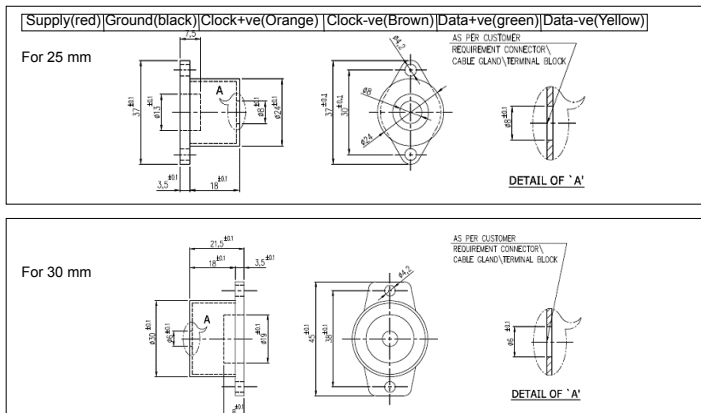


PRECISION DIGITAL SERIAL SYNCHRONOUS ABSOLUTE CONTACTLESS ROTARY POSITION SENSORS - KIT VERSION

Ø25 mm & 30 mm plastic robust housing
Direct Serial Synchronous Interface for direct input to PLC etc.
No shaft, no bearing, no wear
Can be used in limited space
Shock and vibration proof



ELECTRICAL CHARACTERISTICS

Electrical angle	0 - 360°
Resolution	12 bit (4096 steps)
Output signal	SSI 5V / 24V
Frequency response	10 KHz
Supply voltage	5V ± 10% / 9 - 30 VDC
Supply current	< 30 mA

MECHANICAL CHARACTERISTICS

Mechanical angle	360°
Electrical speed (max.)	1600 rpm
Operating temperature	- 40 ... +85 °C
Output connection	Cable gland (with 1 meter cable)
Weight	22 gm (25 / 30Y RS K)

MATERIAL

Housing	Nylon 66 Glass Fibre reinforced
Cable	6 core round cable

Series 25Y PP K
Series 30Y PP K



with terminal block

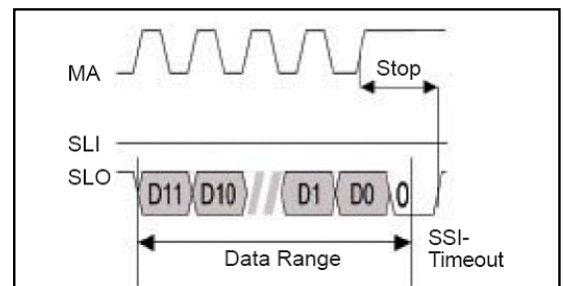


with cable gland

FUNCTION PRINCIPLE

The angular position and the signal generation is detected by a CMOS Hall sensor over which a parallel diametrically polarized magnet induces a magnetic field. An integrated electronic provides the output of a 2 byte WORD in Grey-code for SSI interface.

SERIAL SYNCHRONOUS INTERFACE



With the SSI interface the absolute angular position is provided serially and synchronous to a receiving electronic which has an SSI input (PLC indicator etc). The main advantage of the SSI interface is that long cable distances can be overcome by very few data lines. The actual angle of position is provided in 2 byte WORD Grey code with 12 bit over 360°. The receiving electronic provides pulse sequences and thus determines the transmission rate. With the first following signal of the pulse sequence, the angular position is detected and kept. The following rising ramps control the bit- wise transmission of the data word. After a small pause a new angular value can be transmitted.

OPTIONS AND ORDERING REFERENCES

Refer to electrical & mechanical options on page 2

25 & 30 mm Housing diameter	Serial synchronous interface output	Pewatron Angular Sensor	Kit version	Signal	12 bit output	Clockwise (CW) Counter clockwise (CCW)	Special cable length (std 1m cable)	Output connections
25/30	Y	PP	K	5 V 24 V	S 12	CW CCW	CVxx	OCx OCG OCM OCT
25/30	Y	PP	K	xx SSI	S12	CW / CCW	CVxx	OCx
Example with description - 25 Y PP K 05SSI S12 CW - 25 mm housing, SSI output, Ecoline rota speedconnect, Kit version, 5 V, 12 bit, clockwise								
Standard Version : 360 ° CW Electrical angle, OCG - Cable gland								

ELECTRICAL OPTIONS FOR SSI VERSION 25/30Y PP K

PP Series are the latest development in rotational position sensors and contactless devices. Modern Hall IC's in combination with special magnets and RISC processors provide intelligent customizing of output signals and interfacing. Not only precision potentiometer but also optoelectronic incremental and absolute encoders are replaced. The PP series is divided into 3 groups : analog types with analog output (replacement for precision potentiometer), incremental output (replacement of optoelectronic encoders), absolute digital SPI and SSI output. Because of wide variety of mechanical and electrical options it is possible to use them in almost any automation and control application where rotary angular sensing is required. Regardless of the wide variety of existing technical features, the price is relative low.

SSI - Serial Synchronous Interface is wide spread in industrial applications with absolute angle sensors. There are a lot of programmable logic controls (PLC) or other peripheral appliances like counters available that can be easily configured for this communication. Furthermore this interface is very insensitive against electromagnetic interferences because of the differential signals that should be transmitted via twisted pair leads.

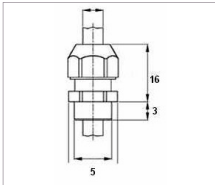
Direction of Rotation (CW / CCW)

The standard direction of rotation is clockwise (CW). It is also possible to change the direction of turning to counter clockwise mode (CCW).

SPEEDCONNECT OUTPUT CONNECTIONS FOR SSI VERSIONS 25/30Y PP K

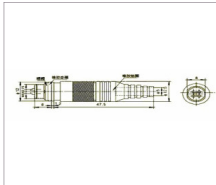
Cable gland (OCG)

3,5,6 core cable of 1 m length according to interface



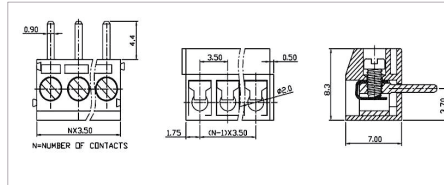
Miniature connector (OCM)

3,5,6 pin in integrated socket with plug according to interface



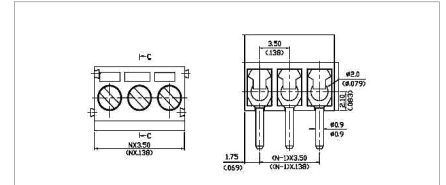
Terminal block - Axial (OCTA) Wires leaving axial to shaft axis

3,5,6 sockets according to interface



Terminal block - Radial (OCTR) Wires leaving radial to shaft axis

3,5,6 sockets according to interface



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