

### 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
- Solid shaft diameter up to 10 mm
- Mounting by synchronous or clamping flange
- Operating temperature -40° ... +80°C (-40° ... +176°F)

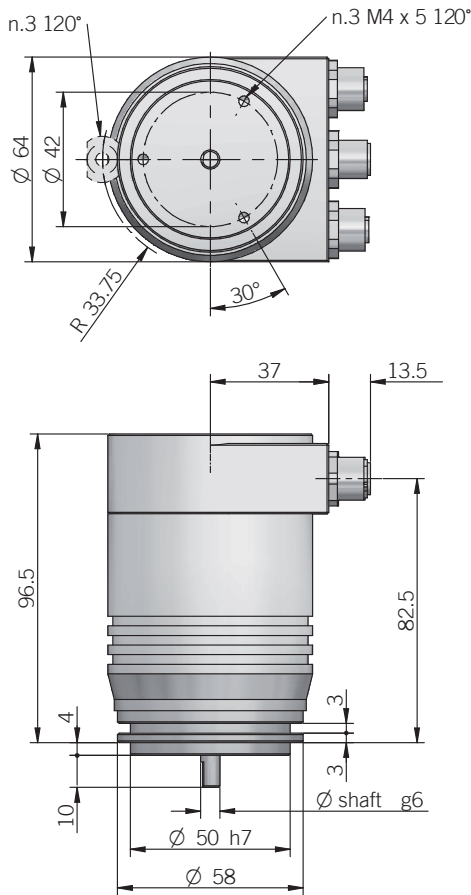


### ORDERING CODE

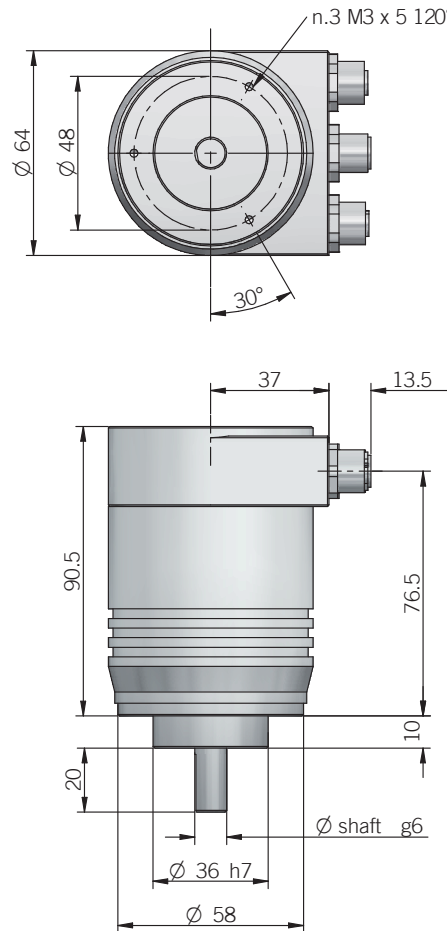
**AAM 58B 12 / 13 B 10/30 PFN 6 X X M12R .162**

<b>SERIES</b> absolute multiurn encoder <b>AAM</b>	<b>MODEL</b> synchronous flange ø 50 mm <b>58B</b> clamping flange ø 36 mm <b>58C</b>	<b>MULTITURN RESOLUTION</b> bit <b>12</b>	<b>SINGLETURN RESOLUTION</b> bit <b>13</b>	<b>CODE TYPE</b> binary <b>B</b>	<b>POWER SUPPLY</b> 10 ... 30 V DC <b>10/30</b>	<b>ELECTRICAL INTERFACE</b> PROFINET IO <b>PFN</b>	<b>SHAFT DIAMETER</b> (mod. 58B) mm <b>6</b> (mod. 58C) mm <b>10</b>	<b>ENCLOSURE RATING</b> IP 65 <b>X</b>	<b>OPTIONS</b> to be reported <b>X</b>	<b>OUTPUT TYPE</b> radial M12 connectors <b>M12R</b>	<b>MATING CONNECTORS</b> mating connectors not included <b>.162</b> for mating connectors see Accessories
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**58 B**



**58 C**



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

**ELECTRICAL SPECIFICATIONS**

<b>Multiturn resolution</b>	1 ... 12 bit programmabile during commissioning
<b>Singleturn resolution</b>	1 ... 13 bit programmabile during commissioning
<b>Power supply<sup>1</sup></b>	10 ... 30 V DC (reverse polarity protection)
<b>Current consumption without load</b>	< 200 mA
<b>Electrical interface<sup>2</sup></b>	PROFINET IO RT Class 1 / Conformance Class B
<b>Hardware features</b>	Ertec 200 auto-negotiation auto-polarity auto-crossover diagnostic LEDs
<b>Code type</b>	binary
<b>Max bus frequency</b>	100 Mbit/s
<b>Cycle time</b>	≤ 1 ms
<b>Accuracy</b>	± 0,04°
<b>Start-up time</b>	500 ms
<b>Electromagnetic compatibility</b>	according to 2014/30/EU directive
<b>RoHs</b>	according to 2011/65/EU directive

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

**MECHANICAL SPECIFICATIONS**

<b>Shaft diameter</b>	∅ 6 mm (mod. 58B) ∅ 10 mm (mod. 58C)
<b>Enclosure rating</b>	IP 65 (IEC 60529)
<b>Max rotation speed</b>	6000 rpm
<b>Max shaft load<sup>3</sup></b>	80 N radial / 40 N axial
<b>Starting torque (at +20°C / +68°F)</b>	< 0,05 Nm
<b>Moment of inertia</b>	approx 1,8 x 10 <sup>-6</sup> kgm <sup>2</sup>
<b>Shock</b>	50 G, 11 ms (IEC 60068-2-27)
<b>Vibrations</b>	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
<b>Bearings life</b>	10 <sup>9</sup> revolutions
<b>Bearings</b>	n.2 ball bearings
<b>Shaft material</b>	1.4305 / AISI 303 stainless steel
<b>Bearing stage / cover material</b>	EN-AW 2011 aluminium
<b>Housing material</b>	painted aluminium
<b>Operating temperature<sup>4, 5</sup></b>	-40° ... +80°C (-40° ... +176°F)
<b>Storage temperature<sup>5</sup></b>	-40° ... +85°C (-40° ... +185°F)
<b>Weight</b>	600 g (21 oz)

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-

female connectors not included, please refer to Accessories



PORT 1    POWER    PORT 2

PORT 1 / 2 connector (4 pin)  
M12 D coded  
solder side view MV



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

