AAM 58 B / C PROFINET

SOLID SHAFT MULTITURN ABSOLUTE ENCODER

MAIN FEATURES

Industry standard multiturn absolute encoders for factory automation applications.

- Optical sensing technology (OptoASIC + gears)
- 25 bit total resolution (13 bit singleturn + 12 bit multiturn)
- Power supply up to +30 V DC with Profinet IO as electrical interface
- Intelligent status leds
- M12 connector for quick 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

SOCKETS
sockets not included .162
for sockets see Accessories

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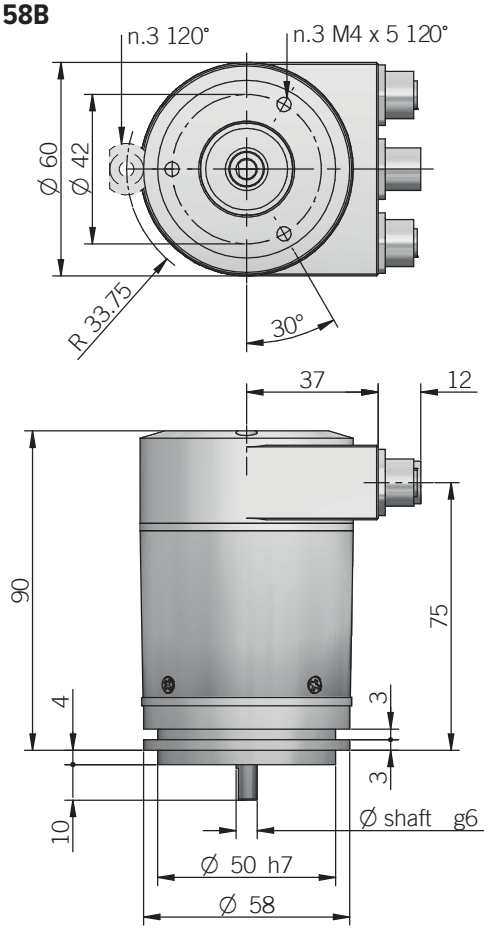
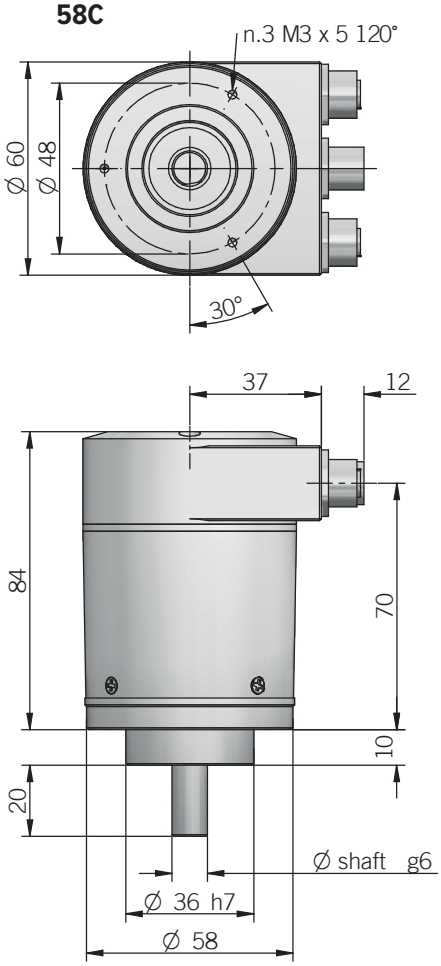
58B



58C



fixing clamps not included, please refer to Accessories
recommended mating shaft tolerance H7
dimensions in mm

ELECTRICAL SPECIFICATIONS

Multiturn resolution	1 ... 12 bit programmabile during commissioning
Singleturn resolution	1 ... 13 bit programmabile during commissioning
Power supply[1]	10 ... 30 V DC (reverse polarity protection)
Current consumption without load	< 200 mA
Electrical interface[2]	PROFINET IO RT Class 1 / Conformance Class B
Hardware features	Ertec 200P 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
Mean time to dangerous failure ($MTTF_d$)[3] **according to EN ISO 13849-1**	121 years
Mission time (Tm)[3]	20 years
Diagnostic coverage (DC)[3]	0%
Electromagnetic compatibility	according to 2014/30/EU directive
RoHs	according to 2011/65/EU directive

MECHANICAL SPECIFICATIONS

Shaft diameter	ø 6 mm (mod. 58B) ø 10 mm (mod. 58C)
Enclousure rating	IP 65 (IEC 60529)
Max rotation speed	6000 rpm
Max shaft load[3]	80 N (17,98 lbs) radial / 40 N (9 lbs) axial
Starting torque **(at +20°C / +68°F)**	< 0,05 Nm (7 Ozin)
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	n.2 ball bearings
Shaft material	stainless steel
Bearing stage / cover material	aluminium
Housing material	painted aluminium
Operating temperature[4, 5]	-40° ... +80°C (-40° ... +176°F)
Storage temperature[5]	-40° ... +85°C (-40° ... +185°F)
Weight	600 g (21 oz)

[1] as measured at the transducer without cable influences
[2] for further details refer to OUTPUT LEVELS on TECHNICAL BASICS section
[3] maximum load for static usage
[4] measured on the transducer flange
[5] condensation not allowed

CONNECTIONS

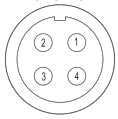
	Pin	Function
PORT 1 Connector	1	Tx D+
	2	Rx D+
	3	Tx D-
	4	Rx D-
POWER connector	1	+V DC
	2	/
	3	0 V
	4	/
PORT 2 Connector	1	Tx D+
	2	Rx D+
	3	Tx D-
	4	Rx D-

socket connectors not included, please refer to Accessories

PORT 1 POWER PORT 2

PORT 1 / 2 connector (4 pin)
M12 D coded
front view

POWER connector (4 pin)
M12 A coded
front view



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