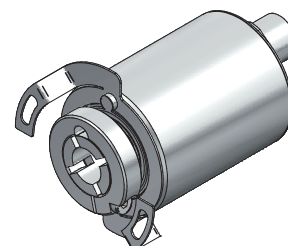


**MAIN FEATURES**

Industry standard multiturn absolute encoder for factory automation applications.

- Magnetic sensor technology without contact (magnetic ASIC + Energy Harvesting)
- Sturdy construction thanks to separated chambers
- Power supply up to +32 VDC with CANopen interface
- Axial M12 connector output
- 10 mm blind hollow shaft
- Mounting by stator coupling

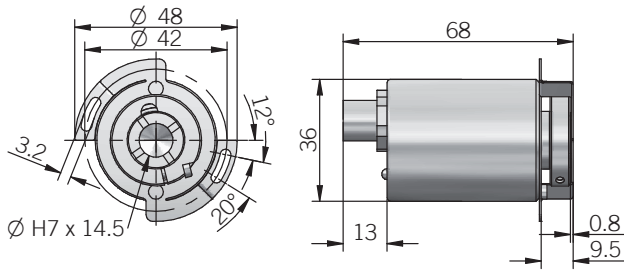


| ORDERING CODE                                                          | AAM | 36F | 12 / 13 | B | 10/30 | CNP | 10 | X | X | M12 | A | .XXX |
|------------------------------------------------------------------------|-----|-----|---------|---|-------|-----|----|---|---|-----|---|------|
| <b>SERIES</b><br>magnetic multiturn absolute encoder series <b>AAM</b> |     |     |         |   |       |     |    |   |   |     |   |      |
| <b>MODEL</b><br>blind hollow shaft with stator coupling <b>36F</b>     |     |     |         |   |       |     |    |   |   |     |   |      |
| <b>MULTITURN RESOLUTION</b><br>bit <b>12</b>                           |     |     |         |   |       |     |    |   |   |     |   |      |
| <b>SINGLETURN RESOLUTION</b><br>bit <b>13</b>                          |     |     |         |   |       |     |    |   |   |     |   |      |
| <b>CODE TYPE</b><br>binary <b>B</b>                                    |     |     |         |   |       |     |    |   |   |     |   |      |
| <b>POWER SUPPLY</b><br>10 ... 30 V DC <b>10/30</b>                     |     |     |         |   |       |     |    |   |   |     |   |      |
| <b>ELECTRICAL INTERFACE</b><br>CANopen <b>CNP</b>                      |     |     |         |   |       |     |    |   |   |     |   |      |
| <b>BORE DIAMETER</b><br>mm <b>10</b>                                   |     |     |         |   |       |     |    |   |   |     |   |      |
| <b>ENCLOSURE RATING</b><br>IP67 cover side / IP 65 shaft side <b>X</b> |     |     |         |   |       |     |    |   |   |     |   |      |
| <b>OPTIONS</b><br>to be reported <b>X</b>                              |     |     |         |   |       |     |    |   |   |     |   |      |
| <b>OUTPUT TYPE</b><br>M12 5 pin connector <b>M12</b>                   |     |     |         |   |       |     |    |   |   |     |   |      |
| <b>DIRECTION TYPE</b><br>axial <b>A</b>                                |     |     |         |   |       |     |    |   |   |     |   |      |
| <b>VARIANTE</b><br>without mating connector <b>162</b>                 |     |     |         |   |       |     |    |   |   |     |   |      |

**ORDERING CODE**

| Description                                | P/N      |
|--------------------------------------------|----------|
| AAM 36F 12/13 B 10/30 CNP 10 X X M12 A.162 | 92560002 |

## AAM 36F



dimensions in mm

## ELECTRICAL SPECIFICATIONS

|                                      |                                                                                   |
|--------------------------------------|-----------------------------------------------------------------------------------|
| <b>Multiturn resolution</b>          | 12 bit<br>programmable during commissioning                                       |
| <b>Singleturn resolution</b>         | 13 bit<br>programmable during commissioning                                       |
| <b>Power supply</b>                  | +10 ... 32 V DC (with reverse polarity protection)                                |
| <b>Power draw without load</b>       | 0,5 W                                                                             |
| <b>Electrical interface</b>          | CAN                                                                               |
| <b>Protocol</b>                      | CANopen<br>Communication profile CiA 301<br>Encoder profile CiA 406 V3.2 class C2 |
| <b>Node number</b>                   | 1 ... 127 (default 127)<br>programmable during commissioning                      |
| <b>Baud rate</b>                     | 10 kBaud ... 1 Mbaud<br>with automatic bit rate detection                         |
| <b>LSS protocol</b>                  | according to CiA 305                                                              |
| <b>CAN transmission modes</b>        | programmable (Synchronous and Asynchronous)                                       |
| <b>LED error messages</b>            | according to CiA 303-3                                                            |
| <b>Code type</b>                     | binary                                                                            |
| <b>Position update rate</b>          | ≤ 600 µs                                                                          |
| <b>Start-up time</b>                 | < 1,5 s                                                                           |
| <b>Accuracy</b>                      | ± 0,35°                                                                           |
| <b>Electromagnetic compatibility</b> | according to 2014/30/EU directive                                                 |
| <b>RoHS</b>                          | according to 2011/65/EU directive                                                 |

## CONNECTIONS

| Function         | 5 pin<br>M12                        |
|------------------|-------------------------------------|
| + V DC           | 2                                   |
| 0 V              | 3                                   |
| CAN_H            | 4                                   |
| CAN_L            | 5                                   |
| CAN_GND (shield) | 1                                   |
| ≡                | shield connected to encoder housing |

## MECHANICAL SPECIFICATION

|                                           |                                      |
|-------------------------------------------|--------------------------------------|
| <b>Bore diameter</b>                      | ø 10 mm                              |
| <b>Enclosure rating IEC 60529</b>         | IP 67 cover side / IP65 shaft side   |
| <b>Max rotation speed</b>                 | 6000 rpm                             |
| <b>Max shaft load</b>                     | 80 N radial / 50 N axial             |
| <b>Shock</b>                              | 100 G, 6 ms (IEC 60068-2-27)         |
| <b>Vibrations</b>                         | 30 G, 10 ... 2000 Hz (IEC 60068-2-6) |
| <b>Starting torque (at +20°C / +68°F)</b> | < 0,002 Nm (0,28 Ozin)               |
| <b>Bearing stage material</b>             | aluminium                            |
| <b>Shaft material</b>                     | stainless steel                      |
| <b>Housing material</b>                   | chromium plated steel                |
| <b>Bearings</b>                           | 2 ball bearings                      |
| <b>Bearings life</b>                      | 10 <sup>9</sup> revolutions          |
| <b>Operating temperature</b>              | -40° ... +85°C (-40° ... +185°F)     |
| <b>Storage temperature</b>                | -40° ... +100°C (-40° ... +212°F)    |
| <b>Weight</b>                             | 110 g (3,88 oz) approx               |

M12 connector(5 pin)  
M12 A coded  
solder side view FV

