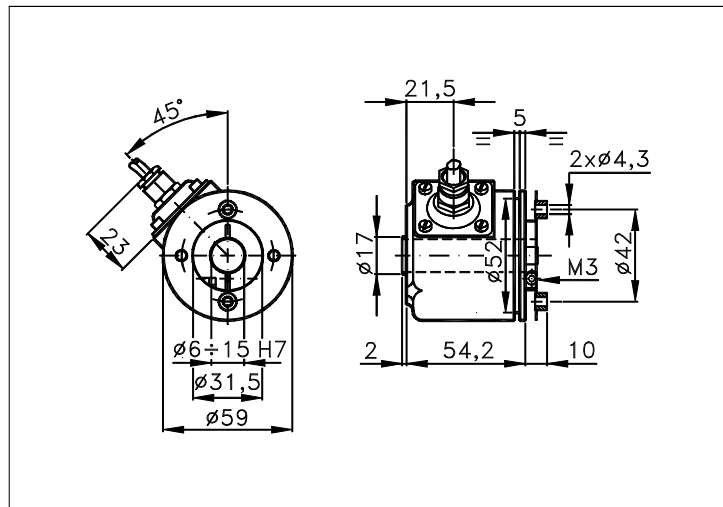


**SINGLE TURN  
ABSOLUTE  
ENCODER  
359ZMA**

Absolute single turn encoder, from 2 to 13 bits, with hollow shaft passing through and with a spring coupling. Similar to mod. 359ZM but supplied with a stop collar to be fixed on the motor shaft.

Absolute single turn  
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data sheet IA013 E00

Measures without tolerance according to UNI ISO 2768-mk



**TECHNICAL FEATURES AND POSSIBLE CONFIGURATIONS I**

- Output codes.....: Gray
  - Max pulses/rev.....: 8192 (13 bits)
  - Power supply Vcc.....: 5±5%, 15±5%, 8÷24, 18÷28, 10÷30
  - Max consumption.....: 200÷400 mA accord. to bits (\*)
  - Light source.....: LED with >= 100000 h life
  - Optical sensors.....: Phototransistors
  - Max frequency.....: 50 kHz (\*)
  - Operating temperature.: 0 ÷ +70 °C (\*)
  - Storage temperature...: -30 ÷ +85 °C (\*)
  - Burn-in @ +75 °C.....: 72 h (\*)
  - Up/down commutation...: OK
  - Mechanical zero search: No
  - Output stages.....: (-) NPN open coll.10mA(std)
  - Pre output interface...: (-) Parallel (standard)
  - Electronic options.....: (for parallel interf.)
  - Connections Radial (R): CV (\*)
  - Base.....: Anodized aluminium (\*)
  - Cover.....: Anodized aluminium (\*)
  - Weight.....: 320 g
  - Shaft.....: Hollow stainless steel (\*)
  - Max.rad/axial load....: 4 Kg
  - IP output side.....: see 'CONNECTIONS' on page 2
  - IP shaft side.....: std.64 | sealed 65 | low torq.53
  - Contin. max RPM...(\*\*): 6000 | 3000 | 8000
  - Starting torque.. gcm.: 85 | 110 | 50
  - Impact resistance.....: 50 G (11 ms)
  - Vibration resistance...: 12 G (10 ÷ 2000 Hz)
  - Ball bearings life.....: 1,5x10<sup>9</sup> revolutions  
(@ 1000 rev/m with load of 1/4 maximum allowed)
- (\*) Custom options  
(\*\*) Intermittent max RPM + 30% of continuous max RPM

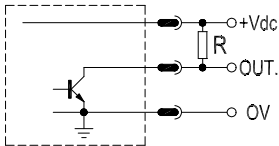
**POSSIBLE OPTIONS**

CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION
A	High temperature	X	Custom options	G	Tropicalization
L	Low temperature			Z	Sealed ball bearing
Y	Unbreakable disk	P	Compressed air attack	B	Low torque ball bear.



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ELECTRONIC OUTPUT	INTERFACE	PARALLEL OPTIONS
» (-) NPN open coll.10mA(std)	» (-) Parallel (standard)	»
	The angular value is present on the output connector in a 'parallel' form. The number of conductors is proportional to the resolution and the type of selected code. Any electronic output stage can be applied.	»
»	»	»
»	»	»
»	»	»

### ORDERING CODE

Possible hollow Ø	(G) Gray	(-) Parallel (standard)	(CV) 1 m long cable	IP65				
( n ) Ø n upon req	( )		( )					
( 6 ) Ø 6	( )		( )					
( 8 ) Ø 8	( )		( )					
( 10 ) Ø 10	( )		( )					
( 12 ) Ø 12	( )		( )					
( 15 ) Ø 15	( )		( )					
		(-) NPN open coll.10mA(std)		( )				
		↳ Only for parallel interface		( )				
MODEL	CODE	RESOLUTION	POWER SUPPLY	OUTPUT ELECTR.	INTERFACE	CONNECT.	OUTPUT	
A 359ZMA	G	256	5	-	- -	CV	R	
OPTIONS		[*]			OPTIONS parallel interface		Radial (R)	
(A) High temperature		(5) 5 V ±5% (1828)18 ÷ 28 V						
(L) Low temperature		(15) 15 V ±5% (1030)10 ÷ 30 V						
(Y) Unbreakable disk		(824)8 ÷ 24 V (X) Upon requ.						
(X) Custom options								
( )		Cod. G, , : 8,16,32,64,128,256,512						
(P) Compressed air attack		Cod. G, , : 1024,2048,4096,8192						
(G) Tropicalization		Cod. , , :						
(Z) Sealed bal bearing		Cod. , , :						
(B) Low torque ball bear.		Cod. , , :						

Product manufactured according to ISO EN 9001, supplied with CHECKING and CONFORMITY declaration with CE mark and with TWO (2) YEARS WARRANTY starting from delivery date.

[\*] Other resolutions on customer's requirement

ELCIS company has the right to make any changing without previous notice. data sheet IA013 E00 page: 01. 359ZMA 2/2

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