

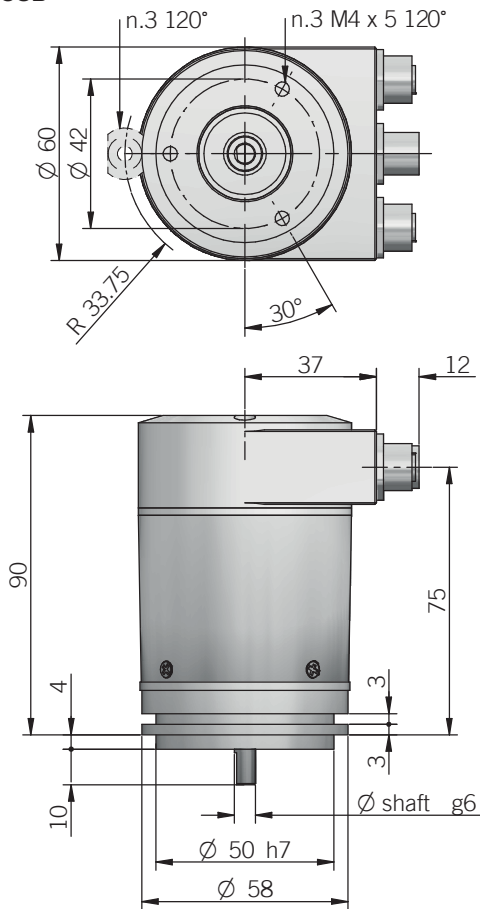
MAIN FEATURES

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 EtherCAT 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)



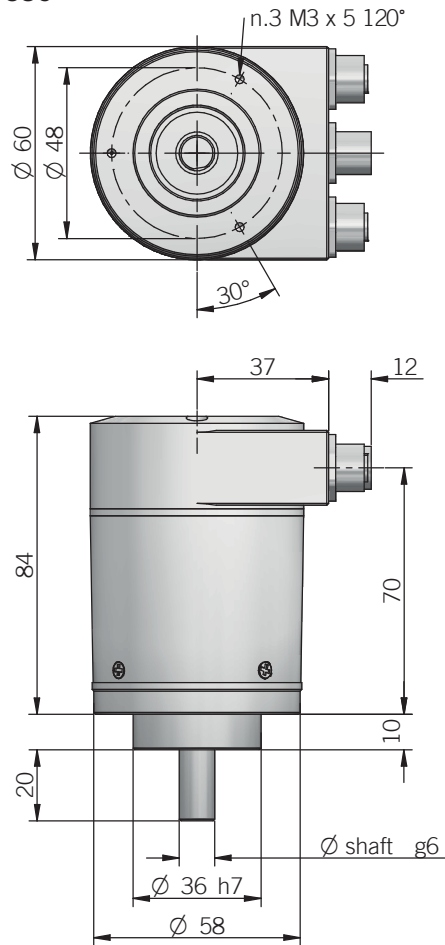
ORDERING CODE	AAM	58B	R	12	/	13	B	10/30	ETC	6	X	X	M12R	.162
SERIES absolute multiurn encoder AAM														
MODEL synchronous flange ø 50 mm 58B clamping flange ø 36 mm 58C														
REVISION to be reported R														
MULTITURN RESOLUTION bit 12														
SINGLETURN RESOLUTION bit 13														
CODE TYPE binary B														
POWER SUPPLY 10 ... 30 V DC 10/30														
ELECTRICAL INTERFACE ETHERCAT ETC														
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														

58B

for fixing clamps please refer to Accessories

recommended mating shaft tolerance H7

dimensions in mm

58C**ELECTRICAL SPECIFICATIONS**

Multiturn resolution	1 ... 12 bit programmabile during commissioning
Singleturn resolution	1 ... 13 bit programmabile during commissioning
Power supply¹	10 ... 30 V DC (reverse polarity protection)
Current consumption without load	< 200 mA
Electrical interface²	Ethercat
Profile	CoE (CANopen over EtherCAT, DS-301+DS-406)
Programming functions	Resolution Preset Counting direction
Code type	binary
Max bus frequency	100 Mbit/s
Cycle time	≥ 62,5 μs
Accuracy	± 0,044°
Start-up time	500 ms
Mean time to dangerous failure (MTTF)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)
Enclosure rating	IP 65 (IEC 60529)
Max rotation speed	6000 rpm
Max shaft load³	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	2 ball bearings
Shaft material	stainless steel
Bearing stage / cover material	aluminium
Housing material	aluminium
Operating temperature^{4,5}	-40° ... +80°C (-40° ... +176°F)
Storage temperature⁵	-40° ... +85°C (-40° ... +185°F)
Weight	600 g (21 oz)

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

CONNECTIONS

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

socket connectors not included, please refer to Accessories

EtherCAT® is a registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.



ECAT IN / OUT connector (4 pin)
M12 D coded
front view



POWER connector (4 pin)
M12 A coded
front view

