AA 58 F
CANOPEN

BLIND HOLLOW SHAFT SINGLETURN ABSOLUTE ENCODER

MAIN FEATURES

Industry standard singleturn absolute encoder for factory automation applications.

- Magnetic sensor technology without contact (magnetic ASIC)
- Sturdy construction
- Power supply up to +32 VDC with CANopen interface
- Two axial M12 connector output (isolated output)
- 15 mm blind hollow shaft
- Mounting by stator coupling

ORDERING CODE

ORDERING CODE	AA	58F	16	B	10/30	CNP	15	X	X	M12	A	.XXX

SERIES
magnetic singleturn absolute encoder series AA

MODEL
blind hollow shaft with stator coupling 58F

SINGLETURN RESOLUTION
bit 16

CODE TYPE
binary B

POWER SUPPLY
10 ... 30 V DC 10/30

ELECTRICAL INTERFACE
CANopen CNP

BORE DIAMETER
mm 15

ENCLOSURE RATING
IP67 cover side / IP 65 shaft side X

OPTIONS
to be reported X

OUTPUT TYPE
2 x M12 5 pin connector M12
mating connectors included, without mating connectors please add 162 as variant code

DIRECTION TYPE
axial A

VARIANT
without mating connectors 162

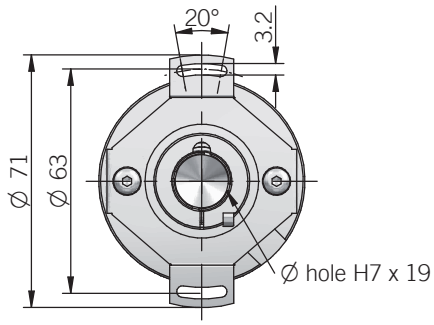
ORDERING CODE

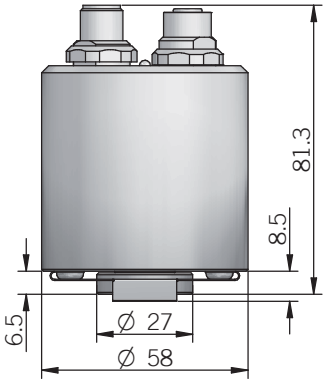
Description	P/N
AA 58F 16 B 10/30 CNP 15 X X M12 A.162	92090001

PRELIMINARY

1985 - 2015
eltra@eltra.it | www.eltra.it

58F





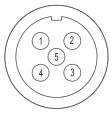
dimensions in mm

CONNECTIONS

Function	5 pin female M12	5 pin male M12
+ V DC	2	2
0 V	3	3
CAN_H	4	4
CAN_L	5	5
CAN_GND (shield)	1	1
⏚	shield connected to encoder housing	shield connected to encoder housing

M12 connector (5 pin)
M12 A coded - female
solder side view FV

M12 connector (5 pin)
M12 A coded - male
solder side view MV



ELECTRICAL SPECIFICATIONS

Singleturn resolution	16 bit programmable during commissioning
Power supply[1]	+10 ... 32 V DC (with reverse polarity protection)
Power draw without load	max 1 W
Electrical interface[2]	CAN galvanically isolated
Protocol	CANopen Communication profile CiA 301 Encoder profile CiA 406 V3.2 class C2
Node number	1 ... 127 (default 127) programmable during commissioning
Baud rate	10 kBaud ... 1 Mbaud with automatic bit rate detection
LSS protocol	according to CiA 305
CAN transmission modes	programmable (Synchronous and Asynchronous)
LED error messages	according to CiA 303-3
Code type	binary
Position update rate	≤ 600 µs
Start-up time	< 1,5 s
Accuracy	± 0,35°
Electromagnetic compatibility	according to 2014/30/EU directive
RoHS	according to 2015/863/EU directive

MECHANICAL SPECIFICATION

Bore diameter	ø 15 mm
Enclosure rating IEC 60529	IP 67 cover side / IP65 shaft side
Max rotation speed	6000 rpm
Max shaft load[3]	80 N radial / 50 N axial
Shock	100 G, 6 ms (IEC 60068-2-27)
Vibrations	5 G, 10 ... 2000 Hz (IEC 60068-2-6)
Starting torque (at +20°C / +68°F)	< 0,002 Nm (0,28 Ozin)
Bearing stage material	aluminium
Shaft material	stainless steel
Housing material	chromium plated steel
Bearings	2 ball bearings
Bearings life	10^9 revolutions
Operating temperature[4, 5]	-40° ... +85°C (-40° ... +185°F)
Storage temperature[5]	-40° ... +100°C (-40 ... +212°F)
Weight	410 g (14,11 oz) approx

[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

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