

MAIN FEATURES

Industry standard multiturn absolute encoder for factory automation applications.

- Optical sensor technology (OptoASIC + gears)
- 25 bit total resolution (13 bit single turn + 12 bit multiturn)
- Power supply up to +30 V DC with Profinet IO as electrical interface
- Intelligent status leds
- M12 connector for fast setup
- Solid shaft diameter up to 10 mm
- Mounting by synchronous or clamping flange
- Operating temperature -40° ... +80°C (-40° ... +176°F)



ORDERING CODE

AAM 58B R 12 / 13 B 10/30 PFN 6 X X M12R .162

SERIES
absolute multiturn encoder **AAM**

MODEL
synchronous flange ø 50 mm **58B**
clamping flange ø 36 mm **58C**

REVISION
to be reported **R**

MULTITURN RESOLUTION
bit **12**

SINGLETURN RESOLUTION
bit **13**

CODE TYPE
binary **B**

POWER SUPPLY
10 ... 30 V DC **10/30**

ELECTRICAL INTERFACE
PROFINET IO **PFN**

SHAFT DIAMETER
(mod. 58B) mm **6**
(mod. 58C) mm **10**

ENCLOSURE RATING
IP 65 **X**

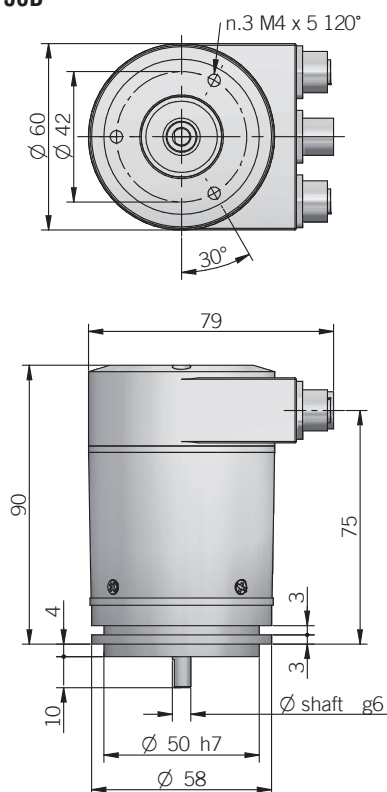
OPTIONS
to be reported **X**

OUTPUT TYPE
radial M12 connectors **M12R**

VARIANT
without mating connectors **162**

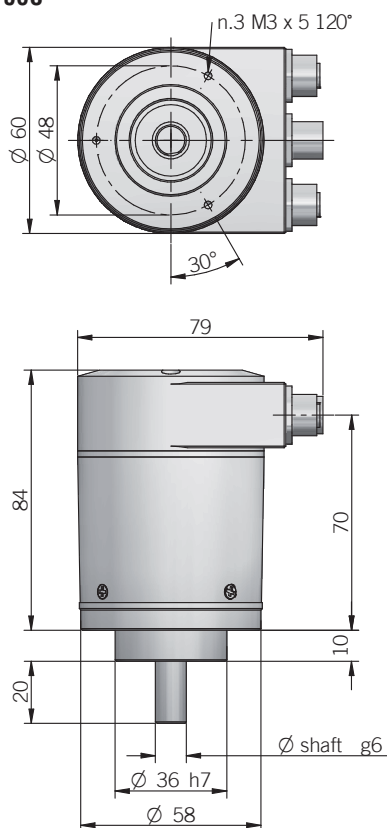
PRELIMINARY

58B



for fixing clamps please refer to Accessories

58C



dimensions in mm

¹ as measured at the encoder without cable influences

² for further details refer to TECHNICAL BASICS section

³ maximum load for static usage

⁴ measured on encoder flange

⁵ condensation not allowed

ELECTRICAL SPECIFICATIONS

Multiturn resolution	1 ... 12 bit programmabile during commissioning
Singleturn resolution	1 ... 13 bit programmabile during commissioning
Power supply¹	10 ... 30 V DC (with reverse polarity protection)
Current consumption without load	< 200 mA
Electrical interface²	PROFINET IO RT Class 1 / Conformance Class B
Hardware features	Ertec 200 auto-negotiation auto-polarity auto-crossover diagnostic LEDs
Code type	binary
Max bus frequency	100 Mbit/s
Cycle time	≤ 1 ms
Accuracy	± 0,04°
Start-up time	500 ms
Electromagnetic compatibility	according to 2014/30/EU directive
RoHS	according to 2015/863/EU directive

MECHANICAL SPECIFICATIONS

Shaft diameter	ø 6 mm (mod. 58B) ø 10 mm (mod. 58C)
Enclosure rating	IP 65 (IEC 60529)
Max rotation speed	6000 rpm
Max shaft load³	80 N radial / 40 N axial
Starting torque (at +20°C / 68°F)	< 0,05 Nm
Moment of inertia	approx 1,8 x 10 ⁻⁶ kgm ²
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibrations	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
Bearings life	10 ⁹ revolutions
Bearings	2 ball bearings
Shaft material	1.4305 / AISI 303 stainless steel
Bearing stage and cover material	EN-AW 2011 aluminium
Housing material	EN-AW 6060 aluminium
Operating temperature^{4,5}	-40° ... +80°C (-40° ... +176°F)
Storage temperature⁵	-40° ... +85°C (-40° ... +185°F)
Weight	600 g (21 oz)

CONNECTIONS

	Pin	Function
PORT 1 connector	1	Tx D+
	2	Rx D+
	3	Tx D-
	4	Rx D-
POWER connector	1	+V DC
	2	/
	3	0 V
	4	/
PORT 2 connector	1	Tx D+
	2	Rx D+
	3	Tx D-
	4	Rx D-

for mating connectors please refer to Accessories