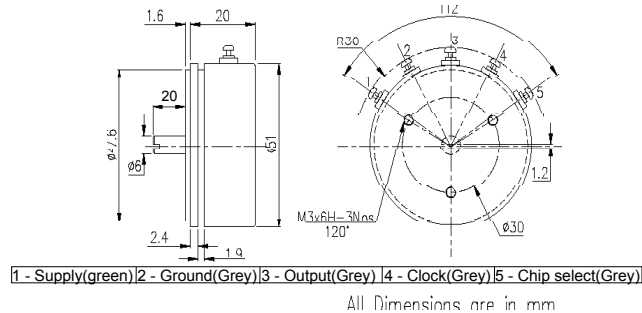


PRECISION SPI DIGITAL CONTACTLESS LONG LIFE ROTARY POSITION SENSOR

Servomount case - 2 Ball bearing
Hall effect magnetic
Direct SPI interface to microcontroller
Precision robust aluminium housing
Robust metal aluminium housing with ball bearing
Synchro size 20, shock & vibration proof
Measurement range 0° - 360°



ELECTRICAL CHARACTERISTICS

Electrical angle	0 - 360°
Resolution	14 bit (16383 steps)
Output signal	Absolute SPI
Supply voltage	5V ± 10%
Supply current	< 30 mA
Update rate	5 KHz

MECHANICAL CHARACTERISTICS

Mechanical angle	360° (continuous)
Starting torque (approx.)	0.4 Ncm
Protection	IP 40
Operating temperature	- 40 to +85° C
Operating life (approx.)	> 40 million rotations
Mechanical speed (max.)	9000 rpm
Electrical speed (max.)	800 rpm
Weight	77 gm

MATERIAL

Housing	anodized aluminium
Shaft	stainless steel
Terminals	5 pins brass gold plated
Bearings	2 precision ball bearing

OPTIONS AND ORDERING REFERENCES

Refer to electrical and mechanical options on page 2

50	P	PB	SL	05 SPI	2C	CW / CCW	S14	POx	OCx
50	P	PB	SL	05 SPI	2C	CW CCW	S 14	POx POZ	OCx OCP OCF OCM OCG OCT
Housing diameter	SPI output	Pewatron Angular Sensor	Servomount Goldline	Signal	2 Channel redundant output	Rotational direction	14 bit output	Programming options Zero point	Output connections 5 Pins (standard) 5 Core Flat cable Miniature connector Cable gland with 1m round cable Terminal block (A-Axial & R - Radial)
				5V		Clockwise (CW) Counter clockwise (CCW)			

example with description - **50P PBSL 05SPI CCW POZ 2C OCM** - 50mm diameter, SPI output, PB Series, Servomount Goldline, Signal - 5V, counter clockwise, zero point, 2 channel redundant output, Miniature connector

Standard Version : 360° CW Electrical & Mechanical angle. OCP - 5 pins

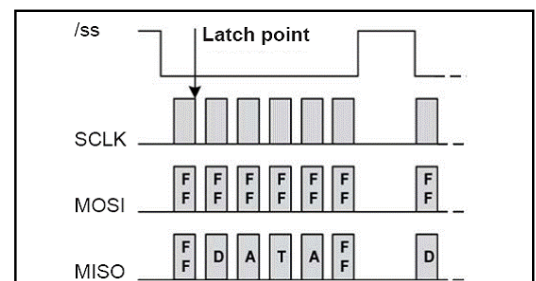
Series 50P PBSL



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 with an SPI interface.

SERIAL PERIPHERAL INTERFACE



The serial peripheral interface (SPI) is a bus system for a serial synchronous data transmission between different integrated circuits. The bus consists of 3 lines MOSI (Master Out --> Slave In), MISO (Master In <-- Slave Out), SCLK - (Serial Clock, output from master) and SS Slave Select (active low; output from master). By these signal lines the master selects the slave for communication. This is done because the master sets the SS line from high to low. The angular informations are calculated all 360 and are available for the master on demand. There is no fixed protocol for the SPI bus. Nevertheless many microcontroller IC's have a SPI input. By programming this microcontroller IC many SPI suitable sensors can be managed by one microcontroller.

We are here for you. Addresses and Contacts.

Headquarter Switzerland:

Angst+Pfister Sensors and Power AG
Thurgauerstrasse 66
CH-8050 Zurich
Phone +41 44 877 35 00
sensorsandpower@angst-pfister.com

Office Germany:

Angst+Pfister Sensors and Power Deutschland GmbH
Edisonstraße 16
D-85716 Unterschleißheim
Phone +49 89 374 288 87 00
sensorsandpower.de@angst-pfister.com

Office North America:

Angst+Pfister North America Inc.
10391 Brecksville Rd.
US-Brecksville, OH 44141
Phone +1 440 375-5212
info.apus@angst-pfister.com

Scan here and get an overview of personal contacts!



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