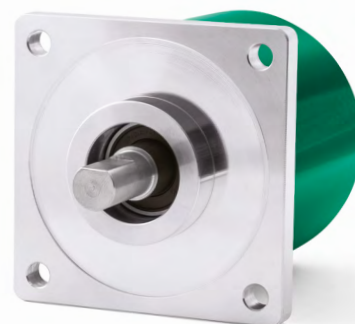


- US standard optical encoders
- Robust die-cast housing
- MIL standard connector
- Single turn up to 18 bit (262144 cpr) and multi turn up to 16x14 bit (65536 x 16384)
- High degree of protection, IP66
- BCD output code on request



AST6 • AMT6

ENVIRONMENTAL SPECIFICATIONS

Shock:	250 g, 6 ms acc. to CEI EN 60068-2-27
Vibrations:	10 g, 5-2000 Hz acc. to CEI EN 60068-2-6
Protection:	IP66, IP65 shaft side
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F) (98% R.H. without condensation)
Options:	• Operating temperature range: -40°C +100°C (-40°F +212°F) • IP66 protection shaft side

MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft diameter:	Ø 6, 8, 9.52, 10, 12 mm
Shaft loading (axial, radial):	100 N max.
Shaft rotational speed:	6000 rpm max.
Starting torque (at 20°C):	≤ 1,5 Ncm (typical)
Bearings life:	400x10 ⁶ rev. min. (10 ⁹ rev. min. with shaft loading of 20 N max.)
Electrical connections:	M23 or MIL plug, MIL 32 pin inline plug or cable output 1 m (3.3 ft)
Weight:	~ 400 g (14,1 oz)
Option:	• additional cable

ELECTRICAL SPECIFICATIONS

Resolution:	single turn = 1024, 4096, 8192, 16384, 65536, 262144 cpr multi turn = 4096, 16384 turns
Accuracy:	± 0,04°
Output circuits:	SSI (RS422), Bit parallel Push-Pull, NPN
Output code:	Gray, Binary
Counting frequency:	> 150 kHz
Power supply:	+7,5Vdc ÷ 34Vdc
Power consumption:	SSI: 1 W max., Bit parallel: 1,7 W max.
Protection:	against inversion of polarity and short-circuit
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	> 100.000 h
Functions:	• counting direction (input) • Zero setting/Preset (input)

MATERIALS

Flange:	anticorodal, UNI EN AW-6082
Housing:	zamac die cast
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, UNI EN 4305

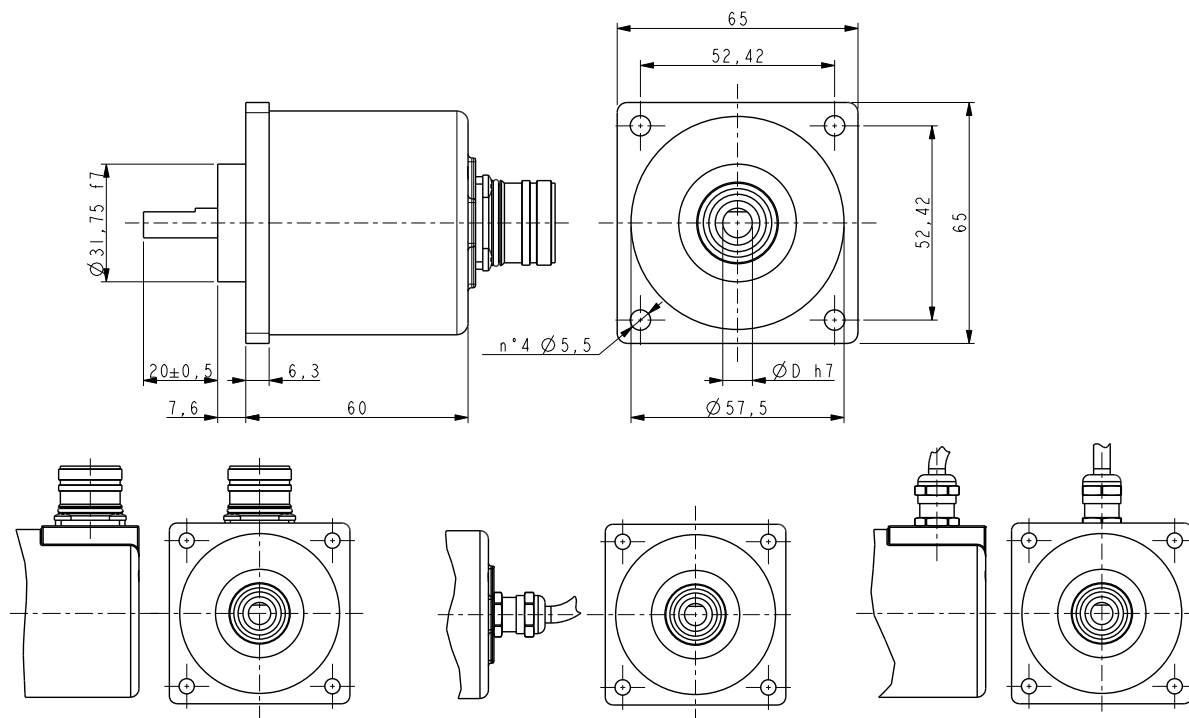
ACCESSORIES

EPFL121H:	M23 12 pin connector
EPFL171H:	M23 17 pin connector
E10MLS:	MIL 10 pin connector
E19MLS:	MIL 19 pin connector
E32MLS:	MIL 32 pin connector
PAN/PGF:	flexible couplings
EC-CR17F-LK-A20-xxx:	cordset xx m, M23 17 pin conn.
EC-CR12F-S28-T12-xxx:	cordset xx m, M23 12 pin conn.

AST6	XX-XX (a)	-	XXX (b)	-	XX (c)	-	X (d)	X (e)	-	X (f)	XXXX (g)	/Sxxx (h)
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AST6	XX-XX (a)	-	XXX (b)	-	XX (c)	-	X (d)	X (e)	-	X (f)	XXXX (g)	/Sxxx (h)
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③ RESOLUTION (BIT SINGLETURN-BIT MULTITURN) 10-00 = 1024 cpr 12-00 = 4096 cpr 13-00 = 8192 cpr 14-00 = 16384 cpr 16-00 = 65536 cpr 18-00 = 262144 cpr	② OUTPUT CIRCUIT/POWER SUPPLY B52 = Binary, SSI tree format, +7,5Vdc +34Vdc BA2 = Binary, SSI LSB aligned, +7,5Vdc +34Vdc G52 = Gray, SSI tree format, +7,5Vdc +34Vdc GA2 = Gray, SSI LSB aligned, +7,5Vdc +34Vdc	④ PROTECTION P = IP66, IP65 shaft side Q = IP66 shaft side	⑦ CONNECTION TYPE & CABLE LENGTH L010 = cable output 1 m (standard) Lxx0 = cable out. x m (max. length 10m) L100 = cable output 10 m P = MIL 10 pin plug M2 = M23 12 pin plug
⑤ SHAFT DIAMETER 06 = 6 mm 08 = 8 mm P9 = 9.52mm / 3/8" 10 = 10 mm 12 = 12 mm	⑥ OPERATING TEMP. RANGE T = -25°C +85°C (-13°F +185°F) K = -40°C +100°C (-40°F +212°F)	⑧ CONNECTION POSITION A = axial R = radial	⑨ CUSTOM VERSION



AMT6

Order code - Bit parallel output

AMT6	XX-XX	-	XXX	-	XX	-	X	X	-	X	XXXX	/Sxxx
	(a)		(b)		(c)		(d)	(e)		(f)	(g)	(h)

① RESOLUTION

(BIT SINGLETURN-BIT MULTITURN)

10-12 = 10 x 12 bit (1024 cpr x 4096 turns)

12-12 = 12 x 12 bit (4096 cpr x 4096 turns)

13-12 = 13 x 12 bit (8192 cpr x 4096 turns)

② OUTPUT CIRCUIT/POWER SUPPLY

BY2 = Binary, Push-Pull, +7,5Vdc +34Vdc

GY2 = Gray, Push-Pull, +7,5Vdc +34Vdc

BN2 = Binary, NPN, +7,5Vdc +34Vdc

GN2 = Gray, NPN, +7,5Vdc +34Vdc
(BCD on request)

③ SHAFT DIAMETER

06 = 6 mm

08 = 8 mm

P9 = 9.52mm / 3/8"

10 = 10 mm

12 = 12 mm

④ PROTECTION

P = IP66, IP65 shaft side

Q = IP66 shaft side

⑤ OPERATING TEMP. RANGE

T = -25°C +85°C (-13°F +185°F)

K = -40°C +100°C (-40°F +212°F)

⑥ CONNECTION POSITION

A = axial

R = radial

⑦ CONNECTION TYPE & CABLE LENGTH

L010 = cable output 1 m (standard)

Lxx0 = cable out. x m (max. length 10m)

L100 = cable output 10 m

V = MIL 32 pin plug

⑧ CUSTOM VERSION

Order code - SSI output

AMT6	XX	-	XX	-	XXX	-	XX	-	X	X	-	X	XXXX	/Sxxx
	(a)		(b)		(c)		(d)		(e)	(f)		(g)	(h)	(i)

① BIT SINGLETURN

10 = 1024 cpr

12 = 4096 cpr

13 = 8192 cpr

16 = 65536 cpr

② BIT MULTITURN

12 = 4096 turns

14 = 16384 turns

(only with SSI LSB aligned)

③ OUTPUT CIRCUIT/POWER SUPPLY

BS2 = Binary, SSI tree format, +7,5Vdc +34Vdc

BA2 = Binary, SSI LSB aligned, +7,5Vdc +34Vdc

GS2 = Gray, SSI tree format, +7,5Vdc +34Vdc

GA2 = Gray, SSI LSB aligned, +7,5Vdc +34Vdc

④ SHAFT DIAMETER

06 = 6 mm

08 = 8 mm

P9 = 9.52mm / 3/8"

10 = 10 mm

12 = 12 mm

⑤ PROTECTION

P = IP66, IP65 shaft side

Q = IP66 shaft side

⑥ OPERATING TEMP. RANGE

T = -25°C +85°C (-13°F +185°F)

K = -40°C +100°C (-40°F +212°F)

⑦ CONNECTION POSITION

A = axial

R = radial

⑧ CONNECTION TYPE & CABLE LENGTH

L010 = cable output 1 m (standard)

Lxx0 = cable out. x m (max. length 10m)

L100 = cable output 10 m

P = MIL 10 pin plug

M2 = M23 12 pin plug

⑨ CUSTOM VERSION

Document release	Date	Description
1.1	19.01.2026	Order code update (AST6 SSI output - deleted G02)
1.0	5.08.2025	New order code