

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 VDC with Bit Parallel or SSI as electronic interface
- Code reset for easy setup
- Cable or connector output
- Solid shaft diameter up to 10 mm
- Mounting by synchronous, clamping or centering 2,5" square flange

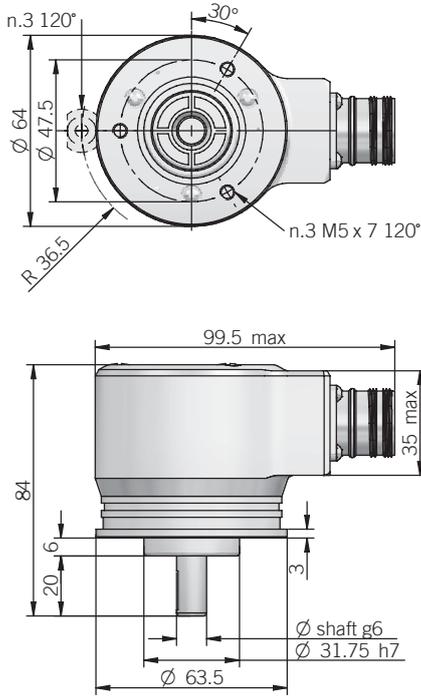


ORDERING CODE	EA	63A	256	G	8/28	P	P	X	10	X	6	PD	R	.XXX
BIT PARALLEL														
SERIES singleturn absolute encoder	EA													
MODEL synchronous flange ø 31.75 mm synchronous flange ø 50 mm clamping flange ø 36 mm centering square flange ø 31.75 mm centering square flange ø 50 mm		63A 58B 58C 63D 63E												
RESOLUTION (powers of 2) ppr from 2 to 8192 (multiples and submultiples of 360) ppr from 90 to 3600 (multiples and submultiples of 1000) ppr from 250 to 4000														
CODE TYPE binary gray (no powers of 2) binary offset code (0-XXX) (no powers of 2) gray offset code (0-XXX)														
POWER SUPPLY 8 ... 28 V DC														
ELECTRONIC INTERFACE push pull														
LOGIC negative positive														
OPTIONS latch (binary code) strobe to be reported if not used														
SHAFT DIAMETER (mod. 58 B) mm (mod. 63 A / D) (9,52mm 3/8") mm (mod. 58 C - 63 A / D / E) mm														
ENCLOSURE RATING IP 54 IP 66														
MAX ROTATION SPEED (IP 66) 3000 rpm (IP 54) 6000 rpm														
OUTPUT TYPE cable (standard length 1,5 m) (with option "latch") cable (standard length 1,5 m) 19 pin MIL connector														
<i>female connector included, without female please add 162 as variant code</i>														
DIRECTION TYPE axial radial														
VARIANT custom version														XXX

ORDERING CODE	EA	63A	256	G	8/28	S	X	X	10	X	6	PC	R	.XXX
SSI														
SERIES singleturn absolute encoder EA														
MODEL synchronous flange ø 31.75 mm 63A synchronous flange ø 50 mm 58B clamping flange ø 36 mm 58C centering square flange ø 31.75 mm 63D centering square flange ø 50 mm 63E														
RESOLUTION (powers of 2) ppr from 2 to 8192 (multiples and submultiples of 360) ppr from 90 to 3600 (multiples and submultiples of 1000) ppr from 250 to 4000														
CODE TYPE binary B gray G (no powers of 2) binary offset code (0-XXX) BC (no powers of 2) gray offset code (0-XXX) GC														
POWER SUPPLY 8 ... 28 V DC 8/28														
ELECTRONIC INTERFACE Serial Synchronous Interface - SSI S														
LOGIC to be reported X														
OPTIONS to be reported if not used X reset ZE														
SHAFT DIAMETER (mod. 58 B) mm 6 (mod. 63 A / D (9,52mm 3/8") mm 9 (mod. 58 C - 63 A / D / E) mm 10														
ENCLOSURE RATING IP 54 X IP 66 S														
MAX ROTATION SPEED (IP 66) 3000 rpm 3 (IP 54) 6000 rpm 6														
OUTPUT TYPE cable (standard length 1,5 m) PC 7 pin MIL connector MC (with option "reset") 10 pin MIL connector MD 12 pin M23 connector HA 8 pin M12 connector M12 <i>female connector included, without female please add 162 as variant code</i>														
DIRECTION TYPE axial A radial R														
VARIANT custom version XXX														

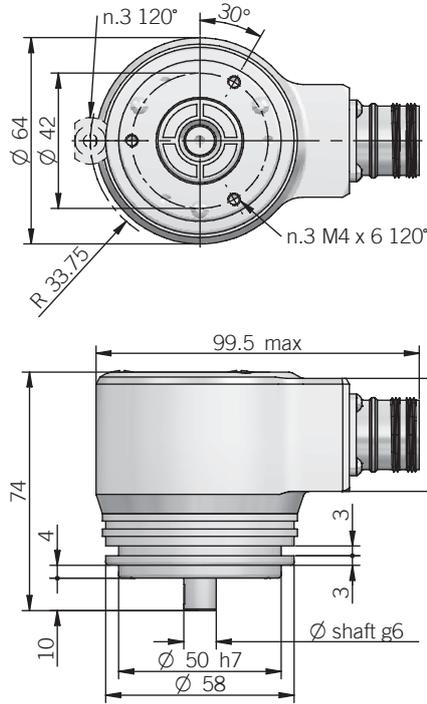
EA 63 A

fixing clamps not included

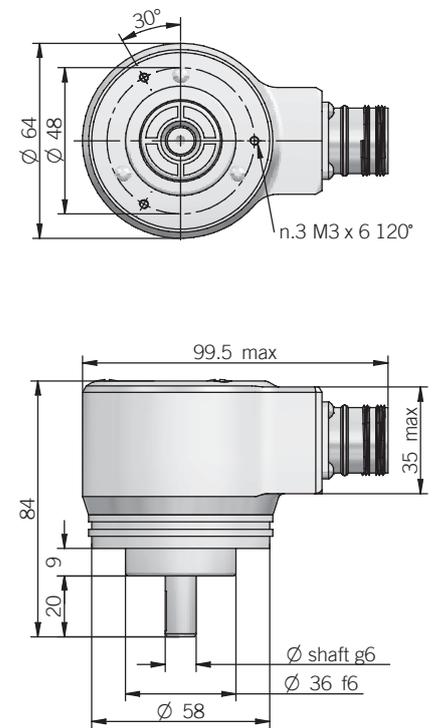


EA 58 B

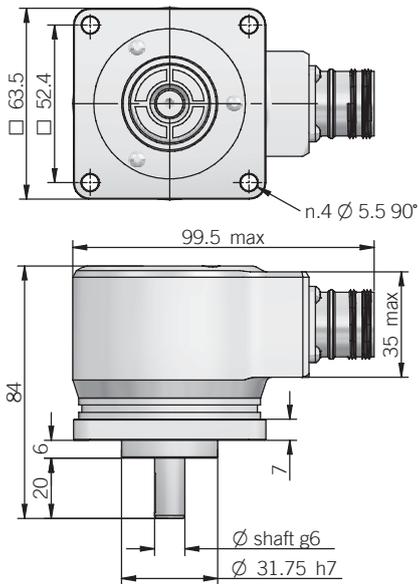
fixing clamps not included



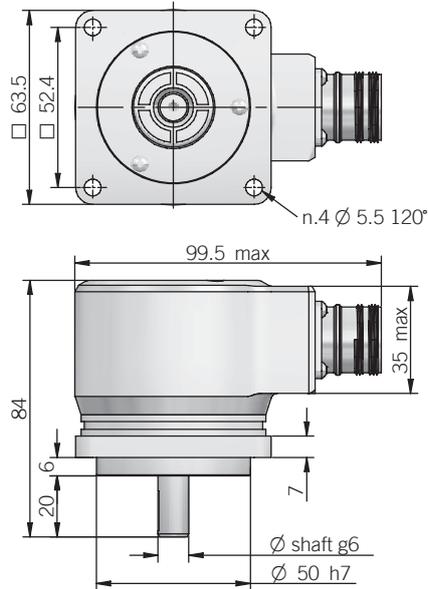
EA 58 C



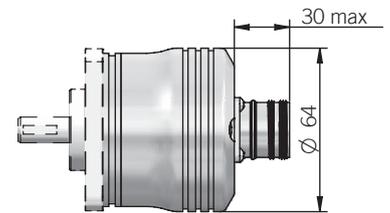
EA 63 D



EA 63 E



Dimensions with axial output



dimensions in mm

ELECTRICAL SPECIFICATIONS

Resolution	from 2 to 8192 ppr
Power supply	8/28 = 7,6 ... 29,4 V DC
Current consumption without load	100 mA
Max load current	20 mA / channel
Output type	P = push-pull (active short circuit protection)* S = RS-422
Auxiliary inputs (U/D - Latch - Reset)	active high (+Vdc) <i>connect to 0V if not used / Reset tmin 150 ms</i>
Max frequency	output: 25 kHz LSB (Bit Parallel) clock input: 100 kHz ... 1 MHz (SSI)
SSI monostable time (Tm)	18 μs
SSI pause time (Tp)	> 35 μs
SSI frame	(MSB ... LSB) 13 bit data length
Accuracy	± 1/2 LSB
Counting direction	decreasing clockwise (shaft view)
Start-up time	150 ms
Electromagnetic compatibility	IEC 61000-6-2 IEC 61000-6-4

*output levels according to power supply, for further details please see under Technical basics section

MECHANICAL SPECIFICATIONS

Shaft diameter	∅ 6 / 9,52 (3/8") / 10 mm
Enclosure rating	X = IP 54 (IEC 60529) S = IP 66 (IEC 60529)
Max rotation speed	3000 rpm (IP 66) 6000 rpm (IP 54)
Max shaft load	10 N axial / 20 N radial with ∅6 shaft 100 N axial / radial
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
Moment of inertia	1,5 x 10 ⁻⁶ kgm ²
Starting torque (at +20°C / +68°F)	< 0,02 Nm (IP 54) < 0,06 Nm (IP 66)
Body material	EN-AW 2011 aluminum
Shaft material	1.4305 / AISI 303 stainless steel
Housing material	painted aluminum
Bearings	2 ball bearings
Bearings life	10 ⁹ revolutions
Operating temperature	0° ... +60°C (+32° ... +140°F)
Storage temperature	-15° ... +70°C (+5° ... +158°F)
Weight	500 g (17,64 oz)

BIT PARALLEL CONNECTIONS

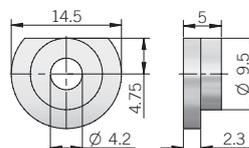
Function	Binary / Gray	Cable output PD	Cable output PE	19 pin MA
bit 1 (LSB)	B ⁰ / G ⁰	green	green	A
bit 2	B ¹ / G ¹	yellow	yellow	B
bit 3	B ² / G ²	blue	blue	C
bit 4	B ³ / G ³	brown	brown	D
bit 5	B ⁴ / G ⁴	orange or pink	orange or pink	E
bit 6	B ⁵ / G ⁵	white	white	F
bit 7	B ⁶ / G ⁶	grey	grey	G
bit 8	B ⁷ / G ⁷	purple	purple	H
bit 9	B ⁸ / G ⁸	gray / pink	gray / pink	J
bit 10	B ⁹ / G ⁹	white / green	white / green	K
bit 11	B ¹⁰ / G ¹⁰	brown / green	brown / green	L
bit 12	B ¹¹ / G ¹¹	white / yellow	white / yellow	M
bit 13	B ¹² / G ¹²	yellow / brown	yellow / brown	N
STROBE	/	/	green / blue	P
LATCH	/	/	yellow / grey	R
0 Volt	/	black	black	T
U / D	/	red / blue	red / blue	U
+ Vdc	/	red	red	V
⊥	/	shield	shield	S

SSI CONNECTIONS

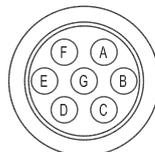
Function	Cable output PC	7 pin MC	10 pin MD	12 pin HA	8 pin M12
+ Vdc	red	G	G	8	8
0 Volt	black	F	F	1	5
data +	green	C	C	2	3
data -	brown	D	D	10	2
clock +	yellow	A	A	3	4
clock -	orange or pink	B	B	11	6
RESET	white	/	H	4	1
U / D	red / blue	E	E	5	7
⊥	shield	housing	J	9	housing

ACCESSORIES

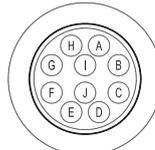
set n.3 fixing clamps for model 58 B - 63 A
P/N 94080001



MC connector (7 pin)
Amphenol MS3102-E-16-S
solder side view FV



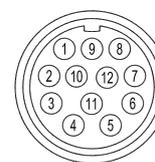
MD connector (10 pin)
Amphenol MS3102-E-18-1
solder side view FV



M12 connector (8 pin)
M12 A coded
solder side view FV



HA connector (12 pin) - M23 CCW
Hummel 7.410.000000 -
7.002.912.603
solder side view FV



MA connector (19 pin)
Amphenol 62IN 12E 14-19 P
solder side view FV

