*** Specify range code from the Range Code 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, **$170.

DRF-LC Load Cell Input Signal Conditioner

$180
Basic Module

1 YEAR WARRANTY

- **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**

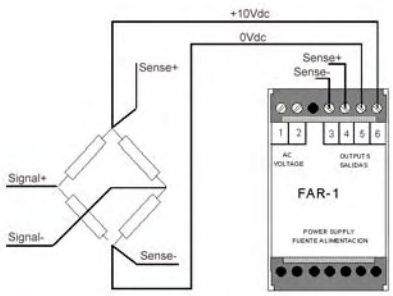
The DRF-LC signal conditioner accepts a load cell input and provides an isolated 0 to 10 Vdc or 4 to 20 mA output. Models are available with three different power options; 24 Vdc, 120 Vac and 240 Vac.

The DRF-LC is 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.

DRF-LC-230VAC-30MV-0/10, $180, shown larger than actual size

Specifications

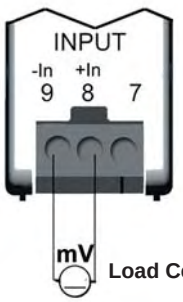
Accuracy: <0.2% full scale
Linearity: <0.1% full scale
Thermal Drift: 250 ppm/°C typical (max <200 ppm/°C)
Response Time: <75 mS (90% of signal)
Bandwith: 20 Hz (-3 dB)
Pretare: 50%, 25% and 0% by jumpers
Impedance: 5 MΩ
Over Range Protection: 15 V max differential input



FAR-1 Power Supply with Load Cell

FAR-1, $123, 10 Vdc power supply, shown smaller than actual size

The FAR-1 is a 10 Vdc power supply for load cells. It can power 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

AVAILABLE FOR FAST DELIVERY!

Range Code Table

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

To Order *(Specify Model Number)*

Model No.	Price	Description
DRF-LC-(*)-(**)-(***)	$180	Signal conditioner for load cell input
FAR-1	123	10 Vdc power supply
CS-3767	100	Reference Book: Electrical Engineers Handbook

** Specify Power, "24Vdc" for 24 Vdc power, "115Vac" for 115 Vac power or "230Vac" for 230 Vac power*
*** Specify range code from the Range Code 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, **$180.

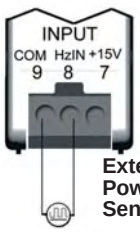
H

DRF-FR Frequency Input Signal Conditioner

$210
Basic Module

1 YEAR WARRANTY

- **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 9 V2 for NAMUR**
- **Galvanic Isolation between Input, Output and Power**



Externally Powered Sensor

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

DRF-FR-115VAC-1KHZ-4/20, $210, shown larger than actual size

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 is 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

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 <200 ppm/°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 KΩ
Voltage Input: (<200 Vac Range): 1 M
PNP and NPN Input: 10 KΩ
NAMUR Input: 1 KΩ

Range Code 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

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

OVER RANGE PROTECTION
Voltage Input (<24 Vac Range): 75 V
Voltage Input (<200 V AC Range): 300 V
PNP and NPN Input: 35 V
NAMUR Input: Always powered by 9 V2

AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
DRF-FR-(*)-(**)-(***)	**$210**	Signal conditioner for frequency input
CS-3785	**150**	Reference Book: McGraw-Hill Dictionary of Scienific and Technical Terms

** Specify Power, "24Vdc" for 24 Vdc power, "115Vac" for 115 Vac power or "230Vac" for 230 Vac power*
*** Specify range code from the Range Code 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, **$210.

DRF-RES Resistance Input and DRF-POT Potentionmeter Input Signal Conditioners

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$180
Basic Module

1 YEAR WARRANTY CE

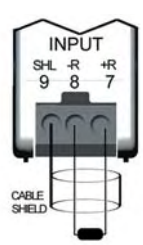
- **Resistances Between 1 KΩ and 10 KΩ**
- **Excitation Current 0.2 mA**
- **Potentiometers between 100 Ω min and 1 MΩ max**
- **Response Time <70 mS**
- **Accuracy 0.2%**
- **Galvanic Isolation Between Input, Output and Power**

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

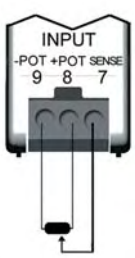
The DRF-RES is available with four standard ranges from 0 to 1500 Ω to 0 to 10,000 Ω. The DRF-POT can work with a variety of potentiometers from 100 Ω to 1 MΩ.

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.



Resistance Input



Potentiometer Input

DRF-RES-24VDC-0/10K-0/10, $180 and DRF-POT-24VDC-0/100P-0/10, $180, shown larger than actual size

Specifications

Signal:
DRF-RES: 2 wire
DRF-POT: 3 wire
Excitation:
DRF-RES: 0.2 mA
DRF-POT: 1 Vdc
Accuracy: <0.2% full scale
Linearity: <0.1% full scale
Thermal Drift: 250 ppm/°C typical (max <200 ppm/°C)
Response Time: 70 mS (90% of signal)

Range Code 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 10,000 Ω

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

ALL MODELS AVAILABLE FOR FAST DELIVERY!

To Order *(Specify Model Number)*

Model No.	Price	Description
DRF-RES-(*)-(**)-(***)	**$180**	Signal conditioner for resistance input
DRF-POT-(*)-0/100P-(***)	**180**	Signal conditioner for resistance input
CS-3790	**20**	Reference Book: McGraw-Hill Dictionary of Electrical and Computer Engineering

** Specify Power, "24Vdc" for 24 Vdc power, "115Vac" for 115 Vac power or "230Vac" for 230 Vac power*
*** Specify range code from the Range Code Table for the DRF-RES (the DRF-POT works with potentiometers from 100Ω to 1 MΩ)*
**** 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, **$180.

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