

MAIN FEATURES

Industry standard multiturn absolute encoder for factory automation applications.

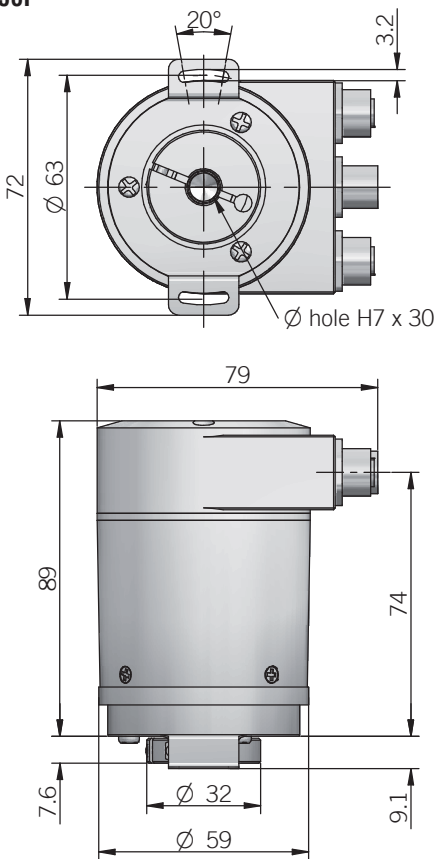
- Optical sensor technology (OptoASIC + gears)
- 25 bit total resolution (13 bit single turn + 12 bit multiturn)
- Power supply up to +30 V DC with EtherCAT as electrical interface
- Intelligent status leds
- M12 connector for fast setup
- Blind hollow shaft diameter up to 15 mm
- Mounting by stator coupling
- Operating temperature -40° ... +80°C (-40° ... +176°F)



ORDERING CODE	AAM	58F	R	12	/	13	B	10/30	ETC	15	X	X	M12R	.162
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SERIES absolute multiurn encoder AAM														
MODEL blind hollow shaft with stator coupling 58F														
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														
BORE DIAMETER mm 15 ø 12 / 10 mm available with optional shaft adapter														
ENCLOSURE RATING IP 65 X														
OPTIONS to be reported X														
OUTPUT TYPE radial M12 connectors M12R														
VARIANT without mating connectors 162														

58F



dimensions in mm

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-

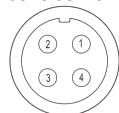
female connectors not included, please refer to Accessories



ECAT IN / OUT connector (4 pin)
M12 D coded
solder side view MV



POWER connector (4 pin)
M12 A coded
solder side view FV



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 (with reverse polarity protection)
Current consumption without load	< 200 mA
Electrical interface ²	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	± 0,04°
Start-up time	500 ms
Electromagnetic compatibility	according to 2014/30/EU directive
RoHS	according to 2015/863/EU directive

MECHANICAL SPECIFICATIONS

Bore diameter	∅ 15 / 12* / 10* mm * with optional shaft adapter, please refer to Accessories
Enclosure rating	IP 65 (IEC 60529)
Max rotation speed	6000 rpm
Max shaft load ³	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	n° 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 temperature ⁵	-40° ... +85°C (-40° ... +185°F)
Fixing torque for collar clamping	1,5 Nm (212 Ozin) recommended
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

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