#### **CHOICE FOR SOLUTION**

# HONG SUNG

HONG SUNG PRECISION CO.,LTD











1970~1990

Growth



## Greeting

**HONG SUNG** has grown up through consistent management innovation and technology development since the establishment is 1979.

Based on the experience and technical capability accumulated to date for the last 40 years in the precision machinery processing business, we have been expanding business in the fields at trustworthy hydraulic products, machinery switch.

As a result, we became total solution company to create best technologic value over just machine processing company.



We have established this beachhead and established solid foundations for the future success of the company over the course of 40 years in a methodical and calculated manner.

### 2000 Soaring



We established local corporations and venture companies in China to soar into the world.



### 2010~ Into the world



We envision a global world where there is continued growth, advanced business management, competent human resources and technologies.







switch





APPROVINGE !!



> Hydraulic valve

#### > 1970

- Designated as a vendor for Yangji Metal
- Designated as a vendor for Sepoong Controls
- Designated as a vendor for Samsung
- Corning Microoptics
- Incorporated as Hong-Sung Precision Co., Ltd

#### > 1980

- Designated as a vendor for Goldstar
- Alps Electronics
- Currently the LG Innotek.

#### > 1990

· Hong-Sung established.

#### > 2000

- Established a Chinese subsidiary
- Certified with INNOBIZ
- Certified as a Venture Enterprise
- Acquired certification for Attached R&D Institute

#### > 2010

- Selected as an Export Partner for KEPCO
- Solenoid Valve for Gas Turbine Combustion Filter patented
- Limit Switch patented
- Registered as a Member of Export Council for KOMIPO
- Received the Grand National Productivity Award from the Minister of Trade, Industry & Energy
- Awarded the Winner Prize from the Korea Commission for Corporate Partnership in the Small-Medium-Large Enterprise Partnership Competition
- Designated as a Promising Export Firm

## History of Manufacturing



R&D



We have manufactured the products based on innovation and development during

#### 40 challenging and pioneering years

2010

- Pluse Jet Solenoid Valve
- High Temperature & High Pressure Valve
- For High Temperature Limit Switch
- Belt Conveyor Switch
- Wireless IoT Solenoid Valve

- Optical Communication component
- Small accuracy Motor
- Hydraulic Solenoid Valve
- Hydraulic Block

- > 1990
- Special Audio Components
- CD-ROM Motor
- Computer Keyboard Switch
- Car Auto Window Actuator
- 1980
- Communication connector
- TV Automatic Channel Assembly

- Electric Fan Motor
- TV hands on channel

#### Process



#### Research and Development Planning

- Project Selection
- Analysis of existing products and markets : Identification of problems





#### Design and Raw Material Input

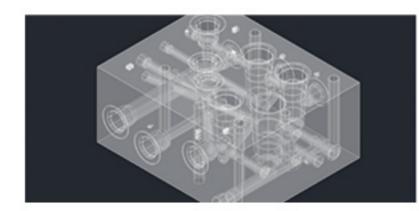
- Design of 2D / 3D product
- · Selection of materials





#### Preparation of Prototype and Production

- Determining manufacturing method
- Manufacturing of each process
- Post-processing (Electroplating/Finishing)





#### Precise Test and Performance Measurement

- Measurement and test
- Performance test





#### Mass Production and Actual Site Installation

- Mass production and assembly
- Delivery and field application of products



## Overseas Activity



## Cooperating Companies





#### International Exhibition





















#### Certificate





ISO 14001





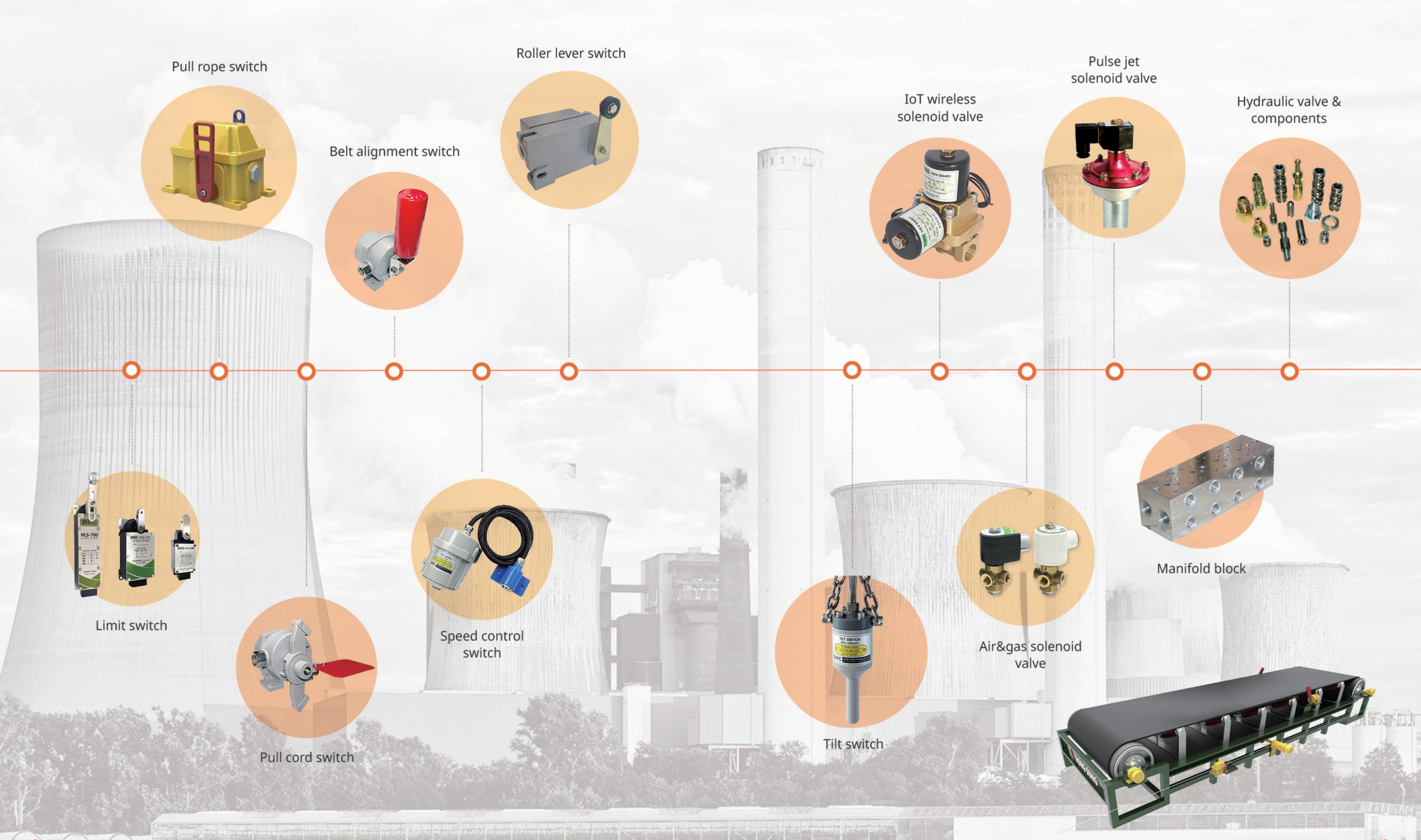
가슴썩신형 중소기업(ISMO-BEZ) 확인세 명 제 명 : 유선명인(지) 제 표 수 : 이제를 구 요 : 영영 영선 위원을 (인사) 집 만 : 표 문화하는 10(1조 또 ?~~10(4 또 함 위 설계는 기술적인적 중소기업 방송 숙성부당에 20034 94 54 중소기업청작





## Main Product





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## Limit Switch

## Belt Conveyor Switch



### Limit Switch



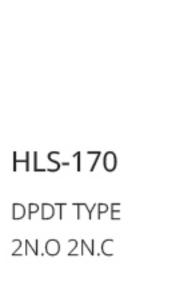


HLS-080

SPDT TYPE

1N.O 1N.C







HLS-700 TPDT TYPE 3N.O 3N.C

#### Specification

CONTACT CAPACITY	20A 125VAC / 15A 250VAC / 5A 125VDC / 1.5A 250VDC
PROTECTION	IP65
CONTACT RESISTANCE	MAX 25Ω
VIBRATION PROTECTION	5Hz~2KHz, 50G, 11ms
LIFE TIME	1 Mil Min
OPERATING TEMPERATURE RANGE	-10°C ~ +125°C
OPERATING HUMIDITY RANGE	20% ~ 85% RH

#### Installation

- Boiler feed water pump turbine area
- Ash processing equipment
- Control valve
- Desulfurization equipment

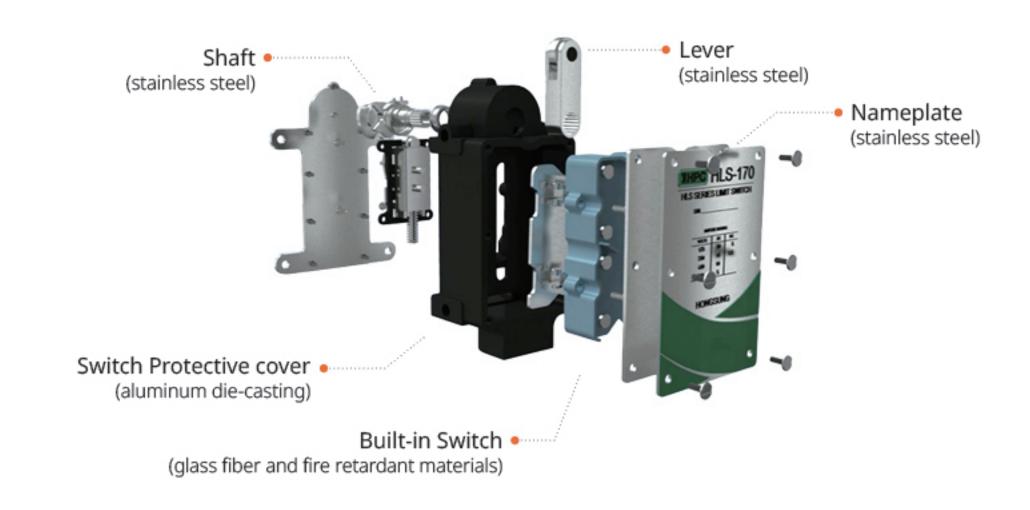








#### Features



- Heavy Duty Vibration & Temperature Resistant (Max 125°C)
- Its main body is made of aluminum die casting, making it sophisticated and highly accurate.
- The main parts are made of stainless steel, providing excellent hearing performance.
- The Fireproof with new material terminal (Nylon66)

### Pull Rope **Switch**



#### HPC-101EXR

Explosion proof

• The switch can detect the situation if the rope is breakage or the tension is loose, the emergency stop operation can be performed.

#### Specification

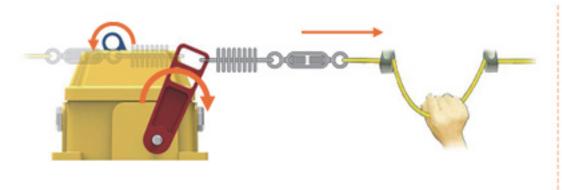
<u> </u>
A 125VAC / 10A 250VAC
DT x 2EA
minum diecasting
nual return
3/4"

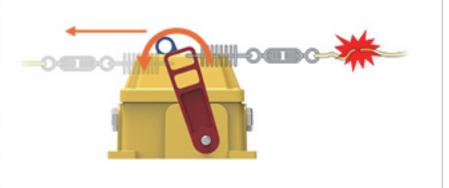
#### Installation



- When installing, the distance between the switches should not exceed a maximum of 25M.
- Install the eyeboit between the switches at intervals of 2.5 to 3M to prevent the wire from sagging.

#### Operation





• The tension springs provided on the both sides of the operation lever enable detection of wire rope breakage and tension.





• Return the reset lever to the center, and the operation lever will counter-rotate alongside for reset in the neutral state.

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## Belt Conveyor Switch



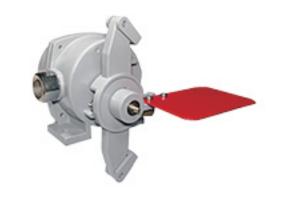
## **Belt Conveyor Switch**



### Pull Cord Switch

- Pull cord switch is an emergency stop switch that stops conveyor by pulling the wire rope when it is necessary to stop the belt conveyor while driving.
- As the switch is operated due to maintenance and accident in the line,
   and the identification plate rises to 90°, it is easy to visualize which switch is operated.

#### Type







HPC-101

Normal
(Non-Explosion proof)

HPC-101EX
Explosion proof

HPC-101EXL

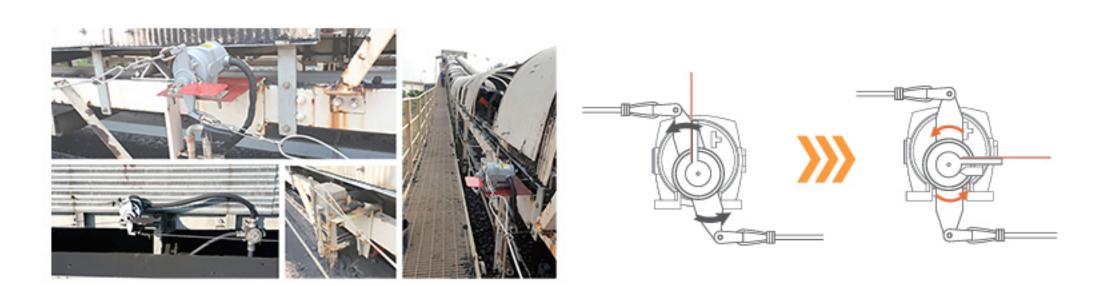
Explosion proof

• Flickering LED lamp

### Specification

CONTACT CAPACITY	15A 125VAC / 10A 250VAC / 0.6A 125VDC
PROTECTION	IP66
CONTACTS	SPDT x 2EA
REQUIRED FORCE OF PULL CORD	7 ± 1KG
TYPE	MANUAL RETURN
CABLE ENTRY	PF 3/4"×2EA WITH PLUG

#### Installation



- If there is space on either side of the conveyor belt at the construction site where this
  product is used, install both sides.
- If you are making a bracket to install the switch, refer to the product shape above.
- When installing, the distance between the switches should not exceed a maximum of 25M.
- Install the eyebolt between the switches at intervals of 2.5 to 3M to prevent the wire from sagging.
- Tie the wires securely into the switch lever hook with something like a wire clip.

### Belt Alignment Switch

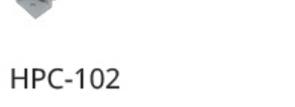
 This switch installs the belt alignment switch on both sides of the belt conveyor to stop conveyor when the belt is out of service. It is mainly used in steelmaking, cement, chemicals, and thermal power plants.

#### Type



Normal

(Non-Explosion proof)





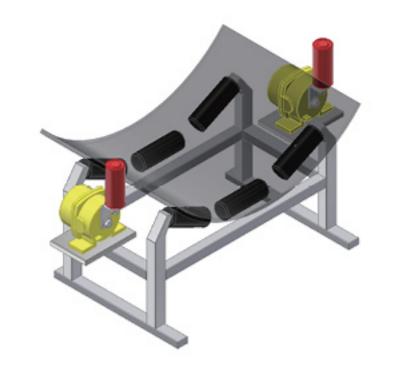
HPC-102EX
Explosion proof

### **Specification**

CONTACT CAPACITY	15A 125VAC / 10A 250VAC / 0.6A 125VDC
PROTECTION	IP66
CONTACTS	SPDT x 2EA
REQUIRED FORCE OF PULL CORD	7 ± 1KG
TYPE	AUTOMATIC RETURN
CABLE ENTRY	PF 3/4"×2EA WITH PLUG

#### Installation

- This product must be installed as a pair at both ends of the conveyor belt.
- When installing the product, save some spaces between belt and roller.
- If you are making a bracket to install the switch, refer to the product shape above.





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## Belt Conveyor Switch



## **Belt Conveyor Switch**



### Speed Control Switch

• Speed control switch measures speed using a non-contact sensor. When the speed is out of the speed range, the output relay is activated to check whether the rotation speed is abnormalities. Switch turns off the power to make an emergency stop if any problem with the machine is detected.

#### Type







(Max. 120°C)



HPC-103EXB Sensor Position

: Assembled

HPC-103EXA · Sensor Position

: Separated

HPC-103EXH Sensor Position

: Separated, For high temperature

HPC-103EXC

· Wheel Explosion Proof Type

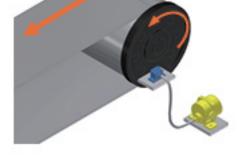
### Specification

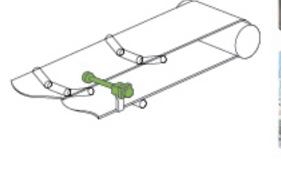
POWER	OUT POWER: 4W / OUT CURRENT: MAX 340mA OUT VOLTAGE: 12V / INPUT VOLTAGE: 90V~240V Free / 50~60Hz
CERTIFICATES	KOSHA (Ex tD A22 IP66 T85°C)
CONTACTS	SPDT x 2EA
CABLE ENTRY	PF 3/4"×2EA WITH PLUG
TIME DELAY	0~30 SEC
PROXIMITY SWITCH RANGE	20mm
CONTROL SPEED	1-9999 RPM

#### Installation

- Make sure that the distance between the rotator and the sensor is not more than 20mm.
- Install the rotor with a magnetic material so that it can be detected by the sensor.
- Do not set the axis of the rotator as the target of the sensor will fail if it is detected continuously.
- If you are creating a bracket on which to install the switch, refer to the Outside View above.









HPC-103EXB

HPC-103EXA HPC-103EXH

HPC-103EXC

### Roller Lever Switch

• The roller lever switch is a switch used for front and rear left movement control as the lever moves to the A.B contact point inside.

### Type





Automatic return Normal lever 2NO 2NC



HPC-107EXA



Automatic return · Adjustable lever 2NO 2NC



HPC-102EX

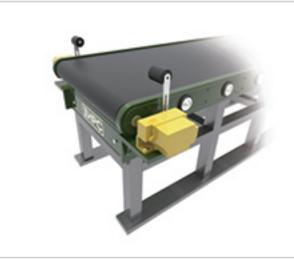
Manual return U type lever

• SPDT x 2EA • PF 3/4" x 2EA WITH PLUG

#### Specification

CONTACT CAPACITY	10A 125VAC / 6A 250VAC
PROTECTION	EXPLOSION PROOF(Ex tD A22 IP66 T85°C)
CONTACTS	DPST
CABLE ENTRY	PF 3/4"

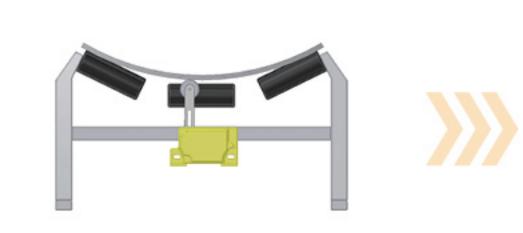
#### Installation



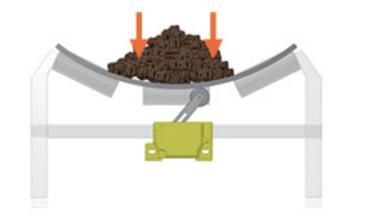




Both ends of a conveyor belt







Belt conveyor lower

- If you are creating a bracket on which to install the switch, refer to the Outside View above.
- It is recommended to be secured with M8 bolts when considering the size of the hole.

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## Level Switch



## Solenoid Valve



### Tilt **Switch**

- The tilt switch is a level detection switch that detects the upper limit of the powder or solid storage material by hanging it from the top of the tank, silo, hopper, etc.
- The body of the product may be suspended from the stainless steel chain and suspended to the desired height.

#### Type



HPC-105C Normal (Non-Explosion proof)



HPC-105EXA Explosion proof



HPC-105EXAC Explosion proof Strong cable

### Specification

CONTACT CAPACITY	12.5A 120VAC
PROTECTION	IP66
CONTACTS	SPST
INCLINATION OF OPERATING	25° ±3°
CABLE	VCTF 1.5mm × 2C (5M)
CHAIN	SUS304 Ø5×2M

#### Installation Environment

- Clinker silo
- Coal/coke silo
- Gravel/sand silo
- Cement silo
- Ore silo Aggregate bin







#### Operation





- It can be attached to the top of a tank, silo, hopper, etc. It can be used at the desired height.
- It is activated when the load in the loader is stacked to the switch and the switch is tilted to 25° ± 2°.

### **IoT Wireless** Solenoid Valve

- Low-maintenance cost.
- Low electricity consumption due to the use of the exclusive battery for valve.
- The on/off state is maintained by a single instant power supply.



#### Specification

#### Solenoid valve

RF & Wireless communication

Solenoid coil	DC 6V, 1A (2ea)	Distance	1km (max)
On/Off time	1 sec. (max)	Communication	Sub 1Ghz
Stroke	2mm	Power	DC 3.3V
Orifice	10mm	Active	2.5mA
Operation type	On/Off 2way	Sleep/Standby	800nA
Port size	PT 3/8	Function	Bluetooth

#### Installation Environment



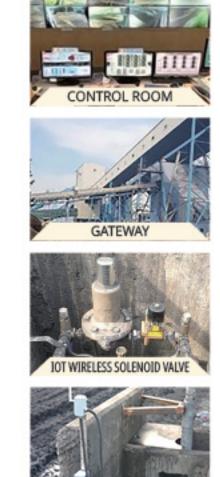


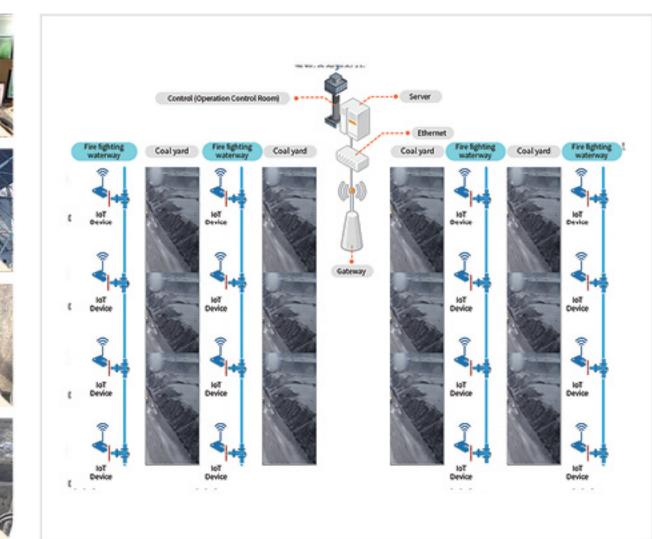


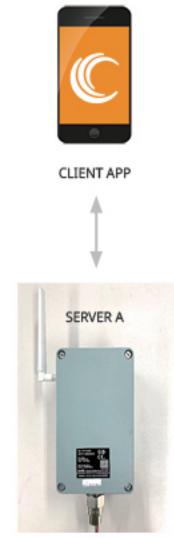


- Coal-fired power station (coal yard)
- Large arable land
- Vinyl greenhouse and cultivation facilities

### Application

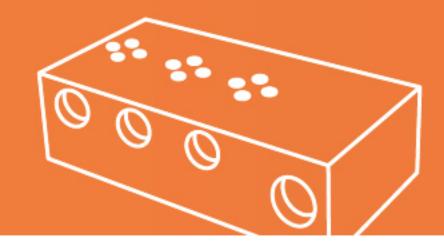




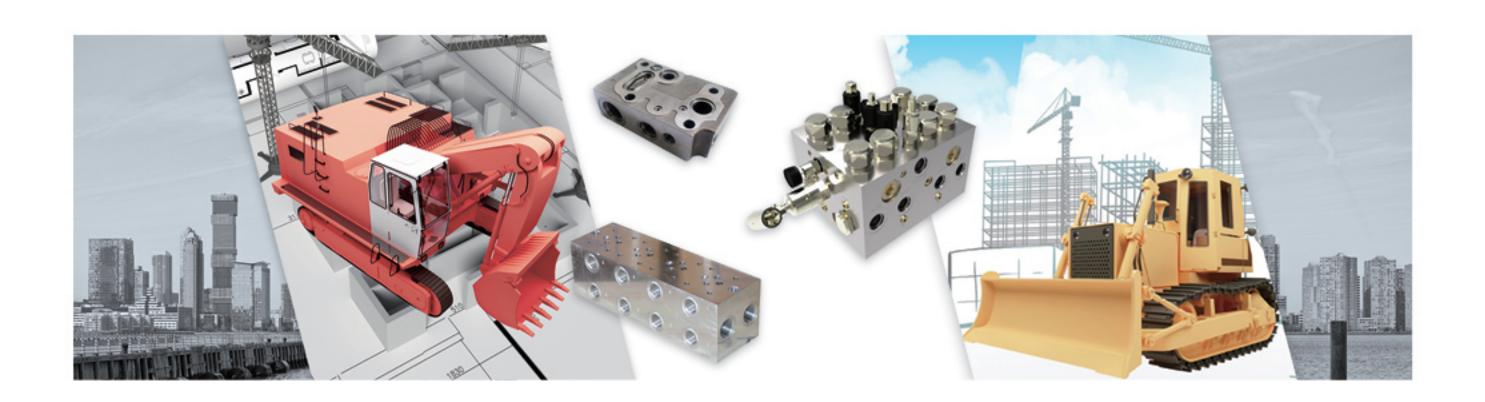


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## Manifold Block



## Hydraulic Valve & Components



#### Application

- Utilized in the whole industry as hydraulic valves for construction equipment, agricultural equipment parts and industrial equipment parts.
- Utilized for pressure control and flow control in the pneumatic and hydraulic sector for types of cartridge valves.
- Served as a bridge to open the flow path of all sorts of solenoid valves.

#### Features









- Excellent space application (control several valves in a small space)
- Available for accurate control of fluid flow
- Control of loss and resistance of fluids in valves

#### Product Information

- Released in various types depending on the requests of users
- Material spec: FC25, FCD45, AL6061, FCU340, S45C, etc
- Finish: Surgace teatment of clear anodizing









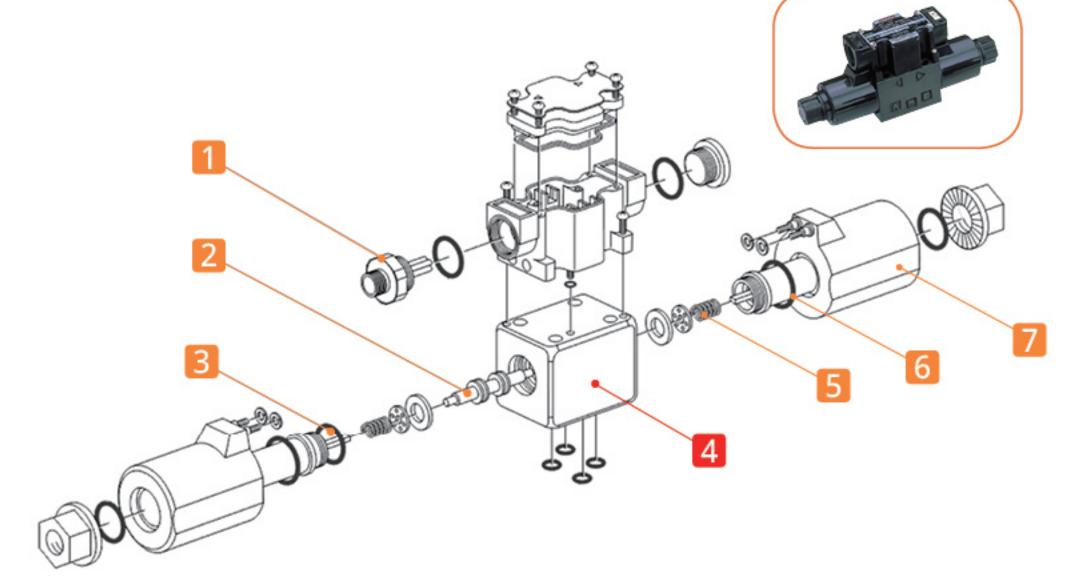








No	NAME
1	PLUG
2	SP00L
3	ROD
4	BODY
5	SPRING
6	SOLENOID GUIDE
7	SOLENOID COIL















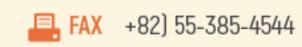
BUSINESS Solenoid Valve, Limit Switch

O ADDRESS Singi-Ro 64-1, Yangsan city, Gyeongnam, Korea, 50576

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