

提夫自控技术（上海）有限公司



Vert-X 27E - 24V / 4 - 20mA

Applications

- Harvesting machine
- Fork lift
- Hydraulic pump

Features general

- High protection class IP68
- Compact dimensions
- 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)

Errors and omissions excepted. Subject to change without notice. / State: 01.10.10

Sensor principle		MH-C	MH-C2
Electrical data			
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	100	100
MTTFd / MTBF	years	185 / 185	147 / 147
Power supply voltage	VDC	16 ... 35	16 ... 35
Current consumption without load (typ.) fast mode	mA	(19)	(20)
Current consumption without load (typ.) slow mode	mA	14	15
Min. ohmic load at output	kOhm	0 ... 0.5	0 ... 0.5
Max. capacitive load at output	nF	100	100
Reverse polarity protection of power supply		yes	yes
Electrical connection axial		Wires (3x)	Wires (3x)
Cross section of single wires	mm ²	0.56 (AWG20)	0.56 (AWG20)
Electrical connection radial		Cable 3pole	Cable 3pole
Cross section of single wires	mm ²	0.56 (AWG20)	0.56 (AWG20)
Redundancy feasible		no	no
Electrical connection redundant axial		-	-
Cross section of single wires redundant	mm ²	-	-
Electrical connection redundant radial		-	-
Cross section of single wires redundant	mm ²	-	-
Mechanical data			
Mechanical range	°	360 (continuous)	360 (continuous)
Protection class		IP68	IP68
Min. life	movements	no limitation	no limitation
Operating & storage temperature	°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
Standards			
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, Immision 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, Immision HF conducted (0.15...80MHz)	Vemk	10	10
EN 61000-4-8, Immision 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

提夫自控技术（上海）有限公司



Vert-X 27E - 24V / 4 - 20mA Ordering code

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

	MH-C	MH-C2
Custom magnetic actuator	X	X
Custom modification of the housing	X	X
Custom cable / wires	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)

Errors and omissions excepted. Subject to
change without notice. / State: 01.10.10

CONTELEC
A company of the Siedle-Group



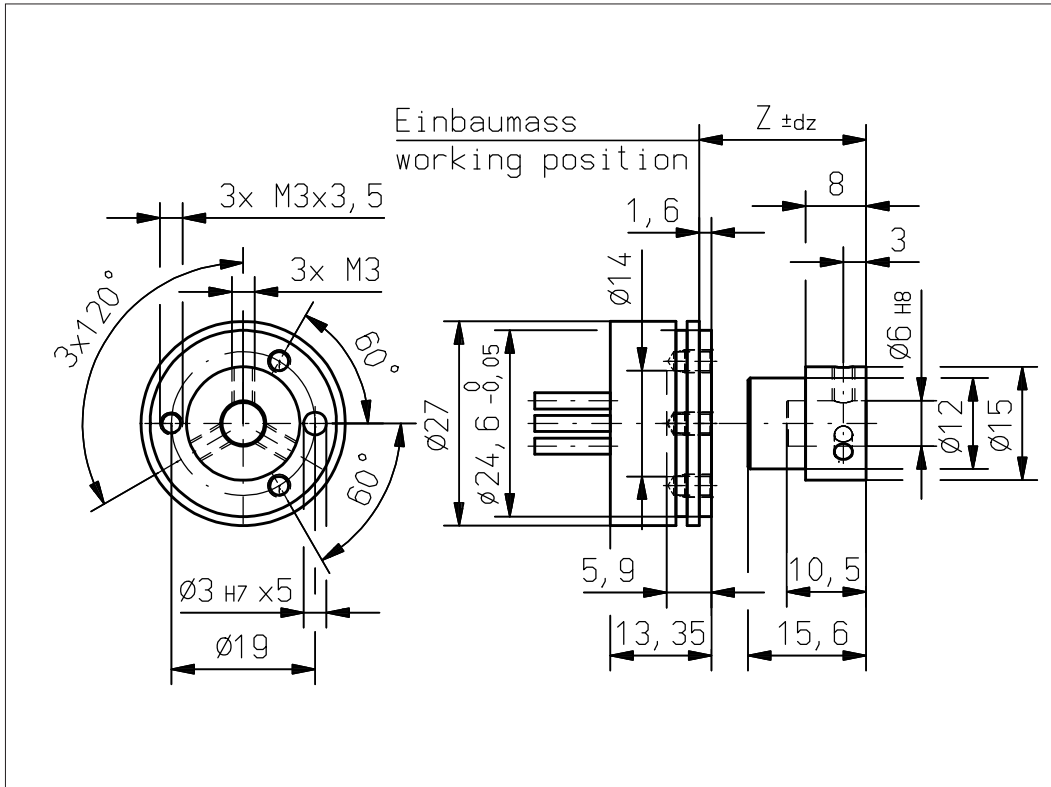
Vert-X 27E2 xxx xxx 5xx
Vert-X 27E2 xxx xxx 7xx

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



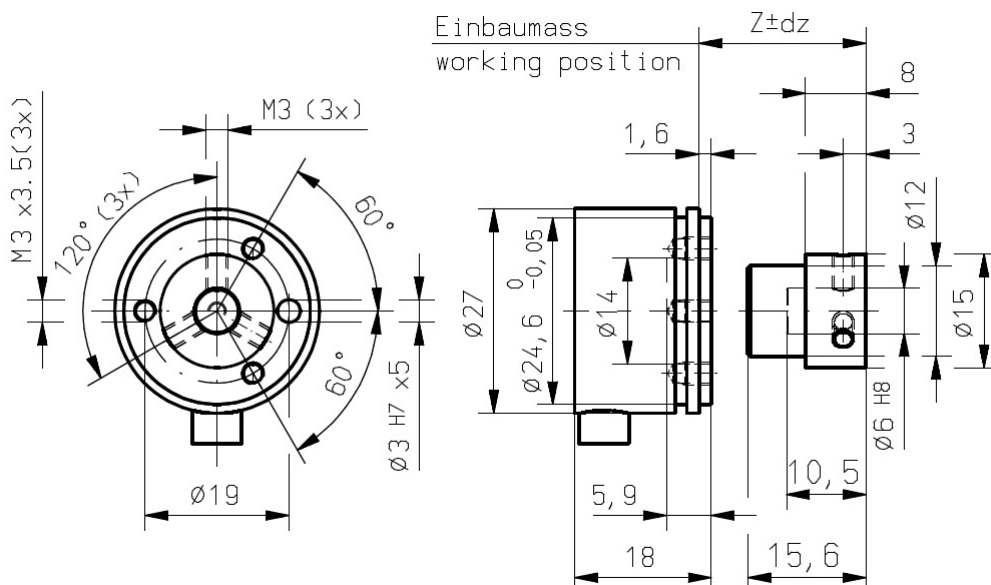
Vert-X 27E2 xxx xxx 4xx
Vert-X 27E2 xxx xxx 6xx

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



Errors and omissions excepted. Subject to change without notice. / State: 01.10.10

A company of the Siedle-Group

CONTELEC



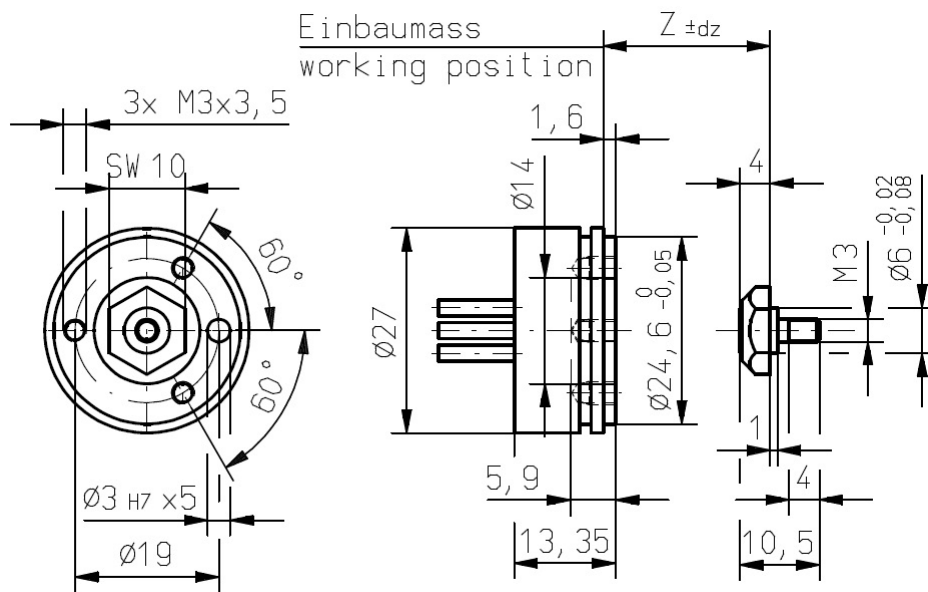
Vert-X 27E1 xxx xxx 5xx
Vert-X 27E1 xxx xxx 7xx

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



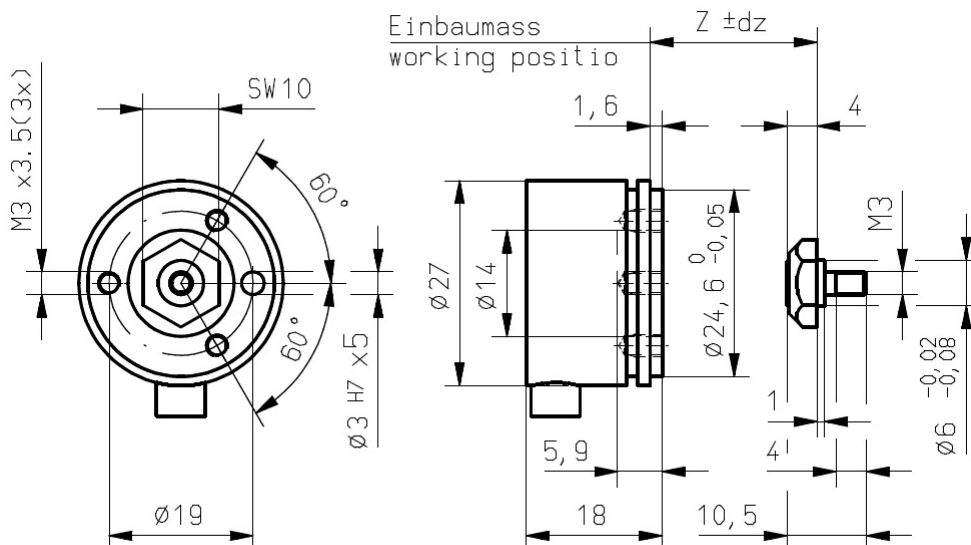
Vert-X 27E1 xxx xxx 4xx
Vert-X 27E1 xxx xxx 6xx

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



Errors and omissions excepted. Subject to change without notice. / State: 01.10.10



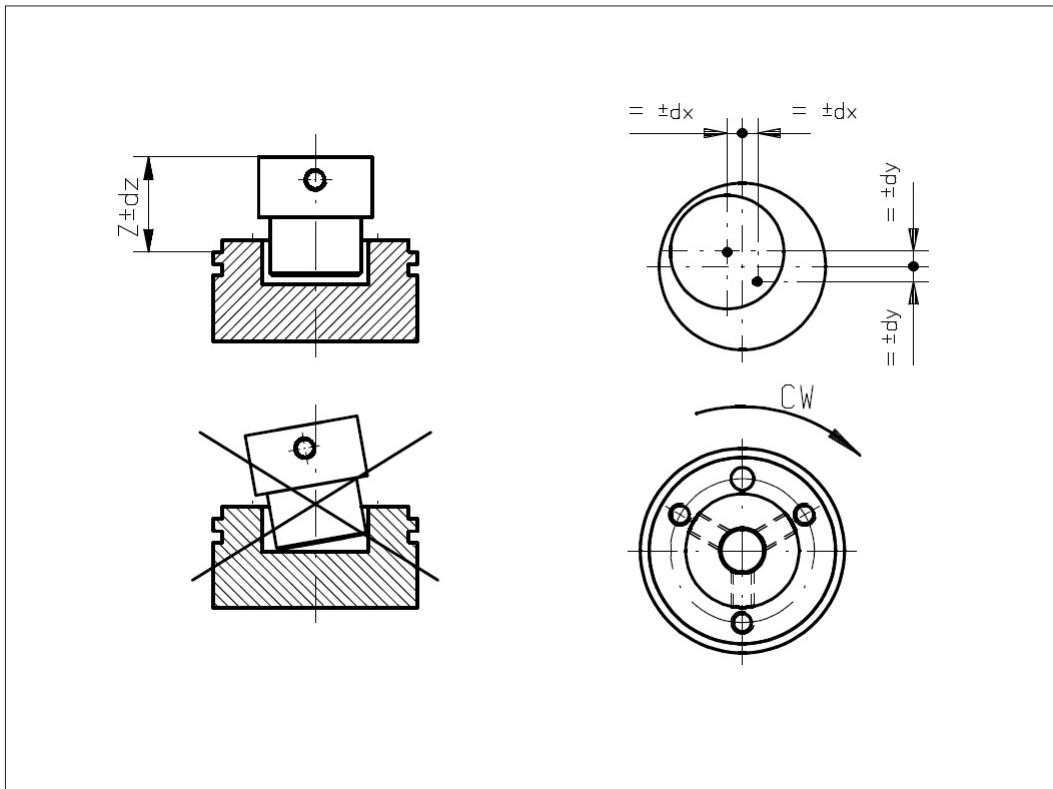
Vert-X 27E2 Mounting information

Working position (Z)

MH-C	12.80mm
MH-C2	12.80mm

Max. permitted misalign- ment of the magnetic actuator

dx	±0.25mm
dy	±0.25mm
dz	±0.5mm



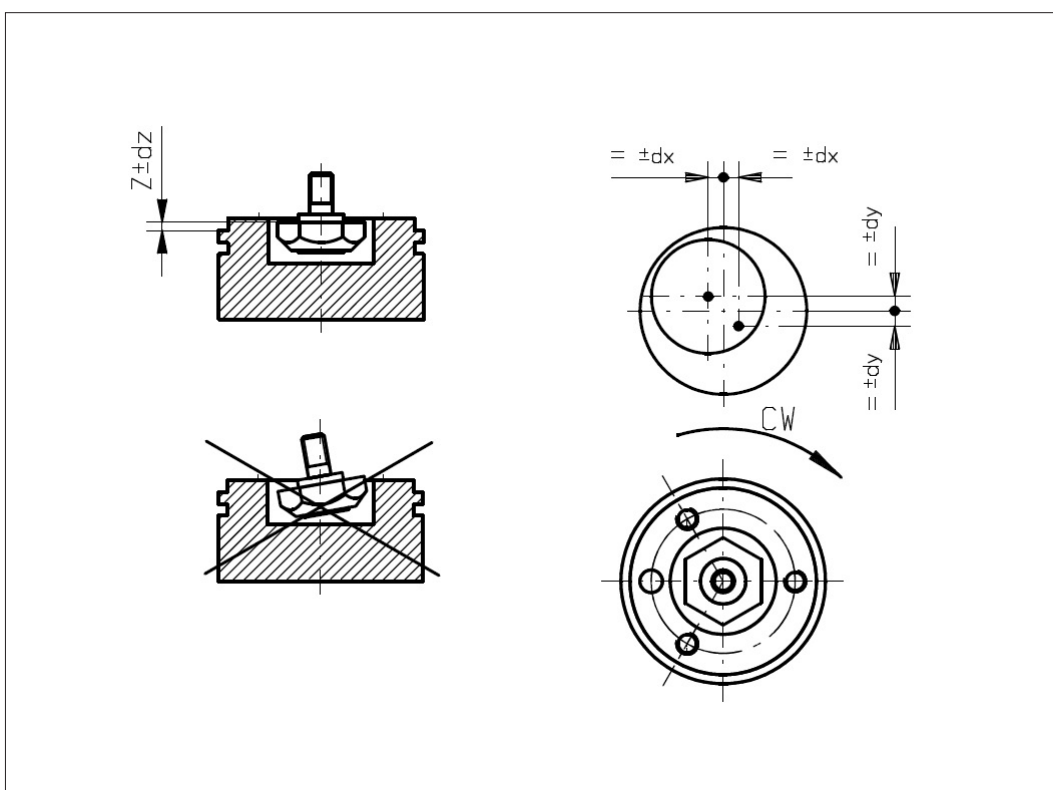
Vert-X 27E1 Mounting information

Working position (Z)

MH-C	1.40mm
MH-C2	1.40mm

Max. permitted misalign- ment of the magnetic actuator

dx	±0.25mm
dy	±0.25mm
dz	±0.5mm

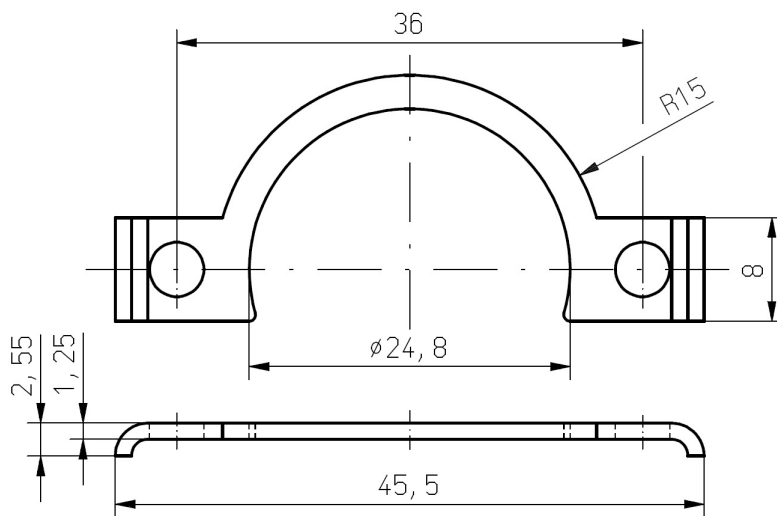


Errors and omissions excepted. Subject to
change without notice. / State: 01.10.10

CONTELEC
A company of the Siedle-Group



Vert-X 27E
Accessoires
Fixation clip



Errors and omissions excepted. Subject to change without notice. / State: 01.10.10