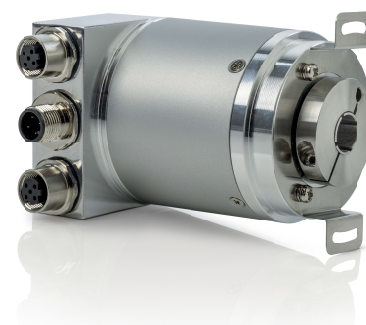


MAIN FEATURES

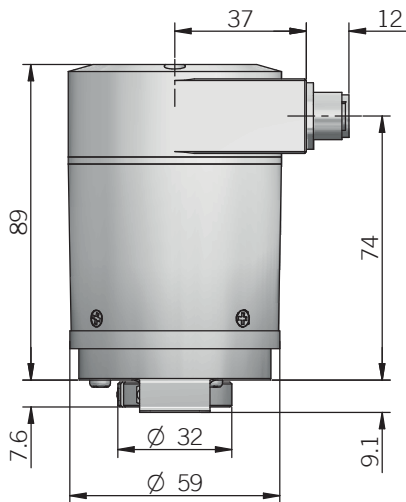
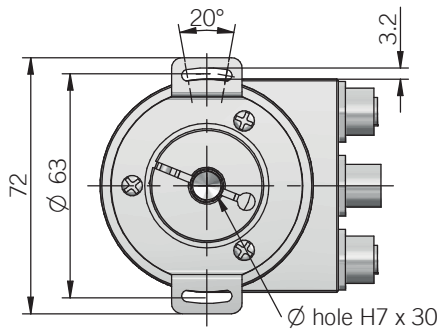
Industry standard multiturn absolute encoder for factory automation applications.

- 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
- 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	PFN	15	X	X	M12R	.162
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 PROFINET IO PFN														
BORE DIAMETER mm 15 diameters 10 / 12 mm with optional shaft adapter, see Accessories														
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														

58F



recommended mating shaft tolerance g6
dimensions in mm

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-

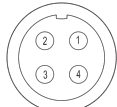
socket connectors not included, please refer to Accessories



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



POWER connector (4 pin)
M12 A coded
front view



ELECTRICAL SPECIFICATIONS

Multiturn resolution	1 ... 12 bit programmable during commissioning
Singleturn resolution	1 ... 13 bit programmable 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)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

Bore diameter	ø 15 mm ø 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 (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