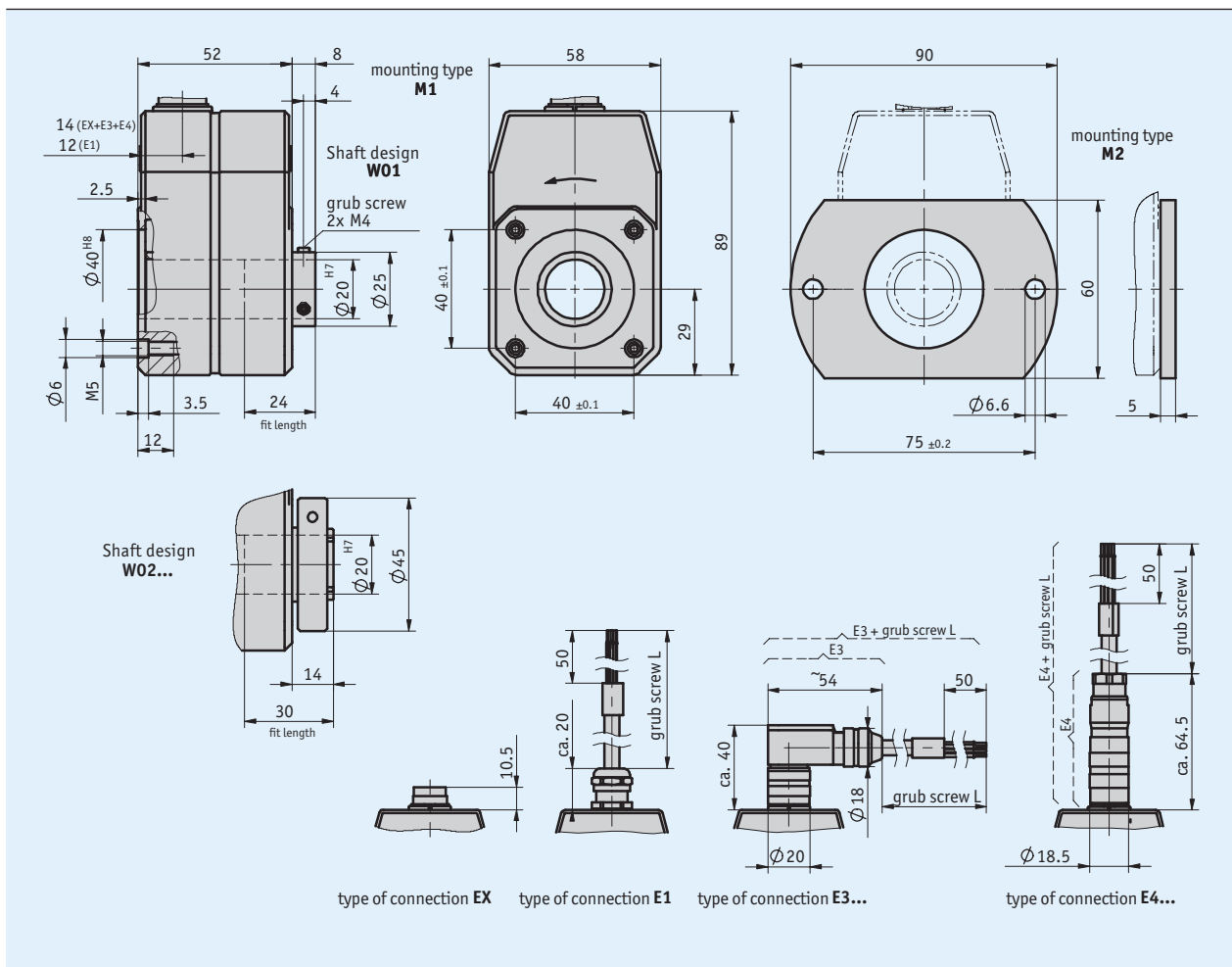


# Incremental encoder IG07

Housing made of zinc die-cast with through hollow shaft

## Profile

- Resolutions of max. 1024 pulses/revolution
- Through hollow shafts up to  $\varnothing 20$  mm
- Housing made of zinc die-cast
- High shaft load rating, radial 5600 N, axial 1400 N



## Mechanical data

Feature	Technical data	Additional information
Shaft	black-finished steel	
Housing	zinc, die-cast	
Speed	≤6000 rpm	IP64
	≤3000 rpm	IP65
Moment of inertia	~28.5 x 10 <sup>-6</sup> kgm <sup>2</sup>	W01 shaft design
	~58.5 x 10 <sup>-6</sup> kgm <sup>2</sup>	W02 shaft design
Starting torque	≤6 Ncm at 20 °C	IP64
	≤10 Ncm at 20 °C	IP65
Shaft load rating	1400 N axial	
	5600 N radial	
Cable sheath	PVC	
Weight	~0.75 kg	

## Electrical data

### ■ PP output circuit

Feature	Technical data	Additional information
Operating voltage	10 ... 30 V DC	reverse polarity protected
Current consumption	typical <40 mA	without load (ABO output signals)
Output signal level high	UB -2 V	
Output signal level low	≤1 V at 40 mA	
Pulse frequency	≤80 kHz	
Phasing	90° ±30°	
Load	±40 mA short-circuit proof	max. adm.

### ■ OP output circuit

Feature	Technical data	Additional information
Operating voltage	10 ... 30 V DC	reverse polarity protected
Current consumption	typically <40 mA	without load (ABO output signals)
Output signal level high	UB -2 V	
Output signal level low	≤1 V at 40 mA	
Pulse frequency	≤80 kHz	
Phasing	90° ±30°	
Load	±40 mA short-circuit-proof	max. adm.

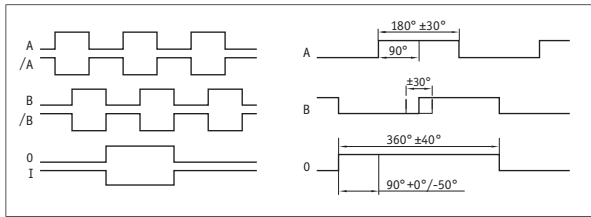
### ■ LD output circuit

Feature	Technical data	Additional information
Operating voltage	5 V DC ±5 %	without reverse polarity protection
Current consumption	typically <40 mA	without load (ABO output signals)
Output signal level	RS422 A spec.	
Pulse frequency	≤50 kHz	
Phasing	90° ±30°	
Load	±40 mA short-circuit-proof	max. adm.

### ■ LD24 output circuit

Feature	Technical data	Additional information
Operating voltage	10 ... 30 V DC	without reverse polarity protection
Current consumption	typically <40 mA	without load (ABO output signals)
Output signal level	RS422 A spec.	
Pulse frequency	≤50 kHz	
Phasing	90° ±30°	
Load	±40 mA short-circuit-proof	max. adm.

### Signal pattern



### Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	0 ... 60 °C	
Storage temperature	-20 ... 85 °C	
Protection category	IP64, IP65	EN 60529
Shock resistance	2000 m/s <sup>2</sup> , 6 ms	EN 60068-2-27
Vibration resistance	100 m/s <sup>2</sup> , 50 Hz	EN 60068-2-6

### Pin assignment

#### Output Circuit PP Output signals AXX, AX0, ABX, ABO

Signal	E1	EX, E3, E4
GND	gray	1
A	yellow	2
B	white	3
O/I	green	4
+UB	brown	5
nc		6
nc		7

#### Output Circuit OP Output signals AXX, AX0, ABX

Signal	E1	EX, E3, E4
GND	gray	1
A	yellow	2
B	white	3
nc		4
+UB	brown	5
/A	pink	6
/B	blue	7

#### Output Circuit LP Output signals ABO

Signal	E1	EX, E3, E4
A	yellow	A
B	white	B
O	green	C
/A	pink	D
/B	blue	E
I	violet	F
GND	gray	G
GND	black	H
+UB	brown	J
+UB	red	K
nc		L
nc		M

#### Output Circuit LD, LD24 Output signals AXX, AX0, ABX, ABO

Signal	E1	EX, E3, E4
A	yellow	A
/A	green	B
GND	gray	C
+UB	pink	D
B	white	E
/B	brown	F
+SUB only with LD5	red	G
SGND only with LD5	blue	H
O	red-blue	J
O	gray-pink	K
GND	black	L
+UB	violet	M

### Order

#### Ordering table

Feature	Ordering data	Specification	Additional information
Output signal	... <b>A</b>	AXX, ABX, ABO, ABI, AX0, AXI	
Pulses/revolution	... <b>B</b> ...	1, 2, 5, 10, 20, 25, 30, 36, 40, 50, 60, 70, 80, 90, 100, 125, 150, 200, 220, 250, 300, 360, 400, 500, 512, 585, 600, 750, 800, 900, 1000, 1024 others on request	
Type of connection	EX E1 E3 E4 <b>C</b>	without cable open cable ends right angle plug plug	
Cable length	... <b>D</b> OK	00.5, 02.0 ... 50 m, in intervals of 0.1 m without cable	
Mounting type	1 2 <b>E</b>	with blind hole with flange	
Output circuit	PP OP LD LD24 <b>F</b>	push-pull push-pull with inverted signals line driver line driver, 24 V	
Shaft design/diameter	W01 W01/RH12 W01/RH14 W01/RH15 W01/RH16 W02 W02N <b>G</b>	20 mm with reducing bush 12 mm with reducing bush 14 mm with reducing bush 15 mm with reducing bush 16 mm 20 mm 20 mm, stainless steel	ball bearing and lock screw ball bearing and lock screw ball bearing and lock screw ball bearing and lock screw ball bearing and lock screw ball bearing and lock ring ball bearing and lock ring
Bearing	MS RS <b>H</b>	IP64, high-precision packed sealing gap IP65, increased bearing sealing	

#### Order key

IG07 -    -    -    -    -    -    -    -    -    - SV - SG

A   
 B   
 C   
 D   
 E   
 F   
 G   
 H

**Scope of delivery:** IG07

**Accessories:**

- Electronic display MA10/4
- Electronic display MA07/1
- Electronic display MA48
- Electronic display MA55
- Cable extension KV07S0
- Cable extension KV12S0

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