

ABSOLUTE ENCODER MyAbs

CAxx37

- Housing Ø 37,5 mm shaft (CAxS37) and hollow/blind shaft (CAxH37) absolute encoder
- CAxS37: up to 17 bit single turn and 12 bit multiturn, + 100 °C operating temperature, 6 mm shaft Ø
- CAxH37: up to 19 bit single turn and 12 bit multiturn, + 120 °C operating temperature, 8 mm through hollow shaft
- SSI or BiSS interface
- Sinewave 1 Vpp
- Bandwidth 500 kHz



Electrical Data:

Shaft (CAxS37)

Hollow/blind shaft (CAxH37)

Supply voltage	DC 5 V, -5 %/+10 % or DC 7-30 V	DC 5 V, -5 %/+10 % or DC 7-30 V
Intrinsic current consumption ST/MT	50 mA/100 mA	50 mA/100 mA
Interface	Standard SSI or BiSS	Standard SSI or BiSS
Lines/Drivers	Clock and data / RS422	Clock and data / RS422
Output code	Gray or Binary	Gray
Singleturn resolution	12-17 Bit depending on version	12-19 Bit depending on version
Multiturn resolution	12 Bit	12 Bit
Incremental signals, optional	Sine - Cosine 1 Vpp	Sine - Cosine 1 Vpp
Number of increments	2048	2048
3 dB limiting frequency	500 kHz	500 kHz
Absolute accuracy	± 35"	± 35"
Repeatability	± 7"	± 7"
Connection	Cable axial or radial	Cable radial, PCB connector, 12-pole
Alarm output	Alarm Bit (SSI option), Warning Bit and alarm Bit (BiSS)	Alarm Bit (SSI option), Warning Bit and alarm Bit (BiSS)

Mechanical Data:

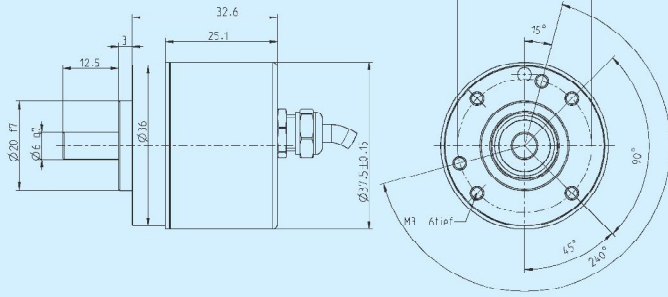
Shaft (CAxS37)

Hollow/blind shaft (CAxH37)

Housing diameter	37,5 mm	37,5 mm
Protection, shaft input	IP 64	IP 40
IP Protection class, housing	IP 64	IP 40
Flange types	pilot flange	spring tether
Shaft diameter	6 mm	8 mm
Max. speed	Continuous 10 000 ^{min-1} Short-term 12 000 ^{min-1}	Continuous 10 000 ^{min-1} Short-term 12 000 ^{min-1}
Starting Torque	0,01 Nm	0,01 Nm
Moment of inertia, rotor	2,5 x 10 ⁻⁶ kgm ²	2,5 x 10 ⁻⁶ kgm ²
Tolerance axial		± 0,5 mm
Tolerance radial		± 0,05 mm
Shock resistance IEC 68-2-27	1000 m/s ² (6 ms)	1000 m/s ² (6 ms)
Vibration resistance IEC 68-2-6	100 m/s ² (10-2000 Hz)	100 m/s ² (10-2000 Hz)
Working temperature	-25...+100 °C	-15...+120 °C
Storage temperature	-15...+85 °C (due to packaging)	-15...+85 °C (due to packaging)
Weight, approx. (ST/MT)	80 g/130 g	80 g/130 g

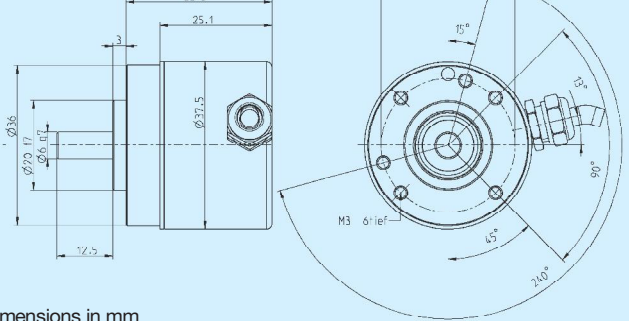
Dimensioned drawing

Connection axial CAXS37



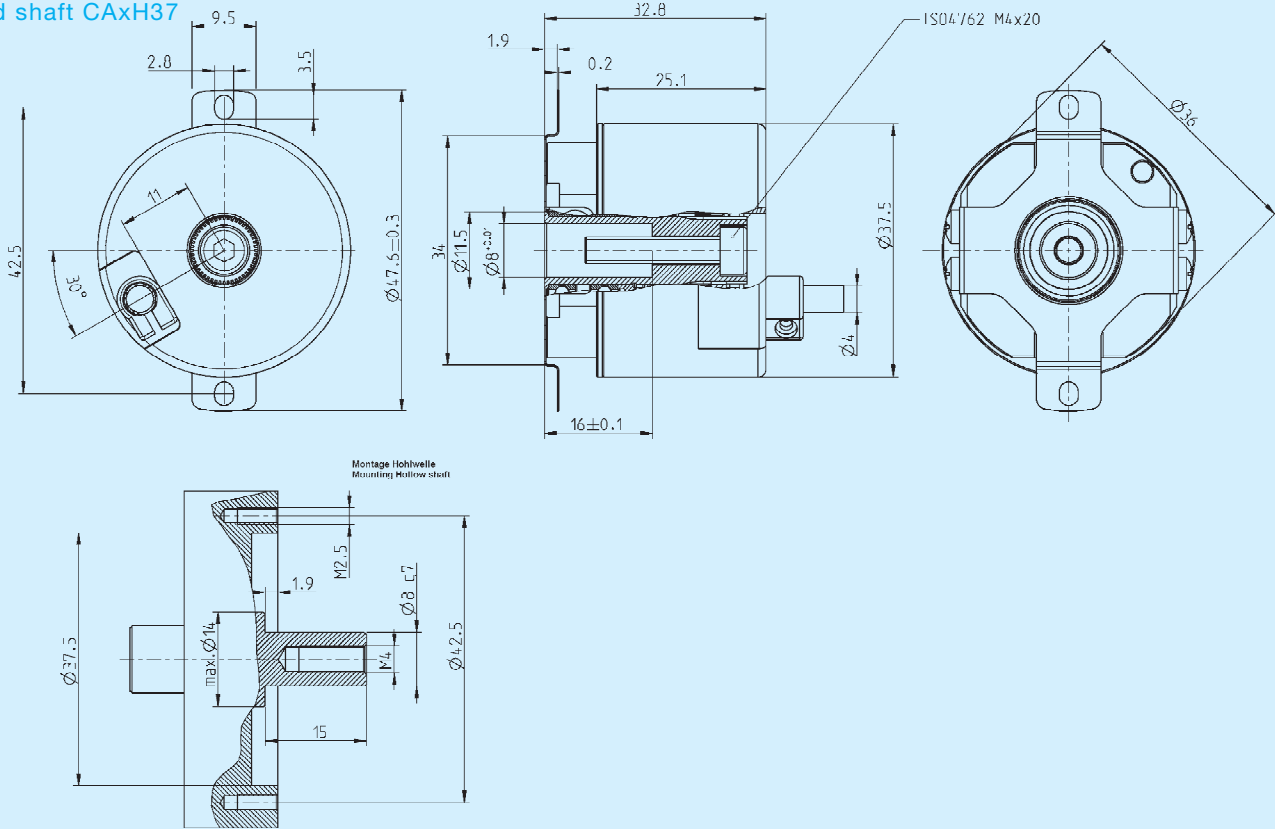
Dimensions in mm

Connection radial CAXS37

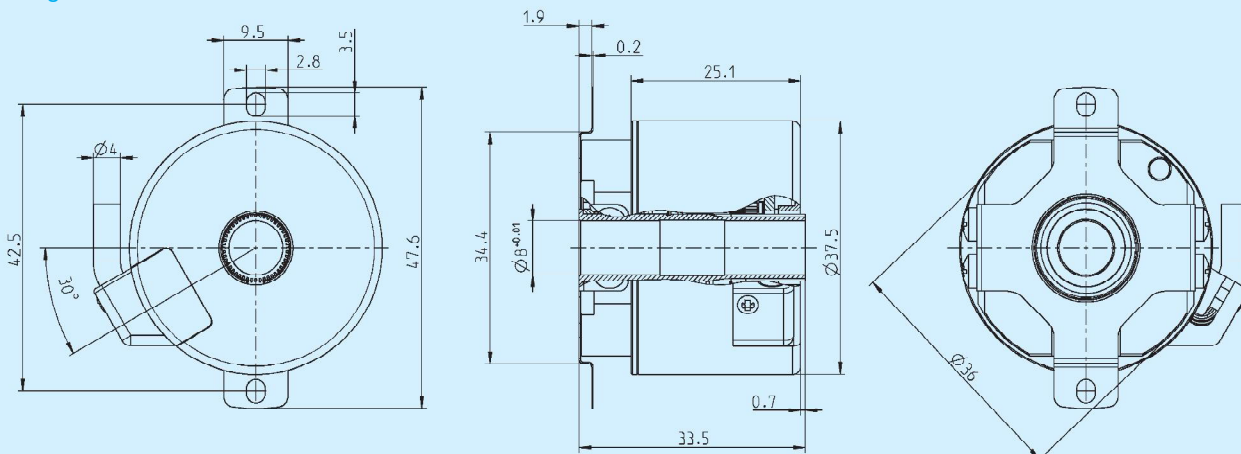


Dimensions in mm

Blind shaft CAXH37



Through hollow shaft CAXH37



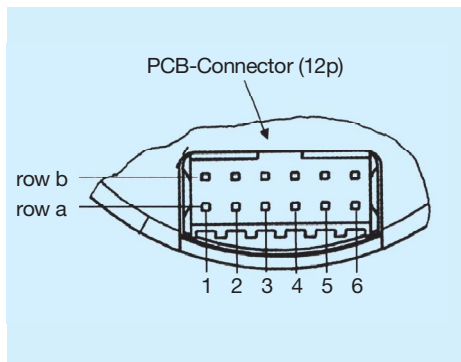
Dimensions in mm

Pin assignment CAxS37

Signal	Cable color
DC 5/7–30 V (U_B)	white
0 V (U_N)	brown
Clock	yellow
$\overline{\text{Clock}}$	green
Data	pink
$\overline{\text{Data}}$	grey
A	white/green ¹
\overline{A}	brown/green ¹
B	red/blue ¹
\overline{B}	grey/pink ¹
DC 5 V Sensor	violet ¹
0 V Sensor	black ¹

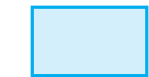
¹only with „SC“

Pin assignment CAxH37



Signals	Pin	Cable color
Data	1a	grey
A +	2a	white/green
0 V Sensor	3a	black
B +	4a	red/blue
Clock	5a	green
5 V Sensor	6a	violett
DC 5 V/7–30 V	1b	white
Clock	2b	yellow
B -	3b	grey/pink
0 V (U_N)	4b	brown
A -	5b	brown/green
Data	6b	pink

ORDERING CODE CAxS37



CASS37
Absolute singleturn shaft encoder
CAMS37
Absolute multiturn shaft encoder



Resolution

0012 = 12 Bit ST
0013 = 13 Bit ST
0014 = 14 Bit ST
0017 = 17 Bit ST
1213 = 12 Bit MT + 13 Bit ST
1217 = 12 Bit MT + 17 Bit ST BiSS



Supply voltage

A = 5 V DC
E = 7–30 VDC



Flange, Protection

K4 = Clamping,
IP 64



Shaft-Ø

06 = 6 mm shaft



Interface

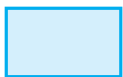
SC = SSI Gray +
SinCos
1Vpp
SB = SSI Binary
SG = SSI Gray
BB = BiSS



Connection

A = cable axial
B = cable radial

ORDERING CODE CAxH37



CASH37
Absolute singleturn shaft encoder
CAMH37
Absolute multiturn hollow shaft encoder



Resolution

0012 = 12 Bit ST
0013 = 13 Bit ST
0014 = 14 Bit ST
0017 = 17 Bit ST
0019 = 19 Bit ST (BiSS)
1213 = 12 Bit MT + 13 Bit ST
1217 = 12 Bit MT + 17 Bit ST
1219 = 12 Bit MT + 19 Bit ST (BiSS)



Supply voltage

A = 5 V DC
E = 7–30 VDC



Flange, Protection

H0 = Spring tether,
IP 40, through
hollow shaft
B0 = Spring tether,
IP 40, blind
shaft



Shaft-Ø

08 = 8 mm
hollow/blind
shaft



Interface

SC = SSI Gray +
SinCos
1Vpp
BB = BiSS



Connection

B = cable radial
C = PCB-Connector 12-pole