

Vert-X 32E - 8.5 ... 35V / 4 - 20mA / Redundant

32E5b799153902

**Technical datas**

Mechanical version	Magnetic actuator type 5
Mounting hole	Through-hole $\varnothing$ 4.4 mm with counter bore $\varnothing$ 8 mm/label side
Sensor principle	MH-C
Electrical angle	Special angle
Power supply voltage	24 VDC
Output signal	4 mA to 20 mA
Output characteristics	Redundant, positive gradient CW
Electrical connection	Special cable
Length of cable	1.0 m (cable)

Electrical Datas

Measuring range	°	0...360
Indep. linearity (typ.)	% of measuring range	± 0.3
Max. hysteresis	°	0.1
Resolution	bit	12
Max. repeatability	°	0.1
Sample rate fast mode	kHz	(5)
Sample rate slow mode	kHz	1.66
System propagation delay fast mode	μ s	(800)
System propagation delay slow mode	μ s	4600
Max. temperature coefficient of output signal	ppm/K	100
MTTFd / MTBF		upon request
Power supply voltage (ohmic load at output = 0–0.5 kOhm)	VDC	13.5...35
Power supply voltage (ohmic load at output = 0–0.25 kOhm)	VDC	8.5...35
Current consumption without load (typ.) fast mode, per channel	mA	(19)
Current consumption without load (typ.) slow mode, per channel	mA	14
Max. capacitive load at output	nF	100
Reverse polarity protection of power supply		yes
Electrical connection		2x round cable, 3-pole
Cross section of single wires	mm ²	0.56 (AWG20)
Electrical connection redundant		2x round cable, 6-pole
Cross section of single wires redundant	mm ²	0.34 (AWG 22)

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, Immersion HF radiated (80–1000 MHz/1.4–2.7 GHz)	V/m	30
EN 61000-4-4, Burst (on all lines)	kV	± 1

Features

- Non-contacting measuring method
- High protection rating IP68/IP69K
- Very long life
- High measurement accuracy
- Can be used in harsh environments (humidity, dampness, dust, vibrations, etc.)
- Magnetic loss detection (with safety flag)

Features MH-C

- Resolution 12 bit
- Lower price than MH-C2

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EN 61000-4-5, Surge (lines to ground)	kV	±1
EN 61000-4-6, Immision HF conducted (0.15–80 MHz)	Vernf	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

Options

Custom modification of housing

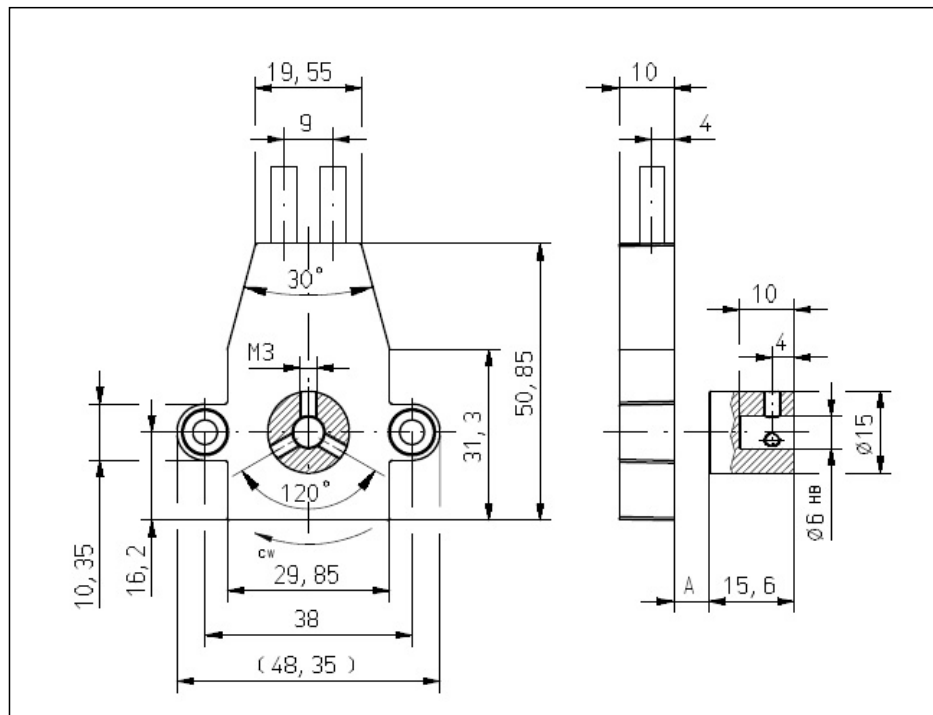
Custom cable

Custom magnetic actuator

Sample rate in fast mode

Special electrical angle between 30 and 360° (ex factory)

Extended operating range, axial (without safety flag)

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

- 1.4 ... 6.2mm

**Extended without Safety
Flag (Optional)**

- 0 ... 10.4mm

Features Safety Flag

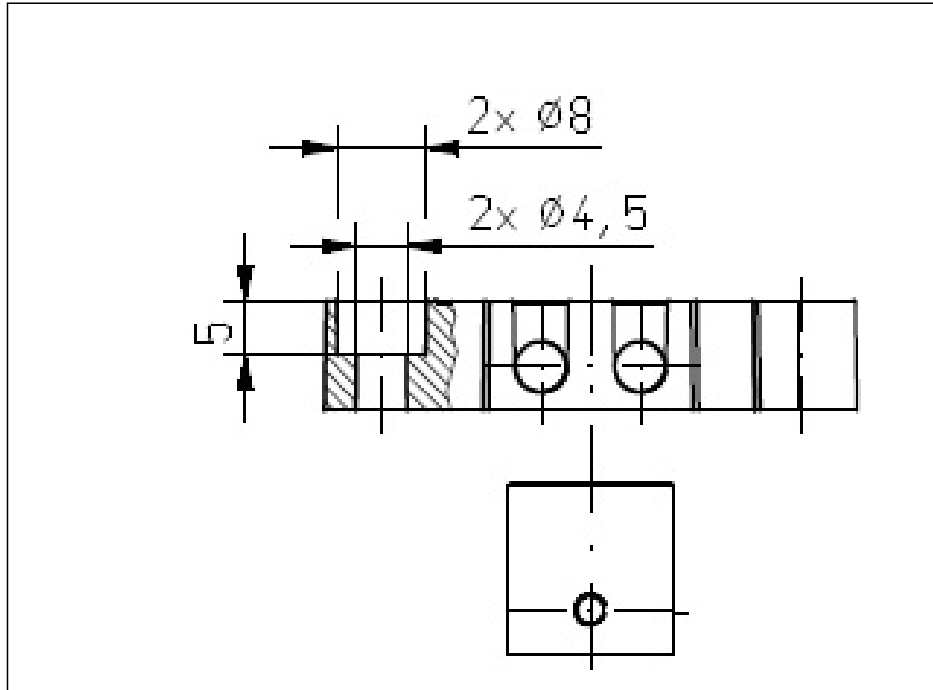
- Detection of magnetic loss
- System shut-down in case of magnetic actuator out of valid operating range
- Recommended for safety relevant applications

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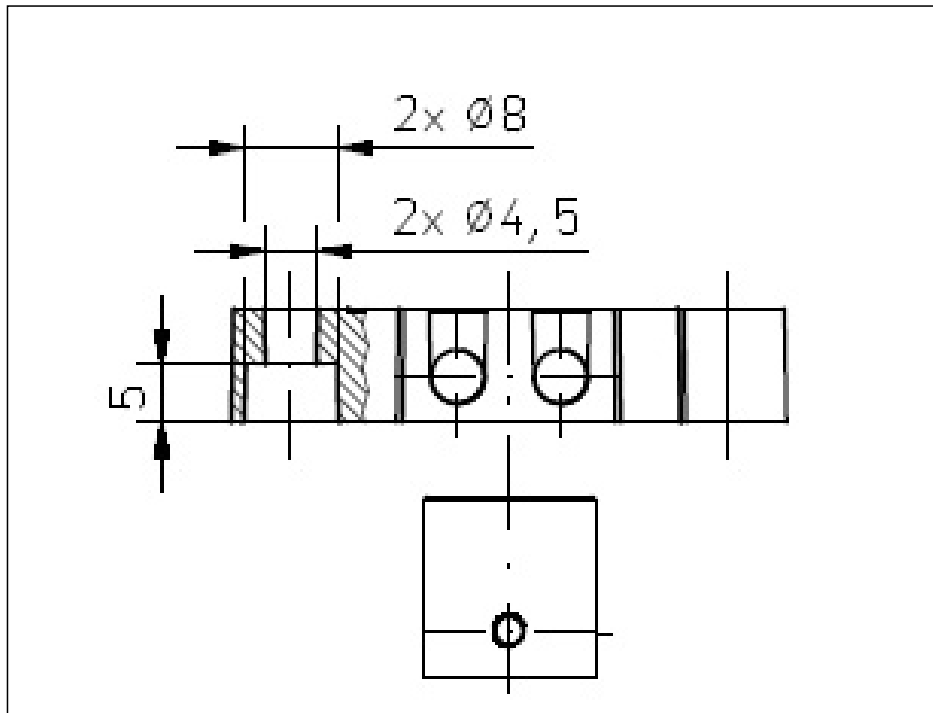
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Vert-X 32E5b

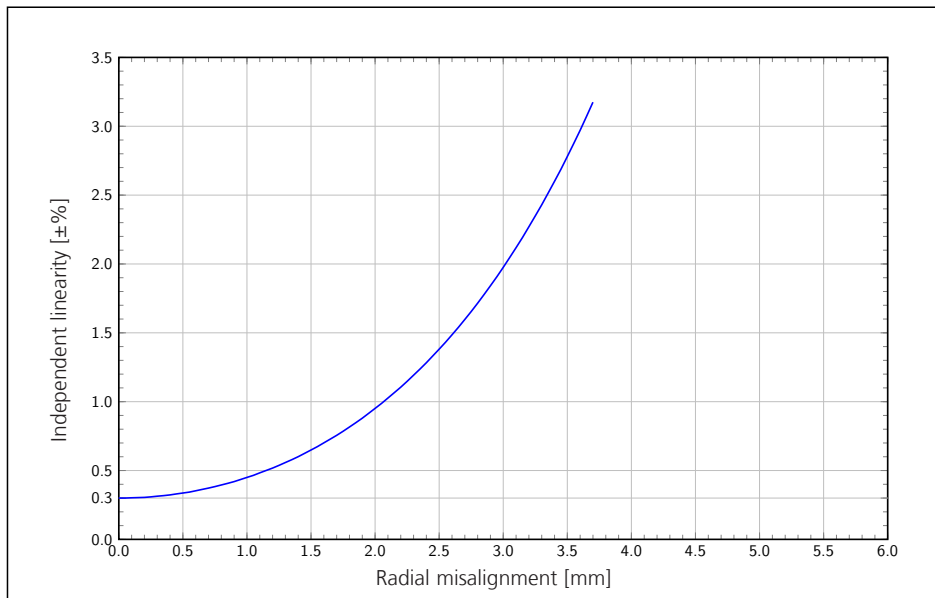


Vert-X 32E5d



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Indep. linearity with radial misalignment (@360°)