

# 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 <sup>min-1</sup><br>Short-term 12 000 <sup>min-1</sup> | Continuous 10 000 <sup>min-1</sup><br>Short-term 12 000 <sup>min-1</sup> |
| Starting Torque                 | 0,01 Nm                                                                  | 0,01 Nm                                                                  |
| Moment of inertia, rotor        | 2,5 x 10 <sup>-6</sup> kgm <sup>2</sup>                                  | 2,5 x 10 <sup>-6</sup> kgm <sup>2</sup>                                  |
| Tolerance axial                 |                                                                          | ± 0,5 mm                                                                 |
| Tolerance radial                |                                                                          | ± 0,05 mm                                                                |
| Shock resistance IEC 68-2-27    | 1000 m/s <sup>2</sup> (6 ms)                                             | 1000 m/s <sup>2</sup> (6 ms)                                             |
| Vibration resistance IEC 68-2-6 | 100 m/s <sup>2</sup> (10-2000 Hz)                                        | 100 m/s <sup>2</sup> (10-2000 Hz)                                        |
| Working temperature             | -40...+100 °C                                                            | -40...+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                                                               |



Meyer Industrie-Electronic GmbH – MEYLE

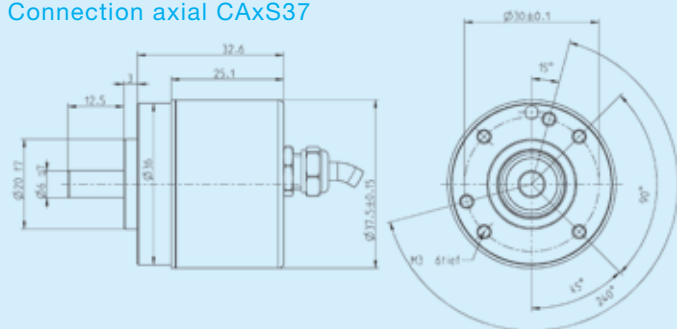
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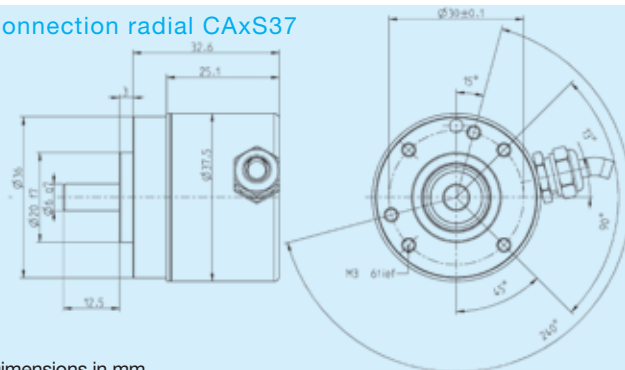
## Dimensioned drawing

### Connection axial CAxS37



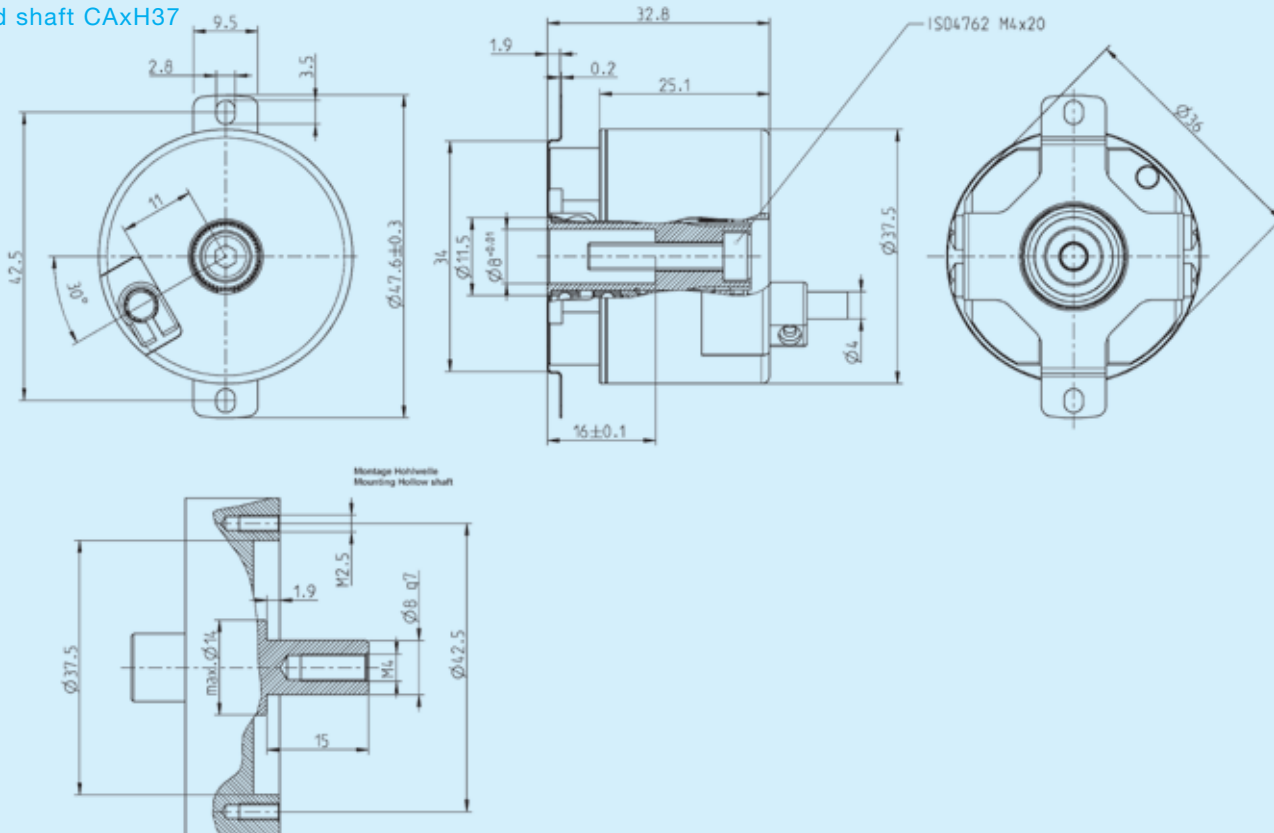
Dimensions in mm

### Connection radial CxS37

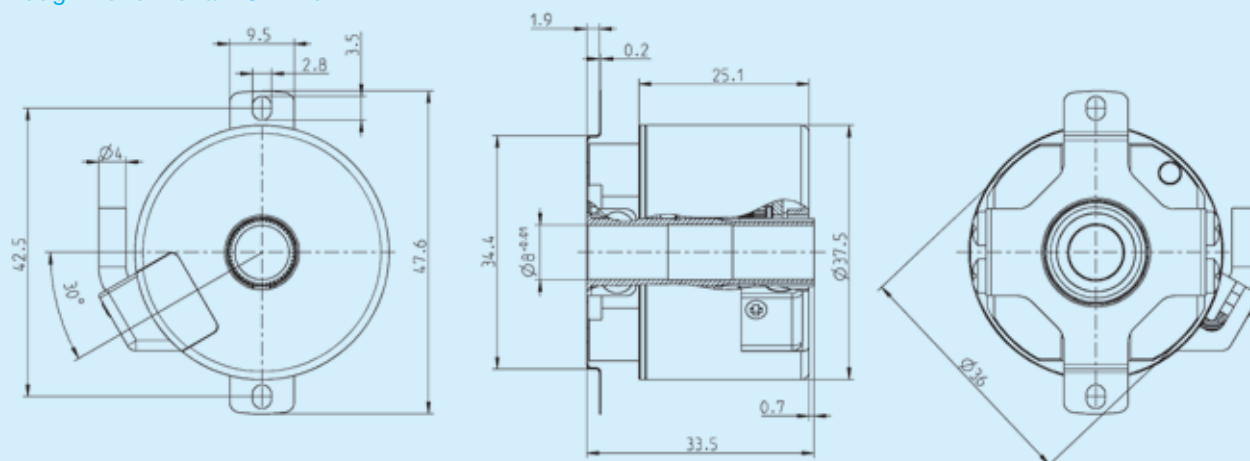


Dimensions in mm

## Blind shaft CAxH37



### Through hollow shaft CAxH37



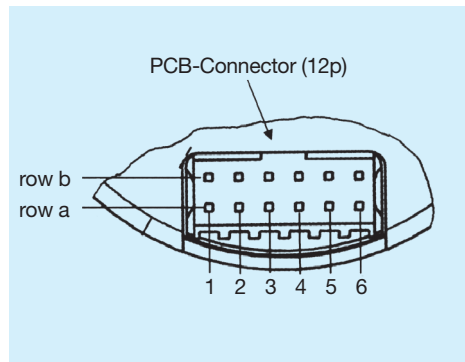
Dimensions in mm

## Pin assignment CAXS37

| Signal                | Cable color              |
|-----------------------|--------------------------|
| DC 5/7–30 V ( $U_B$ ) | white                    |
| 0 V ( $U_N$ )         | brown                    |
| Clock                 | yellow                   |
| Clock                 | green                    |
| Data                  | pink                     |
| Data                  | grey                     |
| A                     | white/green <sup>1</sup> |
| A                     | brown/green <sup>1</sup> |
| B                     | red/blue <sup>1</sup>    |
| B                     | grey/pink <sup>1</sup>   |
| DC 5 V Sensor         | violet <sup>1</sup>      |
| 0 V Sensor            | black <sup>1</sup>       |

<sup>1</sup>only with „SC“

## Pin assignment CAXH37



| Signals       | Pin | Cable color |
|---------------|-----|-------------|
| Data          | 1a  | grey        |
| A +           | 2a  | red         |
| 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  | blue        |
| Data          | 6b  | pink        |

## ORDERING CODE CAXS37

| <b>CASS37</b><br>Absolute singleturn shaft encoder | <b>Resolution</b><br>0012 = 12 Bit ST<br>0013 = 13 Bit ST<br>0014 = 14 Bit ST<br>0017 = 17 Bit ST<br>1213 = 12 Bit MT + 13 Bit ST<br>1217 = 12 Bit MT + 17 Bit ST BiSS | <b>Supply voltage</b><br>A = 5 V DC<br>E = 7–30 VDC | <b>Flange, Protection</b><br>K4 = Clamping,<br>IP 64 | <b>Shaft-Ø</b><br>06 = 6 mm shaft | <b>Interface</b><br>SC = SSI Gray +<br>SinCos<br>1Vpp<br>SB = SSI Binary<br>SG = SSI Gray<br>BB = BiSS | <b>Connection</b><br>A = cable axial<br>B = cable radial |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------|

## ORDERING CODE CAXH37

| <b>CASH37</b><br>Absolute singleturn shaft encoder | <b>Resolution</b><br>0012 = 12 Bit ST<br>0013 = 13 Bit ST<br>0014 = 14 Bit ST<br>0017 = 17 Bit ST<br>0019 = 19 Bit ST (BiSS)<br>1213 = 12 Bit MT + 13 Bit ST<br>1217 = 12 Bit MT + 17 Bit ST<br>1219 = 12 Bit MT + 19 Bit ST (BiSS) | <b>Supply voltage</b><br>A = 5 V DC<br>E = 7–30 VDC | <b>Flange, Protection</b><br>H0 = Spring tether,<br>IP 40, through<br>hollow shaft<br>B0 = Spring tether,<br>IP 40, blind<br>shaft | <b>Shaft-Ø</b><br>08 = 8 mm<br>hollow/blind<br>shaft | <b>Interface</b><br>SC = SSI Gray +<br>SinCos<br>1Vpp<br>BB = BiSS | <b>Connection</b><br>B = cable radial<br>C = PCB-Connector 12-pole |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|