

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
- Blind hollow shaft diameter up to 15 mm
- Mounting by stator coupling
- Operating temperature -40° ... +80°C (-40° ... +176°F)

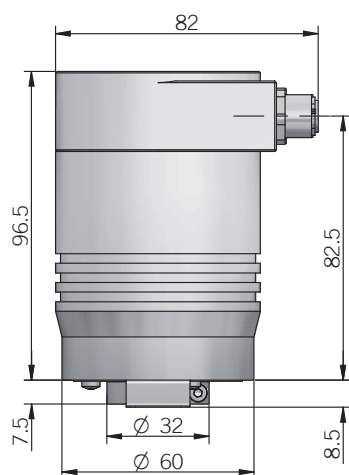
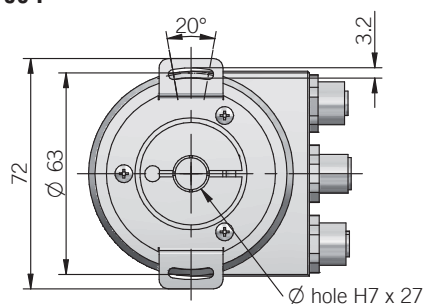


ORDERING CODE

AAM 58 F 12 / 13 B 10/30 PFN 15 X X M12R .162

SERIES absolute multiurn encoder AAM												
MODEL blind hollow shaft with stator coupling 58F												
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												
ENCLOSURE RATING IP 65 X												
OPTIONS to be reported X												
OUTPUT TYPE radial M12 connectors M12R												
VARIANT without mating connectors 162												

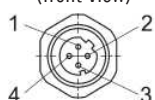
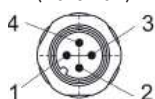
58 F



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-

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

female connectors not included, please refer to Accessories

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 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

Bore diameter	Ø 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	2 ball bearings
Shaft material	1.4305 / AISI 303 stainless steel
Bearing stage / cover material	EN-AW 2011 aluminium
Housing material	painted aluminium
Flange material	EN-AW 2011 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 transducer without cable influences² for further details refer to OUTPUT LEVELS on TECHNICAL BASICS section³ maximum load for static usage⁴ measured on the transducer flange⁵ condensation not allowed