FEATURES

- **Programmable Incremental Encoder**
- **Resolution from 1 to 16384 CPR**
- **Selectable Index length 90 or 180° el.**
- **Push-Pull and Line Driver Compatible Output**
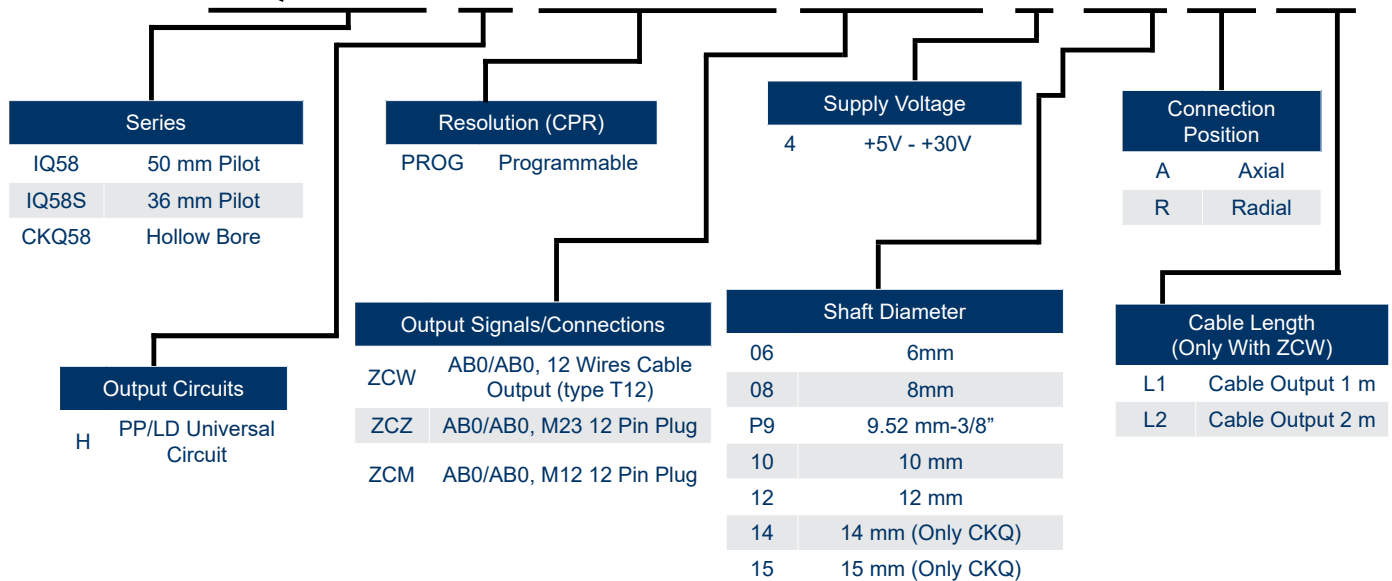- **Programmable via USB Cable**
- **IP 65 Rating**

DESCRIPTION

The IQ58S Programmable Incremental Encoders are for standard application with resolutions up to 16384 CPR (Cycles Per Revolution). This Programmable Encoder sets up its parameters by using software expressly written by Lika. The software program is supplied for free and can be installed on any PC with a Windows operating system that is Windoxs XP or later. This program sets up the working parameters of the encoder and monitors whether the encoder is working properly. The IQ58S Encoders have an absolute core, but this is only so they may be programmed. Furthermore, it has a selectable index length of 90° or 180° encode level. There is a Push-Pull and Line Driver compatible output. To properly use the IQ58S programmable incremental encoder it is highly recommended to purchase the EC-IP/IQ58-M12 Programming Cable and the KIT-IP/IQ58 USB Programming Kit.
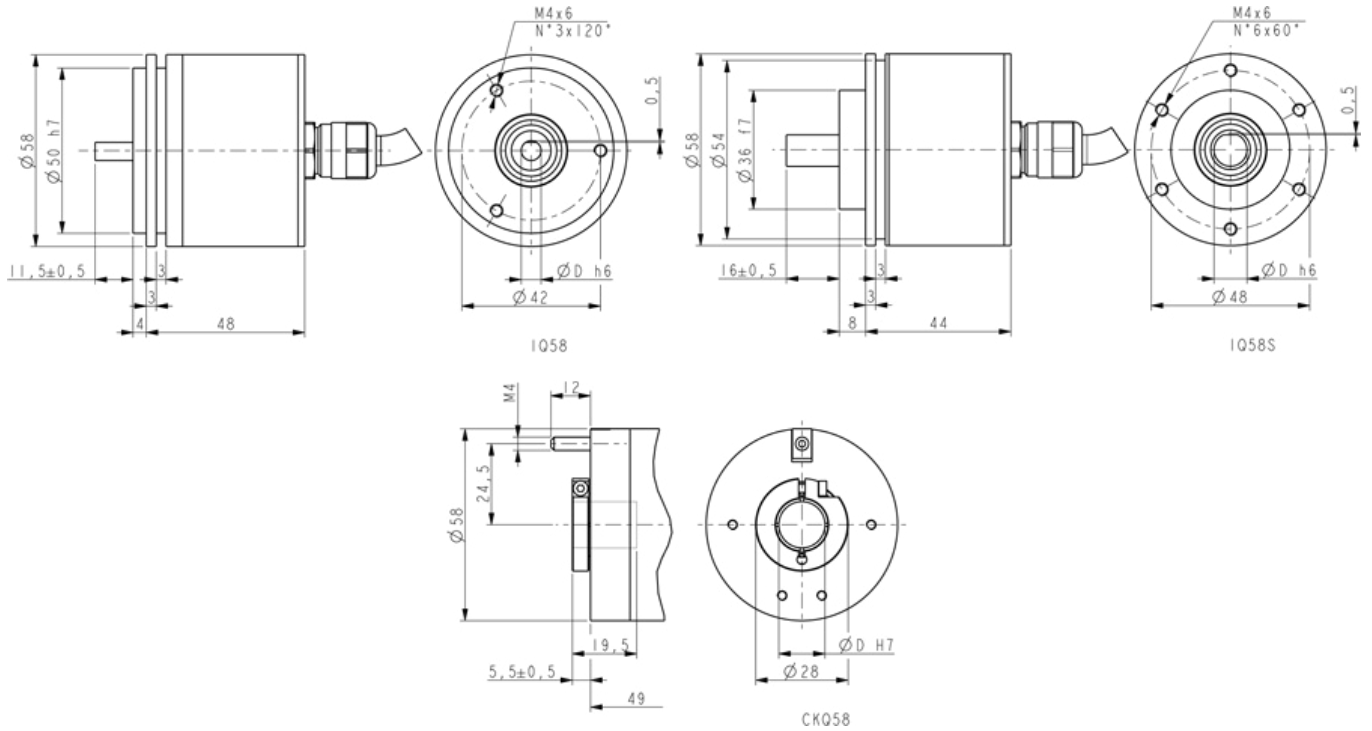
## ORDERING INFORMATION

ENC-IQ58S-H-PROG-ZCW-4-06-A-L1

Series	
IQ58	50 mm Pilot
IQ58S	36 mm Pilot
CKQ58	Hollow Bore

Output Circuits	
H	PP/LD Universal Circuit

Resolution (CPR)	
PROG	Programmable

Output Signals/Connections	
ZCW	AB0/AB0, 12 Wires Cable Output (type T12)
ZCZ	AB0/AB0, M23 12 Pin Plug
ZCM	AB0/AB0, M12 12 Pin Plug

Supply Voltage	
4	+5V - +30V

Shaft Diameter	
06	6mm
08	8mm
P9	9.52 mm-3/8"
10	10 mm
12	12 mm
14	14 mm (Only CKQ)
15	15 mm (Only CKQ)

Connection Position	
A	Axial
R	Radial

Cable Length (Only With ZCW)	
L1	Cable Output 1 m
L2	Cable Output 2 m

L011521

IQ58

IQ58S

CKQ58

| Signals	M23 12-Pin	M12 12-Pin
A	1	3
/A	2	4
B	3	5
/B	4	6
0	5	9
/0	6	10
+5VDC +30VDC	7	2
0VDC	8	1
Index Pulse Setting*	9	7
Counting Direction*	10	8
SDA	11	11
SCL*	12	12
Shield	Case	Case

M23 12-Pin
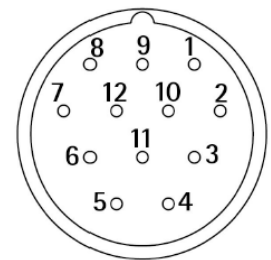
M12 12-Pin
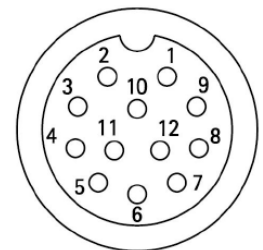
IQ58/IQ58S Series

- Mount the flexible coupling 1 on the encoder shaft
- Fix the encoder to the flange 2 (or to the mounting bell) by means of screws type M4 3;
- Mount the flexible coupling 1 on the motor shaft, then secure the flange 2 to the support (or the mounting bell to the motor);
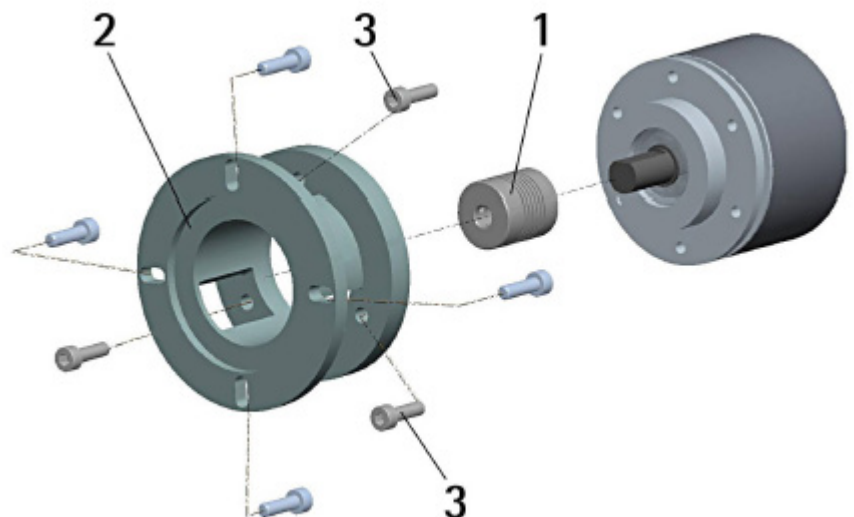- Make sure the misalignment tolerances of the flexible coupling 1 are respected.
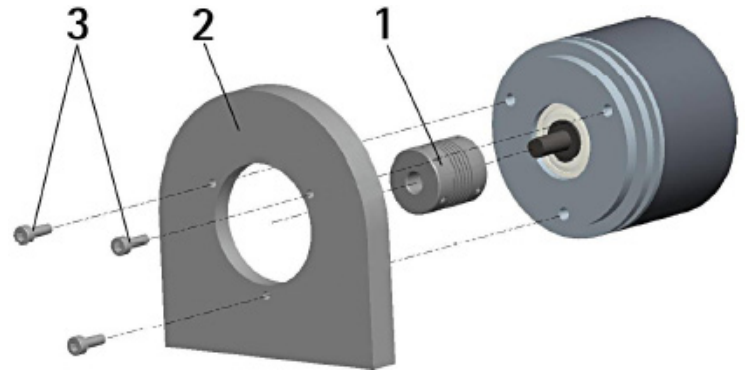
| Series	a	b	c	d
IQ58	-	42	50 F7	4
IQ58S	36 H7	48	-	-
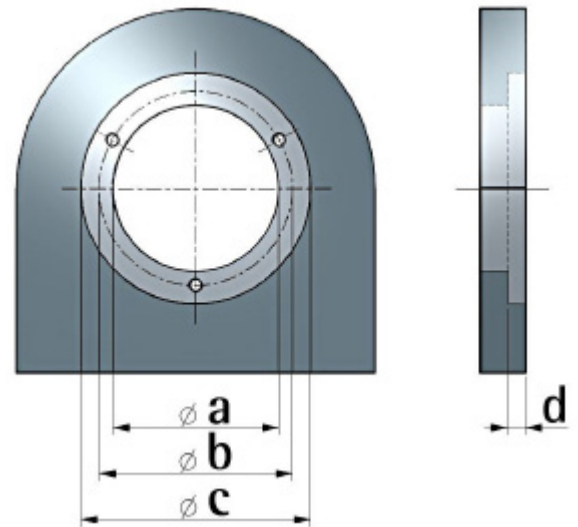
IQ58S with Mounting Bell

MOUNTING INSTRUCTIONS

CKQ58 Series

• Fasten the anti-rotation pin 1 to the rear of the motor (secure it using a locknut);
• Mount the encoder on the motor shaft using the reducing sleeve 8 (if supplied). Avoid forcing the encoder shaft;
• Insert the anti-rotation pin 1 into the slot on the flange of the encoder; this secures it in place by grub screw 2, preset at Lika;
• Fix the collar 3 to the encoder shaft.
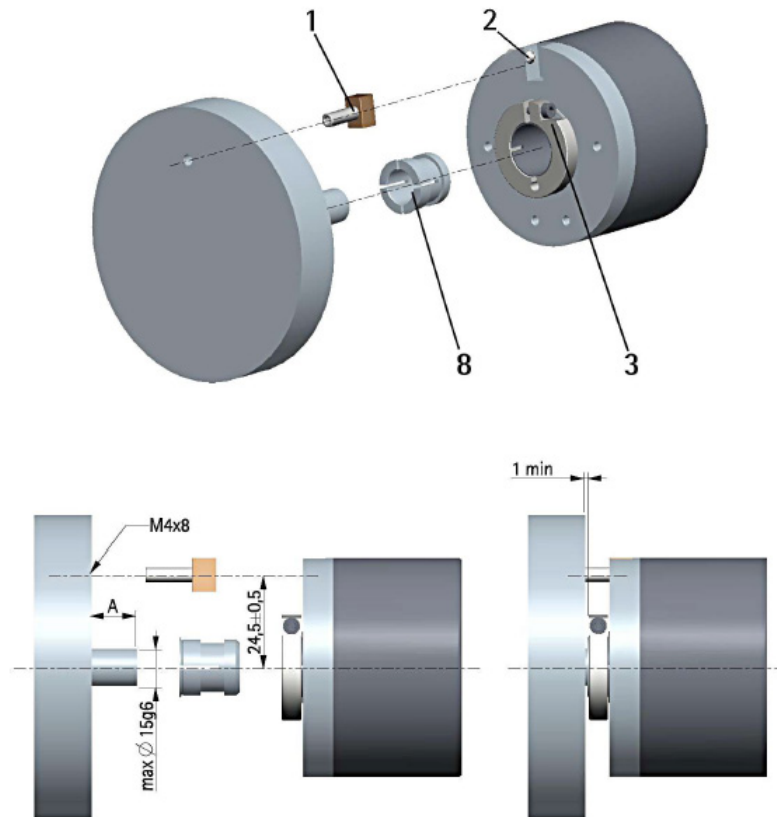
Environmental Specifications

Shock	**100g, 6ms**
Vibrations	**10g, 5-2000 Hz**
Protection	**IP 65**
Operating Temperature Range	**-40°C +85°C (-40°F + 185°F)**
Storage Temperature Range	**-40°C +100°C (-40°F + 212°F)** **(98% R.H. without condensation)**

Mechanical Specifications

Dimensions	**see drawing**
Shaft Diameter	**ø 6, 8, 9.52, 10, 12 mm**
Hollow Shaft Diameter	**ø 14, 15 mm**
Reducing Sleeves BR1-xx from ø15 to:	**ø 6, 8, 9.52, 10, 11, 12 mm**
Shaft Loading (Axial, Radial)	**100 N max.**
Shaft Rotational Speed	**Typ. 6000 RPM / 12000 Temporary**
Starting Torque at 20°C	**IQ58: 0, 15 Ncm / IQ58S, CKQ: 0, 4 Ncm (typical)**
Bearings Life	**400 x 10^6 rev. min.** **(10^9 rev. min. with 20 N shaft loading max.)**
Electrical Connections	**M12, M23 plug or cable output 1 m (3.3 ft)**
Weight	**~ 200 g (7 oz)**
Option	**Additional Cable**

Electrical Specifications

Resolution (CPR)	**Programmable from 1 to 65536**
Accuracy	**± 0, 15°**
Counting Frequency	**500 kHz max.**
Output Circuits	**Universal Output (PP+LD compatible)**
Power Supply	**+5V +30V**
Consumption	**60 mA (typical)**
Output Current (each channel)	**40 mA max.**
Protection	**Against inversion of polarity and short cut**
EMC	**Electro-magnetic immunity, EN 61000-4-2** **EN 61000-4-4**

Materials

Flange	**Anticorodal, UNI EN AW-6082**
Housing	**Anticorodal, UNI EN AW-6082**
Bearings	**ABEC 5**
Shaft	**Stainless Steel, Non-Magnetic - UNI EN 4305**