

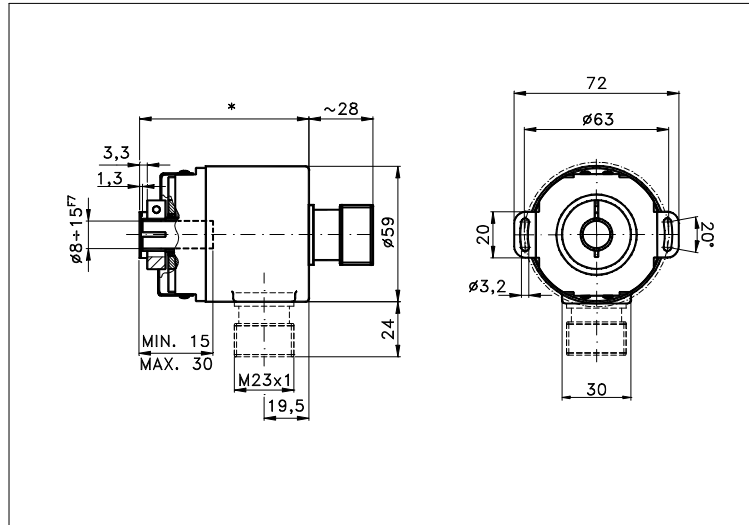
**ABSOLUTE  
ENCODER  
WITH FIELD BUS  
959CS**

Compact and sturdy absolute SSI encoder with hollow shaft and incorporated spring coupling. Fit for general industrial purposes. High resolution and very good quality/price ratio.

Absolute with field bus  
page: 04.959CS 1/2  
data sheet IB 042 E00

Measures without tolerance acc. to UNI ISO 2768-mk

Max. joint compens.: ax. ±0,1mm, rad. ±0,2mm, ang. ±1°



\* Singlet. 61 ax., 72 rad.; multit. 81 ax., 73 rad.

**TECHNICAL FEATURES AND POSSIBLE CONFIGURATIONS**

- **Outout codes**.....: Gray, Binary
- **Max resolut**.....: 16 bit/1 rev.  
                          : 30 bit/16384 rev.
- **Pulses/rev**.....: (12) 4096, (13) 8192,  
                          (14) 16384, (15) 32768,  
                          (16) 65536.
- **No. of rev**.....: 1, 4096, 16384.  
                          :
- **Power supply Vcc**.....: 10÷30 VDC
- **Max consumption**.....: 1W (SL), 1,5W (S1)
- **Light source**.....: LED with >= 100000 h life
- **Optical sensors**.....: IR photodiodes array
- **Step frequency LSB**....: 800 kHz
- **Operating temperature**..: -40 ÷ +85 °C (1)
- **Storage temperature**...: -40 ÷ +85 °C (1)
- **Humidity**.....: 98% (without liquid state)
- **Bus connection**.....: Line driver (acc. to RS422)
  
- **Accuracy of divisions**..: ±½ LSB(<13bit), ±2 LSB(13÷16bit)
- **Output interface**.....: (SL) SSI  
                                  (S1) SSI + Preset  
                                  (S4) SSI+Push-b.preset

- **Connections**                          : For the codes and the descriptions of connectors see 'ORDERING CODE' on page 2.
  
- **Housing**.....: Aluminium (\*)
- **Weight**.....: singlet.200g ,multit. 300 g
- **Shaft**.....: Stainless steel
- **Max radial/axial load**..: 40/110 N
- **IP output side**.....: see 'CONNECTIONS' on page 2
- **IP shaft side**.....: std.64 | sealed 66
- **Contin. max RPM**...(\*\*): 6000 | 3000
- **Starting torque**..gcm.: 50 | 90
- **Impact resistance**.....: 30 G (11 ms)
- **Vibration resistance**...: 10 G (10 ÷ 1000 Hz)
- **Ball bearings life**....: >10^5 h @ 1000 rev./m
- **SMD technology**
- **Polarity inversion protect.**
- **Over voltage peak protect.**
- **Disc made of unbreakable and durable plastic.**
- **EMC certific.** according to EN 61000-6-2, EN 61000-6-4

(\*) Custom options.

(\*\*) Intermittent max RPM + 30% of continuous max RPM.

(1) -5÷+70°C cable exit

**POSSIBLE OPTIONS**

CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION
Q	All stainl. steel	W	Sealed ball bear.	X	Customer options



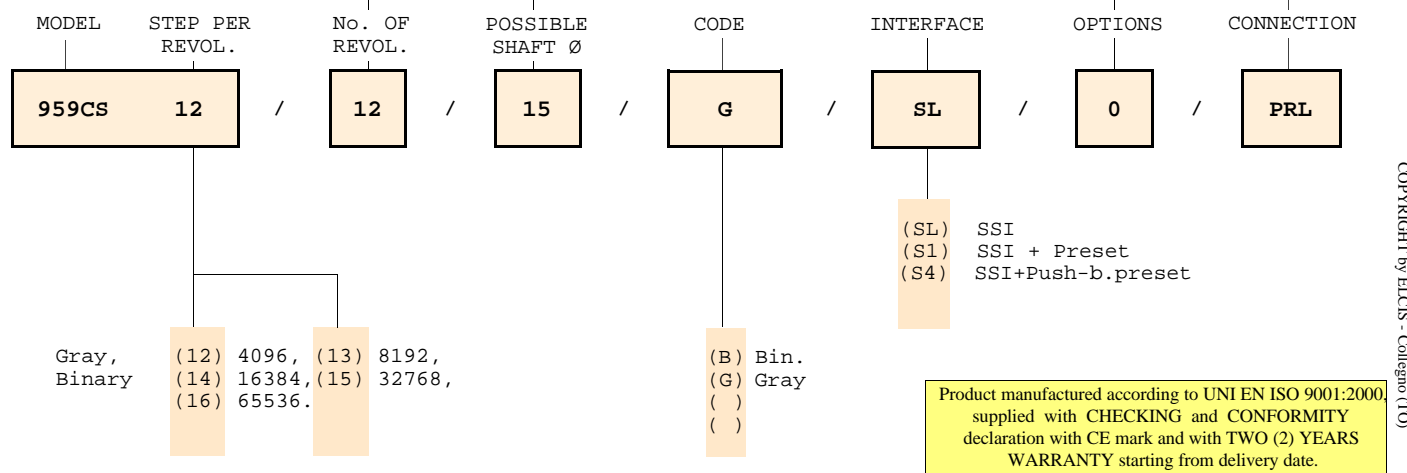
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INTERFACE	CONNECTIONS
» (SL) SSI	»
The data output is controlled by an external clock. The angular position's value is first stored into the encoder and then transmitted outside starting from the MSB. The standard of transmission is RS485/RS422; the clock frequency is 100kHz+1MHz.	
» (S1) SSI + Preset	
Like (SL), but with a preset function.	
» (S4) SSI+Push-b.preset	
Like (SL), but with a preset push button. Available only with radial output.	
»	

### ORDERING INFORMATION

( 00 ) 1(Singlet.)	( 15 ) Ø 15 (standard)	( Q ) All stainl. steel	( CAW ) 1 m long cable axial	IP65
( 12 ) 4096	( 12 ) Ø 12	( X ) Customer options	( CRW ) 1 m long cable radial	IP65
( 14 ) 16384	( 10 ) Ø 10	( W ) Sealed ball bear.	( PAL ) 12 pin conn. axial	IP65
	( 08 ) Ø 8	( )	( PRL ) 12 pin conn. radial	IP65
	( )	( 0 ) Standard	( )	
	( n ) Ø n upon		( )	



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