Type SCA30AB

- **Shaft Encoder - ø 30 mm**
- **Absolute Singleturn**
- **SSI Interface**
- **Shaft: ø 3 mm to ø ¼ inch**
- **IP 67**

Electrical Specifications

Encoder Type:	Absolute Magnetic Singleturn	
Interface type:	SSI	
Resolution:	12 bit	
Supply Voltage:	5 V and 3,3 V	
Supply Current:	25 mA typical	
In/Output Standard:	Single ended	
Mode:	12 Bit (Slow mode)	12 Bit (Fast mode)
Update Time:	384 µs	96 µs
Accuracy:	+/- 0,3 °	
Noise Immunity:	Tested to EN61000-6-2 : 2005 (industrial environments) Electromagnetic compatibility (EMC) and EN 61000-6-3 : 2007 (residential, commercial, and light-industrial environments) for Electromagnetic compatibility (EMC)	

Mechanical Specifications

Material:	Housing: Stainless steel Cap: Aluminum Hollow Shaft: Stainless steel
Weight:	Encoder: ~ 55 gr (1,94 oz) Cable: 50 gr / meter (1,76 oz / meter)
Bearing Life:	> 1,9 x 10^{10} revolutions at rated load
Shaft Speed:	10.000 rpm (max.)
Starting Torque:	< 0,005 Nm (0,708 oz-in) at 25° C
Mass Moment of Inertia:	0,6 gcm² (8,5 x 10^{-6} oz-in-sec²)
Shaft Loads:	Axial: 20 N (4,5 lbs) max. Radial: 20 N (4,5lbs) max.

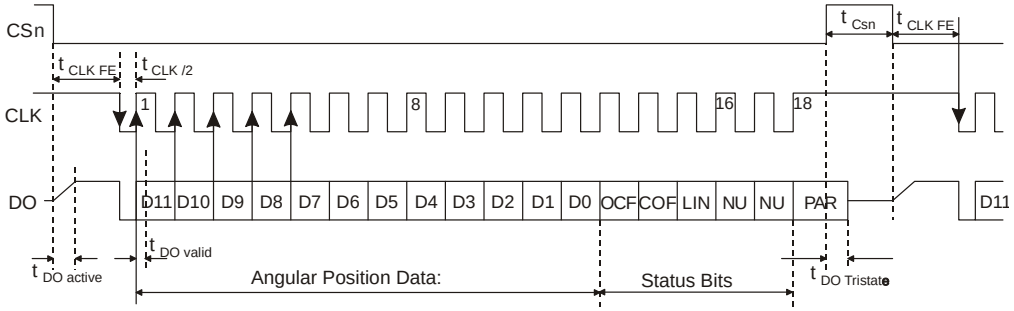
Environmental Specifications

Operating Temp.:	-40° to +100° C
Storage Temp.:	-40° to +100° C
Shock:	10 G / 11 ms
Vibration:	10-2000 Hz / 10 G
Bump:	10 G / 16 ms (1000 x 3 axis)
Humidity:	98 % RH without condensation
Enclosure Rating:	IP 64 / Nema 4 (approx.) IP 50 / Nema 5 (approx.) - flat cable

Connection Options

Cable:	5 leads (0,14 mm², 26 AWG)
Flat Cable:	10 lead flat cable with IDC connector

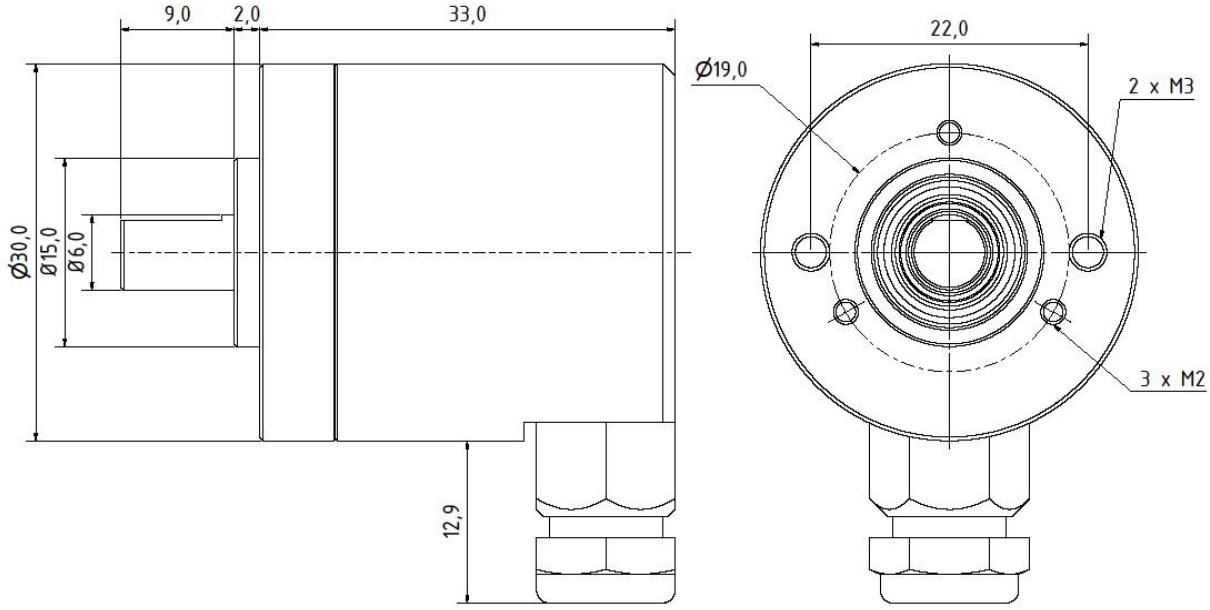
Interface Timing



SSI-INTERFACE TIMEABLE

$t_{CLK\ FE}$ =	min 500ns	First data shifted to output register
$t_{CLK/2}$ =	min 500ns	Start of data output
$t_{DO\ active}$ =	max. 100ns	Data output activated, logic high
$t_{DO\ valid}$ =	max. 375ns	Data output valid
t_{CSn} =	min. 500ns	Pulses width of CSn high
$t_{DO\ tristate}$ =	max. 100ns	Data output tristate

Mechanical Dimensions



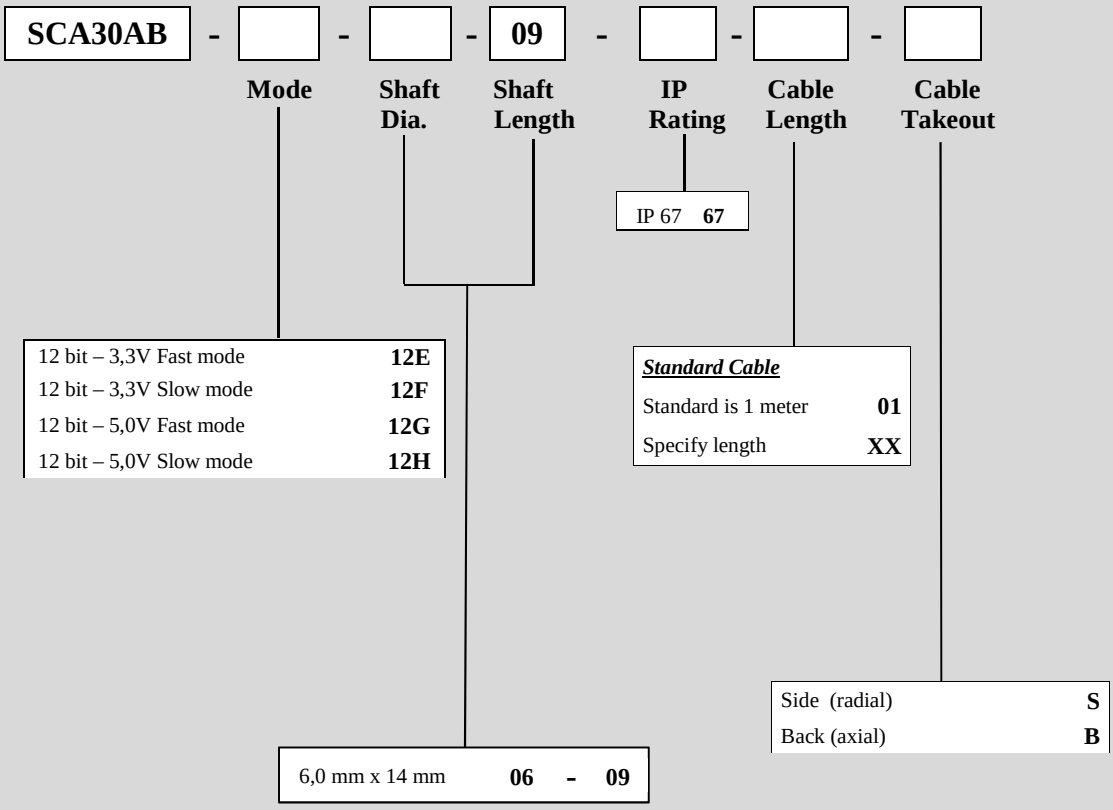
Connections

Standard Cable	
Wire Color	**Connection**
Green	CSn
Yellow	CLK
Gray	DO
Brown	Vsup
White	GND

GND = Circuit Ground

Ordering Code

Example: SCA30AB – 12E – 06 – 09 – 67 – 01 – S



Other options on request
Please contact Scancon A/S