Sensor principle   MH-C2

Electrical data
Measuring range   °  0 ... 360
Independence (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   mm²  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) dBµV/m   max. 30
EN 55022 class B, Emission radiated (230...1000MHz) dBµV/m   max. 37
EN 55022 class B, Emission conducted (0.15...0.5MHz) dBµV   max. 56 ... 46
EN 55022 class B, Emission conducted (0.5...5MHz) dBµV   max. 46
EN 55022 class B, Emission conducted (5...30MHz) dBµV   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) V/mk  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 90E - 24V / CANopen, single

Applications
• Agricultural machines
• Special purpose vehicles
• Construction machines
• Stone crusher

Features
• CiA approved CANopen certified
• 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

Contelec AG
Portstrasse 38
CH-2503 Biel/Bienne
Phone +41 (0)32 3665600
Fax +41 (0)32 3665604
sales@contelec.ch

A company of the Siedle-Group
### Vert-X 90E - 24V / CANopen, single

#### Ordering code

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</table>

**Options (on request)**

- Custom magnetic actuator X
- Custom modification of the housing X
- Custom cable X
- CAN integrated bus termination resistor (120Ω) / R_CAN X
- Custom bitrate (10; 20; 50; 100; 250; 500; 800; 1000 kBit/s) X
- Full redundancy possible (see separate data sheet) X
- Extended operating range, axial (without safety flag) X

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Contelec AG
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CH-2503 Biel/Bienne
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Fax +41 (0)32 3665604
sales@contelec.ch

A company of the Siedle-Group
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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Vert-X 90E

Indep. linearity with radial misalignment (@360°)

![Graph showing independant linearity for different magnetic actuator types]
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
Hardware version: HV30781B
Object 100th
Revision number: 0000 00A1h
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

CAN in Automation GmbH
Kontumazgarten 3
90429 Nuremberg
Germany
phone +49-911-926819-0
fax +49-911-926819-79

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Contelec AG
Portstrasse 38
CH-2503 Biel/Bienne
Phone +41 (0)32 3665600
Fax +41 (0)32 3665604
sales@contelec.ch

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