




Vert-X 90E - 24V / CANopen, single

Applications

- Agricultural machines
- Special purpose vehicles
- Construction machines
- Stone crusher

Features

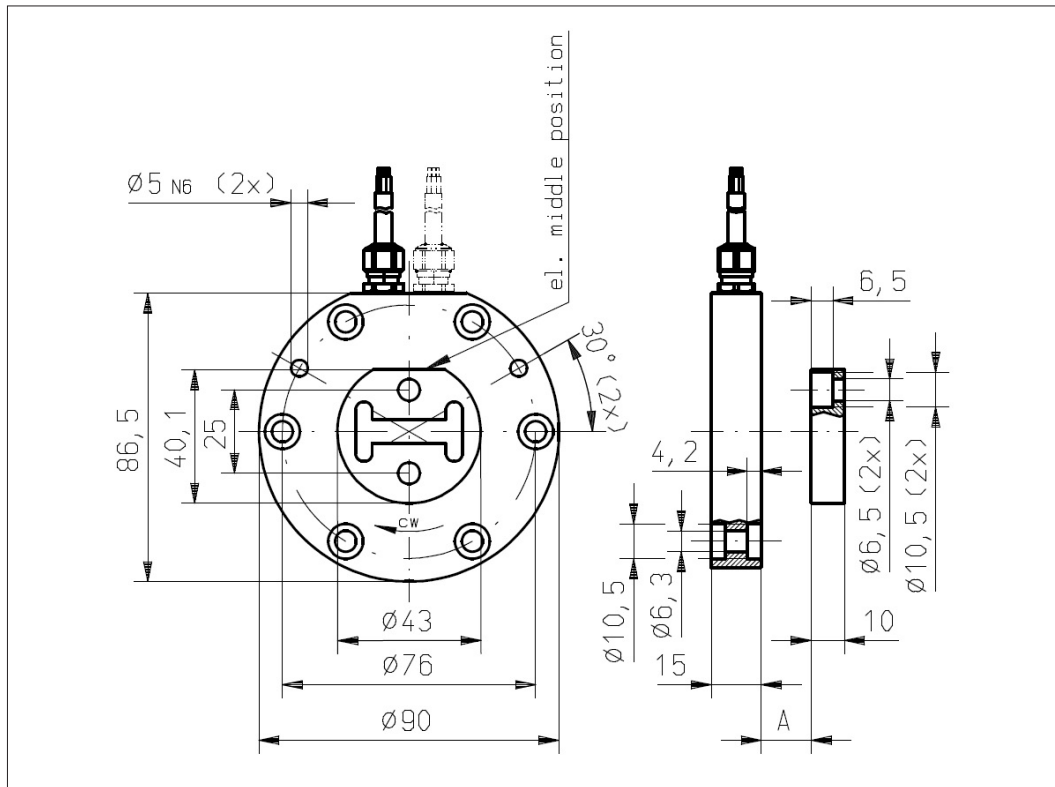
- CiA approved  CIA201003-301V402/20-0116
- High protection class IP68 / IP69K
- Flat design
- Non-contacting measuring method
- Very long life
- High accuracy of measurement
- Applications under harsh ambient conditions possible (humidity, dampness, dust, dirt, vibrations etc.)
- Detection of magnetic loss (with safety flag)
- Full redundancy possible (see separate data sheet)

Errors and omissions excepted. Subject to change without notice. / State: 29.04.16

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| | | |
|--|------------------|------------------------------------|
| Sensor principle | | MH-C2 |
| Electrical data | | |
| Measuring range | ° | 0 ... 360 |
| Indep. linearity (typ.) | % of meas. range | ±0.3 |
| Max. hysteresis | ° | 0.1 |
| Resolution | bit | 16 |
| Max. repeatability | ° | 0.1 |
| Sample rate | kHz | 0.5 |
| Max. temperature coefficient of the output signal | ppm/K | 25 |
| MTTFd / MTBF | year | 135 / 135 |
| Power supply voltage | VDC | 8 ... 35 |
| Current consumption without bus load (typ.) | mA | 30 |
| Reverse polarity protection of power supply | | yes |
| Electrical connection (s = shielded) | | Round cable, s |
| Cross section of single wires | mm ² | 0.34 (AWG22) |
| Bus interface | | ISO/DIS 11898-2 |
| CANopen communication according to CiA | | Standard DS-301 Rev. 4.02 |
| Device profile | | DS-406, Rev. 3.1, Encoder class C2 |
| Default Node-ID | | 16 (programmable 1 ... 127) |
| Default bitrate | kBit/s | 125 |
| Mechanical data | | |
| Mechanical range | ° | 360 (continuous) |
| Protection class | | IP68 / IP69K |
| Min. life | movements | no limitation |
| Operating & storage temperature | °C | -40 ... +85 |
| EN 60068-2-6 Vibration (Amax = 0.75mm, f = 5...2000Hz) | g | 50 |
| EN 60068-2-27 Shock | g | 200 |
| Standards | | |
| EN 55022 class B, Emission radiated (30...230MHz) | dB(µV/m) | max. 30 |
| EN 55022 class B, Emission radiated (230...1000MHz) | dB(µV/m) | max. 37 |
| EN 55022 class B, Emission conducted (0.15...0.5MHz) | dB(µV) | max. 56 ... 46 |
| EN 55022 class B, Emission conducted (0.5...5MHz) | dB(µV) | max. 46 |
| EN 55022 class B, Emission conducted (5...30MHz) | dB(µV) | max. 50 |
| EN 61000-4-2, ESD (contact discharge / air discharge) | kV | ±4 / ±8 |
| EN 61000-4-3, Immision HF radiated (80...1000MHz/1.4...2.7GHz) | 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...80MHz) | Vemk | 10 |
| EN 61000-4-8, Immision magnetic field (50Hz) | A/m | 300 |
| EN 60393-1 Insulation resistance (500VDC, 1bar, 2s) | GOhm | 20 |
| EN 60393-1 Dielectric strength (VAC, 50Hz, 1min, 1bar) | kV | 1 |
| CANopen conformance certified by CiA | Certificate-#: | CiA201003-301V402/20-0116 |



Vert-X 90E7

Accessories (incl.)

- None

Operating range/Air gap (A) Standard with safety flag

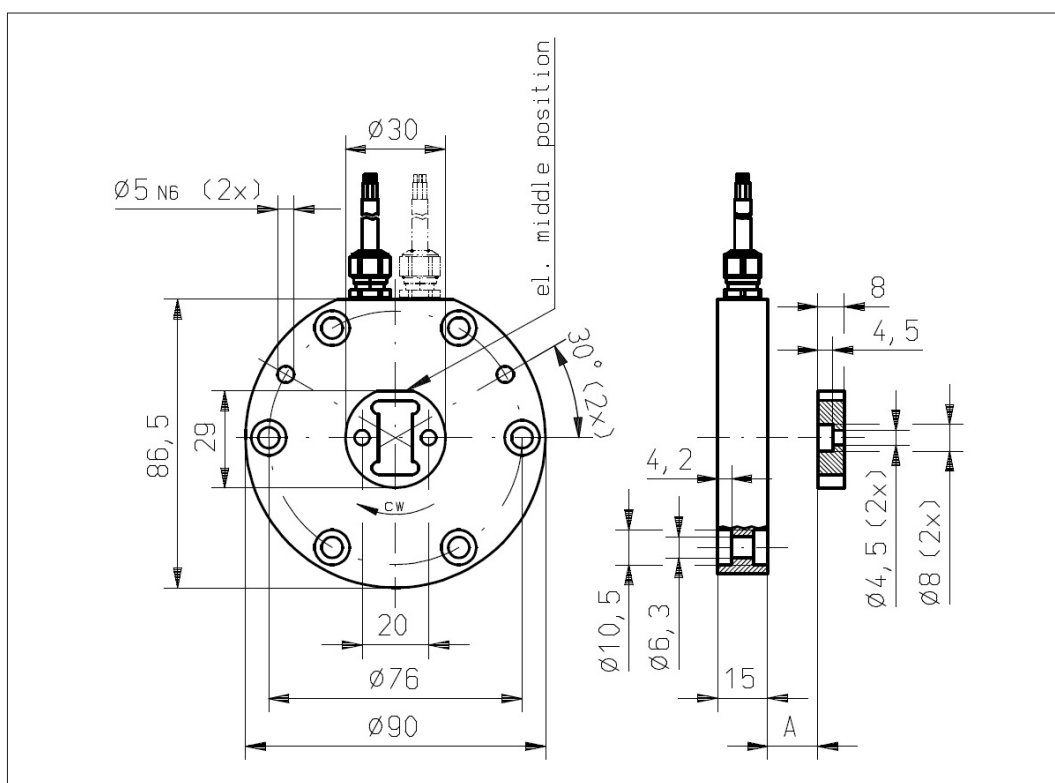
Single 0 ... 13.8mm

Extended without safety flag (Optional)

Single 0 ... 20.2mm

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 90E8

Accessories (incl.)

- None

Operating range/Air gap (A) Standard with safety flag

Single 0 ... 13.3mm

Extended without safety flag (Optional)

Single 0 ... 19.2mm

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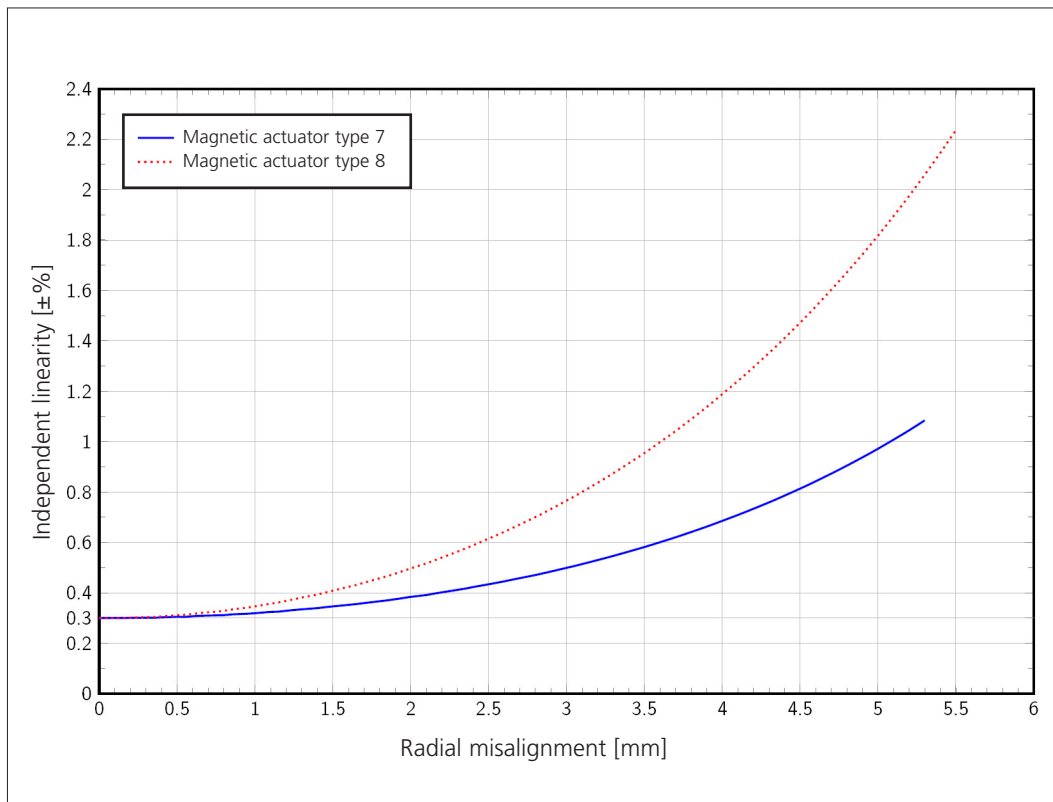
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Vert-X 90E

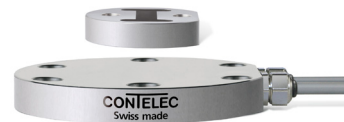
Indep. linearity with radial misalignment (@360°)



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Vert-X 90E - 24V / CANopen,
Certificates



Certificate # **CiA201003-301V402/20-0116**

Vendor ID **00 00 00 80**

Manufacturer **Contelec AG**

Device **Vert-X MH-C2 CAN**

Product code: 0001 8774h
Object 1018h/02h

Revision number: 0000 00A1h
Object 1018h/03h

Hardware version: HV30781B
Object 1009h

Software version: SV_1.2.3
Object 100Ah

EDS **MH-C2_CAN.eds**

File version: 1

File revision: 0

EDS version: 4.02

Nuremberg, 26.03.2010

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