



## Vert-X 37E - 5V / 10...90% Ub

### Applications

- Agricultural machines
- Construction machines
- Forest machines
- Special purpose vehicles

### Features general

- High protection class IP68
- Very robust design
- Non-contacting measuring method
- Very long life
- High accuracy of measurement
- Applications under adverse ambient conditions possible (humidity, dampness, dust, vibrations etc.)
- Full resolution and accuracy at programmed electrical angle

### Features MH-C

- Resolution of 12bit
- Lower price than MH-C2

### Features MH-C2

- Resolution of 14bit
- Index point(s), sense of rotation and angle settable resp. programmable by customer (optional)

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**CONTELEC**  
 A company of the Siedle-Group

Sensor principle		MH-C	MH-C2
<b>Electrical data</b>			
Measuring range	°	0 ... 360	0 ... 360
Indep. linearity (without misalignment)	% of meas. range	±0.3	±0.3
Indep. linearity (with allowed misalignment @ 360°)	% of meas. range	±0.5	±0.5
Max. hysteresis	°	0.1	0.1
Resolution	bit	12	14
Max. repeatability	°	0.1	0.1
Sample rate fast mode	kHz	(5)	(2)
Sample rate slow mode	kHz	1.66	0.5
System propagation delay fast mode	µs	(800)	(800)
System propagation delay slow mode	µs	4600	2500
Max. temperature coefficient of the output signal	ppm/°K	50	50
MTTFd / MTBF	years	668 / 668	308 / 308
Power supply voltage	VDC	5 (±10%)	5 (±10%)
Current consumption without load (typ.) fast mode	mA	(14)	(15)
Current consumption without load (typ.) slow mode	mA	9	10
Min. ohmic load at output	kOhm	10	10
Max. capacitive load at output	nF	100	100
Reverse polarity protection of power supply		yes	no
Electrical connection axial		Wires (3x)	Wires (3x)
Cross section of single wires	mm <sup>2</sup>	0.56 (AWG20)	0.56 (AWG20)
Electrical connection radial		Cable 3pole	Cable 3pole
Cross section of single wires	mm <sup>2</sup>	0.56 (AWG20)	0.56 (AWG20)
Redundancy feasible		yes	yes
Electrical connection redundant axial		Wires (6x)	Wires (6x)
Cross section of single wires redundant	mm <sup>2</sup>	0.56 (AWG20)	0.56 (AWG20)
Electrical connection redundant radial		Cable 6pole	Cable 6pole
Cross section of single wires redundant	mm <sup>2</sup>	0.25 (AWG24)	0.25 (AWG24)
<b>Mechanical data</b>			
Mechanical range	°	360 (continuous)	360 (continuous)
Protection class		IP68	IP68
Min. life	movements	no limitation	no limitation
Operating & storage temperature (with wires)	°C	-40 ... +125	-40 ... +85
Operating & storage temperature (with round cable)	°C	-40 ... +85	-40 ... +85
IEC 68-2-6 Vibration (Amax = 0.75mm, f = 5 ... 2000 Hz)	g	50	50
IEC 68-2-27 Shock	g	200	200
<b>Standards</b>			
EN 55022 class B, Emission radiated (30... 230 MHz)	dB(µV/m)	max. 30	max. 30
EN 55022 class B, Emission radiated (230...1000MHz)	dB(µV/m)	max. 37	max. 37
EN 61000-4-2, ESD (contact discharge / air discharge)	kV	±4 / ±8	±4 / ±8
EN 61000-4-3, Immission HF radiated (80... 1000 MHz)	V/m	30	30
EN 61000-4-4, Burst (on all lines)	kV	±1	±1
EN 61000-4-5, Surge (lines to ground)	kV	±1	±1
EN 61000-4-6, Immission HF conducted (0.15...80MHz)	Vemk	10	10
EN 61000-4-8, Immission magnetic field (50Hz)	A/m	30	30
IEC 60393-1 Insulation resistance (500VDC, 1bar, 2s)	GOhm	20	20
IEC 60393-1 Dielectric strength (VAC, 50Hz, 1min, 1bar)	kV	1	1



**Vert-X 37E - 5V / 10...90% Ub**  
**Ordering code**

**\* Switch outputs**  
 Please define number (max. 127), position and width of the pulses.

Output characteristics		Electrical connection / axial		
Positive gradient CW	Standard 1	3 Optional	Wires 4pole	
Positive gradient CCW	Optional 2	5 Standard	Wires 3pole	
Redundant, positive gradient CW	Optional 3	7 Optional	Wires 5pole / 6pole	
Redundant, positive gradient CCW	Optional 4	9 Optional	Special cable ; special wires	
Redundant, crossed signal curves	Optional 5	<b>Electrical connection / radial</b>		
Positive gradient CW with 1 switch output*	Optional A	4 Standard	Round cable 3pole	
Positive gradient CCW with 1 switch output*	Optional B	6 Optional	Round cable 6pole	
Positive gradient CW with 2 switch outputs*	Optional C	9 Optional	Special cable ; special wires	
Positive gradient CCW with 2 switch outputs*	Optional D	<b>Length of wires</b>		
Sense of rotation settable	Optional E	01 Optional	10cm	
Zero point & sense of rotation settable	Optional F	03 Optional	30cm	
Middle point & sense of rotation settable	Optional G	05 Standard	50cm	
Start + end point & sense of rotation settable	Optional H	99 Optional	Special length	
Programmable with Vert-X EasyAdapt	Optional P	<b>Length of cable</b>		
		02 Standard	1.0m	
		06 Optional	3.0m	
		10 Optional	5.0m	
		99 Optional	Special length	
		<b>Output signal</b>		
10% ... 90% Ub	Standard 2			
x% ... y% Ub (within 5 ... 95%)	Optional 3			
		<b>Power supply voltage</b>		
	5VDC Standard 2			
<b>Vert-X</b>	<b>3 7 E 4</b>	<b>7 3 6</b>	<b>2 2 1</b>	<b>5 0 5</b>
		<b>Electrical angle</b>		
		36 Standard	Electrical angle 360°	
		xx Optional	03 to 35; Declaration in 10° steps	
		99 Optional	Special angle	
		<b>Sensor principle</b>		
		7 MH-C		
		8 MH-C2		
		<b>Mechanical version</b>		
37E1	Optional	Servo mount size 13 ; magnetic actuator type 1		
37E2	Optional	Servo mount size 13 ; magnetic actuator type 2		
37E4	Standard	Servo mount size 13 ; magnetic actuator type 4		
37E9	Optional	Special housing ; special magnetic actuator		

	MH-C	MH-C2
Custom magnetic actuator	X	X
Custom modification of the housing	X	X
Custom cable / wires	X	X
Interface x% ... y% Ub (within 5% ... 95% Ub)	X	X
Sample rate in fast mode	X	X
Switch functions TTL (max. 2)	X	X
Special characteristic curve	-	X
Special electrical angle within 30° to 360° (ex factory)	X	X
Electrical angle programmable (Software)	-	X
Start & end point settable (Additional wires)	-	X
Sense of rotation CW/CCW settable / programmable (Additional wires or Software)	-	X
Index point settable / programmable (Additional wires or Software)	-	X

**Options (on request)**

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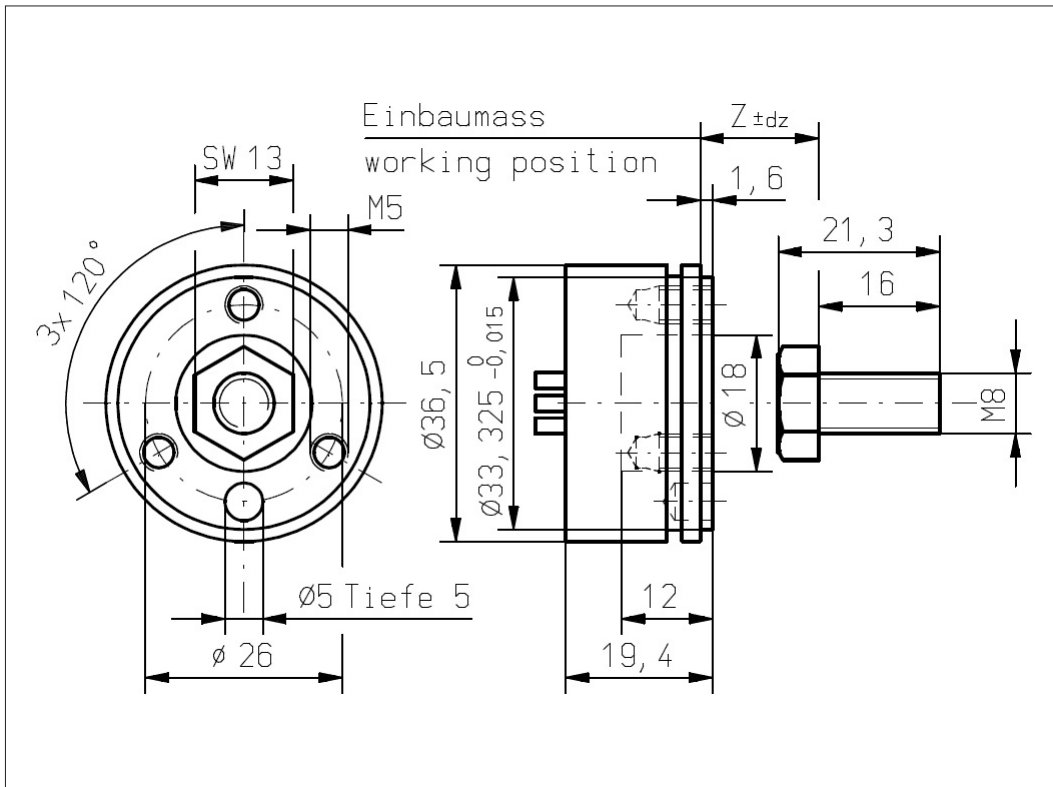
**Vert-X 37E4 xxx xxx 5xx**  
**Vert-X 37E4 xxx xxx 7xx**

**Accessoires (incl.)**

- 1x Fixation clip
- 2x Slotted cylinder head screw M5x12

**Working position (Z) and max. permitted misalignment of the magnetic actuator**

see mounting information



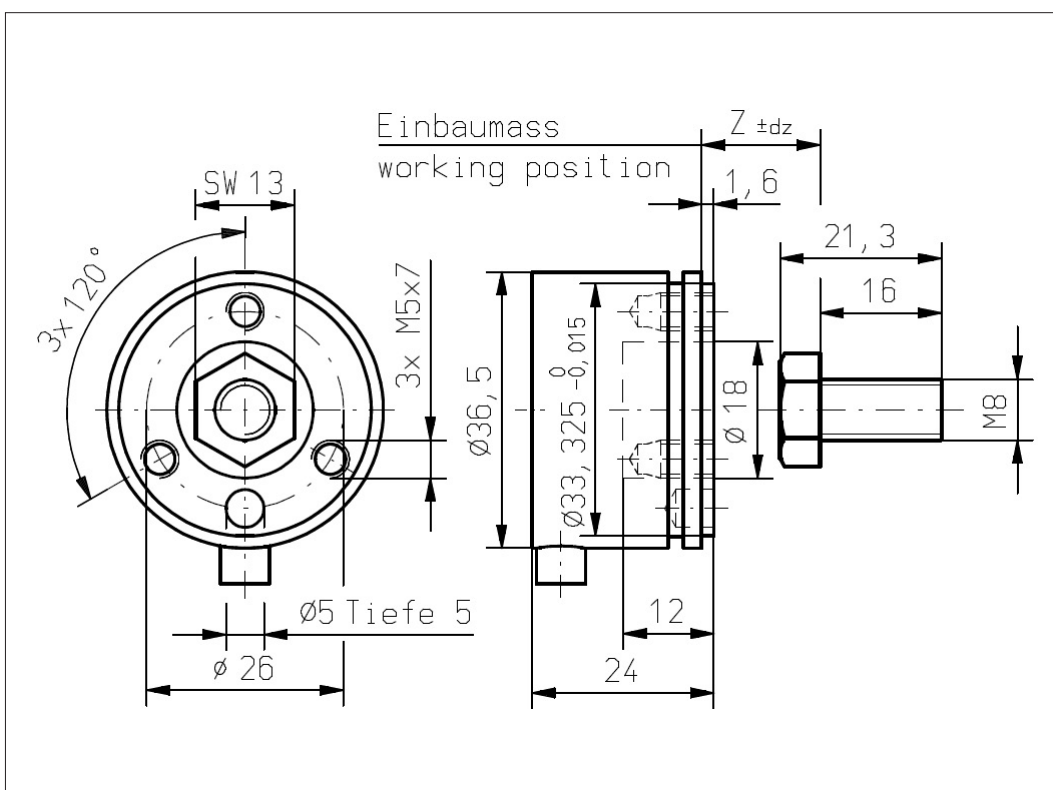
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**Accessoires (incl.)**

- 1x Fixation clip
- 2x Slotted cylinder head screw M5x12

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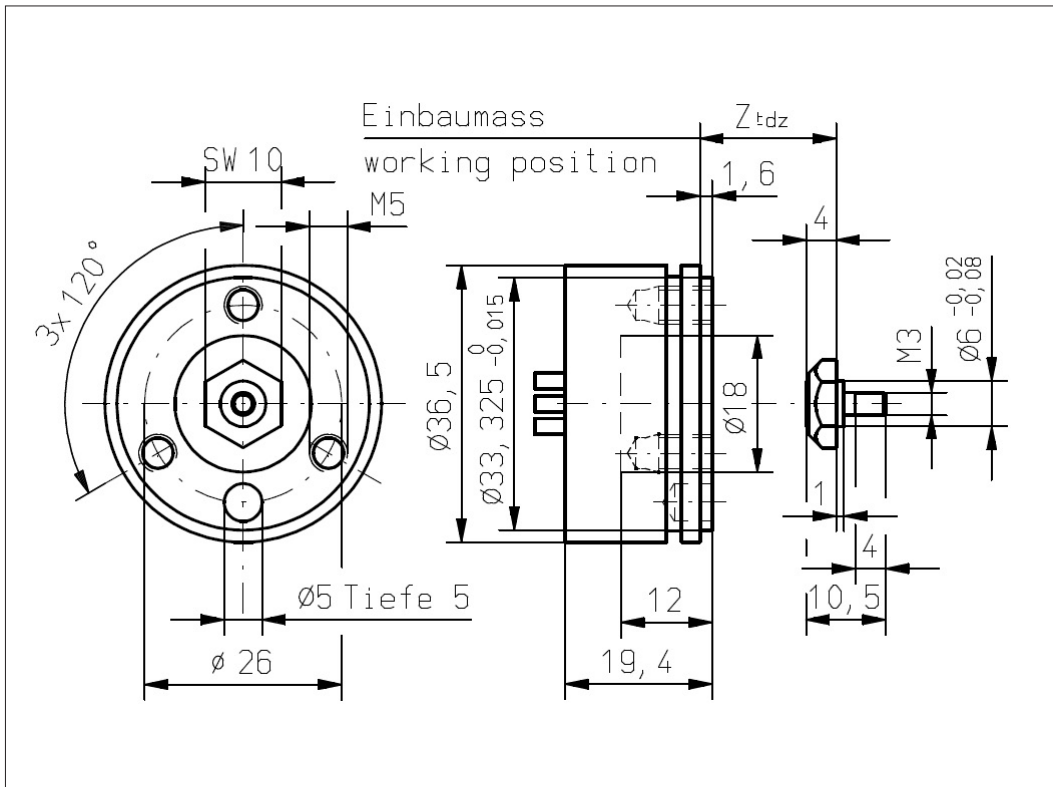
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**Vert-X 37E1 xxx xxx 7xx**

**Accessoires (incl.)**

- 1x Fixation clip
- 2x Slotted cylinder head screw M5x12

**Working position (Z) and max. permitted misalignment of the magnetic actuator**

see mounting information



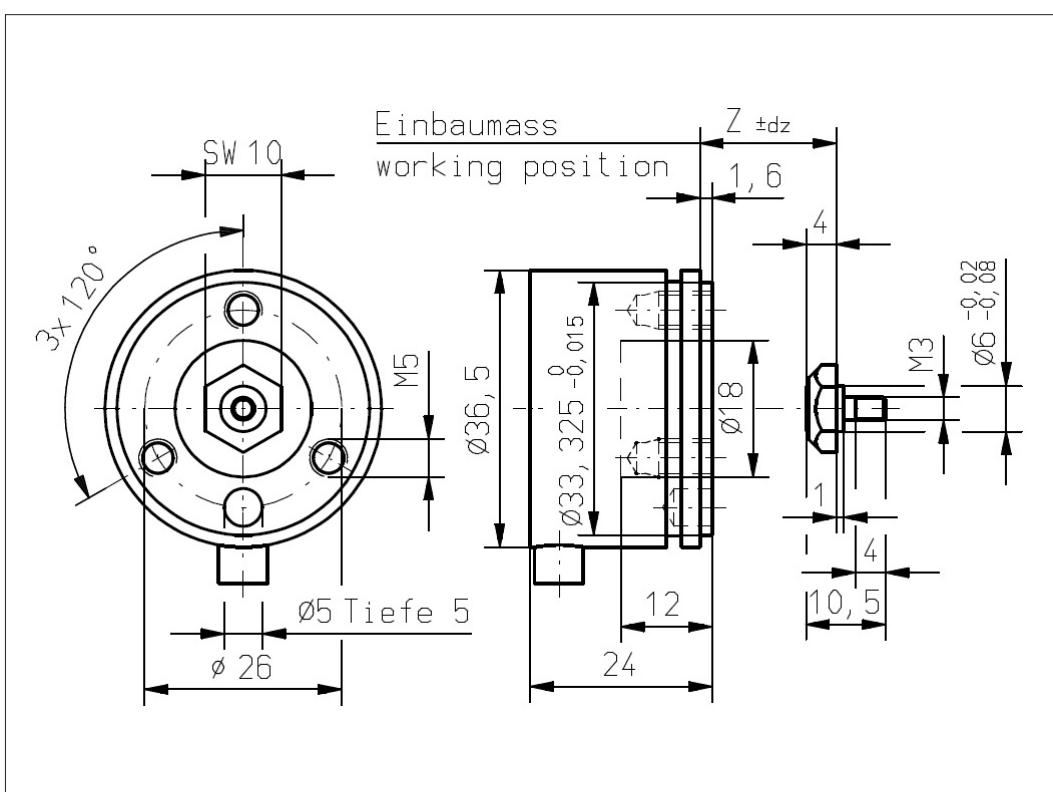
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**Vert-X 37E1 xxx xxx 6xx**

**Accessoires (incl.)**

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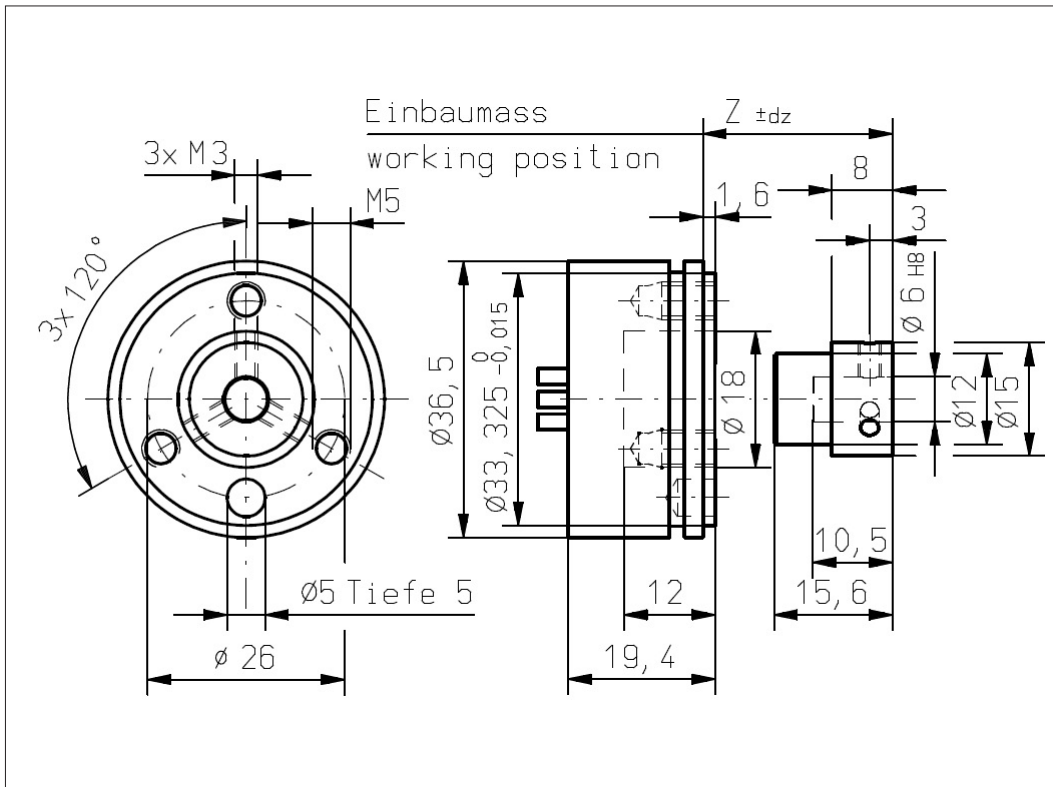
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**Vert-X 37E2 xxx xxx 7xx**

**Accessoires (incl.)**

- 1x Fixation clip
- 2x Slotted cylinder head screw M5x12

**Working position (Z) and max. permitted misalignment of the magnetic actuator**

see mounting information



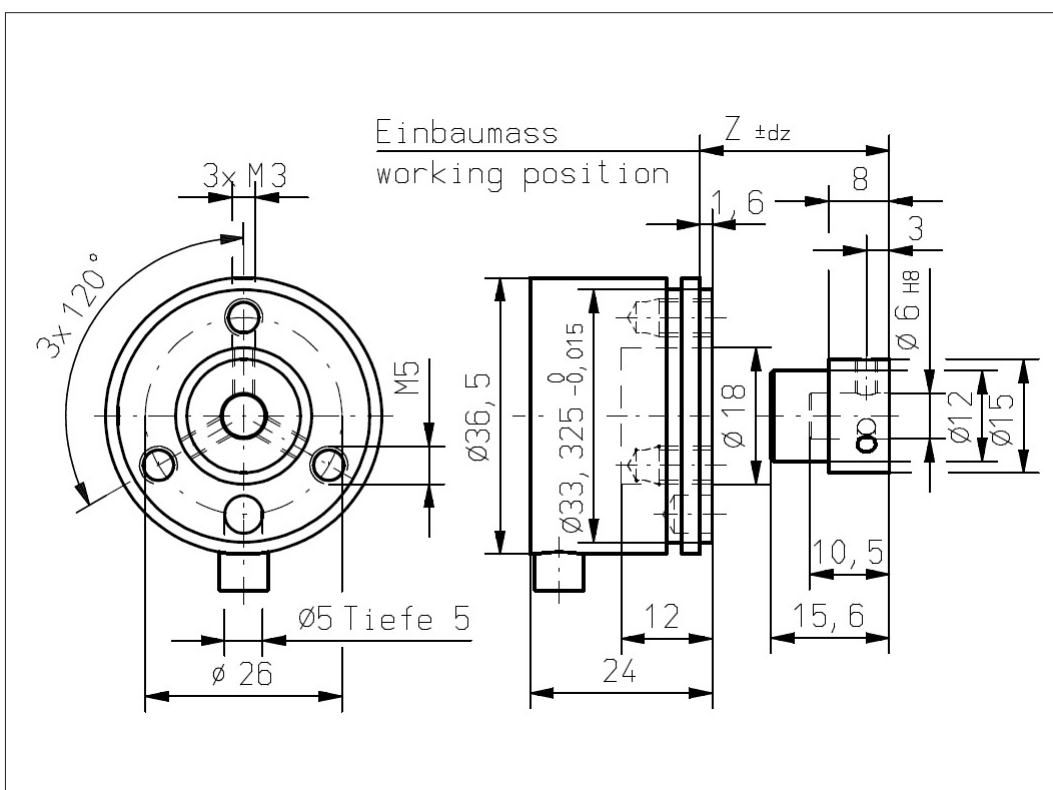
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**Vert-X 37E2 xxx xxx 6xx**

**Accessoires (incl.)**

- 1x Fixation clip
- 2x Slotted cylinder head screw M5x12

**Working position (Z) and max. permitted misalignment of the magnetic actuator**

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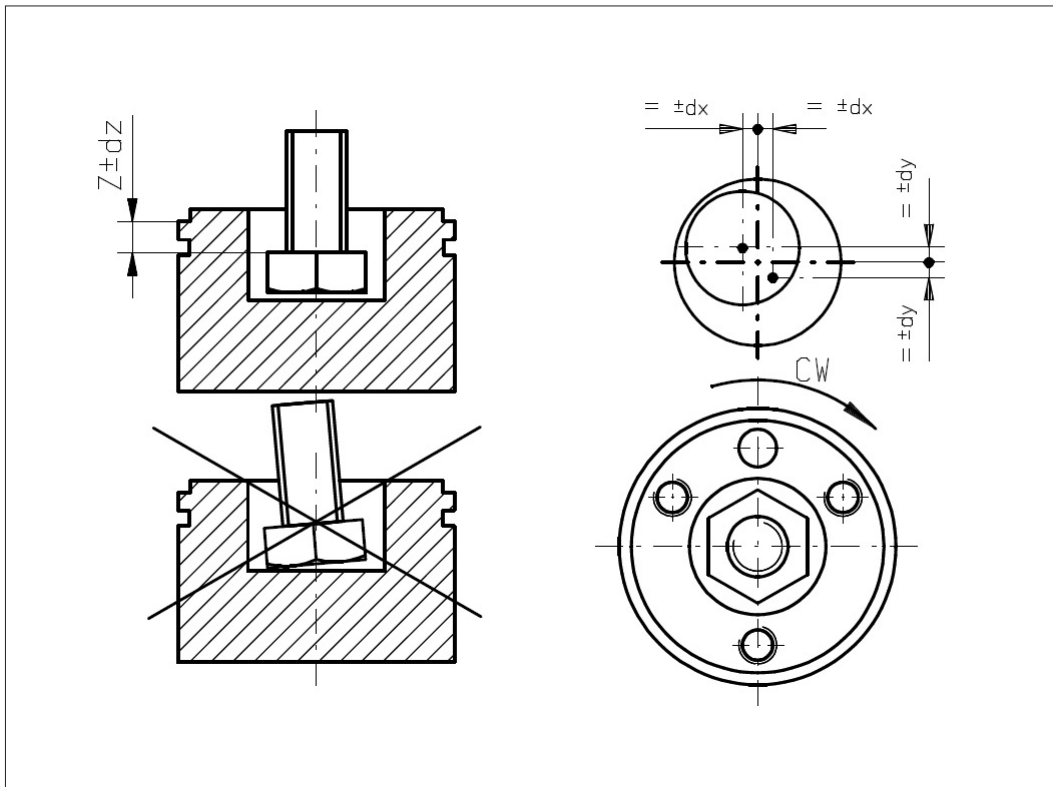
**Vert-X 37E4**  
**Mounting information**

**Working position (Z)**

MH-C	3.85mm
MH-C redundant	4.35mm
MH-C2	3.85mm
MH-C2 redundant	4.35mm

**Max. permitted misalignment of the magnetic actuator**

dx	±0.25mm
dy	±0.25mm
dz	±0.5mm



**Vert-X 37E1**  
**Mounting information**

**Working position (Z)**

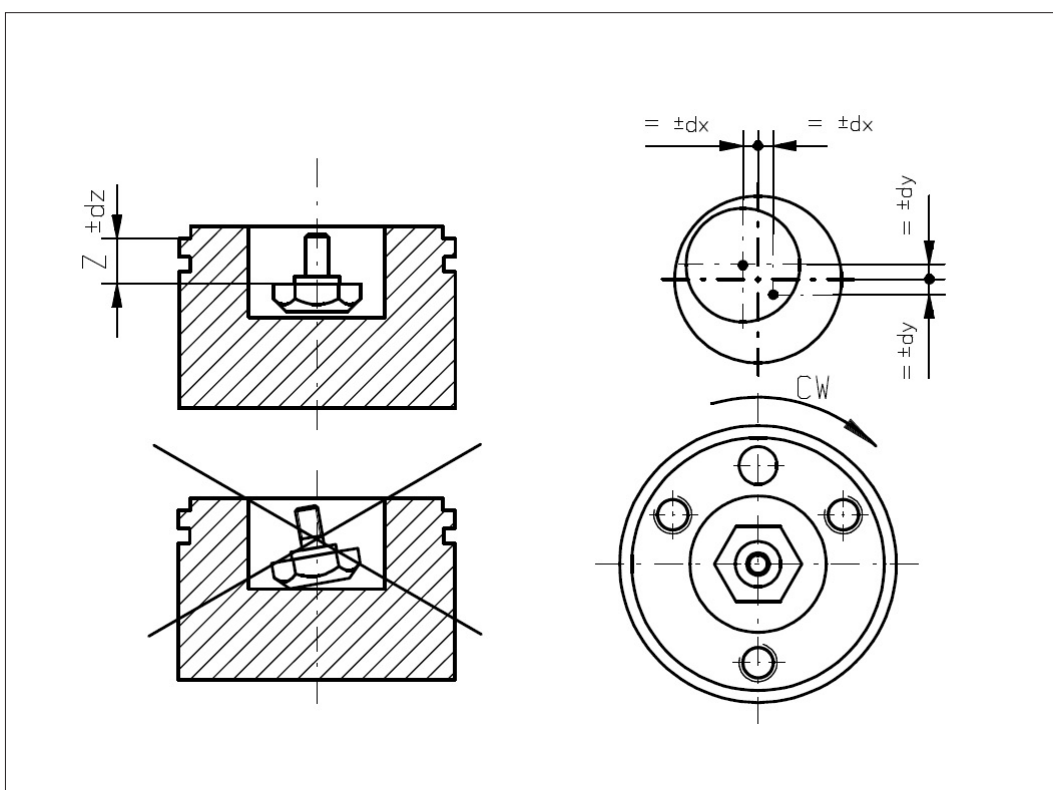
MH-C	4.95mm
MH-C redundant	5.45mm
MH-C2	4.95mm
MH-C2 redundant	5.45mm

**Max. permitted misalignment of the magnetic actuator**

dx	±0.25mm
dy	±0.25mm
dz	±0.5mm

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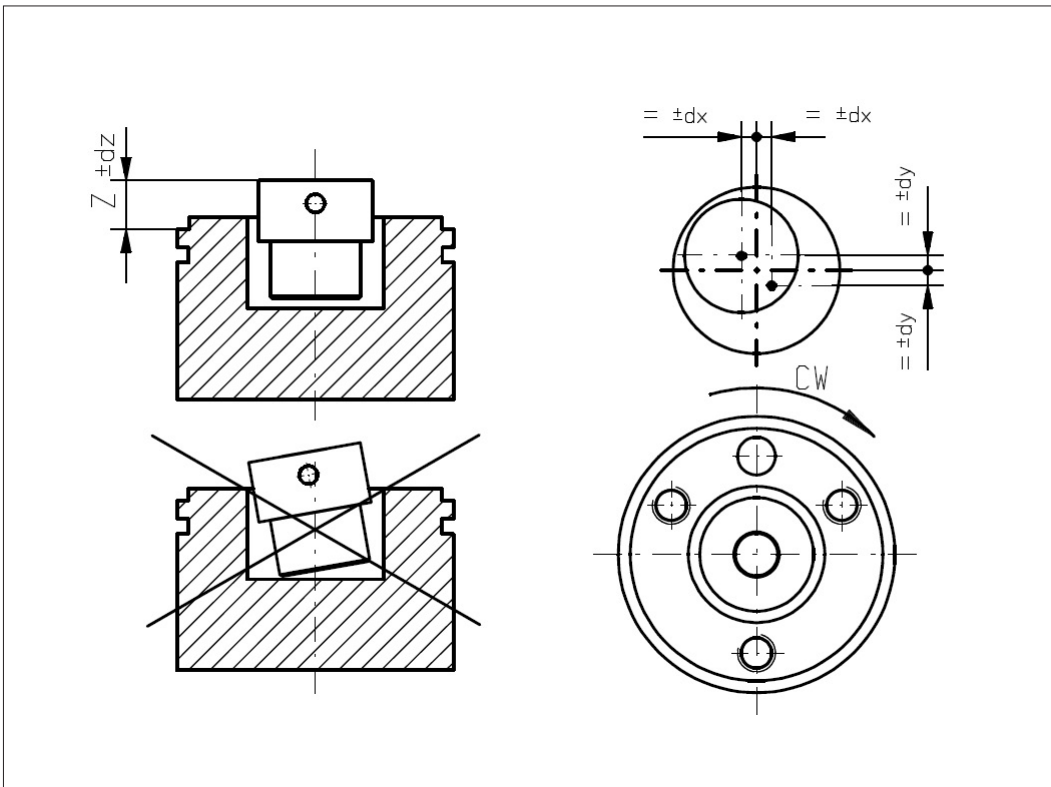
**Vert-X 37E2**  
**Mounting information**

**Working position (Z)**

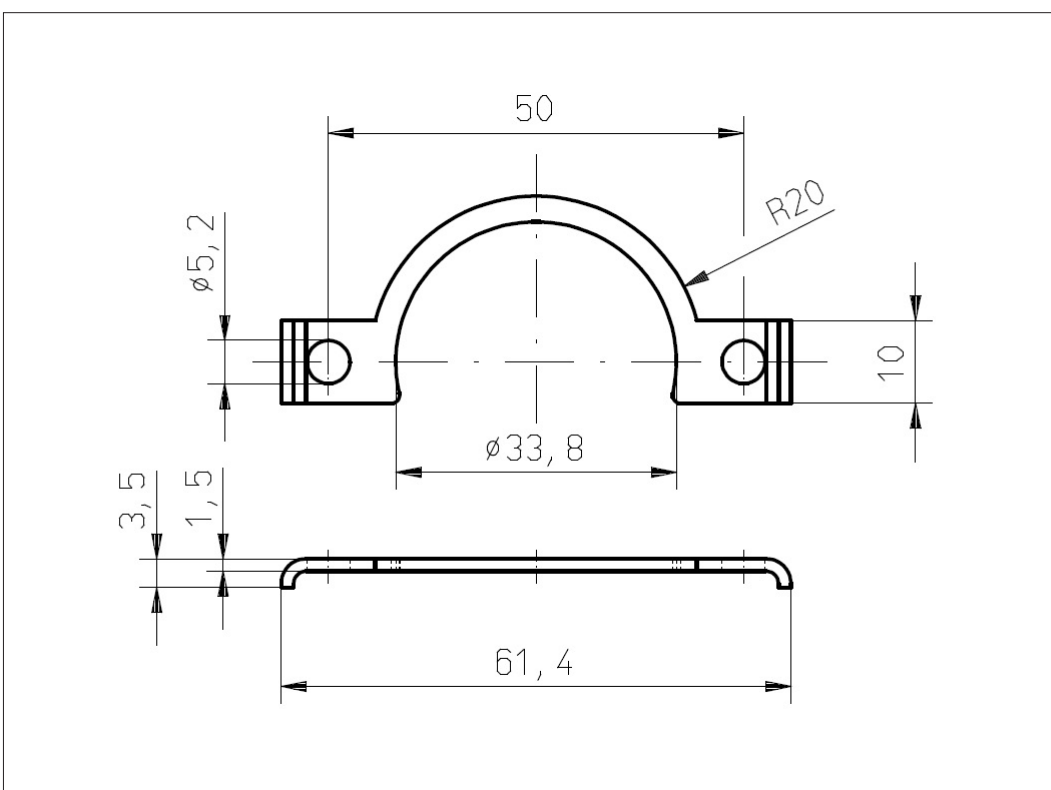
MH-C	6.45mm
MH-C redundant	5.95mm
MH-C2	6.45mm
MH-C2 redundant	5.95mm

**Max. permitted misalignment of the magnetic actuator**

dx	±0.25mm
dy	±0.25mm
dz	±0.5mm



**Vert-X 37E**  
**Accessoires**  
Fixation clip



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## Vert-X 37E - 5V / PWM

### Applications

- Agricultural machines
- Construction machines
- Forest machines
- Special purpose vehicles

### Features

- High protection class IP68
- Very robust design
- Non-contacting measuring method
- Very long life
- High accuracy of measurement
- Applications under adverse ambient conditions possible (humidity, dampness, dust, vibrations etc.)
- Full resolution and accuracy at programmed electrical angle

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Sensor principle		MH-C	MH-C2
<b>Electrical data</b>			
Measuring range	°	0 ... 360	-
Indep. linearity (without misalignment)	% of meas. range	±0.3	-
Indep. linearity (with allowed misalignment @ 360°)	% of meas. range	±0.5	-
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	µs	(800)	-
System propagation delay slow mode	µs	4600	-
Max. temperature coefficient of the output signal	ppm/°K	25	-
MTTFd / MTBF	years	668 / 668	-
Power supply voltage	VDC	5 (±10%)	-
Current consumption without load (typ.) fast mode	mA	(14)	-
Current consumption without load (typ.) slow mode	mA	9	-
Min. ohmic load at output	kOhm	10	-
Max. capacitive load at output	nF	1	-
PWM frequency	kHz	0.1 ... 1	-
Reverse polarity protection of power supply		yes	-
Electrical connection axial		Wires (3x)	-
Cross section of single wires	mm <sup>2</sup>	0.56 (AWG20)	-
Electrical connection radial		Cable 3pole	-
Cross section of single wires	mm <sup>2</sup>	0.56 (AWG20)	-
Redundancy feasible		yes	-
Electrical connection redundant axial		Wires (6x)	-
Cross section of single wires redundant	mm <sup>2</sup>	0.56 (AWG20)	-
Electrical connection redundant radial		Cable 6pole	-
Cross section of single wires redundant	mm <sup>2</sup>	0.25 (AWG24)	-
<b>Mechanical data</b>			
Mechanical range	°	360 (continuous)	-
Protection class		IP68	-
Min. life	movements	no limitation	-
Operating & storage temperature (with wires)	°C	-40 ... +125	-
Operating & storage temperature (with round cable)	°C	-40 ... +85	-
IEC 68-2-6 Vibration (Amax = 0.75mm, f = 5 ... 2000 Hz)	g	50	-
IEC 68-2-27 Shock	g	200	-
<b>Standards</b>			
EN 55022 class B, Emission radiated (30... 230 MHz)	dB(µV/m)	max. 30	-
EN 55022 class B, Emission radiated (230...1000MHz)	dB(µV/m)	max. 37	-
EN 61000-4-2, ESD (contact discharge / air discharge)	kV	±4 / ±8	-
EN 61000-4-3, Immission HF radiated (80... 1000 MHz)	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, Immission HF conducted (0.15...80MHz)	Vemk	10	-
EN 61000-4-8, Immission magnetic field (50Hz)	A/m	30	-
IEC 60393-1 Insulation resistance (500VDC, 1bar, 2s)	GOhm	20	-
IEC 60393-1 Dielectric strength (VAC, 50Hz, 1min, 1bar)	kV	1	-



**Vert-X 37E - 5V / PWM**  
**Ordering code**

		<b>Output characteristics</b>				<b>Electrical connection / axial</b>							
		Positive gradient CW	Standard	1			5 Standard Wires 3pole						
		Positive gradient CCW	Optional	2			7 Optional Wires 5pole / 6pole						
		Redundant, positive gradient CW	Optional	3			9 Optional Special cable ; special wires						
		Redundant, positive gradient CCW	Optional	4									
		Redundant, crossed signal curves	Optional	5									
		<b>Output signal</b>				<b>Electrical connection / radial</b>							
		PWM	Standard	4			4 Standard Round cable 3pole						
						6 Optional Round cable 6pole							
						9 Optional Special cable ; special wires							
		<b>Power supply voltage</b>				<b>Length of wires</b>							
		5VDC	Standard	2			01 Optional 10cm						
						03 Optional 30cm							
						05 Standard 50cm							
						99 Optional Special length							
<b>Vert-X</b>	<b>3</b>	<b>7</b>	<b>E</b>	<b>4</b>	<b>7</b>	<b>3</b>	<b>6</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>5</b>
						<b>Electrical angle</b>							
						36	Standard	Electrical angle 360°					
						xx	Optional	03 to 35; Declaration in 10° steps					
						99	Optional	Special angle					
						<b>Sensor principle</b>							
						7	MH-C						
						<b>Mechanical version</b>							
		37E1	Optional	Servo mount size 13 ; magnetic actuator type 1									
		37E2	Optional	Servo mount size 13 ; magnetic actuator type 2									
		37E4	Standard	Servo mount size 13 ; magnetic actuator type 4									
		37E9	Optional	Special housing ; special magnetic actuator									

	MH-C	MH-C2
Custom magnetic actuator	X	-
Custom modification of the housing	X	-
Custom cable / wires	X	-
Sample rate in fast mode	X	-
Switch functions TTL (max. 2)	X	-
Special characteristic curve	-	-
Special electrical angle within 30° to 360° (ex factory)	X	-
Electrical angle programmable (Software)	-	-
Start & end point settable (Additional wires)	-	-
Sense of rotation CW/CCW settable / programmable (Additional wires or Software)	-	-
Index point settable / programmable (Additional wires or Software)	-	-

**Options (on request)**

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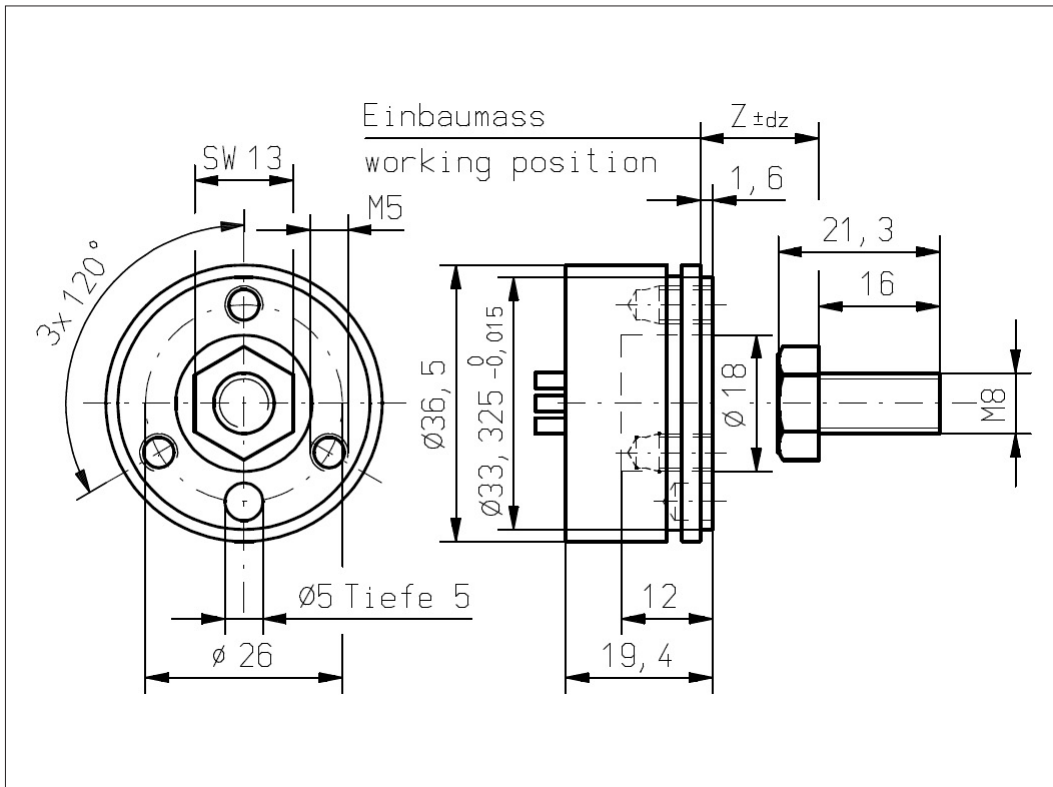
**Vert-X 37E4 xxx xxx 5xx**  
**Vert-X 37E4 xxx xxx 7xx**

**Accessoires (incl.)**

- 1x Fixation clip
- 2x Slotted cylinder head screw M5x12

**Working position (Z) and max. permitted misalignment of the magnetic actuator**

see mounting information



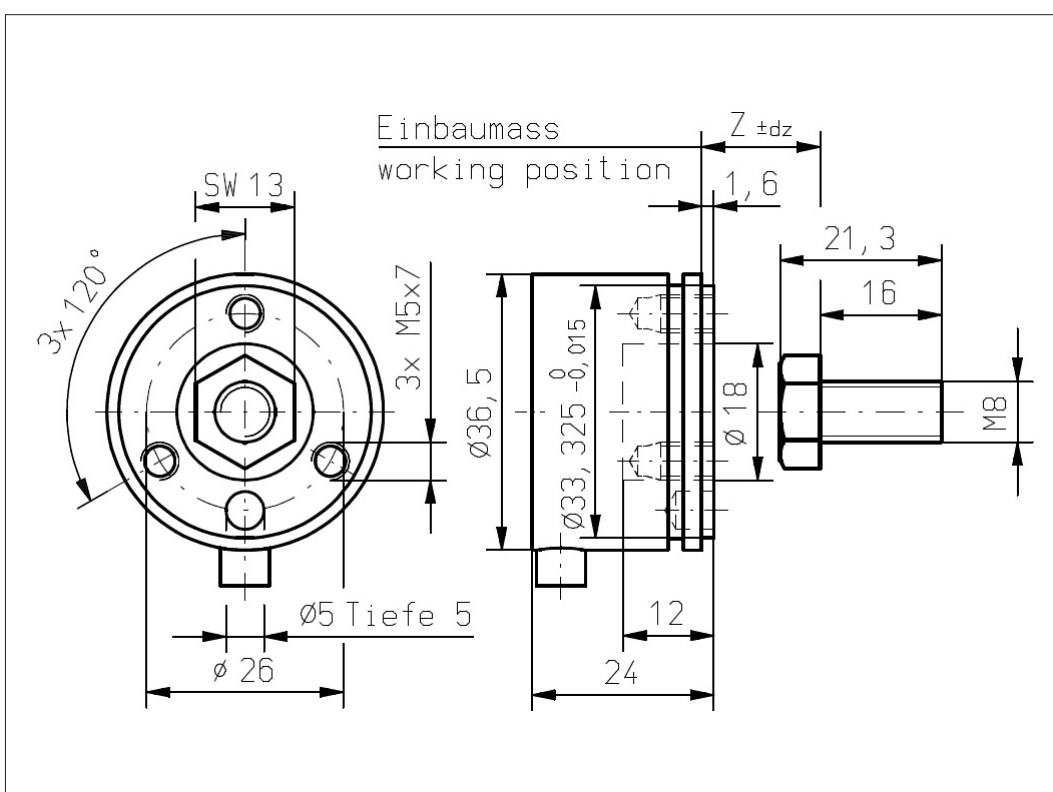
**Vert-X 37E4 xxx xxx 4xx**  
**Vert-X 37E4 xxx xxx 6xx**

**Accessoires (incl.)**

- 1x Fixation clip
- 2x Slotted cylinder head screw M5x12

**Working position (Z) and max. permitted misalignment of the magnetic actuator**

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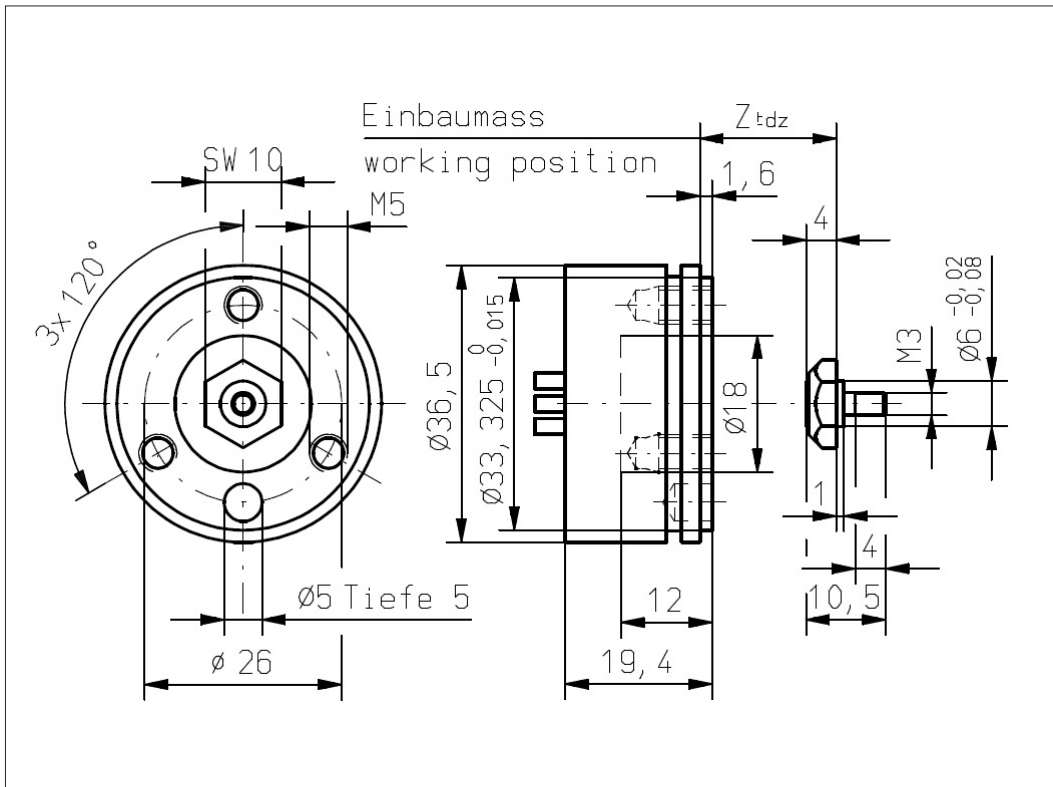
**Vert-X 37E1 xxx xxx 5xx**  
**Vert-X 37E1 xxx xxx 7xx**

**Accessoires (incl.)**

- 1x Fixation clip
- 2x Slotted cylinder head screw M5x12

**Working position (Z) and max. permitted misalignment of the magnetic actuator**

see mounting information



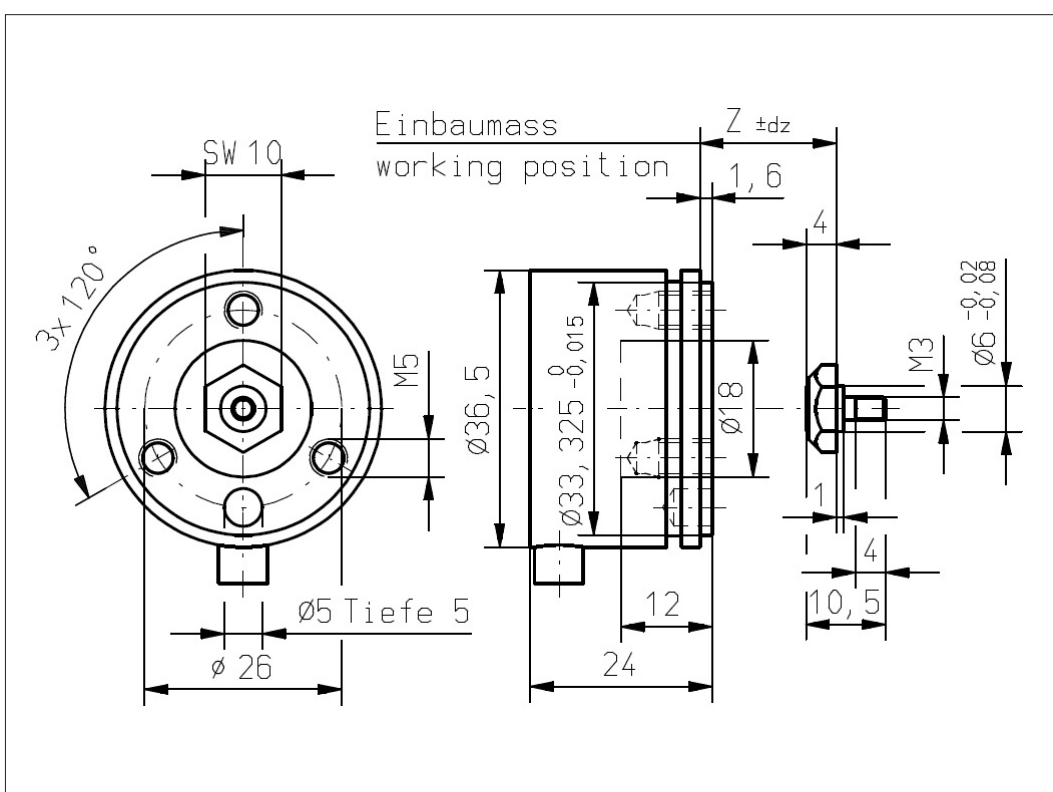
**Vert-X 37E1 xxx xxx 4xx**  
**Vert-X 37E1 xxx xxx 6xx**

**Accessoires (incl.)**

- 1x Fixation clip
- 2x Slotted cylinder head screw M5x12

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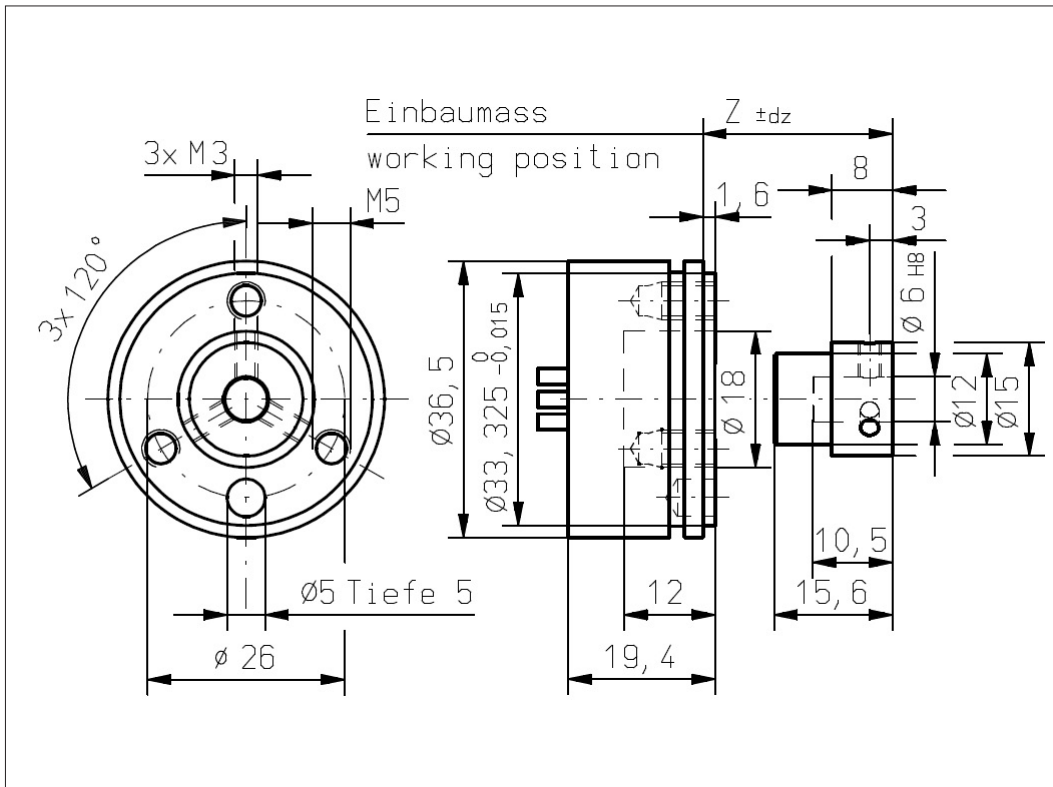
**Vert-X 37E2 xxx xxx 5xx**  
**Vert-X 37E2 xxx xxx 7xx**

**Accessoires (incl.)**

- 1x Fixation clip
- 2x Slotted cylinder head screw M5x12

**Working position (Z) and max. permitted misalignment of the magnetic actuator**

see mounting information



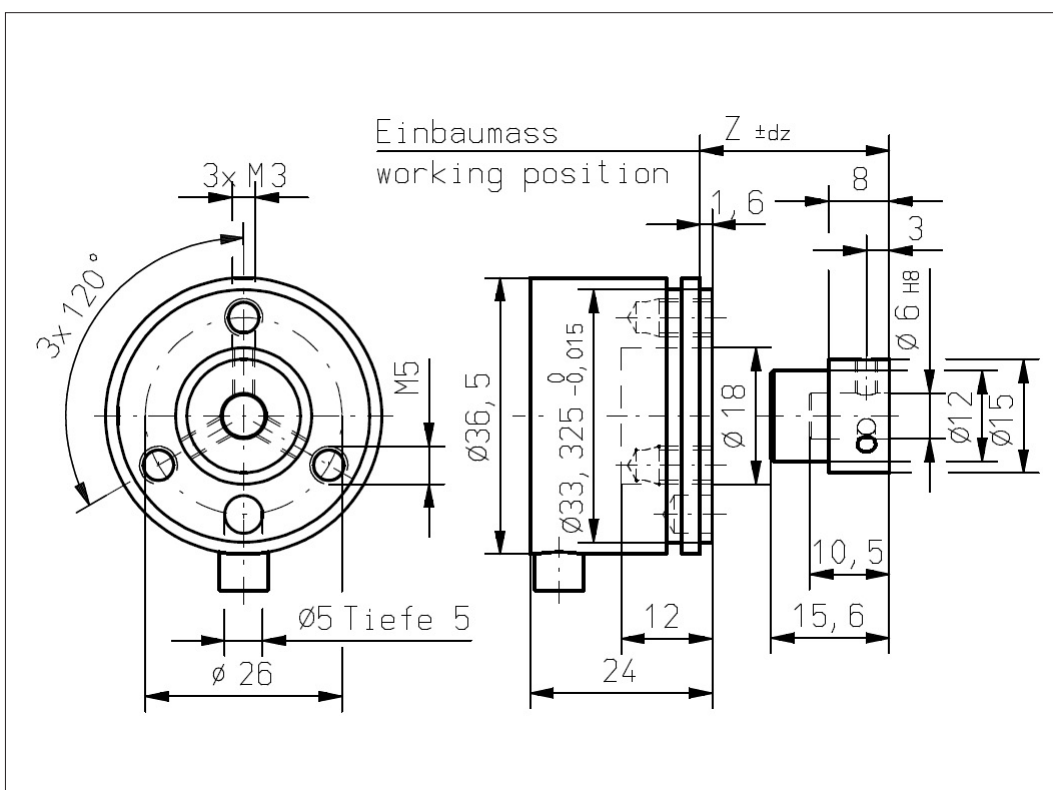
**Vert-X 37E2 xxx xxx 4xx**  
**Vert-X 37E2 xxx xxx 6xx**

**Accessoires (incl.)**

- 1x Fixation clip
- 2x Slotted cylinder head screw M5x12

**Working position (Z) and max. permitted misalignment of the magnetic actuator**

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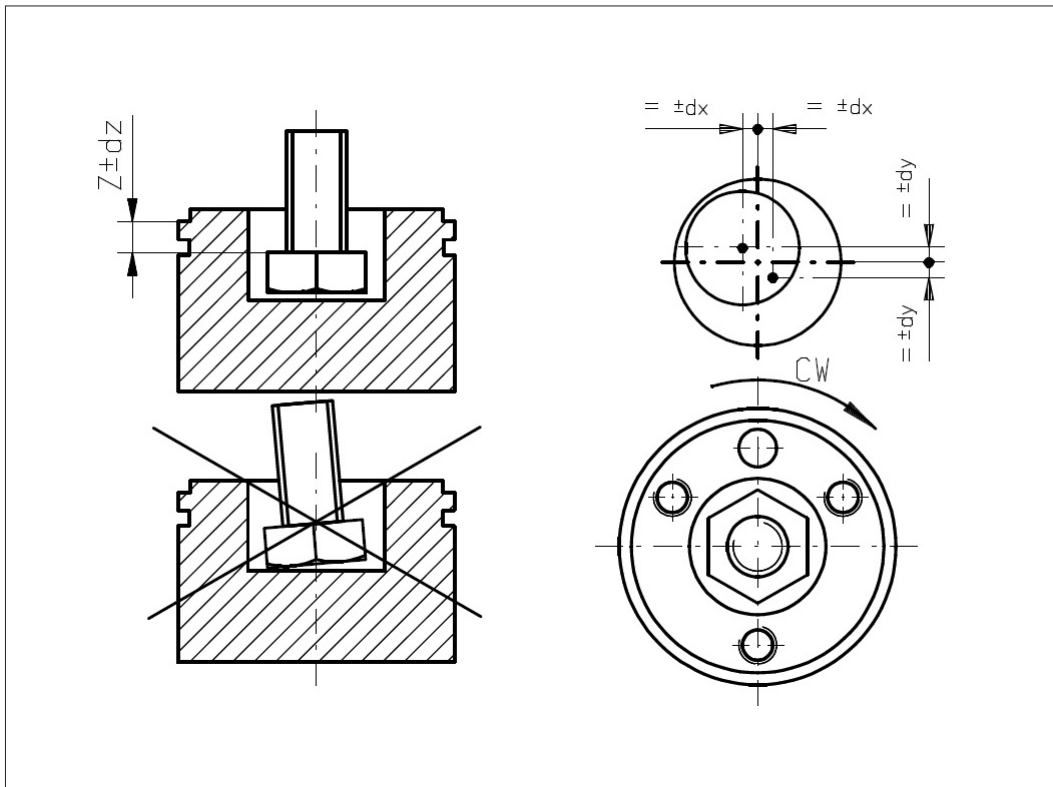
**Vert-X 37E4**  
**Mounting information**

**Working position (Z)**

MH-C	3.85mm
MH-C redundant	4.35mm

**Max. permitted misalignment of the magnetic actuator**

dx	±0.25mm
dy	±0.25mm
dz	±0.5mm



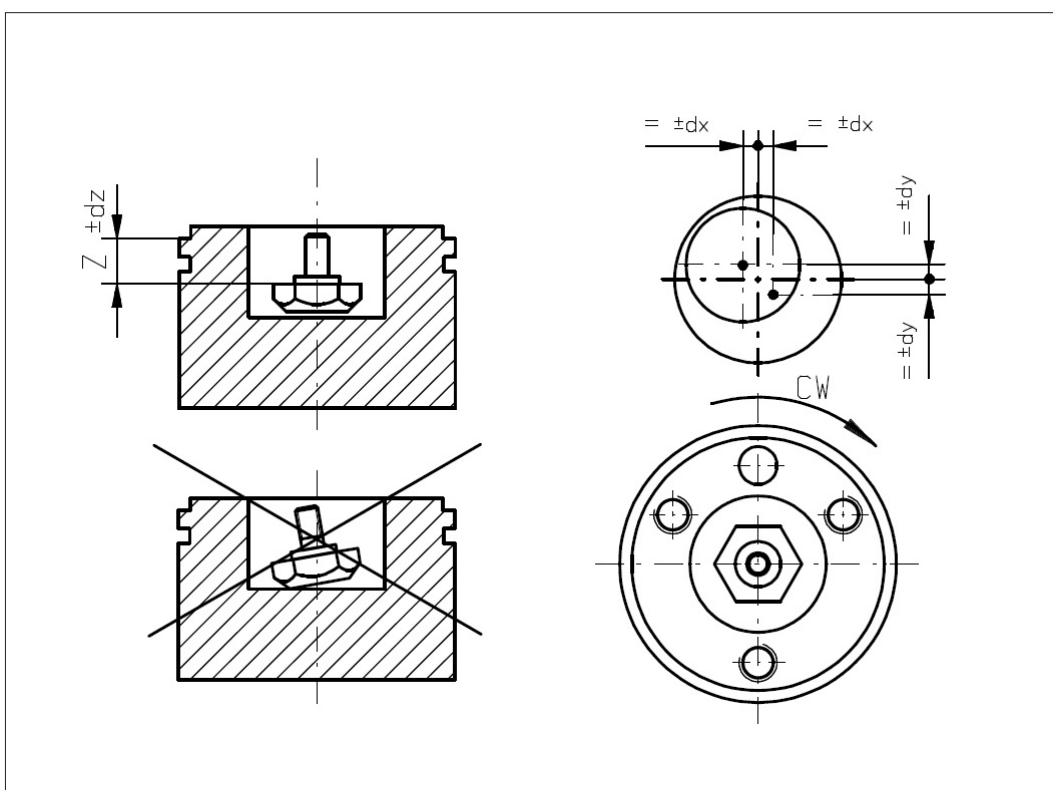
**Vert-X 37E1**  
**Mounting information**

**Working position (Z)**

MH-C	4.95mm
MH-C redundant	5.45mm

**Max. permitted misalignment of the magnetic actuator**

dx	±0.25mm
dy	±0.25mm
dz	±0.5mm



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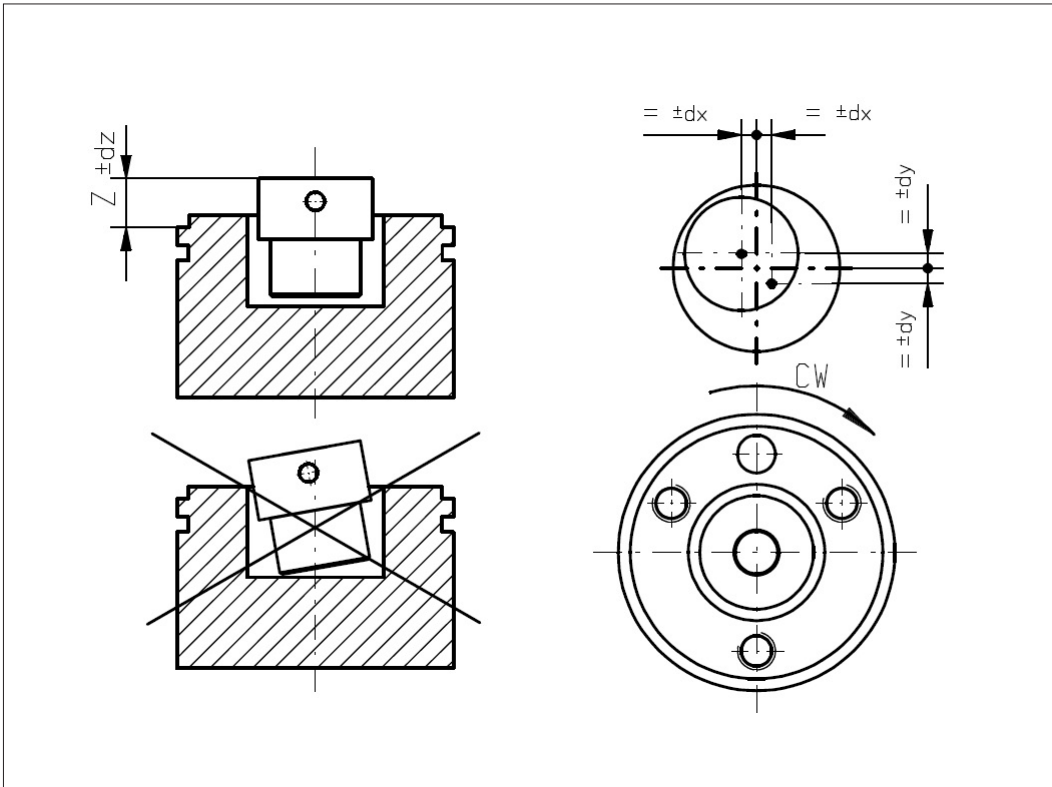
**Vert-X 37E2**  
**Mounting information**

**Working position (Z)**

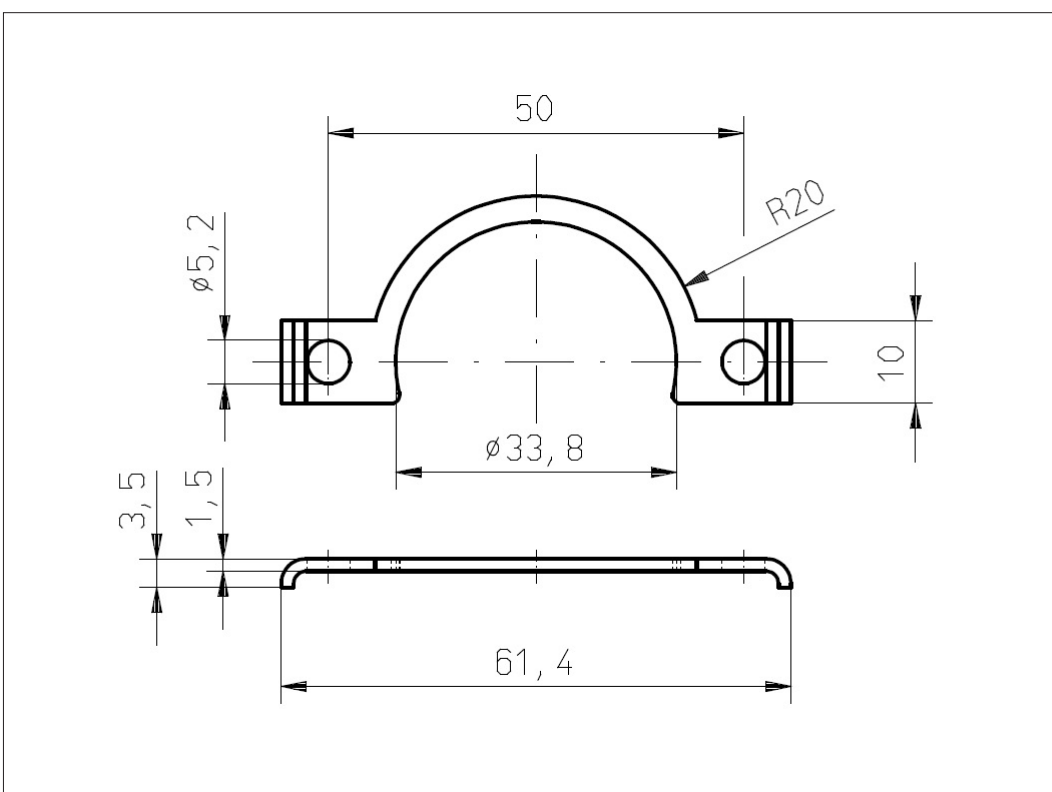
MH-C	6.45mm
MH-C redundant	5.95mm

**Max. permitted misalign-  
ment of the magnetic  
actuator**

dx	±0.25mm
dy	±0.25mm
dz	±0.5mm



**Vert-X 37E**  
**Accessoires**  
Fixation clip



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## Vert-X 37E - 5V / SPI

### Applications

- Agricultural machines
- Construction machines
- Forest machines
- Special purpose vehicles

### Features

- High protection class IP68
- Very robust design
- Non-contacting measuring method
- Very long life
- High accuracy of measurement
- Applications under adverse ambient conditions possible (humidity, dampness, dust, vibrations etc.)
- Full resolution and accuracy at programmed electrical angle

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**CONTELEC**  
 A company of the Siedle-Group

Sensor principle		MH-C	MH-C2
<b>Electrical data</b>			
Measuring range	°	0 ... 360	-
Indep. linearity (without misalignment)	% of meas. range	±0.3	-
Indep. linearity (with allowed misalignment @ 360°)	% of meas. range	±0.5	-
Max. hysteresis	°	0.1	-
Resolution	bit	14	-
Max. repeatability	°	0.1	-
Sample rate fast mode	kHz	2.2	-
Sample rate slow mode	kHz	(0.55)	-
System propagation delay fast mode	µs	400	-
System propagation delay slow mode	µs	(600)	-
Max. temperature coefficient of the output signal	ppm/°K	25	-
MTTFd / MTBF	years	668 / 668	-
Power supply voltage	VDC	5 (±10%)	-
Current consumption without load (typ.) fast mode	mA	14	-
Current consumption without load (typ.) slow mode	mA	(9)	-
Min. ohmic load at output	kOhm	-	-
Max. capacitive load at output	nF	-	-
Reverse polarity protection of power supply		yes	-
Electrical connection axial		Wires (5x)	-
Cross section of single wires	mm <sup>2</sup>	0.56 (AWG20)	-
Electrical connection radial		Cable 6pole	-
Cross section of single wires	mm <sup>2</sup>	0.25 (AWG24)	-
Redundancy feasible		yes	-
Electrical connection redundant axial		Wires (10x)	-
Cross section of single wires redundant	mm <sup>2</sup>	0.25 (AWG24)	-
Electrical connection redundant radial		Cable 10pole	-
Cross section of single wires redundant	mm <sup>2</sup>	0.09 (AWG28)	-
<b>Mechanical data</b>			
Mechanical range	°	360 (continuous)	-
Protection class		IP68	-
Min. life	movements	no limitation	-
Operating & storage temperature (with wires)	°C	-40 ... +125	-
Operating & storage temperature (with round cable)	°C	-40 ... +85	-
IEC 68-2-6 Vibration (Amax = 0.75mm, f = 5 ... 2000 Hz)	g	50	-
IEC 68-2-27 Shock	g	200	-
<b>Standards</b>			
EN 55022 class B, Emission radiated (30... 230 MHz)	dB(µV/m)	max. 30	-
EN 55022 class B, Emission radiated (230...1000MHz)	dB(µV/m)	max. 37	-
EN 61000-4-2, ESD (contact discharge / air discharge)	kV	±4 / ±8	-
EN 61000-4-3, Immission HF radiated (80... 1000 MHz)	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, Immission HF conducted (0.15...80MHz)	Vemk	10	-
EN 61000-4-8, Immission magnetic field (50Hz)	A/m	30	-
IEC 60393-1 Insulation resistance (500VDC, 1bar, 2s)	GOhm	20	-
IEC 60393-1 Dielectric strength (VAC, 50Hz, 1min, 1bar)	kV	1	-



**Vert-X 37E - 5V / SPI**  
**Ordering code**

		<b>Output characteristics</b>				<b>Electrical connection / axial</b>								
		Positive gradient CW	Standard	1			2 Optional Wires 10pole							
		Positive gradient CCW	Optional	2			7 Standard Wires 5pole / 6pole							
		Redundant, positive gradient CW	Optional	3			9 Optional Special cable ; special wires							
		Redundant, positive gradient CCW	Optional	4										
		Redundant, crossed signal curves	Optional	5										
		<b>Output signal</b>				<b>Electrical connection / radial</b>								
		SPI	Standard	8			1 Optional Round cable 10pole							
		<b>Power supply voltage</b>				6 Standard Round cable 6pole								
		5VDC	Standard	2			9 Optional Special cable ; special wires							
<b>Vert-X</b>	<b>3</b>	<b>7</b>	<b>E</b>	<b>4</b>	<b>7</b>	<b>3</b>	<b>6</b>	<b>2</b>	<b>8</b>	<b>1</b>	<b>7</b>	<b>0</b>	<b>5</b>	
						<b>Electrical angle</b>								
						36	Standard	Electrical angle 360°						
						xx	Optional	03 to 35; Declaration in 10° steps						
						99	Optional	Special angle						
						<b>Sensor principle</b>								
						7	MH-C							
						<b>Mechanical version</b>								
		37E1	Optional	Servo mount size 13 ; magnetic actuator type 1										
		37E2	Optional	Servo mount size 13 ; magnetic actuator type 2										
		37E4	Standard	Servo mount size 13 ; magnetic actuator type 4										
		37E9	Optional	Special housing ; special magnetic actuator										

	MH-C	MH-C2
Custom magnetic actuator	X	-
Custom modification of the housing	X	-
Custom cable / wires	X	-
Sample rate in slow mode	X	-
Switch functions TTL (max. 2)	X	-
Special characteristic curve	-	-
Special electrical angle within 30° to 360° (ex factory)	X	-
Electrical angle programmable (Software)	-	-
Start & end point settable (Additional wires)	-	-
Sense of rotation CW/CCW settable / programmable (Additional wires or Software)	-	-
Index point settable / programmable (Additional wires or Software)	-	-

**Options (on request)**

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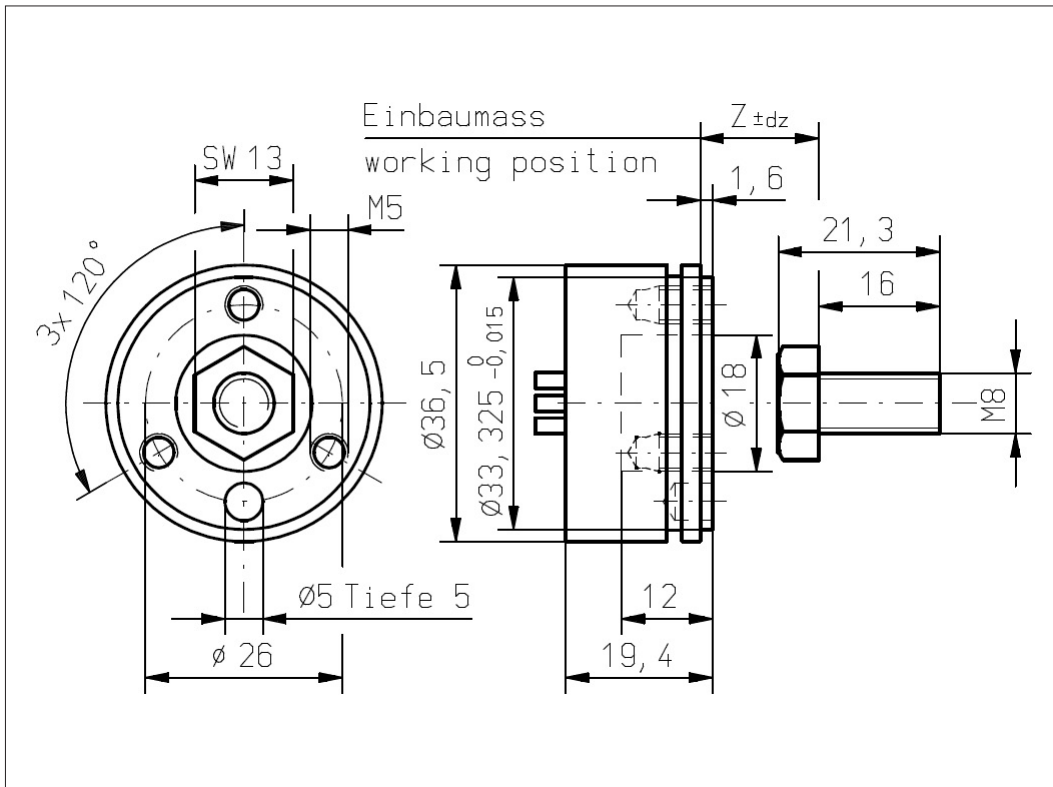
**Vert-X 37E4 xxx xxx 2xx**  
**Vert-X 37E4 xxx xxx 7xx**

**Accessoires (incl.)**

- 1x Fixation clip
- 2x Slotted cylinder head screw M5x12

**Working position (Z) and max. permitted misalignment of the magnetic actuator**

see mounting information



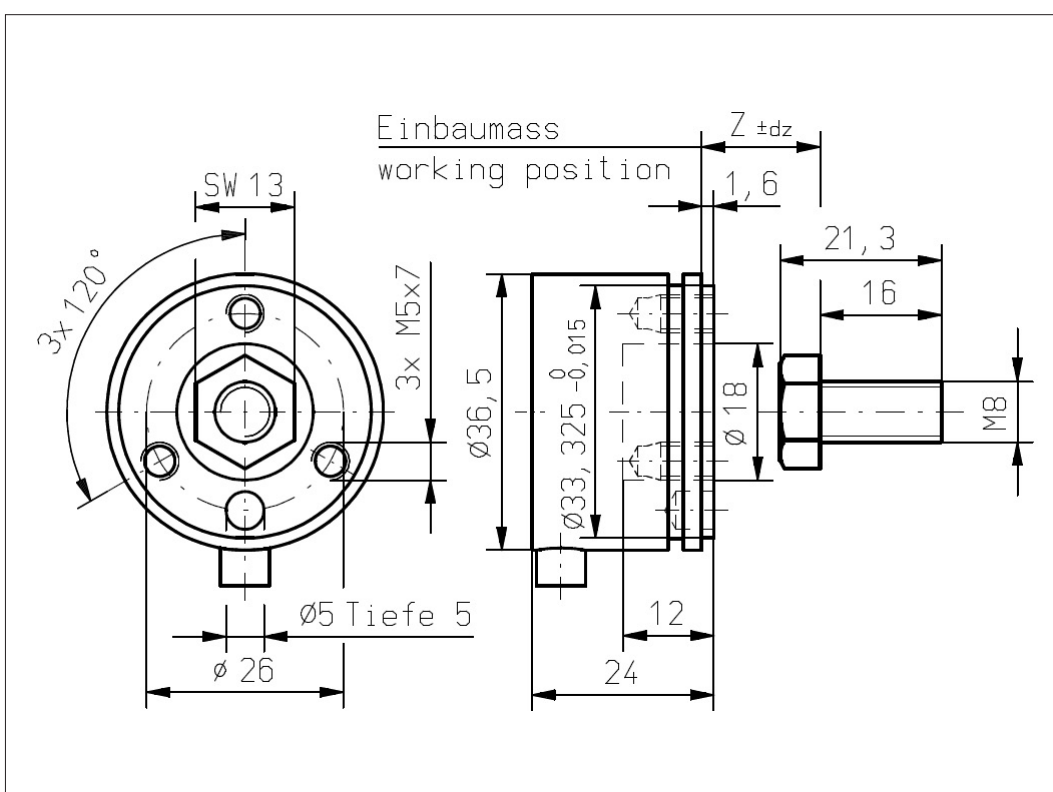
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**Vert-X 37E4 xxx xxx 6xx**

**Accessoires (incl.)**

- 1x Fixation clip
- 2x Slotted cylinder head screw M5x12

**Working position (Z) and max. permitted misalignment of the magnetic actuator**

see mounting information



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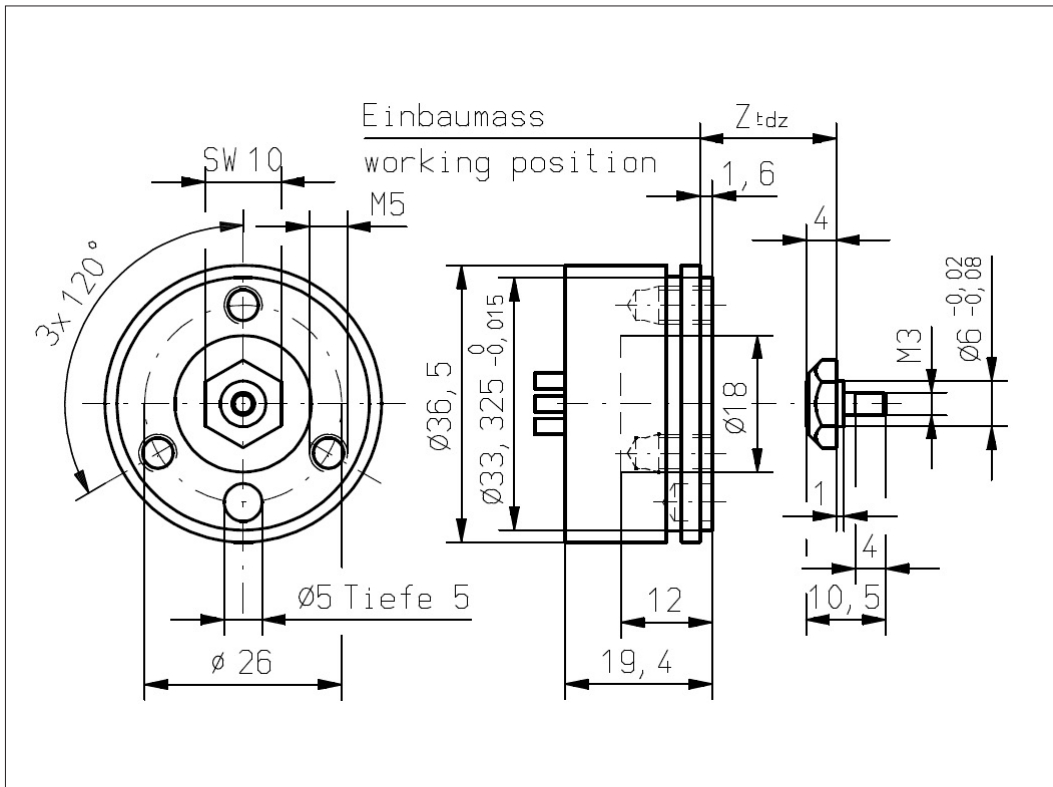
**Vert-X 37E1 xxx xxx 2xx**  
**Vert-X 37E1 xxx xxx 7xx**

**Accessoires (incl.)**

- 1x Fixation clip
- 2x Slotted cylinder head screw M5x12

**Working position (Z) and max. permitted misalignment of the magnetic actuator**

see mounting information



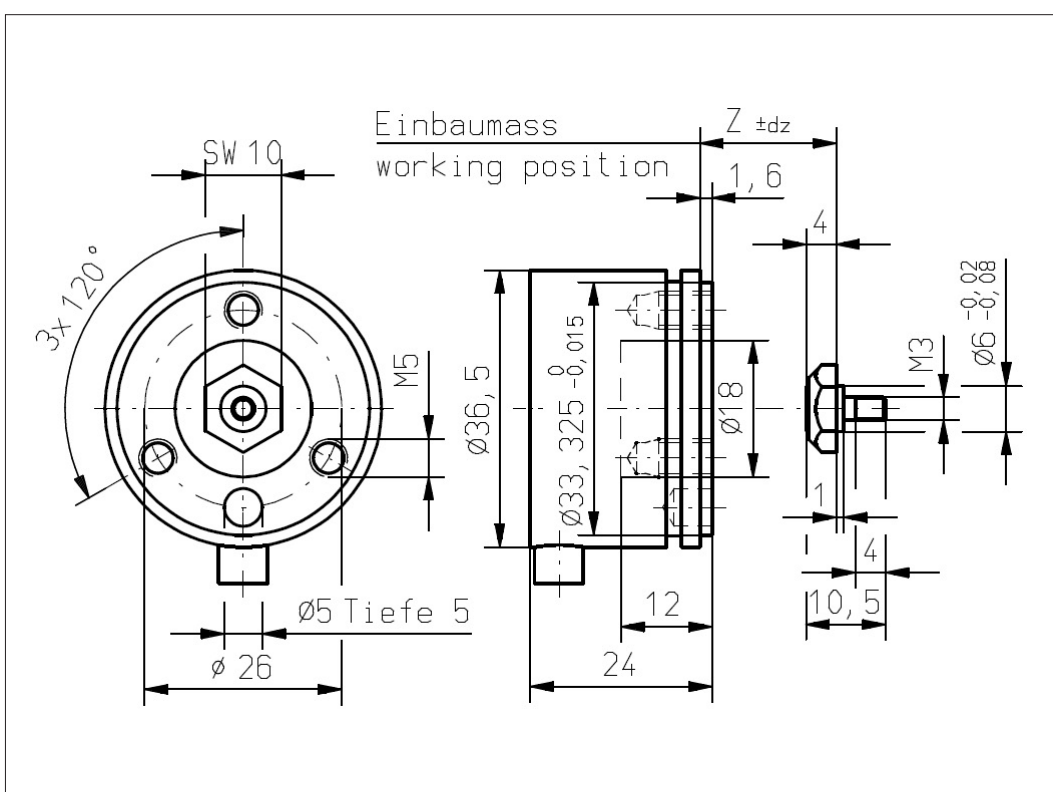
**Vert-X 37E1 xxx xxx 1xx**  
**Vert-X 37E1 xxx xxx 6xx**

**Accessoires (incl.)**

- 1x Fixation clip
- 2x Slotted cylinder head screw M5x12

**Working position (Z) and max. permitted misalignment of the magnetic actuator**

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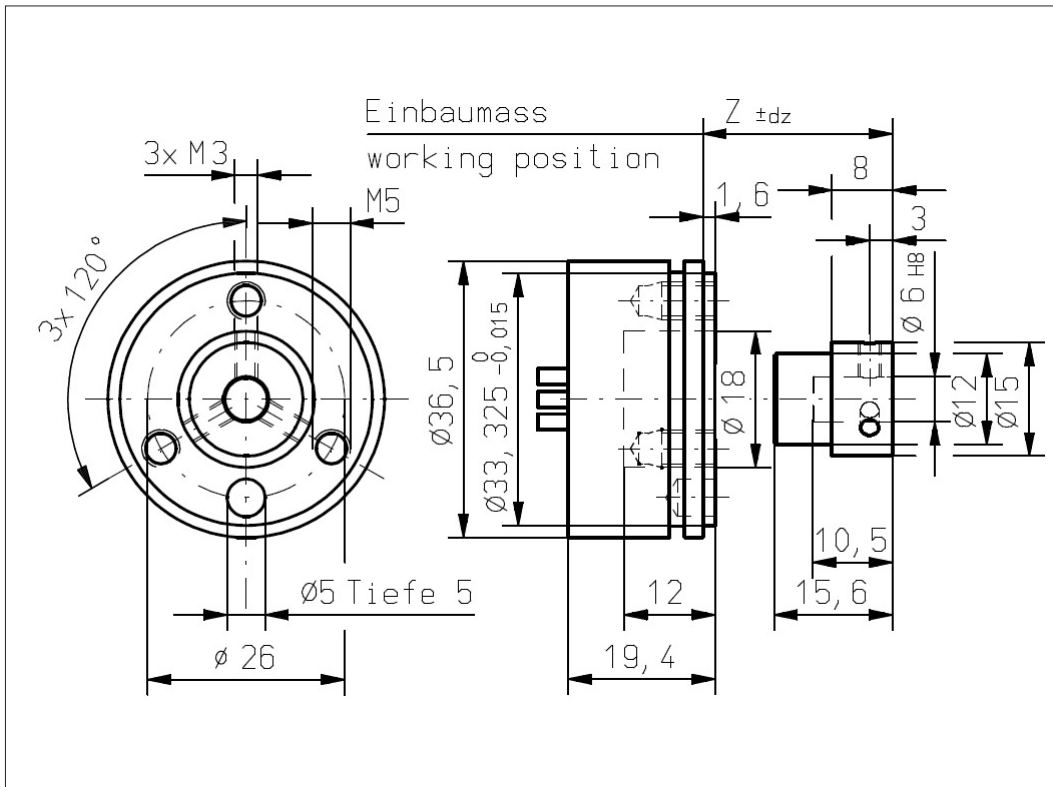
**Vert-X 37E2 xxx xxx 2xx**  
**Vert-X 37E2 xxx xxx 7xx**

**Accessoires (incl.)**

- 1x Fixation clip
- 2x Slotted cylinder head screw M5x12

**Working position (Z) and max. permitted misalignment of the magnetic actuator**

see mounting information



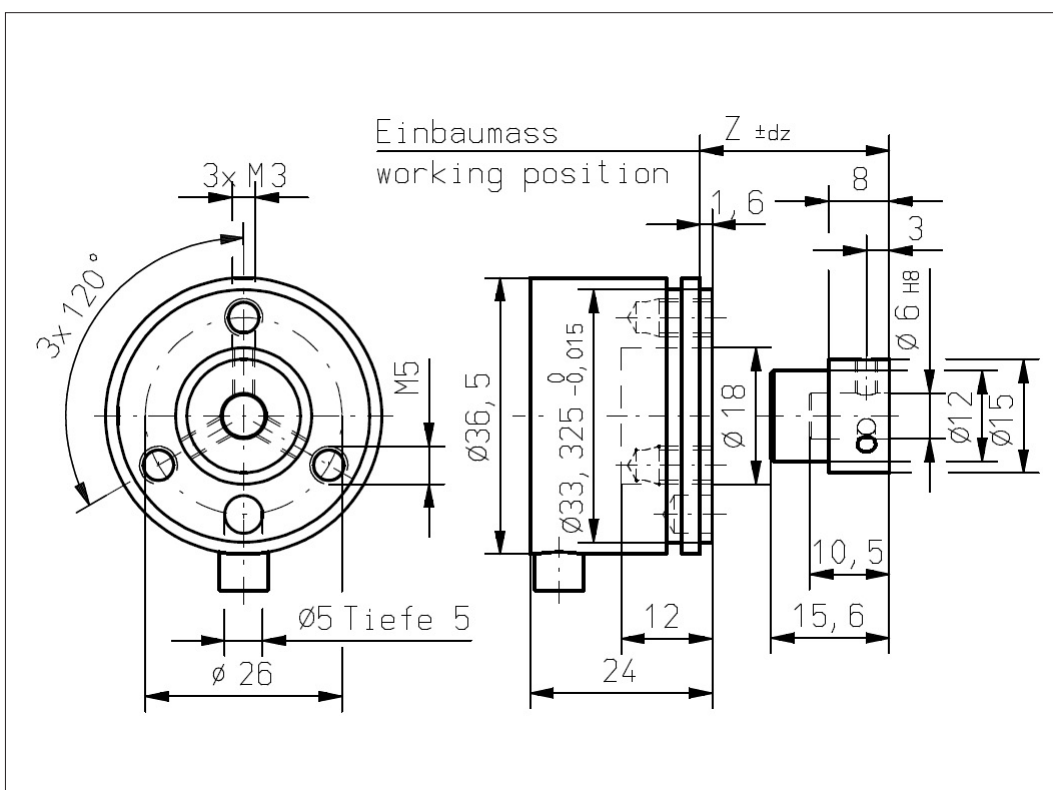
**Vert-X 37E2 xxx xxx 1xx**  
**Vert-X 37E2 xxx xxx 6xx**

**Accessoires (incl.)**

- 1x Fixation clip
- 2x Slotted cylinder head screw M5x12

**Working position (Z) and max. permitted misalignment of the magnetic actuator**

see mounting information



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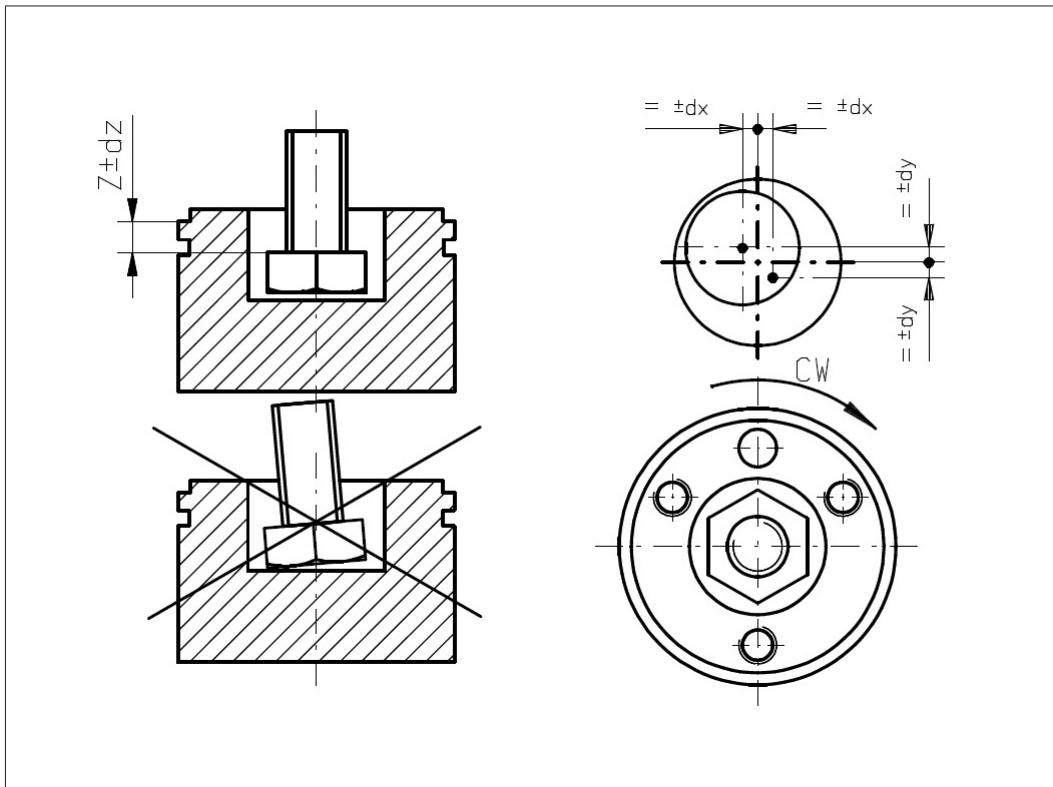
**Vert-X 37E4**  
**Mounting information**

**Working position (Z)**

MH-C	3.85mm
MH-C redundant	4.35mm

**Max. permitted misalignment of the magnetic actuator**

dx	±0.25mm
dy	±0.25mm
dz	±0.5mm



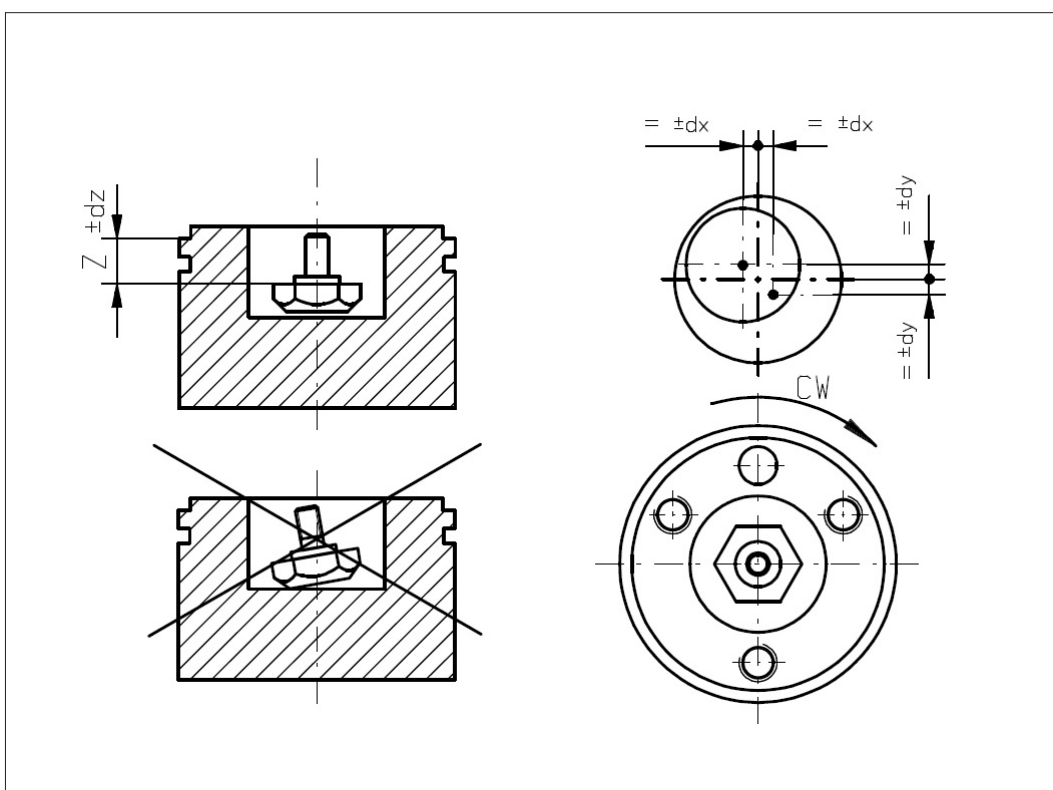
**Vert-X 37E1**  
**Mounting information**

**Working position (Z)**

MH-C	4.95mm
MH-C redundant	5.45mm

**Max. permitted misalignment of the magnetic actuator**

dx	±0.25mm
dy	±0.25mm
dz	±0.5mm



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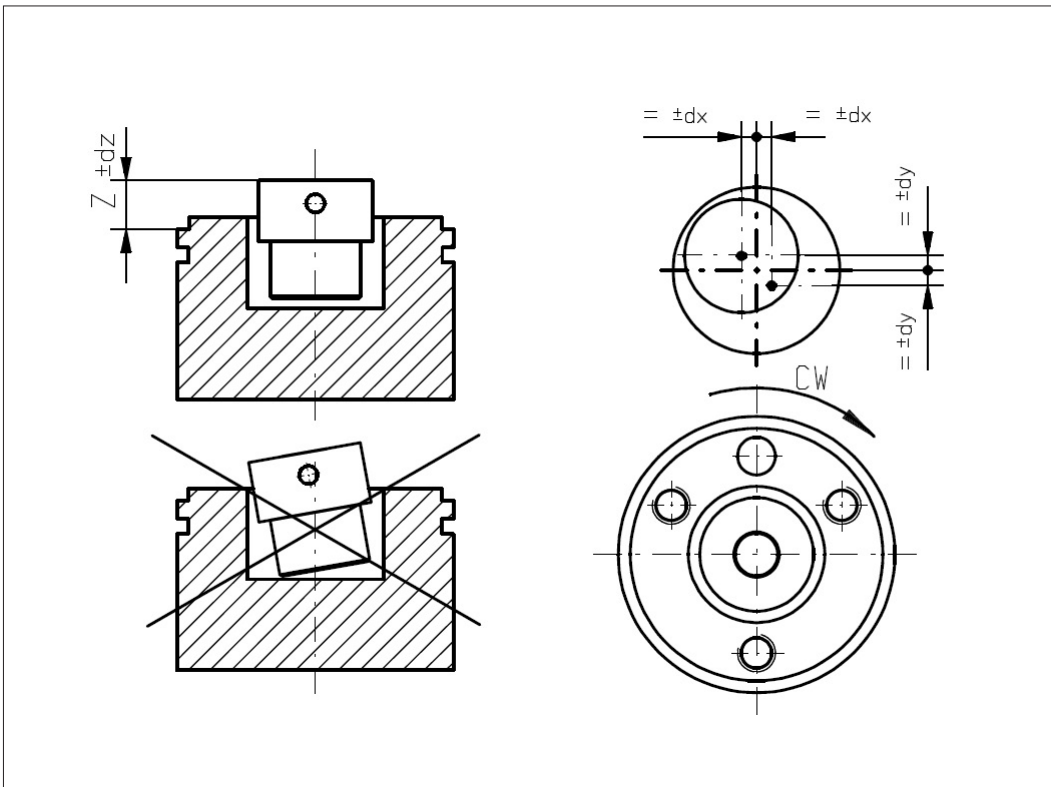
**Vert-X 37E2**  
**Mounting information**

**Working position (Z)**

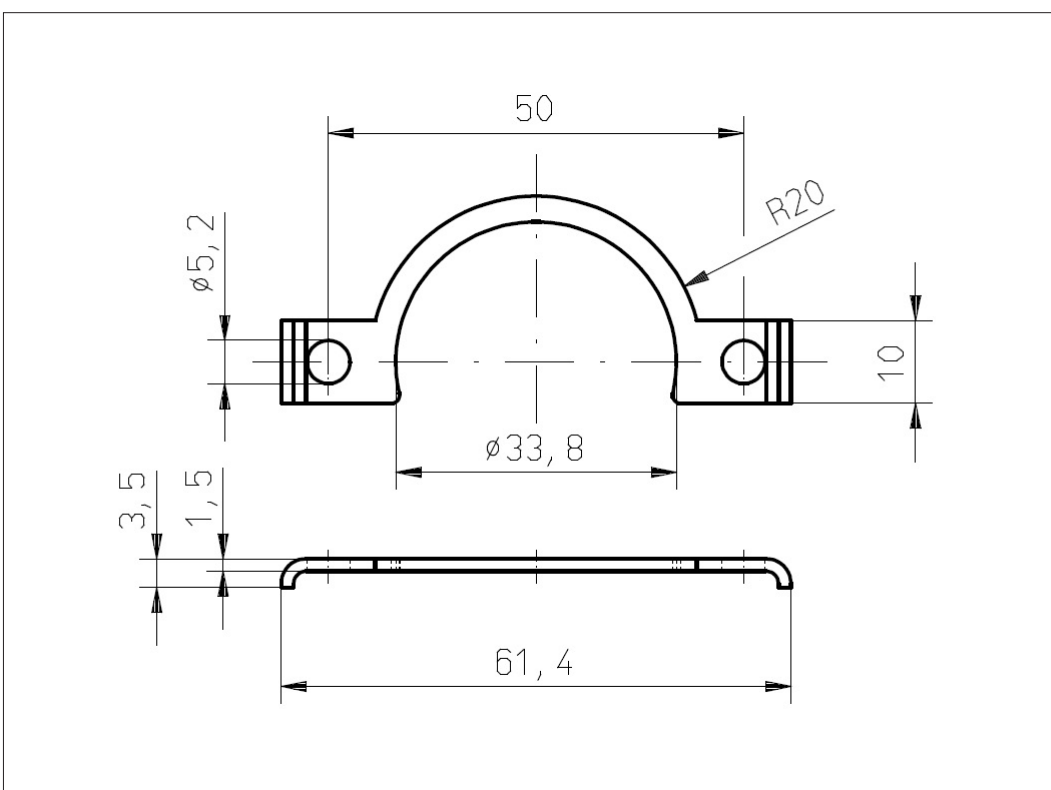
MH-C	6.45mm
MH-C redundant	5.95mm

**Max. permitted misalign-  
ment of the magnetic  
actuator**

dx	±0.25mm
dy	±0.25mm
dz	±0.5mm



**Vert-X 37E**  
**Accessoires**  
Fixation clip



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