

The **F2A3X Frequency to Analog converter** is a DIN rail module that converts a frequency input signal into a proportional analog voltage (0-5Vdc) or current (4-20mA) output. The output signal is electrically isolated from input signal and input power source effectively eliminating troublesome ground loops. The input signal can be supplied from a Monarch sensor (measuring RPM for example) or any source of digital signal not exceeding 12 volts. The **F2A3X** is completely user programmable using the included PM Remote Software (see full features on page 12).



Features

- Standard DIN rail mounting
- Ethernet communications available
- 5 to 999,990 RPM range (0.083 to 250kHz)
- Compatible with most speed sensors (TTL)
- 12 to 24 Vdc input power
- Alarm set point with optional relay output
- Pulse repeater output
- User configurable
- View real-time data on PC
- 4-20mA or 0-5Vdc scalable output
- 10 Vdc or 5Vdc sensor excitation

Specifications

Input Range:	5-999,990 RPM speeds below 5 RPM possible with multiple pulses per revolution (0.083 Hz to 250 KHz)
Input Configuration and Voltage Range:	1 to 9,999 pulses per revolution or use a scale factor of 0.0001 to 99,999—PC software programmable, TTL input and 1.1V to 25Vdc signals-Internal Jumper for : ±1 to ±25Vac
Analog Output:	Voltage: 0-5Vdc, 5mA max load, Isolated or 4-20mA Isolated, 500Ω max load, Internal 12V compliance voltage. 16 bit resolution. Full scale and offset RPM ranges PC programmable
Accuracy/Resolution:	0.005% of full scale output / 76 μvolts or 30.5 Nano amps
Output Update:	Software selectable up to 244 times/sec-dependent on input frequency
Memory:	Maximum and minimum recall via PC software
Dimensions:	1/8 DIN by 3.94" (100mm) deep
Input Power:	Standard 12-24Vdc 4.5W max or optional 12Vdc to 24Vdc isolated 4.5W max
Sensor Excitation:	10Vdc @ 60mA standard or optional 5Vdc @ 60mA
Pulse Repeater Output:	0-5V TTL compatible, one pulse out for each pulse in. Polarity is software selectable
Communications:	Standard: serial-requires USB interface cable, Optional: Ethernet RJ45 or USB type B
Alarm Capability:	Optional alarm with relay output - Set points: High or low alarm limit, latching or non-latching. PC Programmable
Alarm Outputs:	1 Form C relay contact, rated 1A at 115Vac or 230Vac
Alarm Reset:	Automatic or manual reset. Front panel push button or remote reset via PM Remote Software
Environmental:	Indoor use only, installation category II per IEC 664 Temperature: -10° to 50°C operating per IEC 61010-1 Humidity: 80% max for temps up to 31°C, decreasing linearly to 50% RH at 40°C
Electrical Safety:	Meets EN61010-1:2001, EC low voltage directive 2006/95/EC

Ordering Information

Configure Model # here:

F2A3X - [] [] [] [] []

Input Power
 1 12-24 Vdc Non. Isol.
 2 12-24 Vdc Isolated

Sensor Power
 1 10-12 Vdc
 2 5 Vdc

Analog Output
 1 0-5 Vdc Isolated
 2 4-20mA Isolated

Communications
 1 USB Type B
 2 Ethernet (RJ45)

Alarm Output
 0 None
 1 1 Form C Relay

Recommended Sensors (see pages 13-16)

- Optical - ROS-W
- Optical - ROS-HT-W-25
- Optical - ROSM-5W
- Infrared - IRS-W
- Laser - ROLS-W
- Magnetic - MT-190W

PM Remote Software

F2A3X is completely user configurable with included PM Remote Software (See page 12 for details).