



# EK

## ENCODER KIT

### SERIES EK620

### Rugged, compact two-channel magnetic encoders offer high performance in harsh industrial and commercial environments.

Admotec's Series EK620 magnetic kit encoders provide high performance in applications where optical encoders don't work or don't last. Each kit consists of a magnetic encoder wheel made from a proprietary magnetic material and a matched magnetoresistive sensor with TTL-compatible outputs for two incremental channels in quadrature. Three-channel versions (with marker) are available as Series EK630.

With resolution to 512 CPR (cycles per revolution) and wheel IDs to fit standard shafts, EK620 encoders are perfect for position and velocity feedback on small DC or stepper motors, actuators, valves, etc. These rugged quadrature encoders provide up to 10 times the resolution of comparable gear-tooth sensors in the same applications and require much less space.

Series EK620 encoders install quickly and easily without the delicate alignment associated with optical encoders. And tangential sensing means that axial end-play problems are a thing of the past. And if a standard EK620 encoder doesn't meet your needs, custom-configured units can be quickly designed to your requirements.

**Admotec—motion and position sensing for original equipment manufacturers.**

#### FEATURES & BENEFITS

Rugged construction	Reliable operation in harsh environments: high shock and vibration, dust, oil, etc.
Small size	Maximum performance in minimum space.
Tangential sensing	Tolerates $\pm 1$ mm axial end-play without loss of signal.
All-digital electronics	No mechanical adjustments.
Proprietary magnetic wheel material	Largest possible airgap between wheel and sensor.
Simple installation and alignment	Installs quickly without critical adjustments.

#### GENERAL SPECIFICATIONS

Operating Temperature	-40 to +85	°C
Maximum Speed	20,000	RPM
Radial Air Gap	0.17 – 0.53	mm nominal
Wheel Mass	7	gram max.
Wheel Inertia	13	g cm <sup>2</sup> max.
Resolution	120 – 512	Cycles/Rev.
Channel Frequency	25	kHz max.
Quadrature	90 $\pm$ 30	° electrical
Supply Voltage	5.0 $\pm$ 10%	V dc
Supply Current	25/40	mA typ./max.
Output Drive Current	$\pm$ 8	mA max.

#### ORDERING INFORMATION

**EK620** - □ □ - □ □ □

**Wheel Bore**

- 06 = 6mm
- 08 = 8mm
- 10 = 10mm
- 25 = 1/4"
- 31 = 5/16"
- 38 = 3/8"

**Resolution (CPR)**

- 120, 128, 180,
- 200, 256, 360,
- 500, 512

