

Vert-X 32E - 5V / 10...90% Ub / Redundant

32E5b736224699

**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	Electrical angle 360°
Power supply voltage	5 VDC
Output signal	10% to 90% operating voltage
Output characteristics	Redundant, positive gradient CCW
Electrical connection	Round cable, 6-pole
Length of cable	Special length

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	50
MTTFd / MTBF		upon request
Power supply voltage	VDC	5 ($\pm 10\%$)
Current consumption without load (typ.) fast mode, per channel	mA	(14)
Current consumption without load (typ.) slow mode, per channel	mA	9
Min. ohmic load at output	kOhm	10
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		Round cable, 6-pole
Cross section of single wires redundant	mm ²	0.25 (AWG24)

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

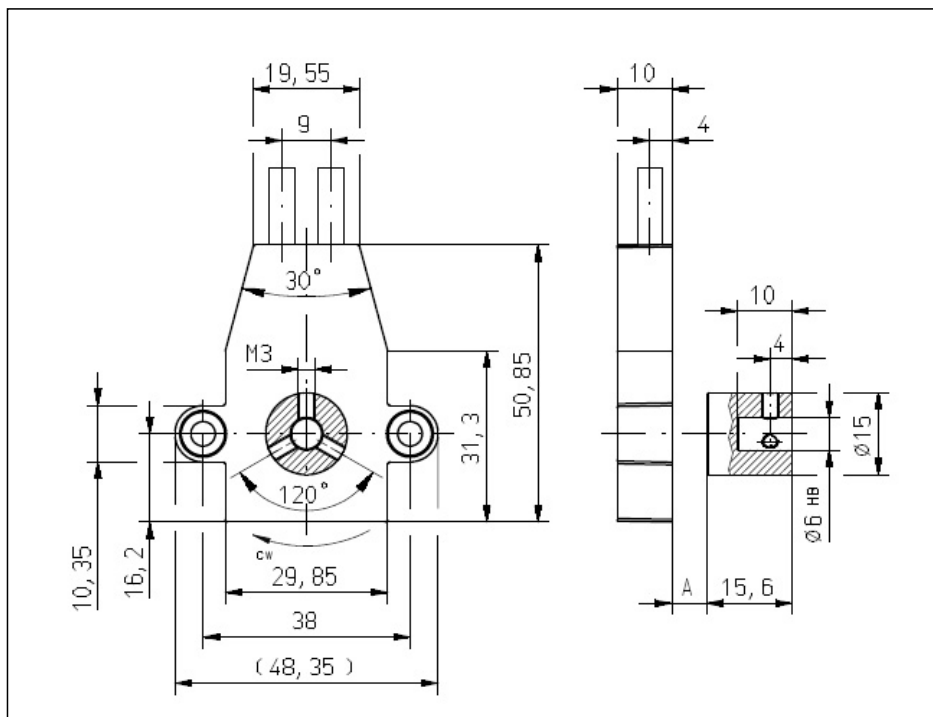
Custom magnetic actuator

Interface x% to y% operating voltage (within 2% to 98% operating voltage)

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

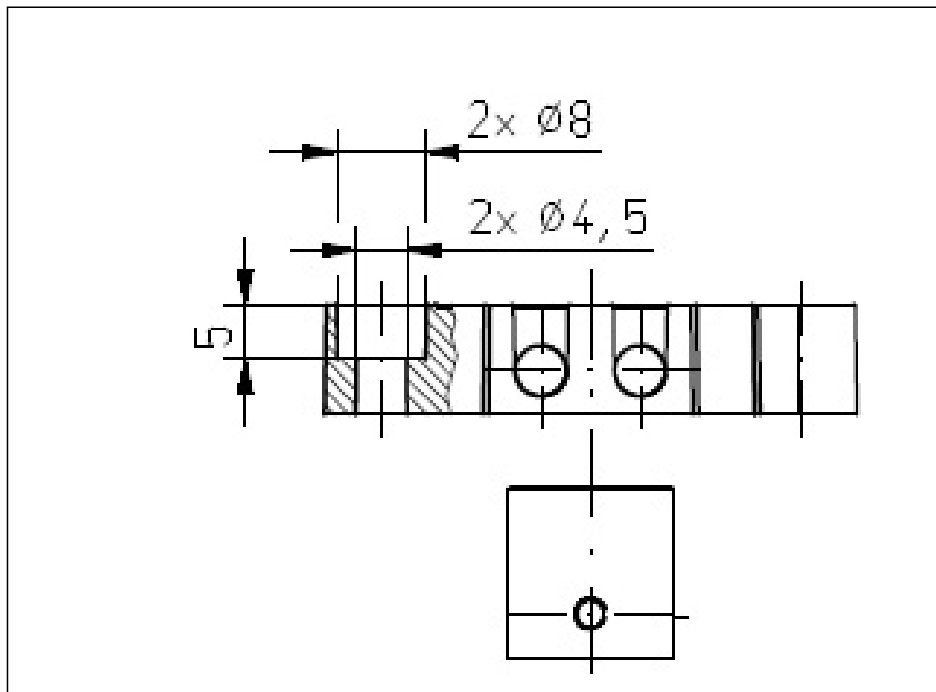
- Detection of magnetic loss
- System shut-down in case of magnetic actuator out of valid operating range
- Recommended for safety relevant applications

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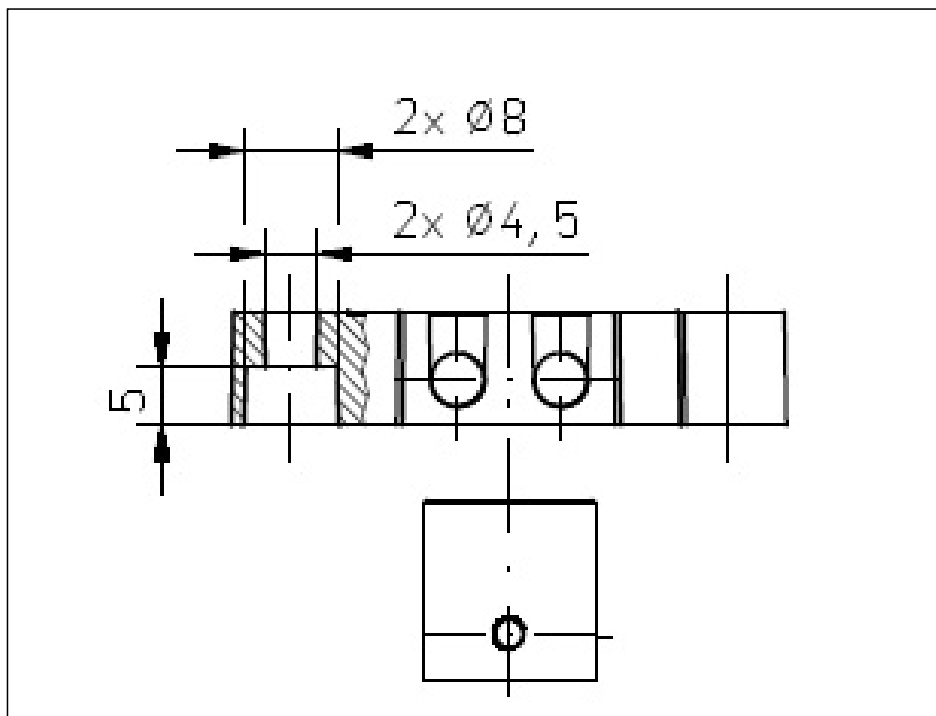
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Vert-X 32E5b

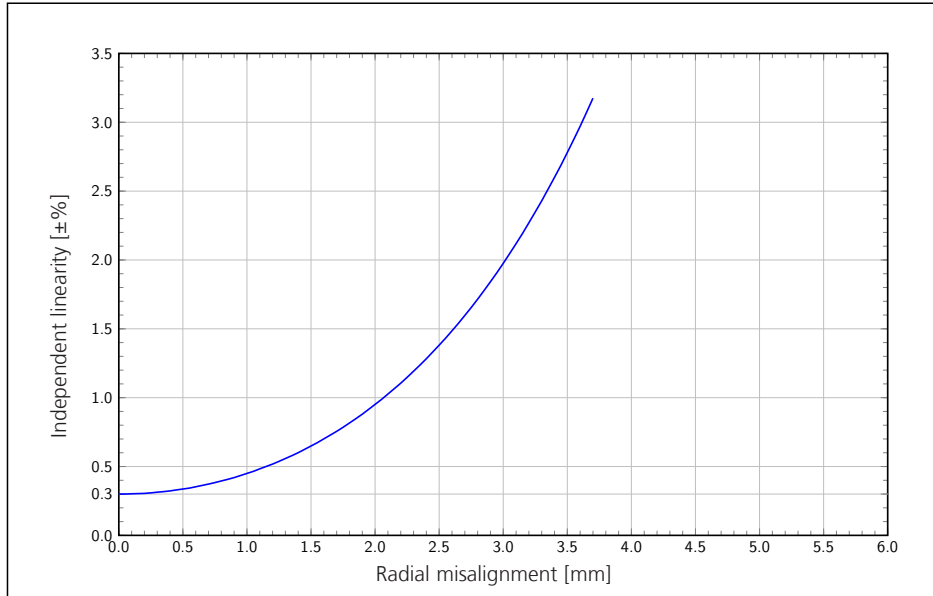


Vert-X 32E5d



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Indep. linearity with radial misalignment (@360°)