

## MODEL 858S - STAINLESS STEEL ENCODER



Ø58 mm

### FEATURES

Standard Size 58 (58 mm diameter) stainless steel package  
Up to 30,000 CPR  
80 lb max. axial and radial shaft loading  
High temperature option (100° C)  
IP67 sealing available

The Model 858S European Size 58 Accu-Coder® is a heavy duty, extremely rugged, reliable encoder, in a 316 stainless steel package. Its compact design is well suited for harsh factory and plant floor environments that call for a metric solution. The double-shielded ball bearings are rated at 80 lb maximum axial and radial shaft loading, to ensure a long operating life. Shock rating is 75 g for 11 milliseconds duration. With the optional heavy-duty shaft seal installed, the Model 858S is rated at IP67. Two European standard mounting options are available, the Clamping Flange (20 Type), or the Synchro Flange (26 Type).

### COMMON APPLICATIONS

Food Processing, Oil, Gas and Chemical Processing, Material Handling, Conveyors, Robotics, Elevator Controls, Textile Machines

### MODEL 858S ORDERING GUIDE

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

858S

A

21

S

1000

R

HV

1

1

E

G

CE

MODEL

858S Size 58 mm

MOUNTING TYPE<sup>1</sup>

A 20 Type clamping

B 26 Type synchro

OPERATING TEMPERATURE

S 0° to 70° C

L -40° to 70° C<sup>2</sup>

H 0° to 100° C<sup>3</sup>

CYCLES PER REVOLUTION

1-30,000

See CPR Options below

Price adder for >1270

OUTPUT TYPE

5 - 28V In/Out<sup>5</sup>

OC Open Collector

PU Pull-Up Resistor

PP Push-Pull

HV Line Driver<sup>6</sup>

8 - 28V In/5V Out<sup>7, 8</sup>

H5 Line Driver (5V)<sup>6</sup>

P5 Push-Pull (5V)

SEALING

N No seal

1 IP66

2 IP64

5 IP67

CONNECTOR LOCATION

E End

S Side

CERTIFICATION

N None

CE CE Marked<sup>13</sup>

SHAFT SIZE<sup>1</sup>

07 0.250", 1/4"

20 0.375", 3/8"

06 6 mm

21 10 mm

NUMBER OF CHANNELS<sup>4</sup>

A Channel A

Channel A Leads B

Q Quadrature A & B

R Quadrature A & B with Index

Channel B Leads A

K Reverse Quadrature A & B

D Reverse Quadrature A & B with Index

MAXIMUM FREQUENCY

1 Standard 100 kHz

2 200 kHz ≤ 3000 CPR

5 250 kHz, > 3000 CPR

3 500 kHz, > 6000 CPR<sup>9</sup>

4 1 MHz, > 10,000 CPR<sup>9</sup>

CONNECTOR TYPE<sup>10</sup>

G Gland, 24" Cable<sup>11</sup>

J 5-pin M12 (12 mm)<sup>6, 12</sup>

K 8-pin M12 (12 mm) standard wiring<sup>12</sup>

Z 8-pin M12 (12 mm) optional wiring<sup>12</sup>

NOTES:

The shaft on 20 Type mountings includes a 15.58 mm flat.

The shaft on 26 Type mountings is provided without a flat.

Low temperature option not available with resolutions of

Model 858S CPR Options

#### NOTES:

- The shaft on 20 Type mountings includes a 15.58 mm flat. The shaft on 26 Type mountings is provided without a flat.
- Low temperature option not available with resolutions of 3000 CPR or higher.
- 0° to 85° C for certain resolutions, see CPR Options.
- Contact Customer Service for non-standard index gating options.
- 24 VDC max for high temperature option.
- Line Driver Outputs not available with 5-pin M12 connector.
- Standard temperature, 60 to 3000 CPR only. Not available with 2400 CPR, 2540 CPR, or 2880 CPR.
- CE not available with H5/P5 output type options.
- Standard cable lengths only. For details, please refer to Technical Bulletin TB-116: Noise and Signal Distortion Considerations at encoder.com.
- For mating connectors, cables, and cordsets see Accessories at encoder.com. For Connector Pin Configuration Diagrams, see Technical Information or see Connector Pin Configuration Diagrams at encoder.com.
- For non-standard cable lengths, add a forward slash (/) plus cable length expressed in feet. Example: G/6 = 6 feet of cable.
- M12 connector available on side mount option only.
- Please refer to Technical Bulletin TB100: When to Choose the CE Mark at encoder.com.

#### Model 858S CPR Options

0001*	0002*	0004*	0005*	0006*	0007*	0008*	0010*	0011*
0012*	0014*	0020	0021*	0024*	0025*	0028*	0030*	0032*
0033*	0034*	0035*	0038*	0040*	0042*	0045*	0050*	0060
0064*	0100	0120	0125	0128*	0144*	0150*	0160*	0200
0240*	0250	0254*	0256*	0300	0333*	0336*	0360	0400
0500	0512	0600	0625*	0635	0665*	0720	0889	1000
1024	1200	1204*	1250*	1270*	1440	1500	1800	2000
2048	2400*	2500	2540*	2880*	3000*	3600*	4000*	4096*
5000*	6000*	7200*	7500*	9000*	10,000*	10,240*	12,000*	12,500*
14,400*	15,000*	18,000*	20,000*	20,480*	25,000*	30,000*		

\* Contact Customer Service for High Temperature Option (H).

^ High Temperature Option (H) limited to 85° C maximum for these CPR options.

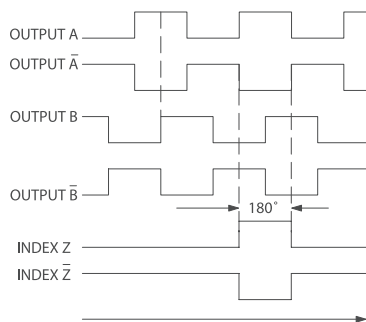
New CPR values are periodically added to those listed. Contact Customer Service to determine all currently available CPR values. Special disk resolutions are available upon request. A one-time NRE fee may apply.



## MODEL 858S - STAINLESS STEEL ENCODER

### WAVEFORM DIAGRAMS

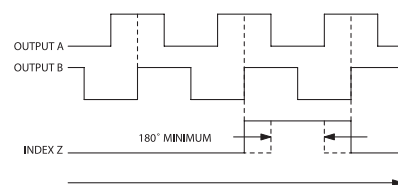
#### Line Driver and Push-Pull



CLOCKWISE ROTATION AS VIEWED FROM THE MOUNTING FACE

NOTE: ALL DEGREE REFERENCES ARE ELECTRICAL DEGREES. Waveform shown with optional complementary signals  $\bar{A}$ ,  $\bar{B}$ ,  $\bar{Z}$  for HV and H5 outputs only.

#### Open Collector and Pull-Up



CLOCKWISE ROTATION AS VIEWED FROM THE MOUNTING FACE

NOTE: ALL DEGREE REFERENCES ARE ELECTRICAL DEGREES. Index is positive going.

### WIRING TABLE

For EPC-supplied mating cables, refer to wiring table provided with cable. Trim back and insulate unused wires.

Function	Gland Cable† Wire Color	5-pin M12**	8-pin M12** Standard Wiring	8-pin M12** Optional Wiring
Com	Black	3	7	1
+VDC	Red	1	2	2
A	White	4	1	3
A'	Brown	--	3	4
B	Blue	2	4	5
B'	Violet	--	5	6
Z	Orange	5	6	7
Z'	Yellow	--	8	8
Shield	Bare*	--	--	--
Case	Green	--	--	--

\* CE Option: Cable shield (bare wire) is connected to internal case.

\*\* CE Option: Use cable cordset with shield connected to M12 connector coupling nut.

† Standard cable is 24 AWG conductors with foil and braid shield.