

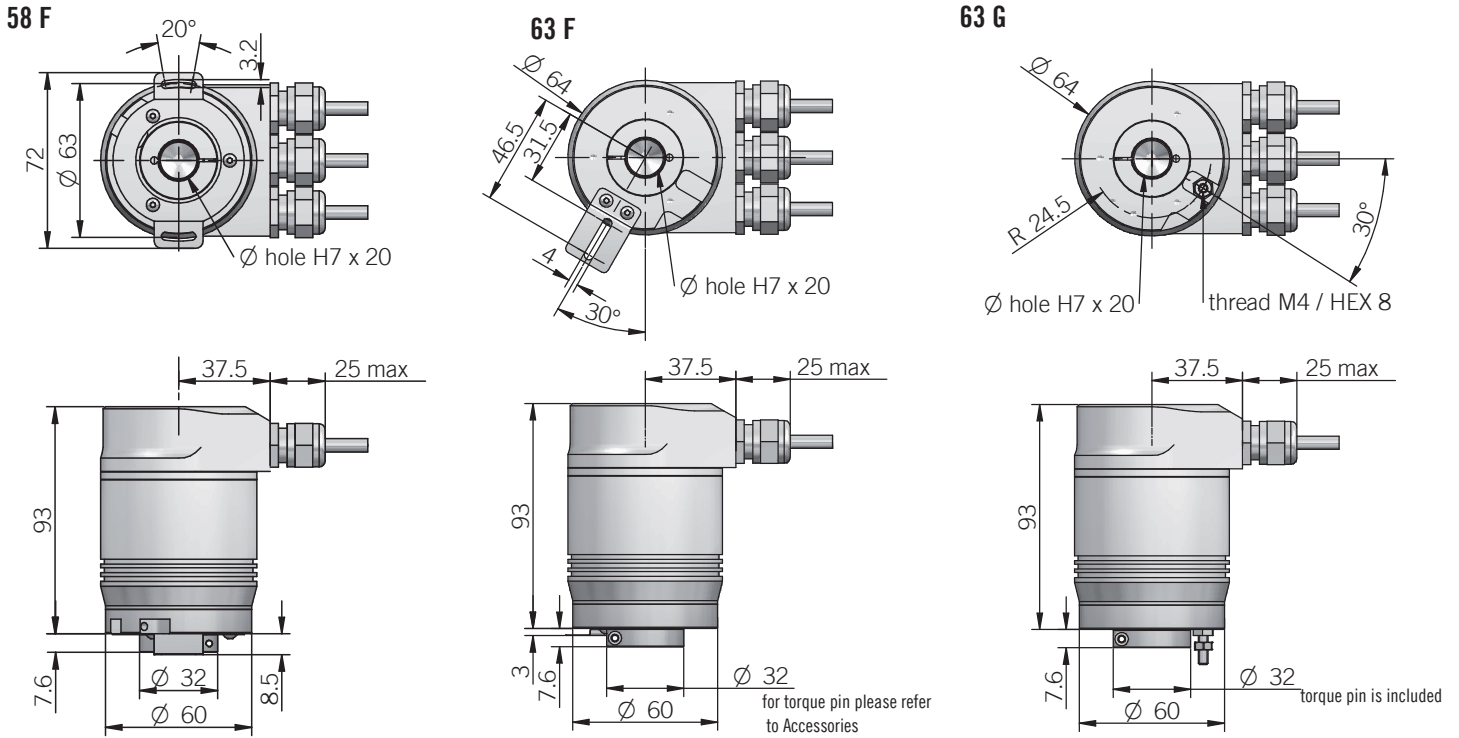
MAIN FEATURES

Industry standard multiturn absolute encoder for factory automation applications.

- Optical sensor technology (OptoASIC + gears)
- 25 bit total resolution (13 bit single turn (8192 ppr) + 12 bit multiturn (4096 turns))
- Power supply up to +28 V DC with Profibus DP as electrical interface
- Intelligent status leds
- Terminal box or M12 connector for fast setup
- Blind hollow shaft up to 15 mm diameter
- Mounting by stator coupling, torque stop slot or torque pin



| ORDERING CODE | EAM | 63F | R | 4096 / 4096 | B | 12/28 | FX | 15 | X | 3 | M12R | .162 | +XXX |
|--|-----|-----|---|-------------|---|-------|----|----|---|---|------|------|------|
| SERIES multiturn absolute encoder EAM | | | | | | | | | | | | | |
| MODEL blind hollow shaft with stator coupling 58F blind hollow shaft with torque stop slot 63F blind hollow shaft with torque pin 63G | | | | | | | | | | | | | |
| rev. 2.0 R | | | | | | | | | | | | | |
| MULTITURN RESOLUTION turns 4096 | | | | | | | | | | | | | |
| SINGLETURN RESOLUTION ppr 4096 / 8192 | | | | | | | | | | | | | |
| CODE TYPE binary B | | | | | | | | | | | | | |
| POWER SUPPLY 12 ... 28 V DC 12/28 | | | | | | | | | | | | | |
| ELECTRICAL INTERFACE PROFIBUS DP V0 CLASS 2 FX | | | | | | | | | | | | | |
| BORE DIAMETER mm 14 mm 15 diameters 6 / 8 / 9,52 (3/8") / 10 / 11 / 12 mm with optional shaft adapter, see Accessories | | | | | | | | | | | | | |
| ENCLOSURE RATING IP 54 X | | | | | | | | | | | | | |
| MAX ROTATION SPEED 3000 rpm 3 | | | | | | | | | | | | | |
| OUTPUT TYPE terminal box - radial cable glands P3R radial M12 connectors M12R | | | | | | | | | | | | | |
| MATING CONNECTORS mating connectors not included .162 to be reported only with connectors output (eg. M12R.162), for mating connectors see Accessories | | | | | | | | | | | | | |
| VARIANT custom version XXX | | | | | | | | | | | | | |



recommended mating shaft tolerance g6
dimensions in mm

ELECTRICAL SPECIFICATIONS

| | |
|---|--|
| Multiturn resolution | 1 ... 4096 turns programmable during commissioning |
| Singleturn resolution | 2 ... 4096 / 2 ... 8192 ppr programmable during commissioning |
| Power supply¹ | 11,4 ... 29,4 V DC |
| Current consumption without load | 300 mA |
| Electrical interface² | RS 485 galvanically isolated |
| Max bus frequency | 12 Mbaud |
| Diagnostic features | frequency warning position warning / alarm please refer to installation manual for more informations |
| Max frequency | max 25 kHz LSB |
| Code type | binary |
| Counting direction | programmable during commissioning |
| Start-up time | 500 ms |
| Accuracy | ± 1/2 LSB |
| Electromagnetic compatibility | according to 2014/30/EU directive |
| RoHS | according to 2011/65/EU directive |
| UL / CSA | certificate n. E212495 |

CONNECTIONS

| Function | POWER | BUS OUT | BUS IN |
|----------|-------|---------|--------|
| + V DC | 2 | | |
| 0 V | 4 | | |
| A | | 2 | |
| B | | 4 | |
| A | | | 2 |
| B | | | 4 |

MECHANICAL SPECIFICATIONS

| | |
|--|--|
| Bore diameter | ∅ 14 / 15 mm ∅ 6* / 8* / 9,52 (3/8")* / 10* / 11* / 12 mm * with optional shaft adapter, please refer to Accessories |
| Enclosure rating | IP 54 (IEC 60529) |
| Max rotation speed | 3000 rpm |
| Shock | 50 G, 11 ms (IEC 60068-2-27) |
| Vibration | 10 G, 10 ... 2000 Hz (IEC 60068-2-6) |
| Moment of inertia | 5 x 10 ⁻⁶ kgm ² (119 x 10 ⁻⁶ lbf ²) |
| Starting torque (at +20°C / +68°F) | < 0,02 Nm (2,83 Ozin) |
| Bearing stage material | EN-AW 2011 aluminum |
| Shaft material | 1.4305 / AISI 303 stainless steel |
| Shaft adapter material | CuSn12 / CC483K bronze |
| Housing material | painted aluminium |
| Bearings | n.2 ball bearings |
| Bearings life | 10 ⁹ revolutions |
| Operating temperature^{3,4} | 0° ... +60°C (+32° ... +140°F) |
| Storage temperature⁴ | -15° ... +70°C (+5° ... +158°F) |
| Fixing torque for collar clamping | 1,5 Nm (212 Ozin) recommended |
| Weight | 650 g (22,93 oz) |

¹ as measured at the transducer without cable influences
² for further details refer to OUTPUT LEVELS on TECHNICAL BASICS section
³ measured on the transducer flange
⁴ condensation not allowed

POWER connector (5 pin) M12 A coded view solder side FV BUS OUT - female (5 pin) M12 B coded solder side view FV BUS IN - male (5 pin) M12 B coded solder side view MV

