

Series 958

8-14 bit Absolute Encoder



Design Features

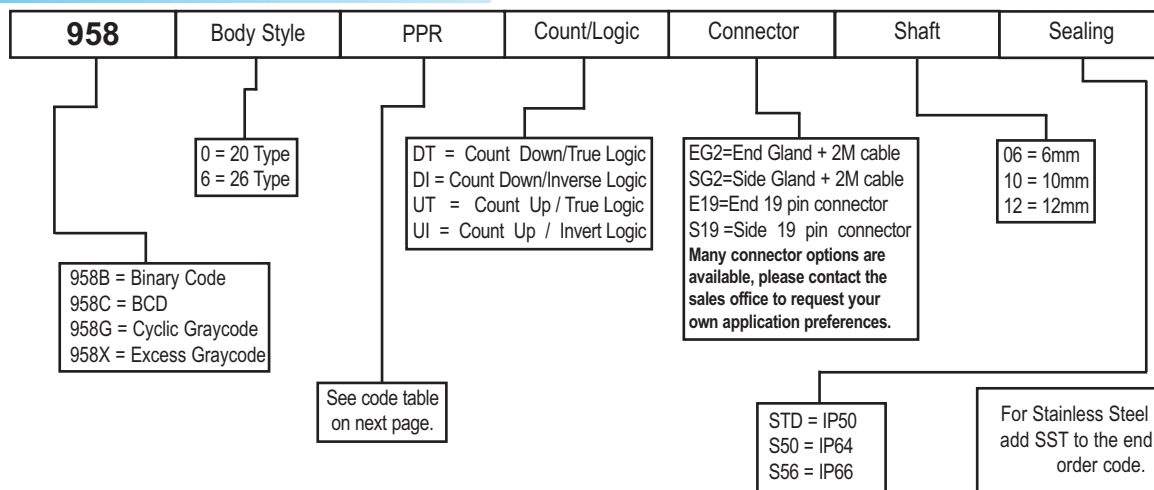
The 958 G/X/C/B is an absolute version of the 420/426 style 58mm diameter encoder, and has been developed to provide a wide range of codes and count direction/logic polarity. With resolution to 14* bits in binary, cyclic graycode or excess graycode, and 15 bits in BCD, it features an industry standard Push-Pull output which operates from 4.75 - 26V. A variety of connection methods is available.

Specifications

Input Voltage range	4.75/26V	Starting torque	0.002 Nm
Regulation, for 5V operation	5%, with 2% maximum ripple	User radial shaft runout	0.15 max TIR
Current consumption	100mA. No external load	User axial shaft end play	±0.7mm
Output circuits, per channel	20mA (max) Push-Pull	Radial loading	Being the mass of the encoder
Frequency response (LSB)	50 KHz	Axial loading	Being the mass of the encoder
Output codes	Cyclic or XS graycode, binary or BCD	Moment of inertia	100 g/cm
Repeatability	within 0.01°	Acceleration	10⁵ radians/sec²
Error limit/accuracy	0.04°	Weight	0.2 Kg
Rise time	Less than 1 microsecond	Housing	Aluminum
Resolution	Up to 14* bits (bin/grey), 15 bits BCD	Operating temperature	0°C to +70°C
LED life	100,000 hrs typical	Storage temperature	-20°C to +85°C
Pulses per revolution	See ordering information	Humidity	98% RHNC
Max shaft speed	6,000 rpm continuous	Vibration	10 G's @ 58 to 500 Hz
Shaft sizes and types	See ordering information	Shock	50 G's for 11 mSec
Shaft tolerance	H7 sliding fit for g6	Protection	IP50 standard
Bearings	ABEC 3		IP64 with seal (S50)
			IP66 with seal (S56)

*12 bits at the time of publication, 14 bits due for a late 2003 release.

Ordering Information



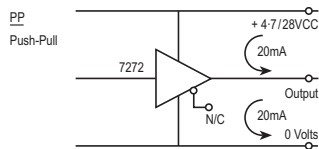
Code Table



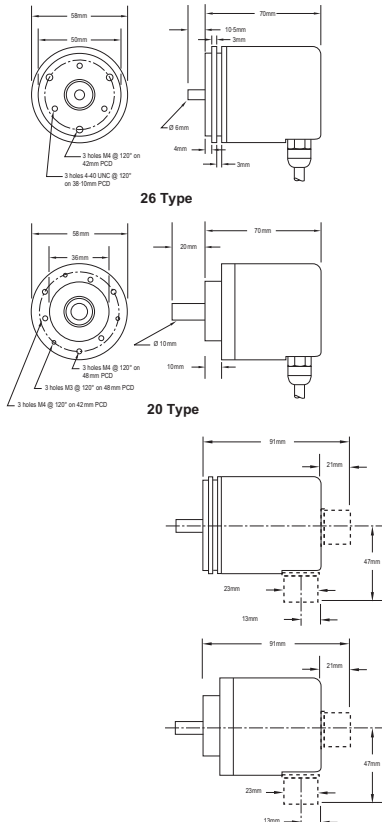
CODE TABLE

958B = Binary	958C = BCD	958G = Gray	958X = XS Gray
			0180
0250			0250
0256	0256	0256	
0360	0360		0360
0500	0500		0500
0512	0512	0512	
0720	0720		0720
1000	1000		1000
1024	1024	1024	
1440	1440		1440
2000	2000		2000
2048	2048	2048	
2880	2880		2880
4000	4000		4000
4096	4096	4096	
8192	8192	8192	
16384		16384	

Output Circuits



Dimensions



Termination

Function	Pin No (19 Pin)	Pin No (16 Pin)	16 Core Cable Colours	25 Core Cable Colours
S1 MSB	A	3	Brown	Brown
S2	B	5	White	White
S3	C	6	Green	Green
S4	D	7	Orange	Orange
S5	E	8	Blue	Blue
S6	F	9	Violet	Violet
S7	G	10	Grey	Grey
S8 - 8 bit LSB	H	11	Pink	Pink
S9 - 9 bit LSB	J	12	Red/Green	Red/Green
S10 - 10 Bit LSB	K	13	Red/Yellow	Red/Yellow
S11 - 11 Bit LSB	L	14	Turquoise	Turquoise
S12 - 12 Bit LSB	M	15	Yellow	Yellow
S13 - 13 Bit LSB	N	-	-	Red/Brown
S14 - 14 Bit LSB	P	-	-	Yellow/Blue
CW/CCW	R	4	Red/Blue	Red/Blue
Case Ground	S	16	Drain/Screen	Drain/Screen
0V Common	T	1	Black	Black
*Special	U	-	-	White/Red
5/24VCC	V	2	Red	Red

*Where fitted

Many connector options and pin-outs are available, please contact the sales office to request your own application preferences.

