# SET-P15/SET-P16

Magneswitch™

High accuracy non-contact magnetic switch

- SET-P15 can be used as a zero point for the DIGIRULER or as a limit switch.
- SET-P16 can be used as a zero point for the DIGIRULER (Interpolator MJ100/110).
- Excellent resistance to workshop conditions.
- Resistant to oil, dirt, vibrations and shocks.
- High accuracy: ± 3 μm
- Max. response frequency; 10 kHz
- Built-in circuit for direct connection to a control unit (SET-P15).
- Indication lamp (LED) for visual confirmation that the switching action is being made.

Magnet PG-104

Sensor PK15
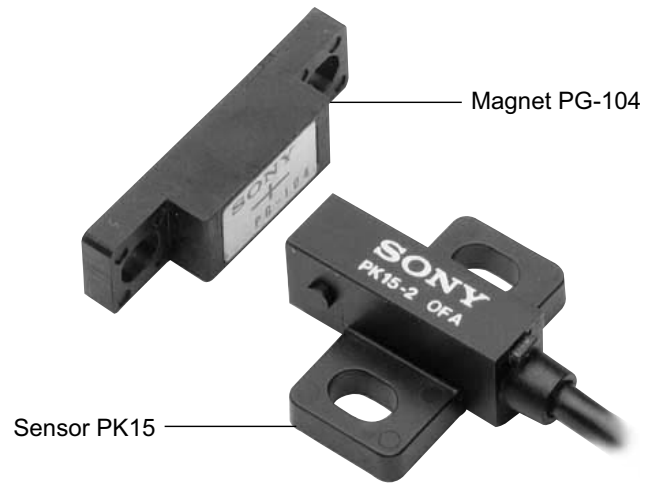
■Specifications

Model		PK15			PK16
	-1	-2		-3	-4
Repeatability		± 3 μm (under same circumstance)[1]			
Operating range		7.5 ± 2 mm/ 0.29" ± 0.07" (at 1 mm clearance)			
Clearance		Max. 3 mm/ 0.11"			
Max. response frequency		10 kHz			
Output — Circuit		NPN transistor, open collector			
Output — Operation		Turns ON in proximity			
Output — Contact capacity		Max. current 30 mA, max.voltage 30 V			
Output — Residual voltage		Max. 0.4 V, with 30 mA			
Output — Protection circuit		Surge killer; protection against reversed polarity			
Indication lamp		LED turns on, when activated			
Power supply	+5 V DC ± 10%	+12 V DC ± 10%		+24 V DC ± 10%	+5 V DC ± 10%
Power consumption		Max. 10 mA			
Protective design grade		Equivalent to IP67			
Insulation resistance		10MΩ (250 V DC)[2]			
Vibration resistance		49 m/s2, 0 to 500 Hz			
Shock resistance		980 m/s^2			
Operating temperature		-10˚C to 60˚C/ 14˚ F to 140˚ F			
Storage temperature		-20˚C to 80˚C/ -4˚F to 176˚ F			
Cable length		1.5 m/ 4.9' (extendable up to 30 m/ 98.4*)			

*The PK16 has a 6-pin mini DIN connector.

■Configuration

PK15/PK16

Magnet

Detector head → Detector circuit → Waveform converting circuit → Pulse output

Moving direction

DC input voltage (+5V,+12V,+24V)

GND

*1 Repeatability: This is unidirectional repeatability accuracy and indicates the accuracy of the position at which the zero point (stop) pulse output goes ON. Conditions for ± 3 μm are: temperature change within ± 1.2°C, voltage change within ± 1 % 5 min. after the voltage change power supply is turned on, clearance change less than 1 mm.

*2 Provided between molded plastic housing and circuit, and shielding wire and circuit.