

# Frequency/Pulse Digital Signal Conditioners

## iD Series



**\$250**  
iDRX-FP

- ✓ Software Selectable Input Type
- ✓ 0 to 50 KHz Frequency Input 2 Million Pulse Capacity
- ✓ Proximity, Switch, Magnetic, Pickup, NAMUR, Contact Closure and Open Collector Input Types
- ✓ RS-485 Output
- ✓ 1800 V Isolation
- ✓ Free Setup and Configuration Software
- ✓ Factory Setup and Configuration Available at No Charge (for iDRN Analog Output models)



D/O

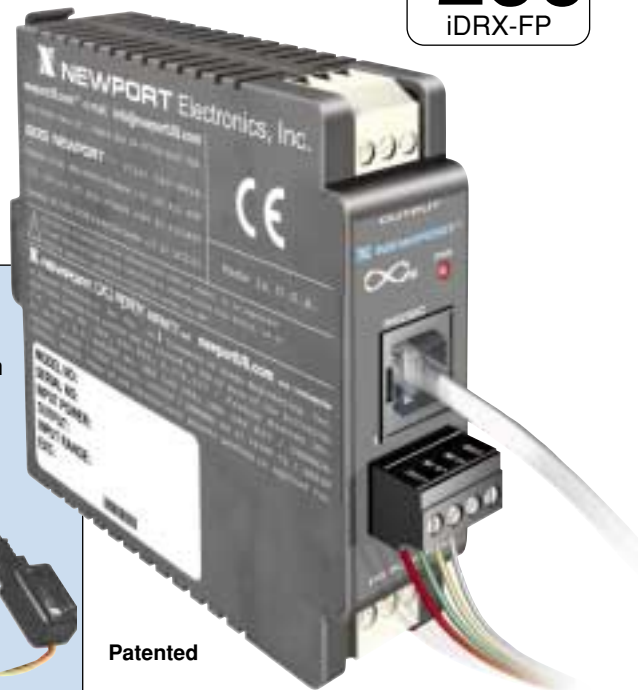
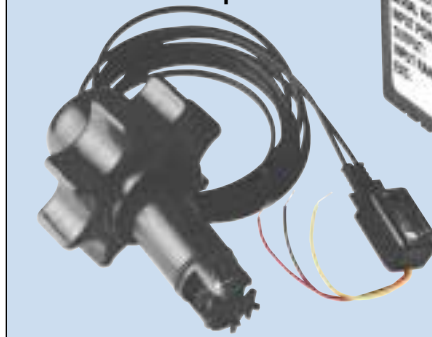


A/I/N



SERIAL I/O

NEWPORT manufactures many types of Flow Transducers. Refer to our website [www.newportUS.com](http://www.newportUS.com)



Patented

The iDRN-FP and iDRX-FP signal conditioners provide accurate, stable, isolated measurement of frequency and pulse signals. Both models measure frequency signals up to 50 KHz and can count up to two million pulses. The iDRX-FP and iDRN-FP are compatible with a wide variety of transducers including proximity, switch, magnetic pickup, NAMUR, contact closure and open collector transducers.

### TWO MODELS: ANALOG or DIGITAL OUTPUTS

The iDRN-FP provides an analog output that is proportional to the input signal. The iDRX-FP uses digital RS-485 Serial Communication.

### ANALOG OUTPUT MODEL

The output of iDRN-FP can be user set for 0 to 10 V, 4 to 20 mA or 0 to 20 mA. Scaling and configuration is done with the free software on a PC using either the standard RS-232 port, or an Ethernet connection with the optional EIS-2 module. Once configured the settings are stored in non-volatile memory and the unit disconnected from the PC.

### Factory Setup and Configuration at No Extra Charge (iDRN Analog Output signal conditioners)

#### Please Specify:

Input Signal or Sensor Type  
Input Frequency High & Low  
Output Value High & Low  
Excitation: 10 or 14 Volts dc  
Magnetic Pickup (2-wire)

**Example:** 0 Hz = 4 mA,  
1000 Hz = 20mA, Excitation N/A

### DIGITAL OUTPUT MODEL

The iDRX-FP is a digital signal conditioner which communicates over an RS-485 communication link using either a simple straightforward ASCII Serial Protocol or MODBUS Serial Protocol. Up to 32 modules may be connected to a single RS-485 port stretching up to 4,000 ft. without repeaters.

### ETHERNET CONNECTION

The Optional EIS-2 iServer module can connect up to thirty-two (32) iDRX RS-485 Signal Conditioners to an Ethernet network and the Internet using standard TCP/IP protocol. The iServer can also be used as a simple Serial to Ethernet "bridge" or converter to connect a single iDRN RS-232 device to an Ethernet network and the Internet.

### Specifications

**Accuracy at 25°C:** ±0.02% FS for frequency, ±0.01% FS for pulse input

**Resolution:** 15 to 19-bit

**Power Consumption:** 2.4 W (100 mA @ 24 Vdc) without excitation, 3 W (125 mA @ 24 Vdc) with excitation

**Input Ranges:** Frequency from 200 Hz to 50 KHz pulse from 20,000 to 200,000,000 (200M) pulses full scale

**iDRX Output:** 2-wire (half duplex) RS-485 (NEWPORT® Serial Protocol and MODBUS Serial Protocol)

**iDRN Output:** 0 to 10 V @ 10 mA max; 0 to 20 mA or 4 to 20 mA

**FP Default settings iDRN:** Input 0-20 KHz; Output 4-20 mA (Custom Settings available at no charge.)

### To Order (Specify Model Number)

Model No.	Price	Description
iDRX-FP	250	Digital signal conditioner with RS-485 output for Frequency/Pulse inputs
iDRN-FP	295	Signal conditioner with analog output for Frequency/Pulse inputs
-FS	Free	Factory setup and scaling

Each unit supplied with complete operator's manual.

**Ordering Example:** iDRN-FP signal conditioner (\$295), and DB9-RJ12 connector adapter (\$30), \$295 + \$30 = \$325.

For iDRN/iDRX accessories and power supplies, please see start of this section.