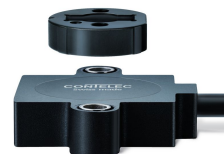


Vert-X 31E - 8 ... 35V / Inkremental Open collector

31E6aD36177999

**Technical datas**

Mechanical version	Magnetic actuator type 6
Mounting hole	Through-hole ø4.4 mm
Sensor principle	MH-S
Electrical angle	Electrical angle 360°
Power supply voltage	24 VDC
Output signal	Incremental
Output characteristics / output d	Open collector (A,B,Z)
Electrical connection	Special cable
Length of cable	Special length

Features

- High protection rating IP68
- Compact dimensions
- Very quick, non-contacting measuring method
- Very long life
- Can be used in harsh environments (humidity, dampness, dust, vibrations, etc.)
- Several possible resolutions
- Low temperature coefficient of output signal

Electrical Datas

Measuring range	°	0...360
Indep. linearity (without misalignment)	%	±0.5
Indep. linearity (with permitted misalignment @ 360°)	%	±1
Max. hysteresis	°	0.5
Resolution	bit	256 (1-1024)
Max. repeatability	°	0.1
Max. temperature coefficient of output signal	ppm/K	50
MTTFd / MTBF		upon request
Power supply voltage	VDC	8 ... 35
Current consumption without load (typ.)	mA	20
Max. latency	µs	10
Max. current at output	mA	30
Max. voltage at output	VDC	35
Reverse polarity protection of power supply		yes
Electrical connection (A;B)		Round cable, 4-pole
Electrical connection (A;B;Z)		Round cable, 6-pole
Cross section of single wires (A;B)	mm²	0.35 (AWG22)
Cross section of single wires (A;B;Z)	mm²	0.25 (AWG24)
Redundancy possible		no

Mechanical Datas

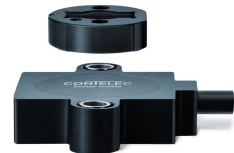
Mechanical range	°	360 (continuous)
Protection rating		IP68
Min. life	movements	no limitation
Operating & storage temperature	°C	-40...+85
EN 60068-2-6, vibration (Amax = 0.75 mm, f = 5–2,000 Hz)	g	50
EN 60068-2-27, shock	g	200

Standards

EN 55011, Emission (Cl. B)		
EN 61000-4-2, ESD (contact discharge / air discharge)	kV	±4 / ±8
EN 61000-4-3, Immision HF radiated (80–1000 MHz/1.4–2.7 GHz)	V/m	30
EN 61000-4-4, Burst (on all lines)	kV	±1
EN 61000-4-5, Surge (lines to ground)	kV	±1
EN 61000-4-6, Immision HF conducted (0.15–80 MHz)	Vemf	10
EN 61000-4-8, Immision magnetic field (50 Hz)	A/m	300
Insulation resistance (500 VDC, 1 bar, 2s)	GOhm	20

Vert-X 31E - 8 ... 35V / Inkremental Open collector

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Dielectric strength (VAC, 50 Hz, 1 min, 1 bar)

kV

1

Options

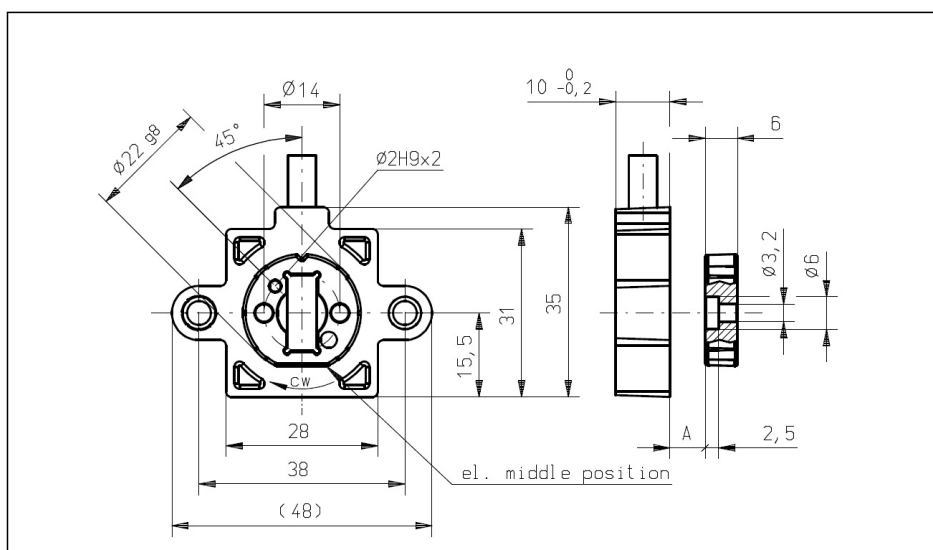
Custom cable

Custom magnetic actuator

Custom output driver

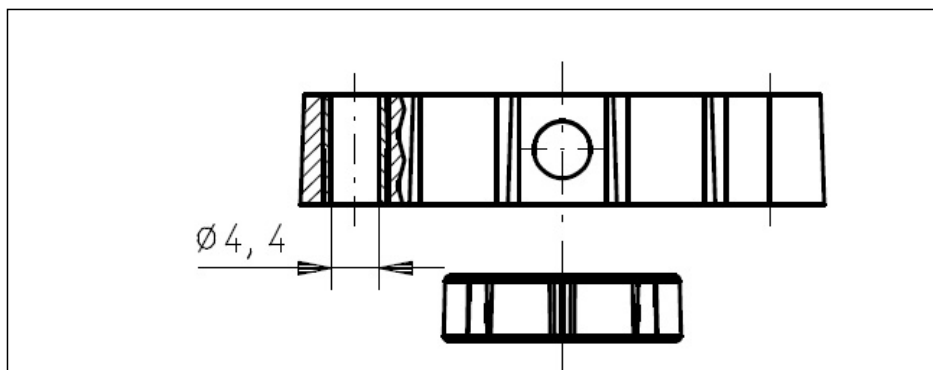
Custom resolution (1-1024 ppr)

Higher speed on request



Operating range/Air gap (A) Standard

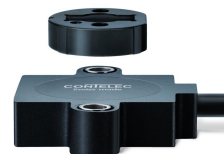
- 0.2 ... 5.0mm



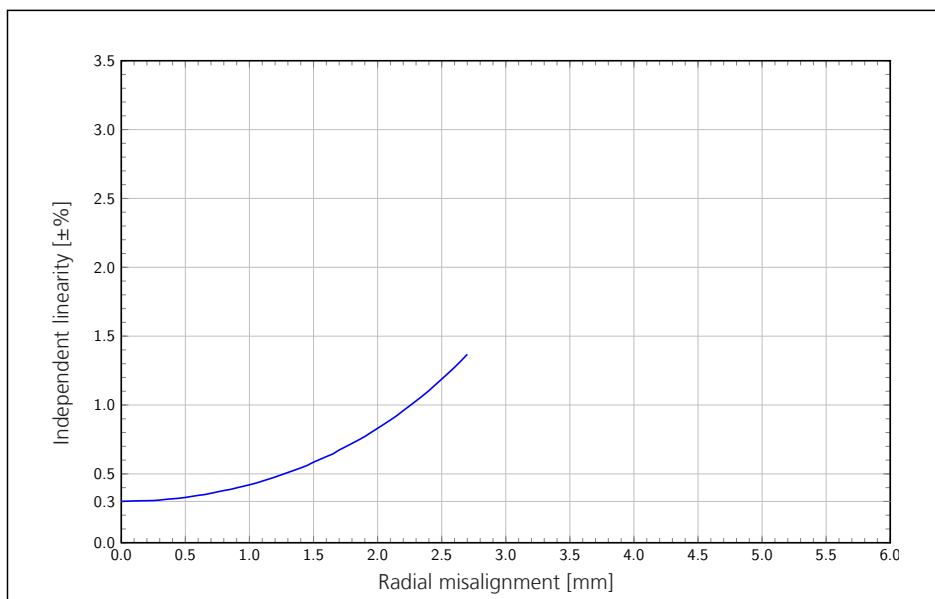
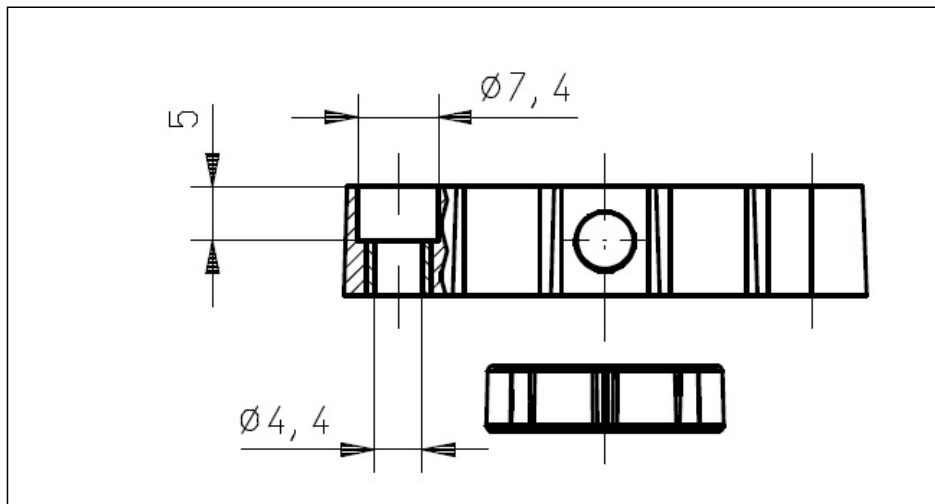
Vert-X 31E6a

Vert-X 31E - 8 ... 35V / Inkremental Open collector

31E6aD36177999



Vert-X 31E6b



Indep. linearity with radial misalignment (@360°)