

Vert-X 32E - 5V / Inkremental TTL**32E8bD36271602****Technical datas**

Mechanical version	Magnetic actuator type 8
Mounting hole	Through-hole $\varnothing$ 4.4 mm with counter bore $\varnothing$ 8 mm/label side
Sensor principle	MH-S
Electrical angle	Electrical angle 360°
Power supply voltage	5 VDC
Output signal	Incremental
Output characteristics / output d	TTL (A,B,Z)
Electrical connection	Cable, 6-pole
Length of cable	1.0 m (cable)

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	5 ($\pm 10\%$)
Current consumption without load (typ.)	mA	18
Max. capacitive load at output	nF	1
Max. latency	μ s	10
Reverse polarity protection of power supply		no
Electrical connection (A;B;Z)		Round cable, 6-pole
Cross section of single wires (A;B;Z)	mm ²	0.25 (AWG24)
Redundancy possible		no

Mechanical Datas

Mechanical range	°	360 (continuous)
Protection rating		IP68/IP69K
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	20
EN 60068-2-27, shock	g	50

Standards

EN 55011, Emission (Cl. B)		
EN 61000-4-2, ESD (contact discharge / air discharge)	kV	$\pm 4 / \pm 8$
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
Dielectric strength (VAC, 50 Hz, 1 min, 1 bar)	kV	1

Features

- Bearingless incremental Encoder
- Resolution ex factory free programmable from 1ppr to max. 1024 ppr
- Non-contact, wear-free sensing system with high permissible installation tolerances
- High protection class IP68/ IP69K
- Compact dimensions
- Very fast, non-contacting measuring method
- Very long life
- Applications under adverse ambient conditions possible (humidity, dampness, dust, vibrations etc.)
- Low temperature coefficient of the output signal

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Options

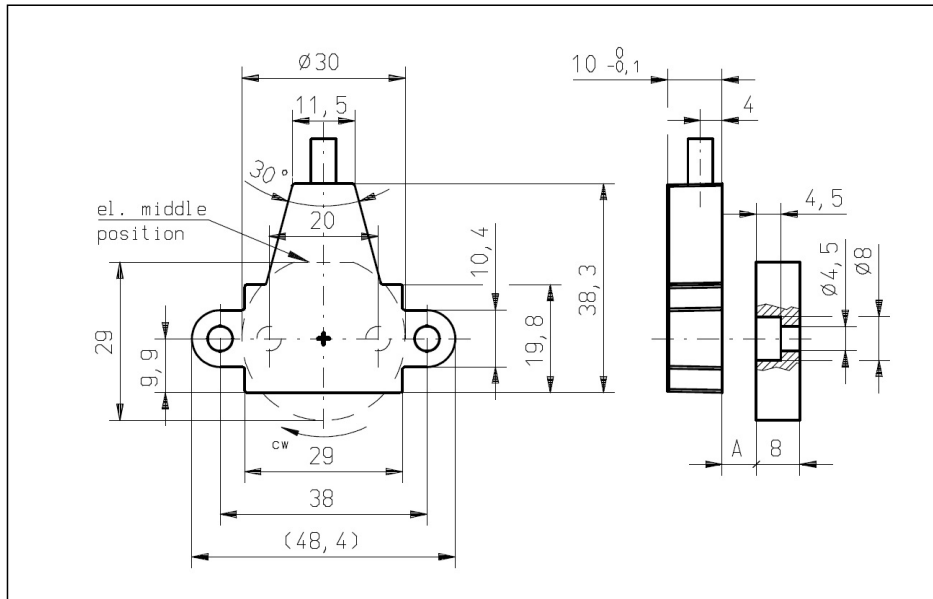
Custom cable

Custom magnetic actuator

Custom output driver

Custom resolution (1-1024 ppr)

Higher speed on request



Operating range/Air gap (A) Standard with Safety Flag

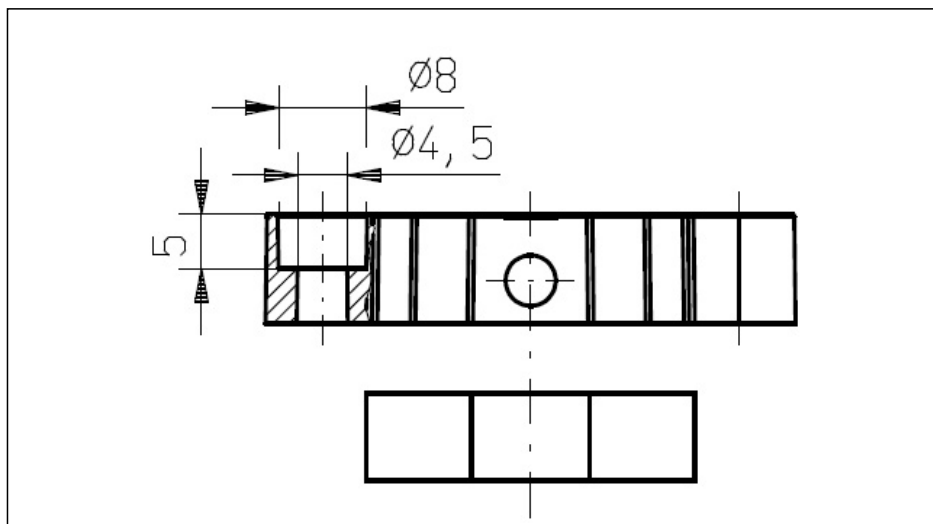
- 4.2 ... 13.2mm => Single
- 4.2 ... 12.7mm => Redundant

Extended without Safety Flag (Optional)

- 0 ... 19.1mm => Single
- 0 ... 18.6mm => Redundant

Features Safety Flag

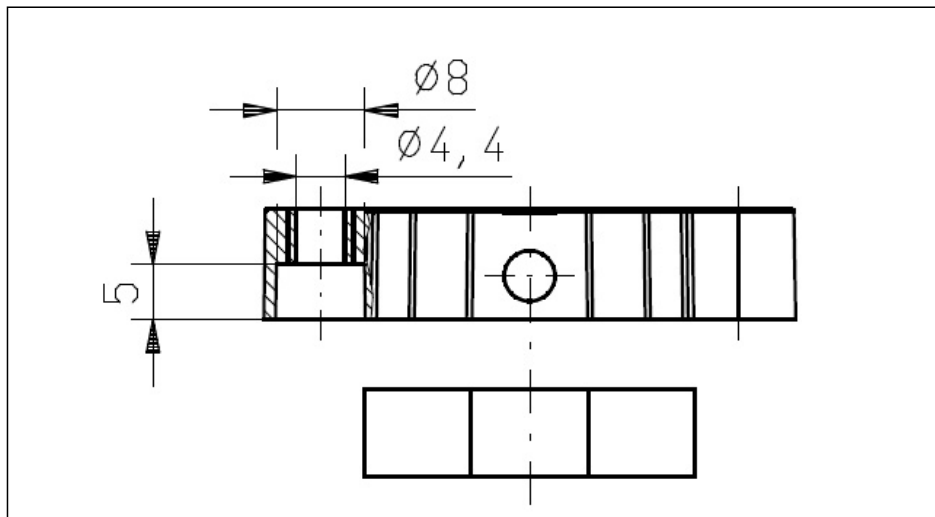
- Detection of magnetic loss
- System shut-down in case of magnetic actuator out of valid operating range
- Recommended for safety relevant applications



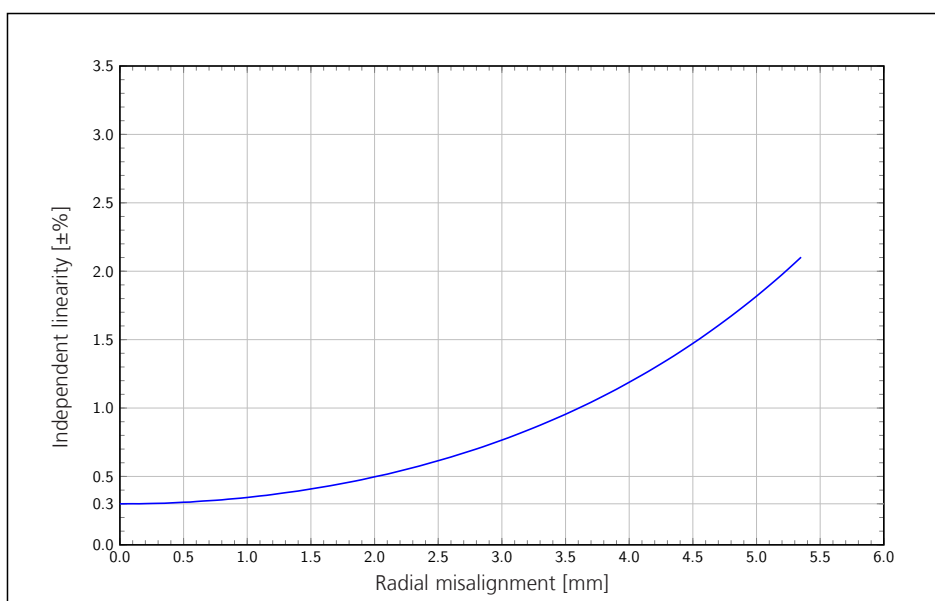
Vert-X 32E8b

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Vert-X 32E8d



Indep. linearity with radial misalignment (@360°)