



■ **General Description**

The OCH15300P is an X-axis omnipolar sensor. The device using High Voltage process includes an on-chip Hall voltage generator for magnetic sensing, a comparator that amplifiers the A-axis Sensor voltage, and a Schmitt trigger to provide switching hysteresis for noise rejection, and an PMOS output. An internal band-gap regulator is used to provide temperature compensated supply voltage for internal circuits and allows a wide operating supply range.

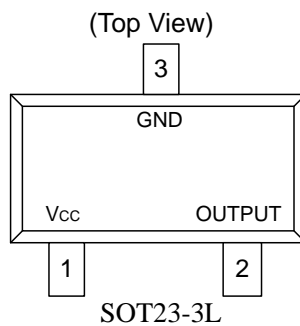
■ **Features**

- Wide operating voltage range: 3V~40V
- Operating temperature range: -40°C ~+150°C
- Temperature compensation
- PMOS output
- Reverse polarity protection
- Package: SIP-3L、SOT23-3L

■ **Applications**

- Liquid level measurement
- Proximity switch

■ **Pin Configuration**



Pin Name	Pin Number		Description
	SIP-3L	SOT23-3L	
Vcc	1	1	IC Power Supply
GND	2	3	IC Ground
OUTPUT	3	2	Output PIN

■ **Application Circuit**

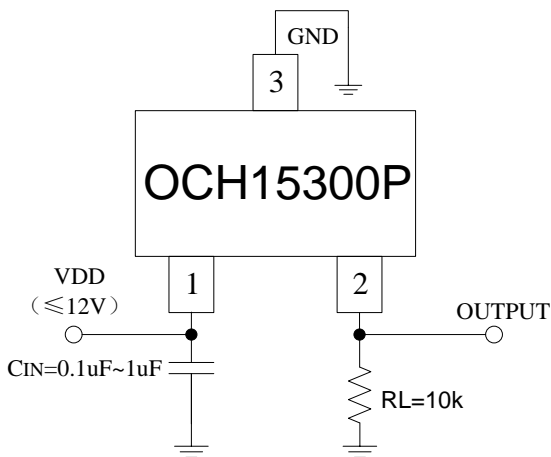


Figure 1, application circuit

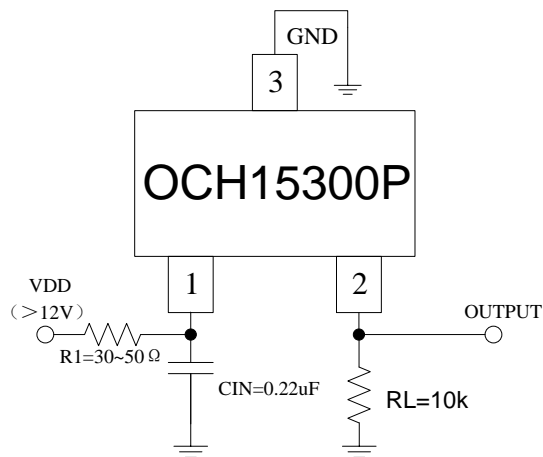


Figure 2, application circuit

Note:

When $VDD \leq 12V$, C_{IN} is for power stabilization and to strengthen the noise immunity, the recommended capacitance is 0.1~1uF.

When $VDD > 12V$, C_{IN} and $R1$ are designed to stabilize power and enhance noise immunity, the recommended capacitance is 0.22uF, The recommended resistance is 30~50Ω.



Ordering Information

Part Number	Package Type	Packing Qty	B _{OP} (Gauss)	B _{RP} (Gauss)	Temperature	Eco Plan	Lead
OCH15300PWAF	SOT23-3L	3000pcs	52(Typ.)	35(Typ.)	-40~ 150°C	ROHS	Cu

Block Diagram

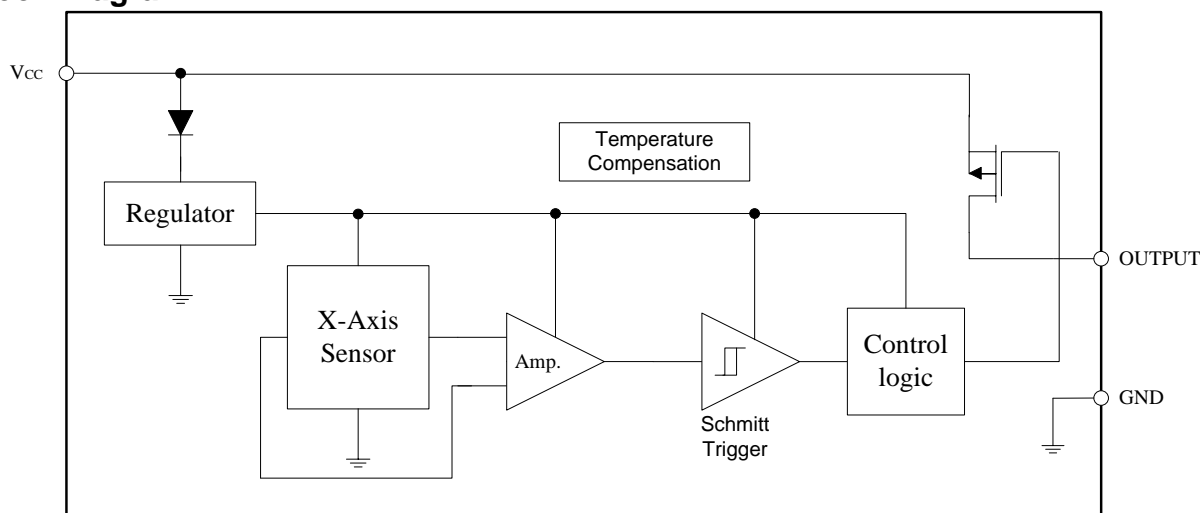


Figure 3, Block Diagram Of OCH15300P

Absolute Maximum Ratings

Supply Voltage		45V
Output OFF Voltage, V _{SD}		45V
Output Maximum Sink Current (AVG)		20mA
Power Dissipation (SOT23-3L)	T _a =25°C	260mW
Thermal Resistance (SOT23-3L)	T _{ja}	0.52°C/mW
	T _{jc}	0.64°C/mW
Operating Temperature Range		-40°C ~+150°C
Storage Temperature Range		-65°C ~+150°C
Junction Temperature		+150°C
Lead Temperature(Soldering, 10 sec)		+260°C

DC Electrical Characteristics

(Unless otherwise noted, typical values are at TA=25°C, VDD=5V)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Operating Voltage	V _{CC}		3	-	40	V
Supply current	I _{CC}	No use pin is open V _{DD} =3V~40V, Pin3 Nc	1.5	3.22	6	mA
Output Saturation Voltage	V _{SAT}	V _{DD} =37V, Output "ON", I _o =5mA	-	-	0.4	V
Output rise time	t _r	R _L =1.5KΩ	-	-	3	uS
Output fall time	t _f	R _L =1.5KΩ	-	-	3	uS