AVTRON ENCODERS A Nidec BRAND

Avtron AV6A Absolute Encoder

AV6A Optical Rotary Absolute Encoders, 58mm flange, solid shaft

Magnetic Durability in a Compact Encoder

Industry Standard 58mm Size

Up to 30 Bit Resolution

Unbreakable Optical Disk

Singleturn or Multiturn

IP66 Rating

Superior Bearings and Seals

No Batteries

-40°C to +85°C Operation

2 Year No-Hassle Warranty

AV6A

AV6A absolute rotary encoders fit industry standard 58mm flanges, yet are superior to ordinary absolute encoders. Also available: HS6A hollow shaft models, AV6M magnetic absolute encoders, AV30 severe-duty absolute magnetic encoders with 58mm, 2.5", and 85mm flange mounting.
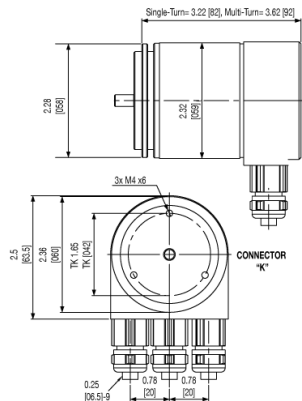
AV6A encoders have superior shaft seals and bearings that stay sealed to keep contaminants out, despite temperature cycles or liquid sprays. Our encoder seals are protected by mechanical barriers to prevent flexing or failure. Avtron's superior bearings permit much larger side and axial loads.

Many competitive optical encoder designs risk sensor damage from any vibration or shock. Some designs even use thin glass disks in "industrial" products! Avtron uses only unbreakable disks.

The AV6A offers a broad range of communication options, from parallel output and SSI to the latest Profibus and Ethernet standards.

Our optical AV6A encoders use superior sensor, disk, bearing, and seal technology to give top performance in industrial conditions. Select an Avtron AV6A today!

OUTLINE DRAWING

Single-Turn= 3.22 [82], Multi-Turn= 3.62 [92]

CONNECTOR "K"

3x M4 x6

MORE AV6A ADVANTAGES

- More than 2X the axial and side load capability of the competition
- Ultra-long-life internal gearbox
- Software-settable zero point for SSI and parallel output
- Optional factory-programmable cam limits
- Optional 5V operation
- Protected against reverse power wiring
- Stainless steel shaft standard
- Optional all-stainless construction
- Profibus DP & ProfiNet Support for Class 1 & 2 & DPV2 Isochronous (ProfiDrive)

MORE AV6A SPECIFICATIONS

Operating Power: Volts: 10 - 30 VDC
Current: 230mA at 10V, 100mA at 24V maximum*
Output Formats: Ethernet/IP*, Modbus TCP*, Profinet*, Powerlink, Profibus, CANOpen, DeviceNet, SSI, Parallel
Accuracy: +/-0.02° (+/-1 arc-min)
Shaft Loading: axial 9lbs [40N], radial 25lbs [110N]
Temperature: -40° to 85°C*
Environment: IP66**
Vibration: 10G, 10-1000Hz
Shock: 30G, 11mS duration*
Weight: 1.21lb [550g]; stainless option 2.7lb [1200g]

*(Ethernet versions require 400mA @ 10V or 160mA @ 24V)
**with standard recommended seals

Check out our website for more detailed specifications, drawings, and installation instructions. www.avtronencoders.com

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SELECTION GUIDE

☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
MODEL	COMMUNICATION BUS	FLANGE	SHAFT SIZE	TURNS/BITS/MT	PPR/BITS PER TURN/ST	CONNECTOR	CONNECTOR EXIT	OUTPUT CODING	IP RATING	MODIFICATIONS
AV6A	C - CANopen Communication D - DeviceNet (Slave) Communication K - POWERLINK Communication L - Parallel Output M - Modbus TCP/IP Communication N - Profinet Communication P - Profibus DP (slave) Communication R - Ethernet/IP Communication S - SSI Communication T - EtherCAT Communication	1 - 58mm Flange clamp style, 36mm male pilot, 3X M3, 3X M4 @ 48mm BC 2 - 58mm Flange EU servo/synchro, 50mm male pilot, 3X M4 @ 42mm BC 4 - 2.5 in. Square flange, 1.25 in. male pilot	B - 3/8 inch x 5/8 inch long Solid Shaft, w/flat (flange #4 only) C - 10mm x 20mm long Solid Shaft, w/flat (flange #1 or #2 only) T - 6mm x 10mm long Solid Shaft, no flat (flange #2 only)	X - 0 Turns/0 bits- Single Turn A - 16 Turns/4 bits D - 128 Turns/7 bits E - 256 Turns/8 bits 2 - 4096 Turns/12 bits 4 - 16384 Turns/14 bits	E - 256 Counts per Revolution/8 bits F - 512 Counts per Revolution/9 bits 0 - 1024 Counts per Revolution/10 bits 2 - 4096 Counts per Revolution/12 bits 3 - 8192 Counts per Revolution/13 bits 4 - 16384 Counts per Revolution/14 bits 6 - 65536 Counts per Revolution/16 bits	A - 1xM12/5 pin w/o Plug B - 2xM12/5 pin w/o Plug C - 3xM12 (4/4/4 pin) w/o Plugs D - 2xM12 (4/5 pin) w/o Plugs E - 1xM12/8 pin w/o Plug F - M23/12 pin w/o Plug G - M27/26 pin w/o Plug J - 2x Cable Entry K - 3x Cable Entry M - M23/8 pin w/o Plug, Sick Hengstler Pin Out N - M23/8 pin w/o Plug, Sick Stegmann Pin Out Q - M23/8 pin w/o Plug, Kubler Pin Out R - M23/16 pin w/o Plug W - Cable, 1m (or special length)	A - Side/Radial exit E - End/Axial exit	1 - Binary Bit Coding 2 - Gray Coding	X - No Seals, IP54 (not recommended) A - IP65 Shaft Seals S - IP66 Shaft Seals	000 - No Special Features 901 - 1 ft. 0.3m Cable Built into Encoder 902 - 2 ft. 0.6m Cable Built into Encoder 903 - 3 ft. 0.9m Cable Built into Encoder 905 - 5 ft. 1.5m Cable Built into Encoder 910 - 10 ft. 3m Cable Built into Encoder 915 - 15 ft. 4.5m Cable Built into Encoder 920 - 20 ft. 6m Cable Built into Encoder 925 - 25 ft. 7.5m Cable Built into Encoder 930 - 30 ft. 9m Cable Built into Encoder 933 - 33 ft. 10m Cable Built into Encoder

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