




Vert-X 79 - 24V / CANopen, single

Applications

- Heavy load transporter
- Construction machines
- Forest machines
- Special purpose vehicles

Features

- CiA approved  CiA201003-301V402/20-0116
- Very robust design
- Contactless measuring method
- Long life
- High accuracy of measurement
- Applications under adverse ambient conditions possible (humidity, dampness, dust, vibrations etc.)
- Developed according to the principles of functional safety
- Redundancy possible (see separate data sheet)

Sensor principle		MH-C2
Electrical data		
Measuring range	°	0 ... 360
Indep. linearity	% of meas. range	±0.1
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	years	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		Connector M12-m
Redundancy feasible		yes
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
Max. starting torque at specified protection class	Ncm	5
Max. rotating speed	rpm	3000
Min. life	movements	360 Mio.
Max. permitted axial shaft load	N	300
Max. permitted radial shaft load	N	300
Operating & storage temperature	°C	-40 ... +85
EN 60068-2-6 Vibration (Amax = 0.75mm, f = 5...2000Hz)	g	20
EN 60068-2-27 Shock	g	50
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		100
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

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
 Telefax +41 (0)32 3665604
 sales@contelec.ch

CONTELEC
 A company of the Siedle-Group



Vert-X 79 - 24V / CANopen, single

Ordering code

		CAN characteristics	
CAN-High-In ; CAN-High-Out ;		Optional	3
CAN-Low-In ; CAN-Low-Out			
CAN-High ; CAN-Low ; R _{CAN}		Optional	4
CAN-High ; CAN-Low		Standard	5
Special version		Optional	9
		Output signal	
CANopen Encoder Profile 406 (C2)		Standard	3
		Power supply voltage	
24VDC		Standard	1
		Electrical connection	
		S	Standard Connector
		Definition of the connector	
		15	Standard 1x Connector 5pole
		18	Optional 1x Connector 8pole
Vert-X	7	9	7
	2	8	3
		6	1
			3
			5
			5
			1
			5
		Electrical angle	
		36	Standard Electrical angle 360°
		Sensor principle	
		8 MH-C2	
Mechanical version			
7972	Standard	Housing ø79mm with flange ; 10mm shaft ; IP68 & IP69K	
7978	Optional	Housing ø79mm with flange ; Driving disc mounted ; IP68 & IP69K	
7999	Optional	Special housing ; Special shaft	

	MH-C2
Custom shaft design	X
Custom modification of the housing	X
Custom electrical connection	X
CAN integrated bus termination resistor (120Ω) / R _{CAN}	X
Custom bitrate (10 ; 20 ; 50 ; 100 ; 250 ; 500 ; 800 ; 1000 kBit/s)	X
Redundancy possible (see separate data sheet)	X
Immision magnetic field up to 10'000 A/m (additional shielded)	X

Options (on request)

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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

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CAN in Automation GmbH


Kontumazgarten 3

90429 Nuremberg

Germany

phone: +49-911-928819-0

fax: +49-911-928819-79


Technical Manager

CAN in Automation GmbH
Kontumazgarten 3
90429 Nuremberg
Germany
phone: +49-911-928819-0
fax: +49-911-928819-79



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