

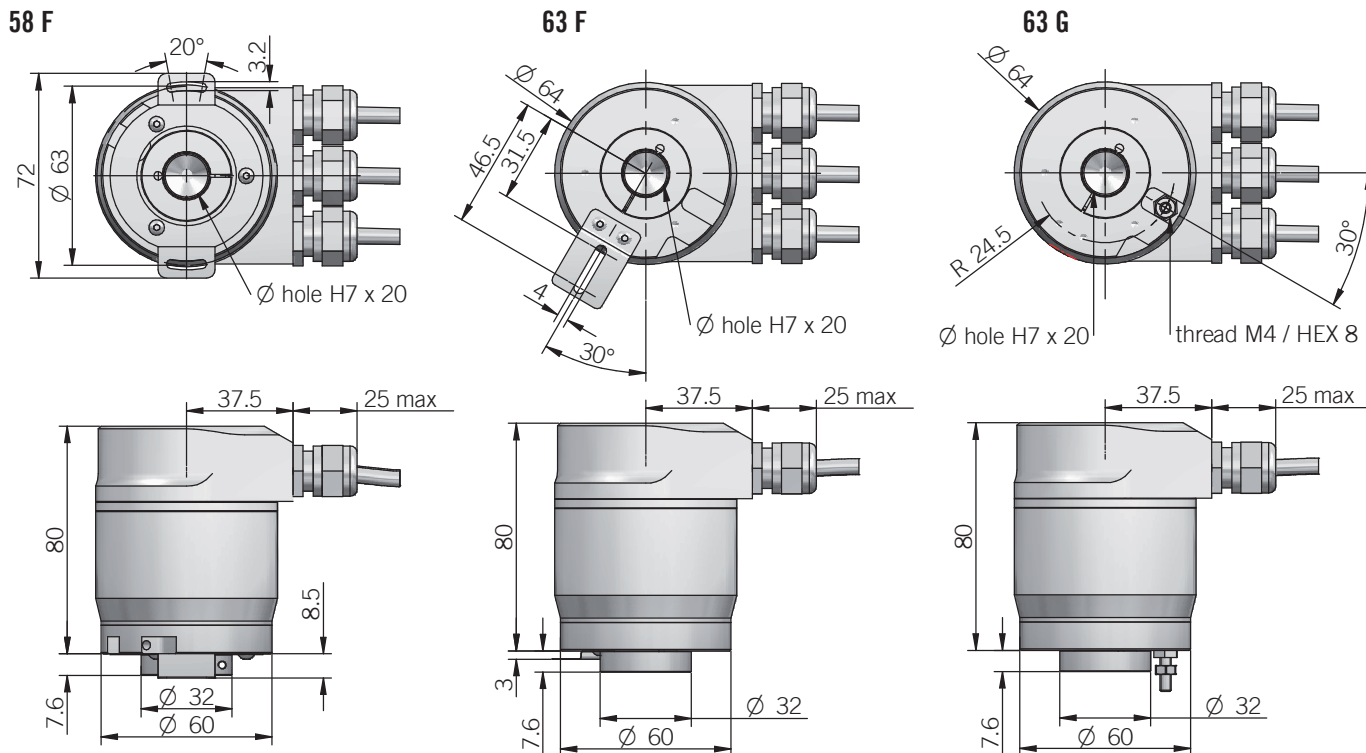
MAIN FEATURES

Industry standard singleturn absolute encoder for factory automation applications.

- Optical sensor technology (OptoASIC)
- Resolution up to 13 bit (8192 ppr)
- Power supply up to +28 V DC with Profibus DP as electrical interface
- Cable gland or M12 connector output
- Blind hollow shaft diameter up to 15 mm
- Mounting by stator coupling, torque stop slot or torque pin



ORDERING CODE	EA	58F	4096	B	12/28	FX	15	X	3	M12R	.162	+XXX
SERIES singleturn absolute encoder	EA											
MODEL blind hollow shaft with stator coupling blind hollow shaft with torque stop slot blind hollow shaft with torque pin		58F 63F 63G										
RESOLUTION ppr			4096 / 8192									
CODE TYPE binary				B								
POWER SUPPLY 12 ... 28 V DC					12/28							
ELECTRICAL INTERFACE PROFIBUS DP V0 CLASS 2						FX						
BORE DIAMETER mm mm							14 15					
diameters 6 / 8 / 9,52 (3/8") / 10 / 11 / 12 mm with optional shaft adapter, see Accessories												
ENCLOSURE RATING IP								54	X			
MAX ROTATION SPEED rpm									3			
OUTPUT TYPE terminal box - radial cable glands radial M12 connectors										P3R M12R		
MATING CONNECTORS mating connectors not included											.162	
to be reported only with connector output (eg. M12R.162), for mating connectors see Accessories												
VARIANT custom version												XXX



recommended mating shaft tolerance g6
dimensions in mm

for torque pin please refer to Accessories

torque pin is included

ELECTRICAL SPECIFICATIONS	
Resolution	2 ... 4096 / 2 ... 8192 ppr programmable during commissioning
Power supply¹	11,4 ... 29,4 V DC (reverse polarity protection)
Current consumption without load	300 mA
Electrical interface²	RS 485 galvanically isolated
Max bus frequency	12 Mbaud
Diagnostic features	frequency warning position warning / alarm please refer to installation manual for more informations
Max frequency	max 25 kHz LSB
Code type	binary
Counting direction	programmable during commissioning
Start-up time	500 ms
Accuracy	± 1/2 LSB
Electromagnetic compatibility	according to 2014/30/EU directive
RoHS	according to 2011/65/EU directive
UL / CSA	certificate n. E212495

MECHANICAL SPECIFICATIONS	
Bore diameter	∅ 14 / 15 mm ∅ 6* / 8* / 9,52 (3/8")* / 10* / 11* / 12* * with optional shaft adapter, please refer to Accessories
Enclosure rating	IP 54 (IEC 60529)
Max rotation speed	3000 rpm
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
Moment of inertia	5 x 10 ⁻⁶ kgm ² (119 x 10 ⁻⁶ lbf ²)
Starting torque (at +20°C / +68°F)	< 0,02 Nm (2,83 Ozin)
Bearing stage material	EN-AW 2011 aluminum
Shaft material	1.4305 / AISI 303 stainless steel
Shaft adapter material	CuSn12 / CC483K bronze
Housing material	painted aluminium
Bearings	n.2 ball bearings
Bearings life	10 ⁹ revolutions
Operating temperature^{3,4}	0° ... +60°C (+32° ... +140°F)
Storage temperature⁴	-15° ... +70°C (+5° ... +158°F)
Fixing torque for collar clamping	1,5 Nm (212 Ozin) recommended
Weight	650 g (22,93 oz)

CONNECTIONS			
Function	POWER	BUS OUT	BUS IN
+ V DC	2		
0 V	4		
A		2	
B		4	
A			2
B			4

¹ as measured at the transducer without cable influences

² for further details refer to OUTPUT LEVELS on TECHNICAL BASICS section

³ measured on the transducer flange

⁴ condensation not allowed

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

BUS OUT - female (5 pin)
M12 B coded
solder side view FV

BUS IN - male (5 pin)
M12 B coded
solder side view MV

