Incremental Encoder

IS900IOL

Incremental IO-Link Solid Shaft Encoder

- Industry Standard Ø 90 mm
- Synchro Flange
- Shaft Diameter from 10 to 12 mm [3/8" to 1/2"]
- IO-Link Interface
- Resolution from 1 to 5000 ppr
- Supply Voltage 24 VDC

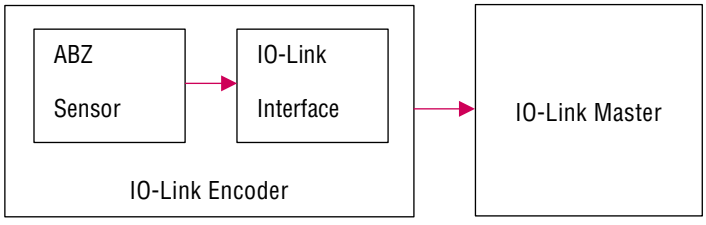
Electrical Specification

Supply Voltage V_{cc}	24 VDC ± 10%
Current Consumption *(no load)*	< 70 mA
Communication Interface	IO-Link
Pulse Frequency	Max. 300 kHz
Short Circuit Protection	100 %
Reverse Polarity Protection per Channel	100 %
ESD (DIN EN61000-4-2)	8 kV
Burst (DIN EN61000-4-4)	2 kV

Mechanical Specification

Material Body & Cover	Aluminum
Material Shaft	Stainless Steel
Max. Speed	6000 RPM
Mass Moment of Inertia	$2.4 \cdot 10^{-6}$ kgm^2
Starting Torque *(at 25°C)*	> 0.1 Nm
Max. Loading on Shaft	Axial 100 N, Radial 100 N
Shock Resistance *(6ms)*	≤ 2000 m/s^2
Vibration Resistance *(55-2000 Hz)*	≤ 150 m/s^2
Protection Class *(DIN EN 60529)*	IP65
Operating Temperature	-20 °C to +70 °C [-4 °F to +158 °F]
Weight	ca. 0.95 kg [2.10 lb]

Block Diagram



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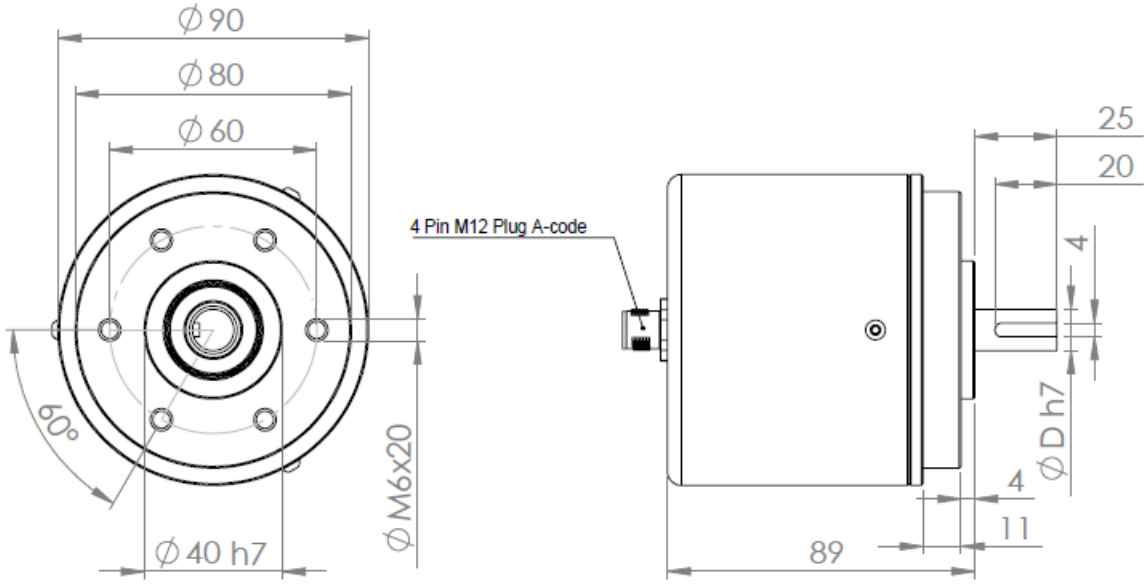
Geometry

Dimension in mm (drawing available as: dxf-,iges-, step-,sld-file)

Different Bore Diameters (D) Available—see ordering code



Ordering Code

☐	☐	-	☐	☐	☐	☐	☐	☐	-	☐	☐	☐	☐	☐	-	Sxxx*
a	b		c	d	e	f	g	h		i						

a. = Group Function
IS = Incremental Solid Shaft Encoder

b. = Basic Series Number
900IOL

c. = Shaft Size
Selectable from 10 to 12 mm [3/8" to 1/2"]
10 = 10, 11 = 11, AB = 3/8", AC = 1/2"

d. = Mechanical Option
0 = None
1 = Stainless Steel (V4A/IP67)

e. = Connection Type
S = 4 Pin M12 Plug A-code

f. = Connector Location
A = Axial
R = Radial

g. = Output Signals
I = IO-Link

h. = Output, Supply Voltage
7 = 24 VDC

i. = Resolution
Selectable from 1 to 5000 ppr
0250 = 250 ppr, 1033 = 1033 ppr

* Any special functions and design will be designated by a code (Sxxx) at the end of the part number. Consult our Office for your region for further details. If this encoder does not fit your needs, please also consult us for help.

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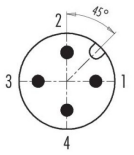
Connection

Function	Cable Color Code	Pin
L+	brown / BN	1
L-	blue / BU	2
NC	white / WH	3
CQ	black / BK	4

Pinout



4 Pin M12 Plug A-code

Accessories IS900IOL

Measuring Wheels

VGM500 – 500 mm Measuring Wheel for Encoder Series 580, 581, 700 and 900

VHM500 – 500 mm Measuring Wheel for Encoder Series 580, 581, 700 and 900

Mounting Brackets

MBR002 – Mounting Bracket for Encoder Series 700 and 900

MBR003 – Mounting Bracket for Encoder Series 700 and 900

Couplings

VGK3520/VGK2029 – Bellow Coupling

VGK3516/VGK5026/VGK5028 – Spring Coupling

VGK2525 – Precision Coupling

DLK2928/DLK3835 – Double Loop Coupling

JCAS1500/JCXS1500/JCAK1500 – Jaw Coupling

Clamping Claws/Eccentric Mounting

SP-001 – Clamping Claws for Encoder Series 580, 581, 700 and 900

SP-001-A2 – Clamping Claws A2 for Encoder Series 580, 581, 700 and 900