Model 958

Features

- European Size 58 (58 mm) Package
- Resolutions Up To 12 Bit (4096 PPR equivalent)
- Incorporates Opto-ASIC Technology
- Industrial Grade, Heavy Duty Housing
- Wide Range of Operating Voltages (4.75 to 26 VDC)

The Model 958 Single Turn Absolute Accu-Coder™ is ideal for a wide variety of industrial applications requiring an encoder with European Size 58 (58 mm) mounting and absolute positioning output. A rugged, industrial grade housing allows the Model 958 to be used in a wide variety of applications calling for a reliable, heavy-duty encoder. In addition, its innovative Opto-ASIC circuitry, coupled with its digital output, make it an excellent choice in those applications plagued by unusually high levels of electrical noise. Available with a choice of either type 20 or type 26 servo mounting, and a variety of connector and cabling options, the Model 958 is easily designed into a variety of applications. The Model 958 can also be ordered with stainless steel housing, heavy duty bearings, and an IP66 seal.
(Contact a friendly EPC sales representative for more information). With so many options that make the Model 958 ultra-durable, this absolute encoder can tolerate the worst environments!

Common Applications

Machine Tools, Robotics, Telescopes, Antennas, Rotary & X-Y Positioning Tables, Medical Scanners

Model 958 Ordering Guide

Blue type indicates price adder options. Not all configuration combinations may be available. Contact Customer Service for details.

958 - B - 20 - XXXX - CW - S - G/8 - 07 - N - PP - N[4]

MODEL
958 Absolute Series Size 58 (58 mm)

OUTPUT CODE
G Gray
B Natural Binary
X Excess Gray

MOUNTING
20 Clamping Flange (20 Type)
26 Synchro Flange (26 Type)

RESOLUTION
See Table Below

COUNT DIRECTION/CODE INVERSION
CW Clockwise
CCW Counter Clockwise
CWI Clockwise/Inverted
CCI Counter Clockwise/Inverted

CONNECTOR LOCATION
S Side
E End

CONNECTOR TYPE[2, 5]
C16 16-pin
C19 19-pin
G Gland, 24" cable (standard)[3]

SHAFT SIZE
07 1/4", 0.250"
20 3/8", 0.375"
06 6 mm
21 10 mm

SHAFT SEAL
N No Seal
1 IP66
2 IP64

OUTPUT TYPE
PP Push-Pull (standard)
OC Open Collector

CERTIFICATION
N None
CE CE Marked[1]

For specification assistance call Customer Service at 1-800-894-0412

Model 958 Resolution Table

Output Code	Counts Per Resolution						
Gray Code	0256	0512	1024	2048	4096		
Natural Binary	0250	0256	0360	0500	0512	0720	1000
	1024	1440	2000	2048	2880	4000	4096
Excess Gray	0180	0250	0360	0500	0720	1000	1440
	2000	2880	4000				

*Contact Customer Service for availability.

NOTES:
1 Please refer to Technical Bulletin TB100: *When to Choose the CE Option* at www.encoder.com. Contact Customer Service for availability.
2 For additional connector styles please contact Customer Service.
3 Standard cable length is 24". For non-standard cable lengths, add a forward slash (/) plus cable length expressed in feet. Example: G/6 = 6 feet of cable.
4 Also available in stainless steel housing. Contact Customer Service for details.
5 For mating connectors, cables, and cordsets, please see www.encoder.com.

Model 958

Model 958 Specifications

Electrical

- Input Voltage.....4.75 to 26 VDC max
- Regulation.....100 mV peak-to-peak, max ripple at 0 to 100 kHz
- Input Current.....100 mA max with no external load
- Output Format .....Absolute- Parallel Outputs
- Output Type.....Open Collector- 20 mA max per channel
  Push-Pull- 20 mA max per channel
- Code .....Gray Code, Natural Binary Code, Excess Gray Code
- Max Frequency.....50 kHz (LSB)
- Rise Time.....Less than 1 microsecond
- Resolution .....Up to 12 bit
- Accuracy.....+1/2 LSB

Control

- Directional Control....Field selectable for increasing counts (CW or CCW)

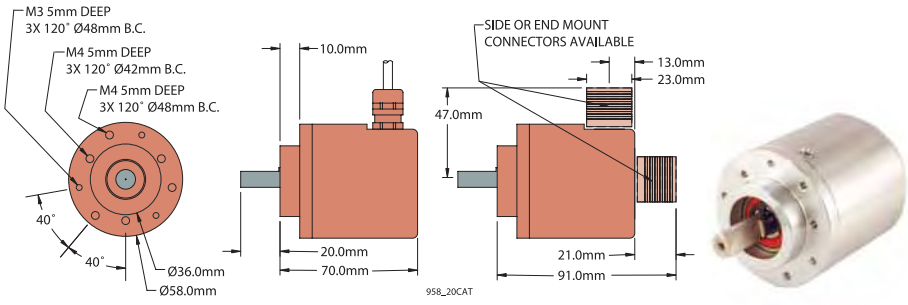
Mechanical

- Max Shaft Speed.....6000 RPM continuous
- Shaft Size .....0.250", 0.375", 6 mm, 10 mm
- Radial Shaft Load.....27 lb max
- Axial Shaft Load .....27 lb max
- Starting Torque .....1.0 oz-in typical for no seal
  2.0 oz-in with IP64 shaft seal
- Max Acceleration.....1 x 10^5 rad/sec^2
- Electrical Conn .....Gland with 24" cable (braid shield, 30 AWG conductors), 16-, 19-pin
- Housing.....Aluminum
- Mounting.....European Standard Clamping Flange (20 Type) and Synchro Flange (26 Type)
- Weight.....22 oz typical

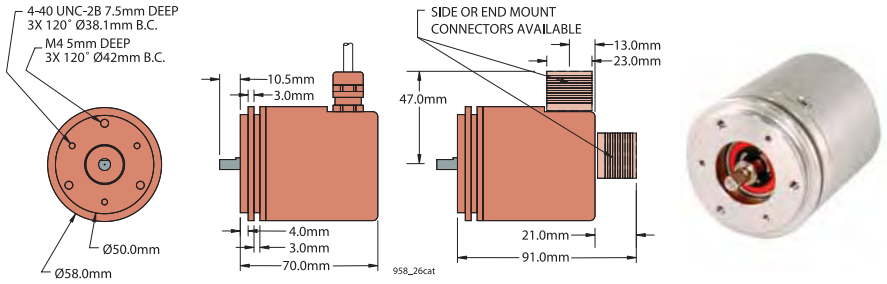
Environmental

- Operating Temp.....0º to 70º C
- Storage Temp .....-20º to +85º C
- Humidity.....98% RH non-condensing
- Vibration.....10 g @ 58 to 500 Hz
- Shock.....20 g @ 11 ms duration
- Sealing.....IP54 (standard)
  IP64, or IP66 (NEMA 13 and 4) optional

Model 958 Clamping Flange 20 Type (20)



Model 958 Synchro Flange 26 Type (26)



All dimensions are in millimeters with a tolerance of ±0.17 mm unless otherwise specified

Wiring Table

Function	19-PIN KPT02E14-19P Pin	16-PIN Pin	Gland Cable or Mating Conn. Wire Color
S1 MSB	A	3	Brown
S2	B	5	White
S3	C	6	Green
S4	D	7	Orange
S5	E	8	Blue
S6	F	9	Violet
S7	G	10	Gray
S8 LSB 8-bit	H	11	Pink
S9 LSB 9-bit	J	12	Red/Green
S10 LSB 10-bit	K	13	Red/Yellow
S11 LSB 11-bit	L	14	Turquoise
S12 LSB 12-bit	M	15	Yellow
Direction***	R	4	Red/Blue
Case Ground	S	16	Drain/Screen
0V Common	T	1	Black
Special**	U	---	White/Red
+VDC	V	2	Red

NOTES:

* Only available with 8-bit resolution encoders

** Where Fitted

*** Direction Control- Standard is CW increasing when viewed from the shaft end. Direction pin is pulled high normally to 5V internally. Direction pin must be pulled low (GND, Common) to reverse count direction. Applied voltage to direction pin should not exceed 5V.

CTi Automation - Phone: 800.894.0412 - Fax: 208.368.0415 - Web: www.ctiautomation.net - Email: info@ctiautomation.net