

SERIES AD34

HENGSTLER

Single Turn Absolute Encoder

Key Features

- Special Notched Shaft Installs Easily in One Step and Eliminates Coupling Issues
- Up to 22 bits of Singleturn Absolute Positioning
- Wide -15° to +120°C Operating Temperature Covers Majority of Servomotor Applications

SSM
Servo Small MotorCE
EN61326-1

SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS:

Code: Absolute

Resolution Single-turn: 12-22 Bit

Resolution Multi-turn: 12 Bit

Absolute Accuracy: $\pm 35''$ Repeatability: $\pm 7''$

ELECTRICAL:

Interface: BiSS & SSI

Input Power: DC 5V -5 %/+10 % or DC 7 - 30V

Current w/o Load typ.: 5V: 100 mA (ST), 150 mA (MT);
7-30V: 100 mA (ST), 150 mA (MT)

Permissible load: Max. 30 mA

Output Code: Gray

Drives: Clock and Data / RS422

Incremental Signals: Sine-Cosine 1 Vpp

Number of Pulses: 2048

3dB Limiting Frequency: 500 kHz

Alarm Output: Alarm bit (SSI Option), warning bit and
alarm bit (BiSS)

ELECTRICAL (Cont.):

Frequency Response (Baud Rate):

SSI: 100kHz ... 1,5MHz

BiSS-B/ BiSS-C: 100kHz ... 10 MHz

Noise Immunity: Tested to EN61326-1

Electrical Immunity: Reverse Polarity and Short
Circuit Protected for the 7-30 VDC OnlyTermination: Cable, radial; PCB connector, 12
pole

MECHANICAL:

Housing Diameter: 38.1 mm

Shaft Diameter: 6mm (Notched Shaft)

Shaft Material: Stainless Steel

Axial Endplay of Mounting Shaft: (Hub shaft)
 ± 0.5 mmRadial Runout of Mating Shaft: (Hub shaft)
 ± 0.05 mmMaximum Speed: max. 10,000 rpm (continuous),
max. 12 000 rpm (short term)Starting torque typ.: ≤ 1 NmMoment of inertia: ca. 2.5×10^{-6} kgm²

Mounting: Spring Tether

Housing Material: Plastic

Disc Material: Glass

Weight: approx. 80g (2.8 oz), (ST)

ENVIRONMENTAL:

Standard Operating Temperature:

-15 °C ...+120 °C

Storage Temperature: -15 °C ...+85 °C

Shock: (DIN EN 60068-2-27)

1000 m/s² (6 ms)

Vibration: (DIN EN 60068-2-6)

100 m/s² (10 ... 2000 Hz)Humidity: 75% rel. Humidity (no condensa-
tion allowed)Enclosure Rating: (EN 60529/A1:2000-02)
IP40 Housing & Shaft

CONNECTIONS

PIN	1b	2b	3b	4b	5b	6b
Function	DC 5V / 7-30V (U_p)	Clock	B -	0 V (U_n)	A -	Data
Color	White	Yellow	Gray/Pink	Brown	Brown/Green	Pink
PIN	1a	2a	3a	4a	5a	6a
Function	Data	A +	0 V -Sen	B +	Clock	5V Sensor
Color	Gray	White/Green	Black	Red/Blue	Green	Violet

 U_p = power SupplySensor is connected to Power Supply and 0 V (U_n)

Shield connected to case

Analog signals (1Vpp) only available with interface

SC (SSI Gray +1Vpp), BC (BiSS-B +1Vpp) and

BV (BiSS-C +1Vpp)

Ordering Information

To order, complete the model number with code numbers from the table below:

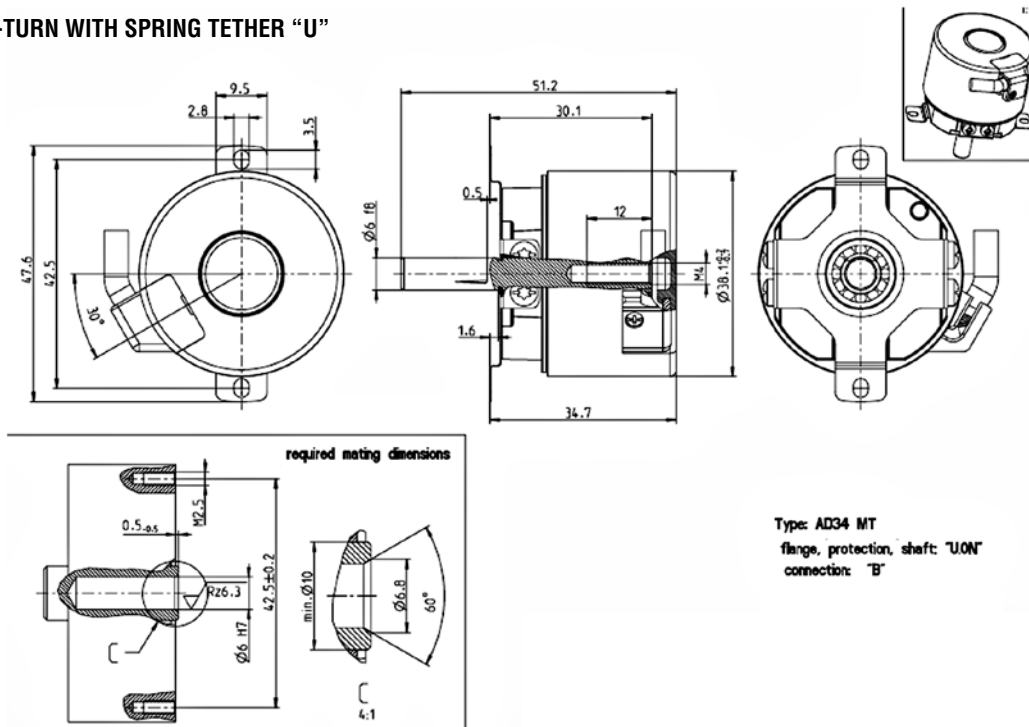
Code 1: Model	Code 2: Resolution	Code 3: Output	Code 4: Flange/Protection/Shaft	Code 5: Interface	Code 6: Connection
AD34	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/>	<input type="text"/> . <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/>
Series AD34 Absolute Encoder	0012 12 Bit ST 0013 13 Bit ST 0014 14 Bit ST 0017 17 Bit ST 0019 19 Bit ST 0022 22 Bit ST 1212 12 Bit MT, 12 Bit ST 1213 12 Bit MT, 13 Bit ST 1214 12 Bit MT, 14 Bit ST 1217 12 Bit MT, 17 Bit ST 1219 12 Bit MT, 19 Bit ST 1222 12 Bit MT, 22 Bit ST	A 5 VDC* E 7-30VDC	F.ON Spring Tether F, Legs Backward, IP40, 6 mm notched shaft U.ON Spring Tether U, Legs Forward, IP40, 6 mm notched shaft	BC BiSS-B (+SinCos 1Vpp) SC SSI Gray (+SinCos 1Vpp) BV BiSS- C (+SinCos 1Vpp) SD SSI-Binary (+SinCos 1Vpp) BI, SG, BE, SB available ONLY when Code 6: is A or B BI BiSS-B BE BiSS- C SB SSI-Binary SG SSI-Gray	0 PCB Connector, axial, 12 pole 2 PCB Connector, radial, 12 pole A PCB Connector, axial, 12 pole, with mating connector and 0.5 m cable B PCB Connector, radial, 12 pole, with mating connector and 0.5 m cable

*No inverse-polarity protection for 5V power supply.

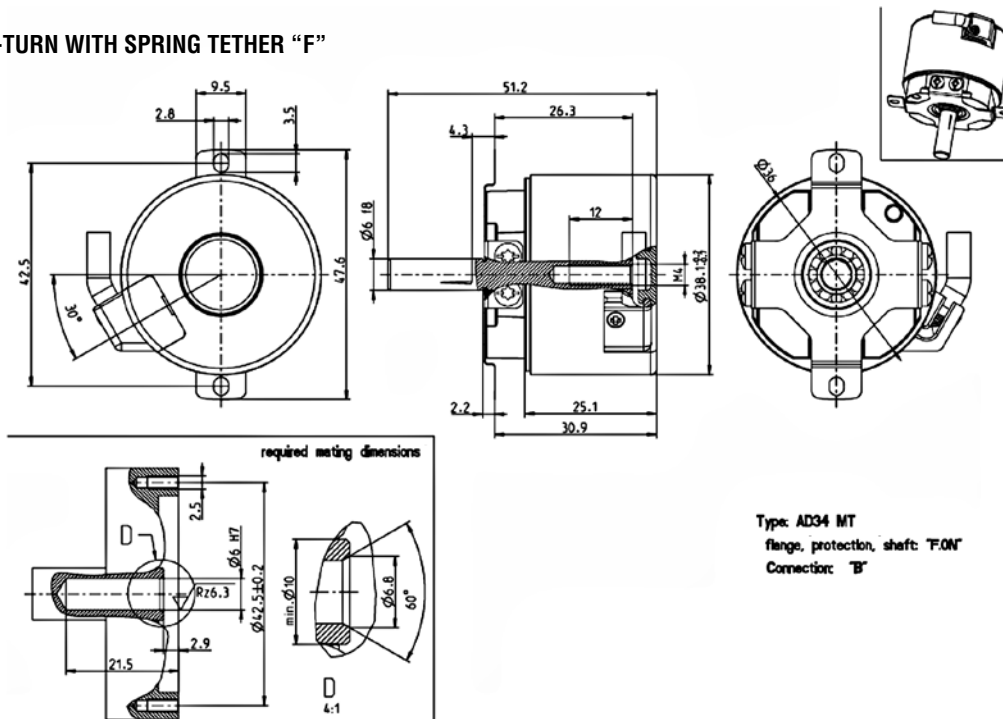
HENGSTLER

DIMENSIONS mm

MULTI-TURN WITH SPRING TETHER "U"



MULTI-TURN WITH SPRING TETHER "F"



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