

Dedication Trustworthy

敬业 守信

Conscientious Innovation

认真 创新

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CNC MACHINE TOOLS ACCESSORIES CATALOG

2026 Edition



Intelligent
Switchboard



Safety Door Switch



High pressure
TSC system



System OEM
Machine Operation Panel



Manual Pulse
Generator



Oil skimmer



Oil Mist Collector



Warning light



Broken Tool
Detector



Cable Set





Founded in 2001

Shandong SHANSEN CNC Technology Co., Ltd. is the vice chairman of China CNC System Association, the chairman of Tengzhou City Machinery Industry Association, the specialized, high-end and innovation-driven little giant, the national high-tech enterprise, the double soft enterprise, with a strong R&D team, complete technical equipment and technology means. We have been operating according to ISO9001 quality management system and strictly implementing 6S site management. Up to now, we have 100,000 square meters of factory buildings, with an area of 180mu.

The company's main products include: CNC system, human-machine interface, intelligent Switch-board, oil mist collector, safety door switch, relay module, cable separator module, hand-held pulse generator, cable harness, warning lights, LED work lights, electronic lathe and so on, counting up to more than 20 kinds of products.

GROUP SUBSIDIARIES

- Shandong SHANSEN CNC Technology Co., Ltd.
- Tengzhou SHANSEN Printing Co., Ltd.
- Shandong ZAOKE Intelligent Equipment Research Institute Co., Ltd.
- Tengzhou SHANSEN Sheet Metal Co., Ltd.
- Shandong SHANSEN Robot Co., Ltd.
- Tengzhou SHANSEN Precision Mold Co., Ltd.
- YIMU Technology Co., Ltd.
- Tengzhou SHANSEN Machining Co., Ltd.

ENTERPRISE SPIRIT

DEDICATION TRUSTWORTHY
CONSCIENTIOUS INNOVATION

ENTERPRISE PURPOSE

Use our hard work and wisdom to Liberate people from tedious labor with our hard work & wisdom and conserve resources to the largest extent for the benefit of future generations!

BUSINESS PHILOSOPHY

Build first-class technical teams, develop first-class processes and create first-class technology products to give back to the community and strengthen our China!

- July 1, 2001 Tengzhou SHANSEN CNC Equipment Factory was established.
- March, 2002 Shenyang No.1 Machine Tool Factory used our machine Operation Panel in batch.
- April 28, 2003 Tengzhou SHANSEN Chuangfa CNC Equipment Co., Ltd. was established.
- 2004 Mass production of cable separator modules, relay modules, and RS-type communication ports.
- July 2006 Shandong Rizhao SHANSEN CNC Equipment Co., Ltd.
- November 2007 Mass production of E-type communication ports and safety door switches.
- August 2008 SS-08T/M CNC system was successfully developed.
- July 2009 SS-09T and SS-09S CNC systems were successfully developed.
- March 16, 2010 Construction of SHANSEN CNC's new plant in Tengzhou was started.
- March 2011 Tengzhou factory moved to a new place in this year and set up a provincial-level technology center, winning the national high-tech enterprise title.
- January 6, 2012 Rizhao SHANSEN Machine Tool Sales Co., Ltd. was established, and in the same year, machining workshop, printing workshop and showroom were built successively. Semi CNC lathe and lathe controller won the national invention patent.
- 2013 The mold workshop was completed and the CNC laboratory took shape.
- 2014 Shenyang i5 system OEM was put into mass production.
- 2015 Fully-automatic SMT production line was completed.
- 2016 It was elected as the chairman of Tengzhou Machinery Industry Association.
- 2017 The Gema Switzerland spraying line was introduced, a sheet metal spraying workshop was constructed, and IPO listing guidance was initiated.
- 2018 ZAOKE Intelligent Equipment Research Institute Co. Ltd. and YIMU Technology Co. Ltd. were established.
- 2019 It was elected as the vice chairman of China CNC System Association.
- 2020 65mu land were acquired and the construction of CNC system and the CNC machine tool magazine project were invested.
- 2021 It was awarded the specialized, high-end and innovation-driven "Small Giant" enterprise; Shandong SHANSEN Robot Co., Ltd. was founded; the broken tool detector products were put into mass production.
- 2022 It was awarded the honorary titles of Shandong Province Mountain Goat Enterprise, Shandong Province Quality Benchmark, Shandong Famous Brand, etc.; Fanuc and Mitsubishi Bus Panels, SS/E-01B Safety Door Switches and other products were put into mass production.
- 2023 Intelligent Switchboards were awarded the first set of products and the first version of software at the provincial level; Little Giant operation box and photoelectric wave switches started trial production.
- 2024 Strengthened capabilities in high-end CNC technologies and prepared for key certifications.
- 2025 The intelligent switchboard retained its National Manufacturing Single Champion Product status; Recognized as a Provincial Advanced Smart Factory; Awarded the Third Prize of the Provincial Mechanical Industry Science and Technology Award; Maintained High-Tech Enterprise status.
- 2026 Recognized in Shandong Province as an Outstanding Enterprise in Industrialization and Informatization Integration and a Benchmark Enterprise in Business Management.

The splendid continues at SHANSEN

Thankful to have you on the road of growth!



200+ CERTIFIED PATENTS



CE CERTIFICATES

NATIONAL INVENTION PATENTS

UTILITY MODEL PATENTS

SOFTWARE COPYRIGHTS

Process Demonstration

SMT WORKSHOP	05
TENGZHOU SHANSEN PRINTING CO., LTD.	06
TENGZHOU SHANSEN SHEET METAL CO., LTD.	07
TENGZHOU SHANSEN PRECISION MOLD CO., LTD.	08-09
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Product Introduction

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PRODUCTION LINE INTRODUCTION

SMT line has automatic visual printing machine, multifunctional chip mounter, lead-free hot air reflow soldering machine, automatic AOI optical detector, automatic electronic assembling machine, conformal coating automatic spraying machine and other production equipment, they can complete the automatic printing, assembling, reflow soldering, testing, mounting, spraying and other full set of processes. The company introduced SMT production line in 2015, trained a number of first-class grass-roots staff and lean, efficient management team; through the modernization of the production management system, it has adhered to the road of scientific management and production standardization, has adopted "zero defects" as the production policy, and has been committed to creating first-class enterprises of SMT and wave soldering processing.

SMT PROCESSING EQUIPMENT



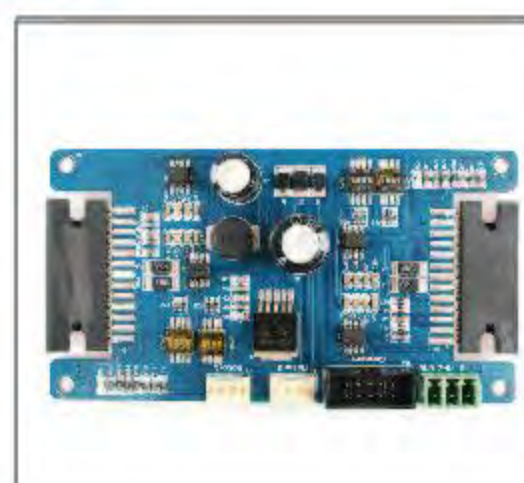
EXTERNAL PROCESSING



CONTROL MOTHERBOARD



GPS PRODUCT



DIGITAL PRODUCT



NETWORK PRODUCT



LED LAMP PANEL

PRINTING WORKSHOP INTRODUCTION

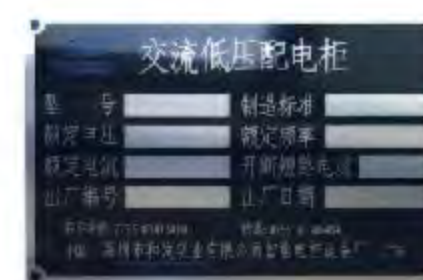
The printing workshop has 27 sets of production equipment, such as laser cutting machine, automatic printing machine, automatic box making machine, automatic punching machine, laser marking machine, etc. It can complete the whole set of process of plate making, printing, baking, cutting, embossing, laminating, etc., with high product quality and short production cycle.

The workshop can undertake external printing business.

PRINTING EQUIPMENT



EXTERNAL PROCESSING BUSINESS



NAMEPLATE & LABEL PRINTING PRODUCTS



FILM PRINTING PRODUCTS



EMBOSSSED FILM PRODUCTS



ACRYLIC PRINTED PRODUCTS

WORKSHOP FEATURES

- ◆ Experienced sheet metal design engineer;
- ◆ Skilled operators;
- ◆ The introduction of advanced Gema Switzerland automatic electrostatic spraying production line;
- ◆ Italian energy-saving natural gas combustion system;
- ◆ Components drying and plastic powder curing system for pre-treatment automatic spraying production line, which was designed and manufactured by Tianjin No. 7 Institute of CSIC;
- ◆ American reverse osmosis pure water purification system;
- ◆ CNC fiber laser cutting machine and CNC bending machine of Casting and Forging Institute;
- ◆ Yaskawa welding robot from Japan.

PROCESSING EQUIPMENT



EXTERNAL PROCESSING BUSINESS



WORKSHOP FEATURES

The mold production line has the support of a technical team with 20 years of experience, the technical team are from large senior enterprises, with mature design and machining software. The machining equipment is robust, with a total of 30 injection molding machines from 100T to 1600T. There are 8 sets of two-color machines from 160T to 850T, 16 sets of machining centers, 10 sets of EDM machines, 10 sets of wire-cutting machines, 13 sets of CNC lathes, 3 sets of laser welders, 6 sets of CNC grinders, and 3 sets of two-color machines. The quality and the delivery time are guaranteed.



PROCESSING SITE



STANDARD MOLD BASE

HIGH PRECISION

FINISHED PRODUCTS SHOW



PROFESSIONAL PROTOTYPING

BATCH PROCESSING

PRODUCTION EQUIPMENT

Injection molding production line has 6 professional injection molding craftsmen, robust machine equipment, we can produce plastic shells from small to large sizes.

We have a total of 30 injection molding machines from 100T to 1600T, a total of 8 double injection machines from 160T to 850T. Injection molding process is advanced and scientific, with automatic loading and unloading robots, ultrasonic dewatering automatic line, and other equipment. The quality and the delivery time are guaranteed.



FINISHED PRODUCTS SHOW



PRODUCTION EQUIPMENT

Machining workshop has experienced operators and technical workers, workshop has over a hundred processing equipment, such as processing centers, CNC turret punches, CNC grinding machines, CNC lathes, CNC bending machines, sanding machines, chamfering machines and other equipment. Plus, there are 3 automated production lines, capable of undertaking the processing of product base metal framework, enclosure and other products. The workshop can not only complete the company's product production, but also can be external to undertake the processing business.



FINISHED PRODUCTS SHOW



LABORATORY IMPLEMENTATION STANDARDS

- GB/T18209.1-2010 Electrical Safety of Machinery – Indication, Marking and Actuation;
- JB-T8832-2001 General Requirements for Numerical Control Systems of Machine Tools;
- GB 5226.1-2012 Electrical Safety of Machinery – Electrical Equipment of Machines - Part 1: General Requirements
- GB 4208-2008 Enclosure protection class (IP code).

EXPERIMENTAL EQUIPMENT

The SHANSEN laboratory is equipped with electronic aging chamber, high and low temperature test chamber, AOI appearance testing equipment, GOI appearance testing equipment, electronic interference detector, vibration test bench, LCR automatic measuring instrument and other experimental equipment.

Climate environment testing equipment

Climate environment testing equipment can test the product's ability of adapting to high and low temperatures, waterproofing and dustproofing, and resistance to air pressure.



DUSTPROOF LEVEL
TEST CHAMBER



HIGH-LOW TEMPERATURE
TEST CHAMBER



RAIN TEST CHAMBER



Laboratory

Electromagnetic compatibility testing equipment



SURGE IMMUNITY TESTER



PULSE GROUP
IMMUNITY TESTER



STATIC INTERFERENCE TESTER



Mechanical environmental equipment

It can test the pressure resistance, vibration resistance and drop resistance of products.



SHAKER



DROP TEST BENCH



WIRE BENDING TESTER



Appearance Testing Equipment

It can inspect the correctness of the logo, characters and pictures in the product appearance, and inspect the placement and welding of the components.



AOI APPEARANCE
TESTING EQUIPMENT



CCD INSPECTION EQUIPMENT



GOI APPEARANCE
TESTING EQUIPMENT

PRODUCT OVERVIEW

Human-machine interface products are widely used in CNC machine tools, woodworking machinery, injection molding machinery, robots, textile machinery, engineering machinery, medical equipment and other industries, we can provide customers with CNC system appearance design, product OEM, machine Operation Panel support and other services. They are adapted to the market mainstream of the domestic and foreign high and middle-end CNC systems, such as Fanuc, Mitsubishi, Siemens, Huazhong CNC, GSK, KND, Syntec, Lynuc and so on. According to customer demand, we can provide a variety of communication connection methods, appearance processing technology, customized design of key material style.

CUSTOMIZATION SERVICES

01 Appearance Finishing

Customized design solutions available based on customer requirements, including enclosure design, color schemes, process selection, and branding elements, etc.



PRINTED OVERLAY FINISH



POWDER COATING FINISH



BRUSHED STAINLESS STEEL FINISH



ALUMINUM ALLOY WITH ANODIZED FINISH



3D TEXTURED FINISHING

02 Communication Interfaces

According to customer requirements, various communication protocols and interface options are available, providing flexible PLC connectivity.

CNC / PLC Bus Protocols

- FANUC IO-Link
- FANUC IO-LINK i
- MITSUBISHI CC-LINK
- SIEMENS Profinet
- BECKHOFF Ethercat
- STANDARD Modbus-RTU
- STANDARD Modbus-TCP

Communication Interfaces

- RS232
- RS422
- RS485
- EntherCAT

03 Keypad and Finish

According to customer requirements, Keypad Type and Surface Finishing options are available.

Keypad Type

- Membrane
- Crystal
- Laser Engraving
- Labelled



Surface Finish

- Dot-textured raised
- Oil-resistant raised
- Tactile raised





Huazhong System

Product Information

Product Process	Aluminum and magnesium alloy oxidation sandblasting
Key Type	Laser
Screen Size	12 inch



Lynuc System

Product Information

Product Process	Aluminum and magnesium alloy oxidation sandblasting
Key Type	Laser
Screen Size	12 inch



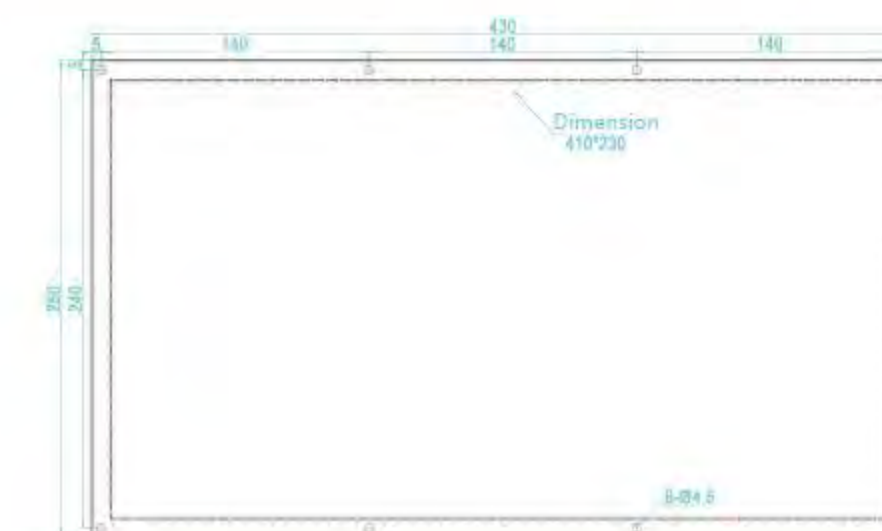
KND System

Product Information

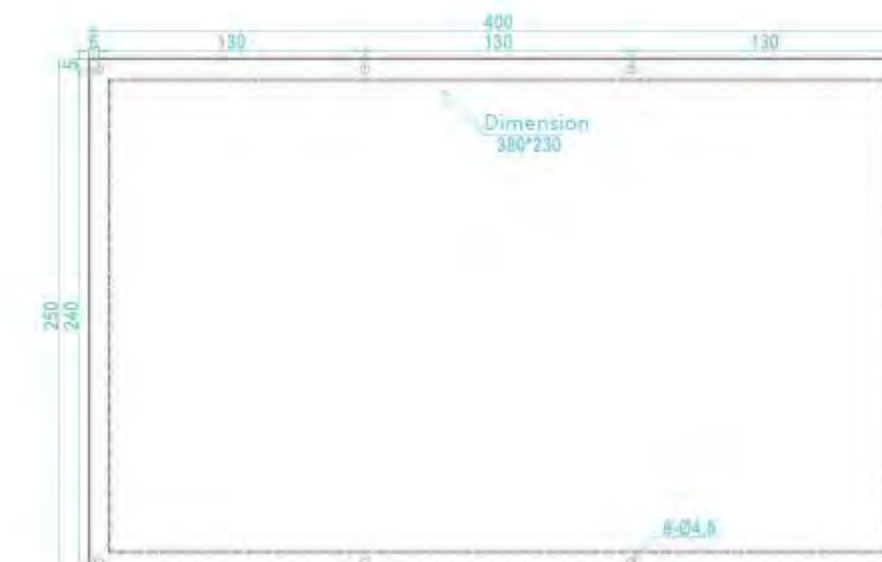
Product Process	Sheet metal lamination
Key Type	Membrane
Screen Size	10.4 inch



SS-TY-M80-N



SS-MCP-12B-JZ4



GSK System

Product Information

Product Process	Aluminum and magnesium alloy oxidation sandblasting
Key Type	Laser
Screen Size	15 inch



i5 Intelligent Machine Tool-Operating Module System

Product Information

Product Process	Aluminum and magnesium alloy oxidation sandblasting
Key Type	Laser
Screen Size	12 inch



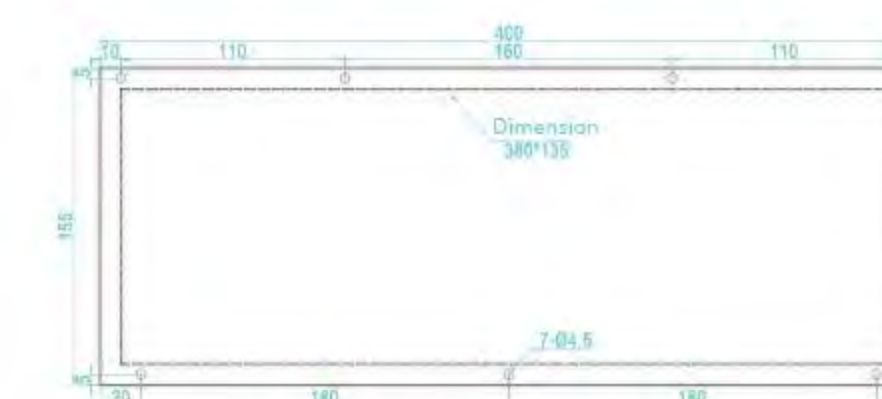
googoltech

Product Information

Product Process	Sheet metal with membrane overlay
Key Type	Crystal keys
Screen Size	12 inch



SS-FZD-B-2



Product Information

Product Name	Standard Machining Center Panel
Product Model	SS-TY-M80-N
Dimension Appearance	430×250
Applicable System	Mitsubishi M80
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption, and remote-control support

Product Information

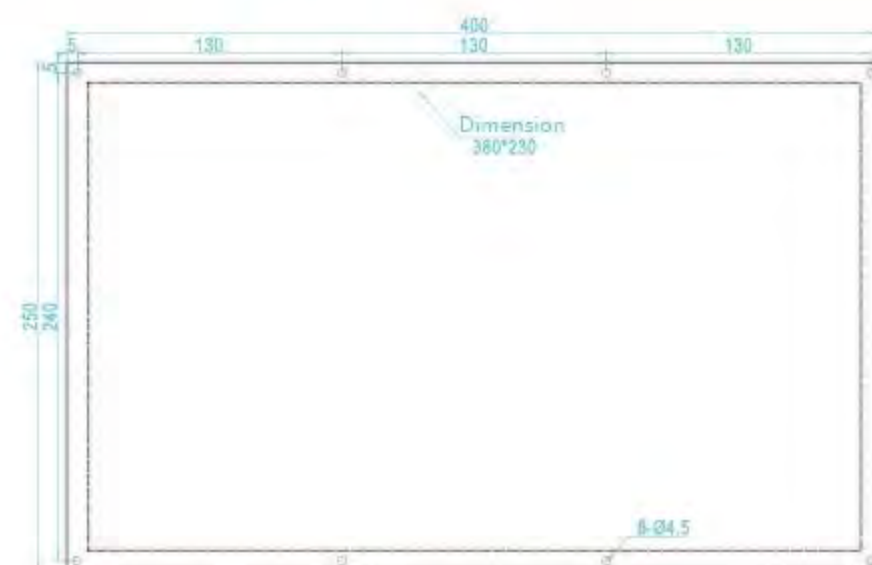
Product Name	Standard Machining Center Panel
Product Model	SS-MCP-12B-JZ4
Dimension Appearance	400×250
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption, and remote-control support

Product Information

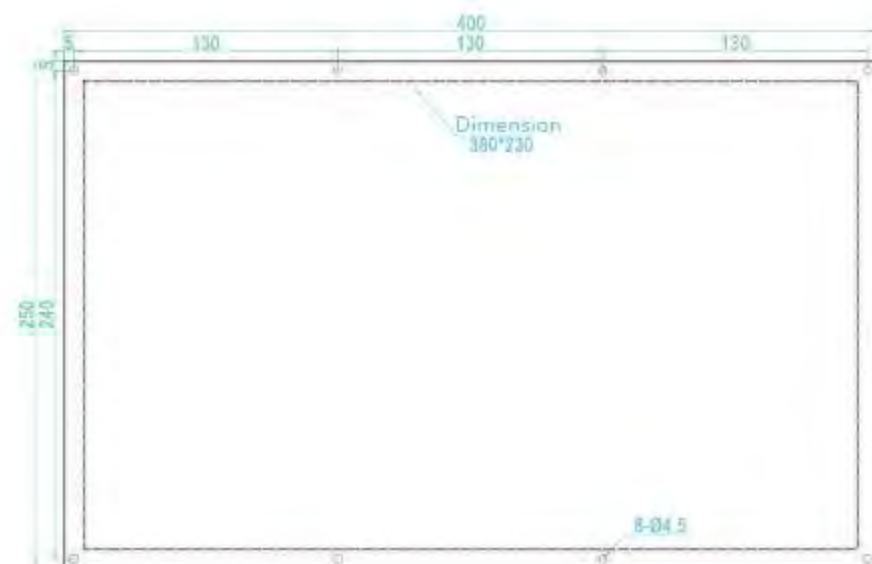
Product Name	Standard Machining Center Panel
Product Model	SS-FZD-B-2
Dimension Appearance	400×155
Applicable System	Fanuc
Working Voltage	DC24V ± 5%
Communication Method	Bus type
Encryption Method	Software encryption, and remote-control support



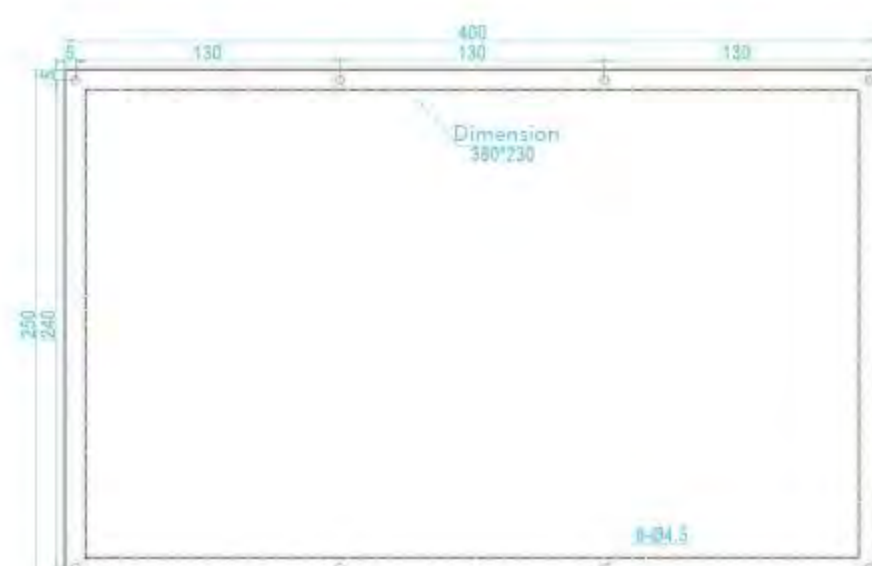
SS-4025MF-FZ



SS-4025MF-HD



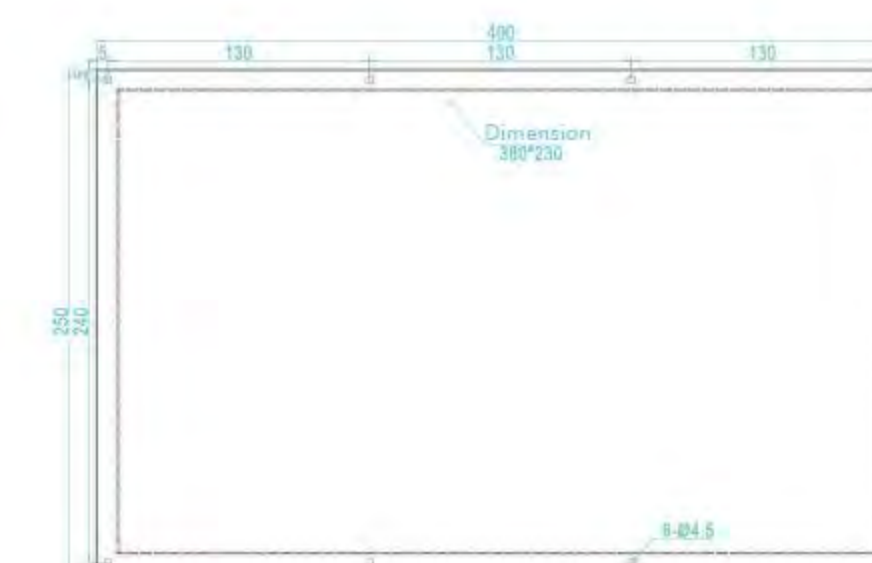
SS-4025M-TY-BG



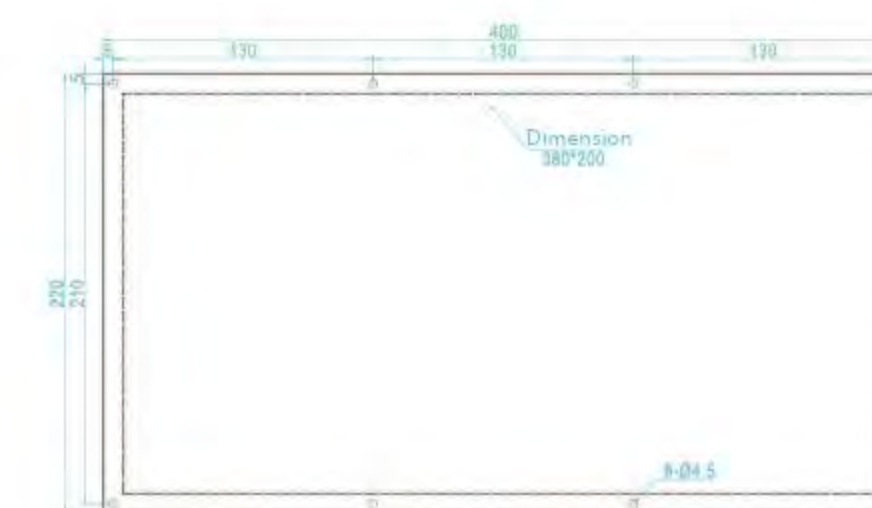
SS-4025M-TY-H2



SS-4025M-TY-H1



SS-4022M-JZ-YJT



Product Information	
Product Name	Standard Machining Center Panel
Product Model	SS-4025MF-FZ
Dimension Appearance	400×250
Applicable System	Fanuc
Working Voltage	DC24V ± 5%
Communication Method	Bus type
Encryption Method	Software encryption, and remote-control support

Product Information	
Product Name	Standard Machining Center Panel
Product Model	SS-4025MF-HD
Dimension Appearance	400×250
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption, and remote-control support

Product Information	
Product Name	Standard Machining Center Panel
Product Model	SS-4025M-TY-BG
Dimension Appearance	400×250
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption, and remote-control support

Product Information	
Product Name	Standard Machining Center Panel
Product Model	SS-4025M-TY-H2
Dimension Appearance	400×250
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption, and remote-control support

Product Information	
Product Name	Standard Machining Center Panel
Product Model	SS-4025M-TY-H1
Dimension Appearance	400×250
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption, and remote-control support

Product Information	
Product Name	Standard Machining Center Panel
Product Model	SS-4022M-JZ-YJT
Dimension Appearance	400×220
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption, and remote-control support



SS-MCP-483-PN



SS-MCP-310-PN



SS-MCP-464-P



SS-MCP-326-P



Product Information	
Product Name	Standard Machining Center Panel
Product Model	SS-MCP-483-PN
Dimension Appearance	483×155
Applicable System	Siemens
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption, and remote-control support

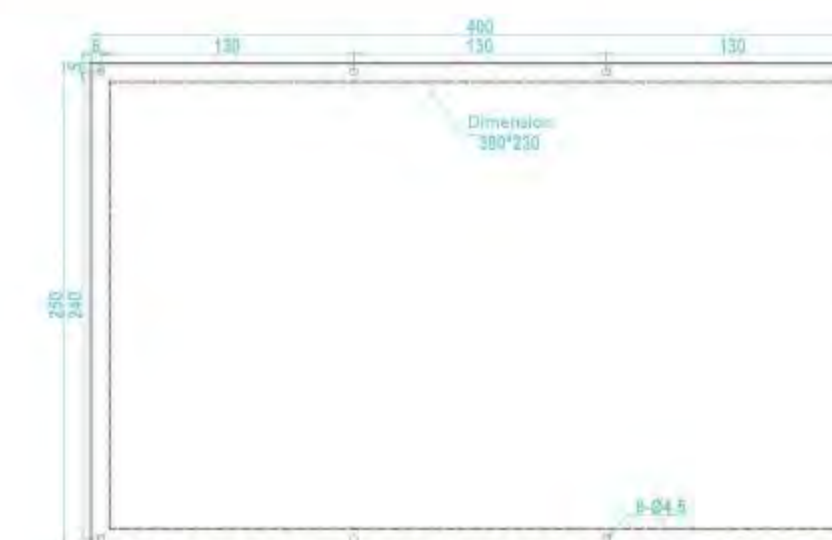
Product Information	
Product Name	Standard Machining Center Panel
Product Model	SS-MCP-310-PN
Dimension Appearance	310×175
Applicable System	Siemens
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption, and remote-control support

Product Information	
Product Name	Standard Machining Center Panel
Product Model	SS-MCP-464-P
Dimension Appearance	464×155
Applicable System	Siemens
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption, and remote-control support

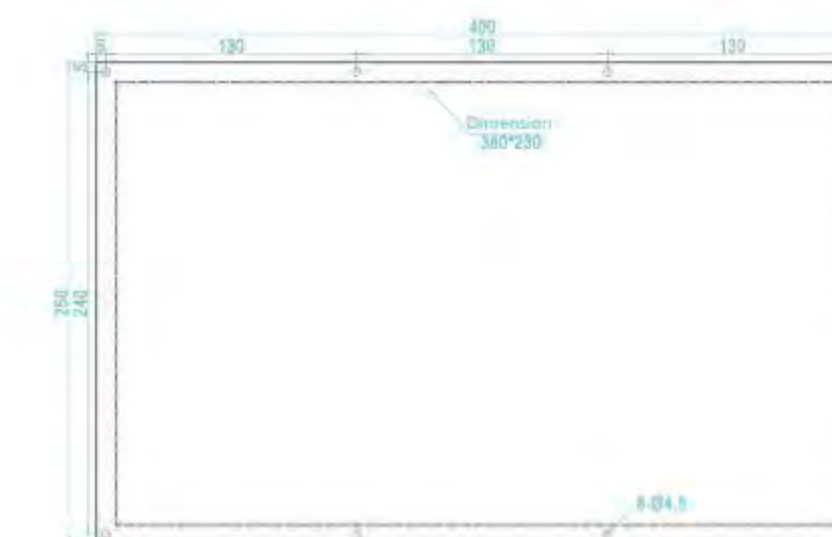
Product Information	
Product Name	Standard Machining Center Panel
Product Model	SS-MCP-326-P
Dimension Appearance	326×175
Applicable System	Siemens
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption, and remote-control support



SS-4025M-ST



XDKB01-V3



KND-Cc4325M5.2S



Product Information	
Product Name	Custom machining center panel
Product Model	SS-4025M-ST
Dimension Appearance	400×250
Applicable System	Syntec
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type/Syntec Protocol
Encryption Method	Not supported for the panel

Product Information	
Product Name	Standard Machining Center Panel
Product Model	XDKB01-V3
Dimension Appearance	400×250
Applicable System	Syntec
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type/Syntec Protocol
Encryption Method	Not supported for the panel

Product Information	
Product Name	Custom machining center panel
Product Model	KND-Cc4325M5.2S
Dimension Appearance	430×250
Applicable System	KND
Working Voltage	DC24V ± 5%
Communication Method	RS485 communication
Encryption Method	Not supported for the panel



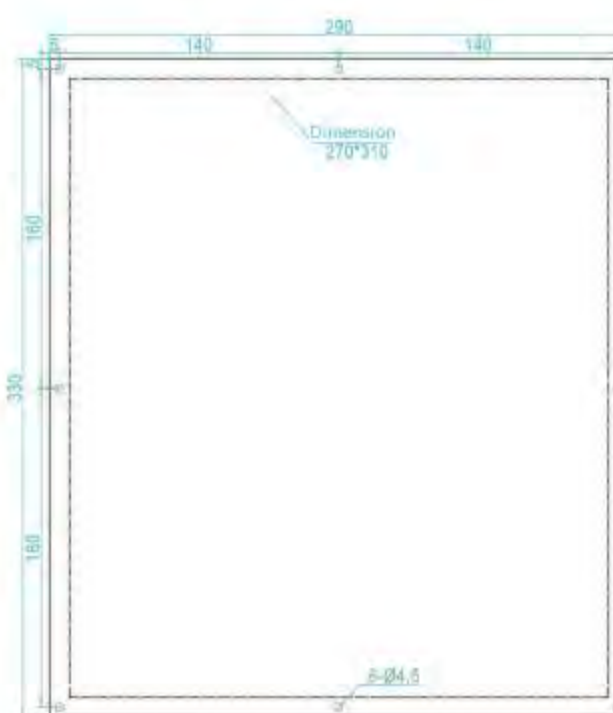
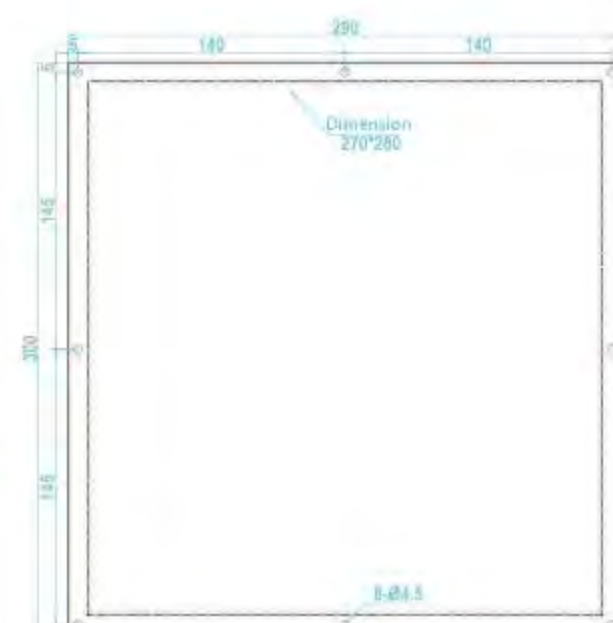
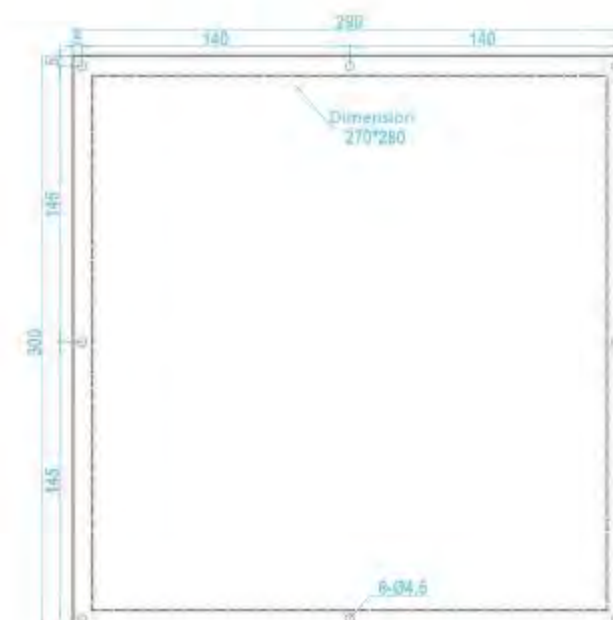
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SS-2930FM-JZ-BJ



SS-2933M-TY-JZ



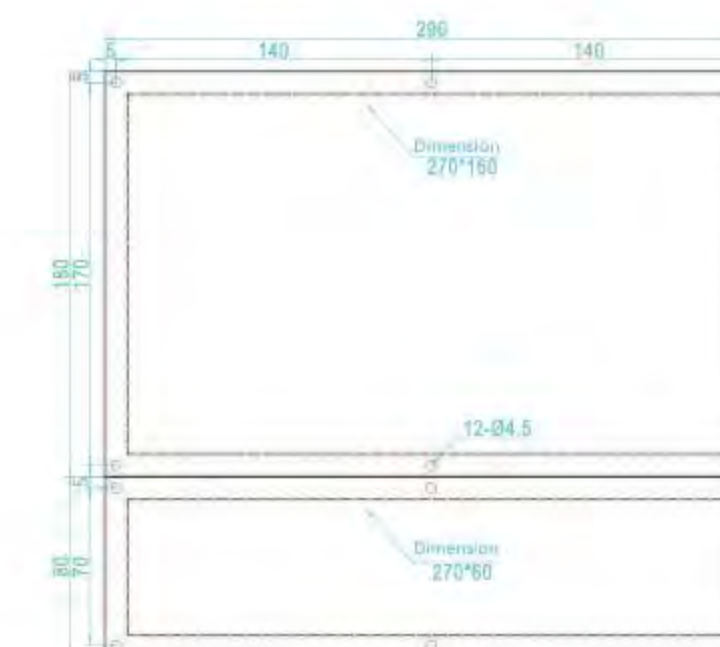
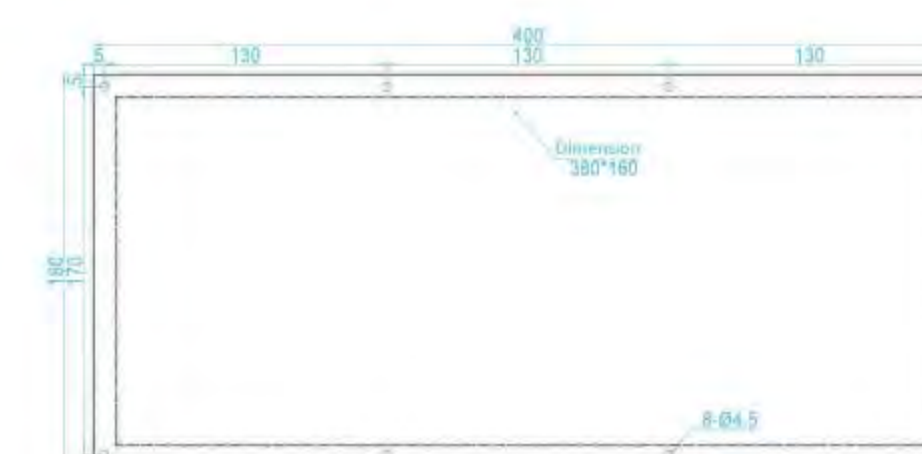
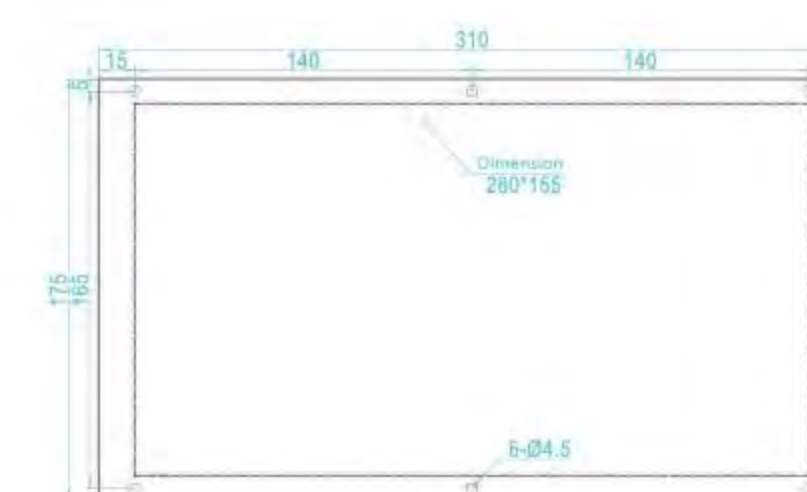
SS-828D



SS-FM-B-2



SS-FM-B+SS-FM-B-8



Product Information	
Product Name	Standard Machining Center Panel
Product Model	PRSKB03H2
Dimension Appearance	290×300
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption, and remote-control support

Product Information	
Product Name	Standard Machining Center Panel
Product Model	SS-2930FM-JZ-BJ
Dimension Appearance	290×300
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption, and remote-control support

Product Information	
Product Name	Standard Machining Center Panel
Product Model	SS-2933M-TY-JZ
Dimension Appearance	290×330
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption, and remote-control support

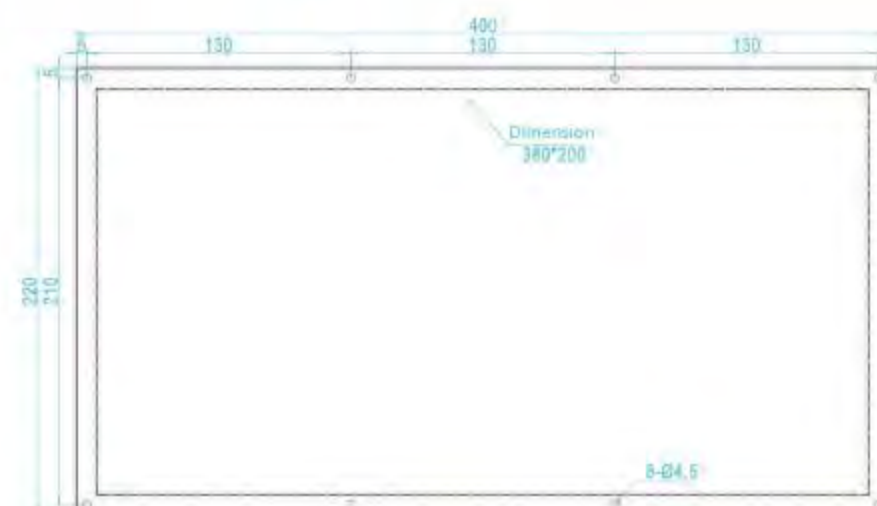
Product Information	
Product Name	Standard Machining Center Panel
Product Model	SS-828D
Dimension Appearance	310×175
Applicable System	Siemens
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Not supported for the panel

Product Information	
Product Name	Standard Machining Center Panel
Product Model	SS-FM-B-2
Dimension Appearance	400×180
Applicable System	Fanuc
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Not supported for the panel

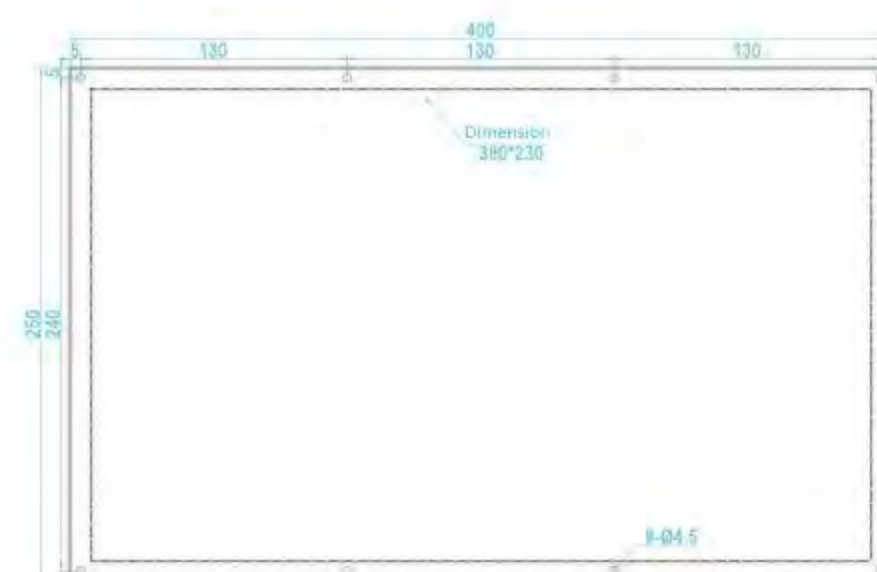
Product Information	
Product Name	Standard Machining Center Panel
Product Model	SS-FM-B+SS-FM-B-8
Dimension Appearance	290×180+290×80
Applicable System	Fanuc
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Not supported for the panel



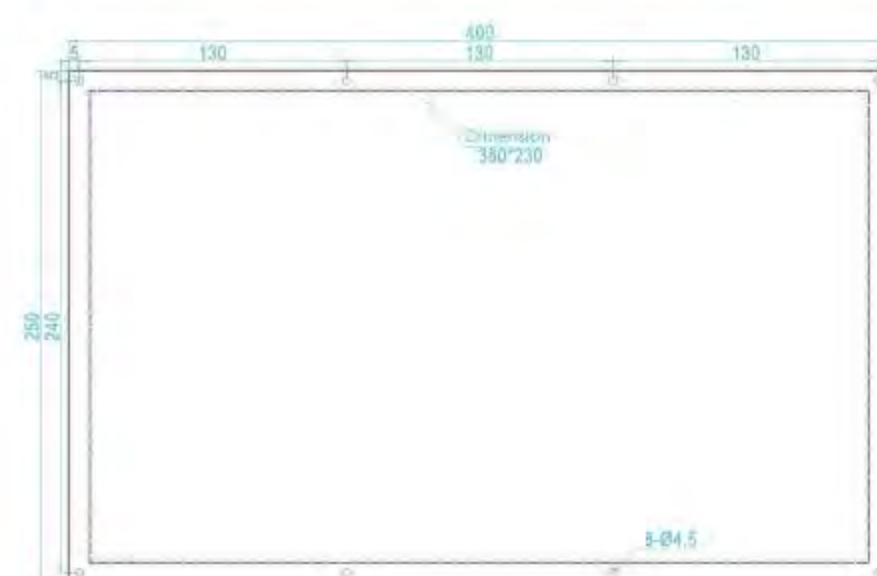
SS-BZ-TC



SS-BZ-4025T



SS-4025T-JZ-ZJJH



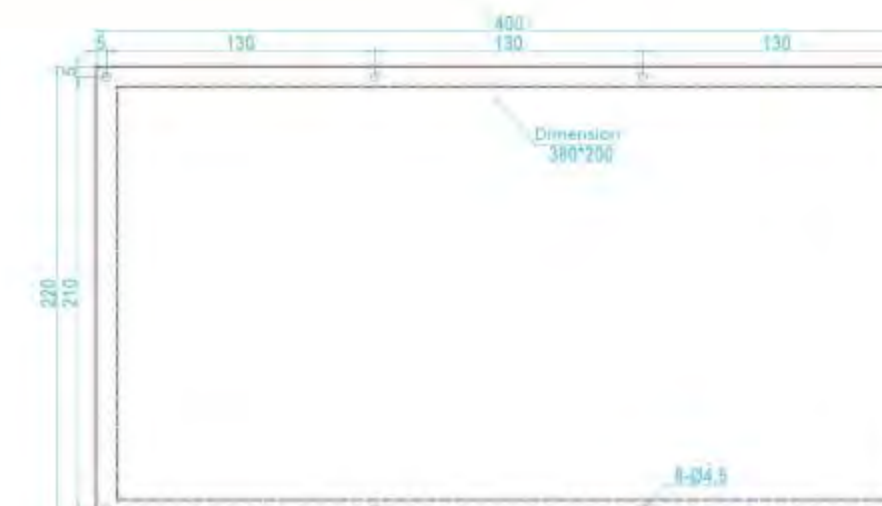
Product Information	
Product Name	Standard lathe panel
Product Model	SS-BZ-TC
Dimension Appearance	400×220
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption and remote-control support

Product Information	
Product Name	Standard lathe panel
Product Model	SS-BZ-4025T
Dimension Appearance	400×230
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption and remote-control support

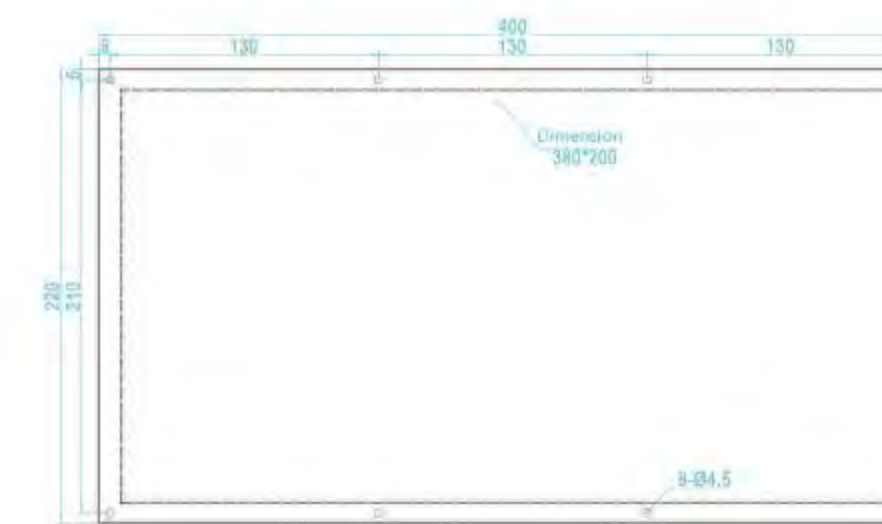
Product Information	
Product Name	Standard lathe panel
Product Model	SS-4025T-JZ-ZJJH
Dimension Appearance	400×230
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Not supported for the panel



SS-BZ-TC-V1



SS-4022T-JY-JZ



FCT-400H-FM



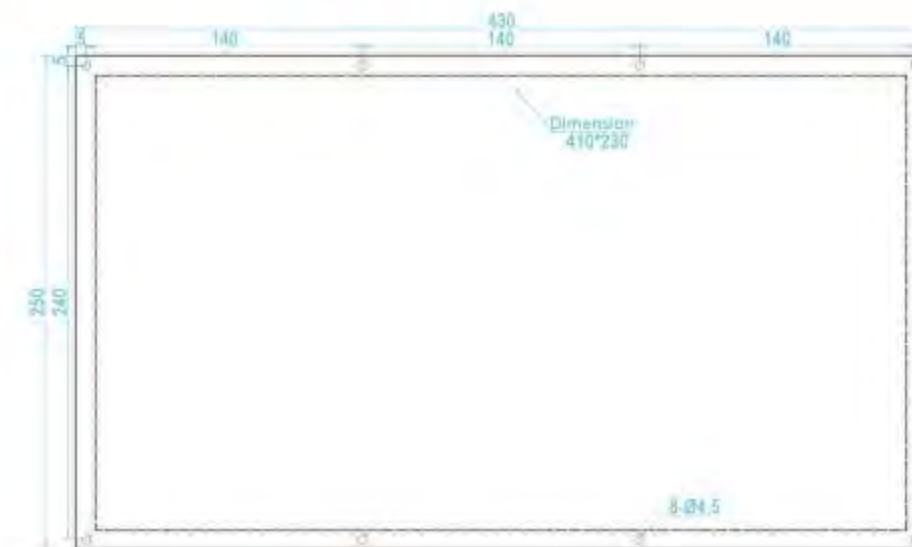
Product Information	
Product Name	Standard lathe panel
Product Model	SS-BZ-TC-V1
Dimension Appearance	400×220
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption and remote-control support

Product Information	
Product Name	Standard lathe panel
Product Model	SS-4022T-JY-JZ
Dimension Appearance	400×220
Applicable System	Fanuc
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Not supported for the panel

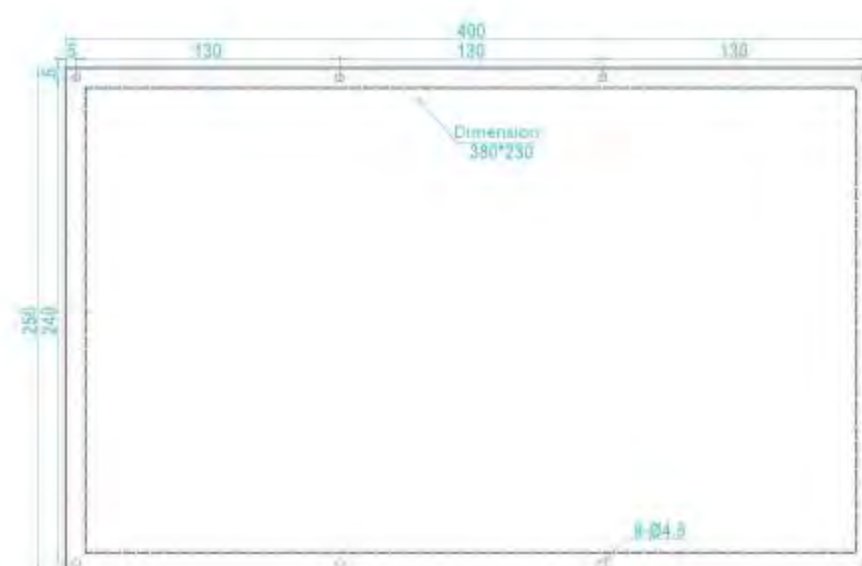
Product Information	
Product Name	Standard lathe panel
Product Model	FCT-400H-FM
Dimension Appearance	400×220
Applicable System	Fanuc/Mitsubishi M80
Working Voltage	DC24V ± 5%
Communication Method	Point to Point
Encryption Method	Not supported for the panel



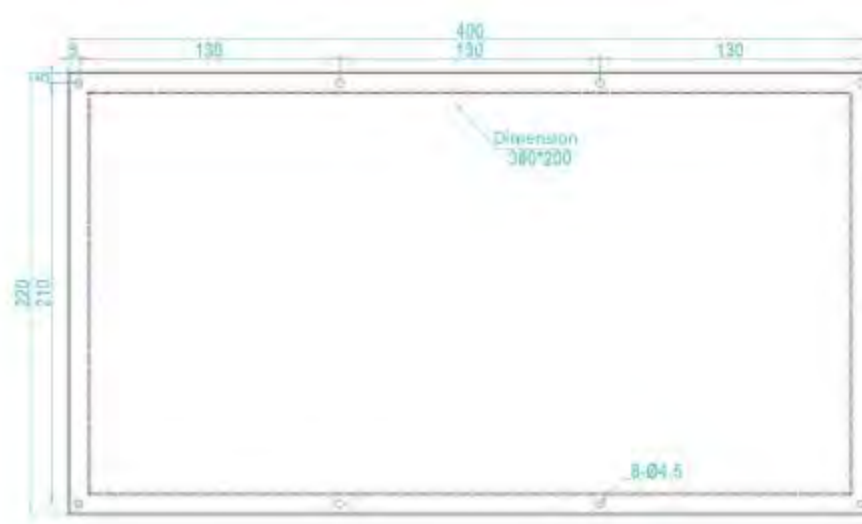
SS-4325H-M3



SS-HMKB01-XD



ST4022T



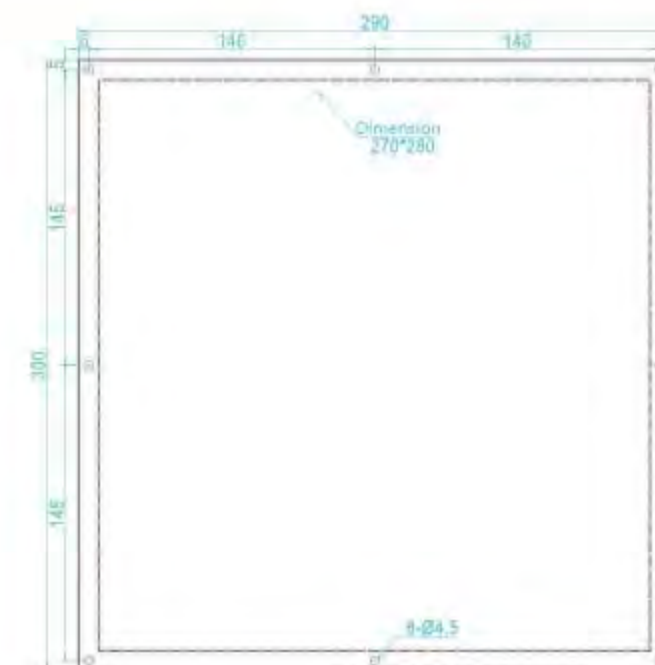
Product Information	
Product Name	Standard lathe panel
Product Model	SS-4325H-M3
Dimension Appearance	430×250
Applicable System	Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Not supported for the panel

Product Information	
Product Name	Standard lathe panel
Product Model	SS-HMKB01-XD
Dimension Appearance	400×250
Applicable System	Syntec
Working Voltage	DC24V ± 5%
Communication Method	Syntec Protocol
Encryption Method	Not supported for the panel

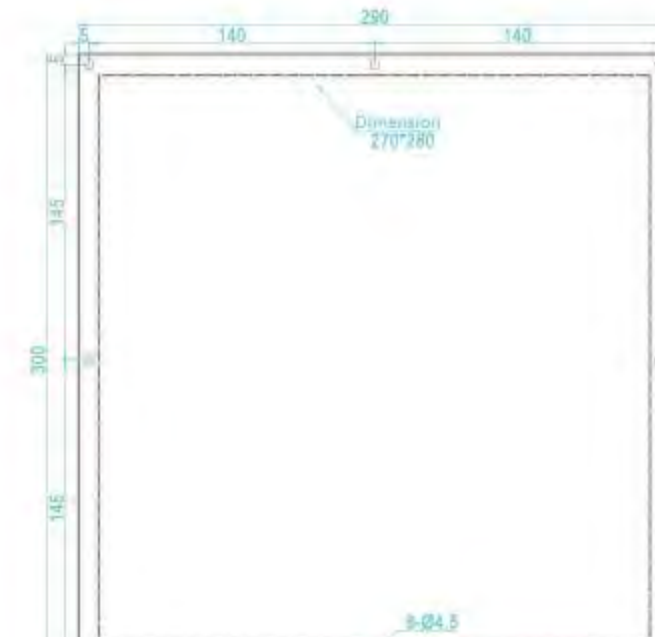
Product Information	
Product Name	Standard lathe panel
Product Model	ST4022T
Dimension Appearance	400×220
Applicable System	Syntec
Working Voltage	DC24V ± 5%
Communication Method	Syntec Protocol
Encryption Method	Not supported for the panel



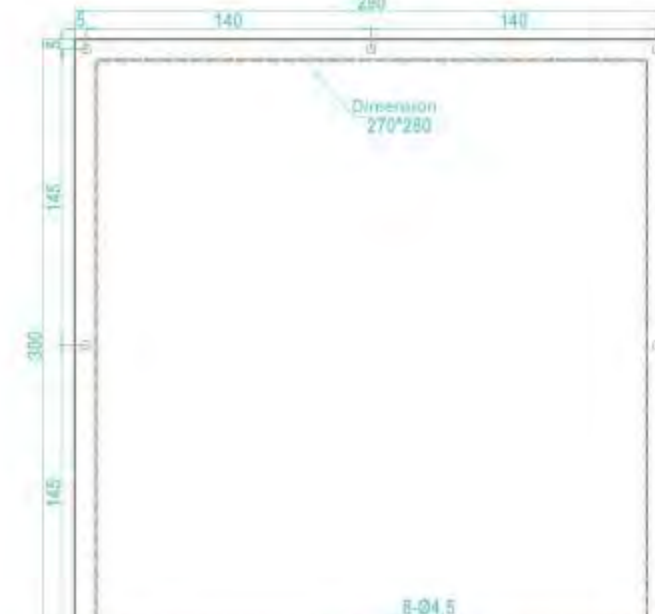
SS-BZ-4025VT



SK-F0VE1



SS-2930VT



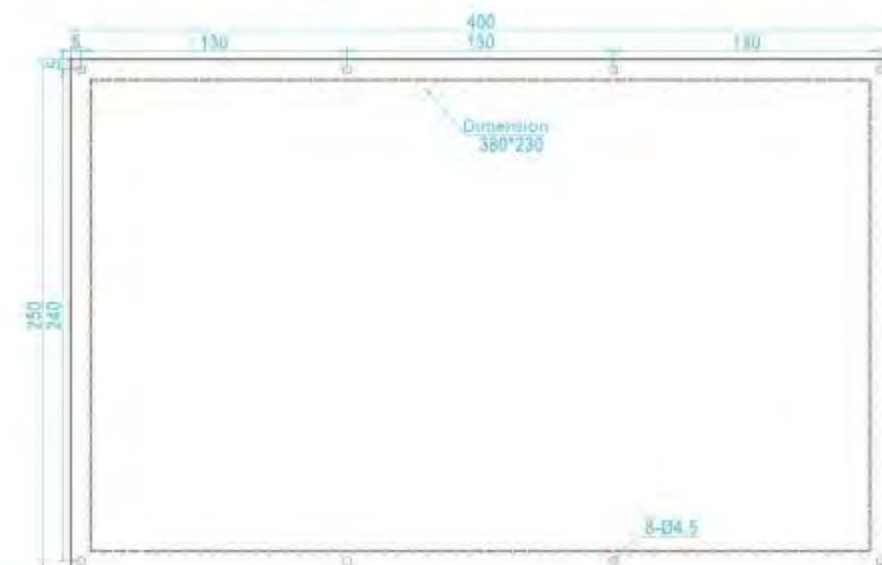
Product Information	
Product Name	Standard lathe panel
Product Model	SS-BZ-4025VT
Dimension Appearance	290×300
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption, and remote-control support

Product Information	
Product Name	Custom Lathe Panel
Product Model	SK-F0VE1
Dimension Appearance	290×300
Applicable System	Fanuc
Working Voltage	DC24V ± 5%
Communication Method	Point to Point
Encryption Method	Not supported for the panel

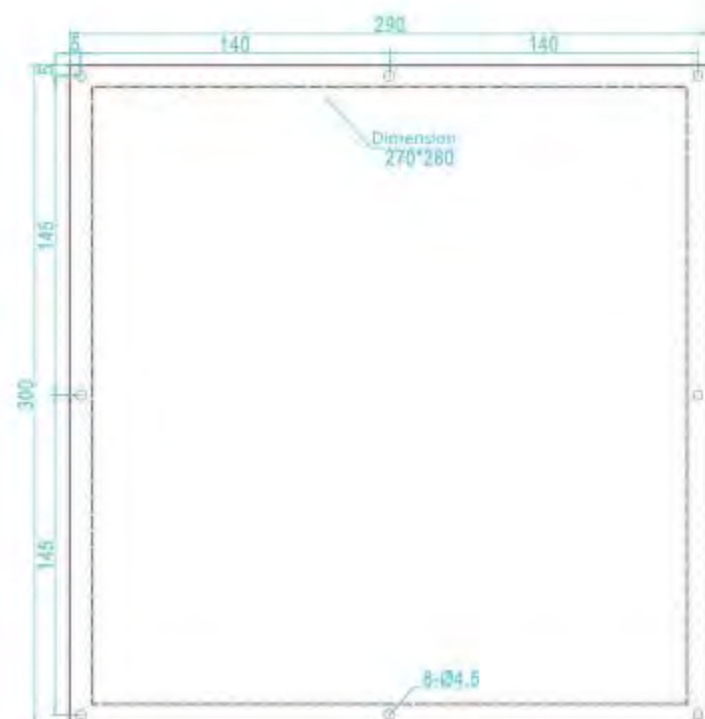
Product Information	
Product Name	Standard lathe panel
Product Model	SS-2930VT
Dimension Appearance	290×300
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Point to Point
Encryption Method	Not supported for the panel



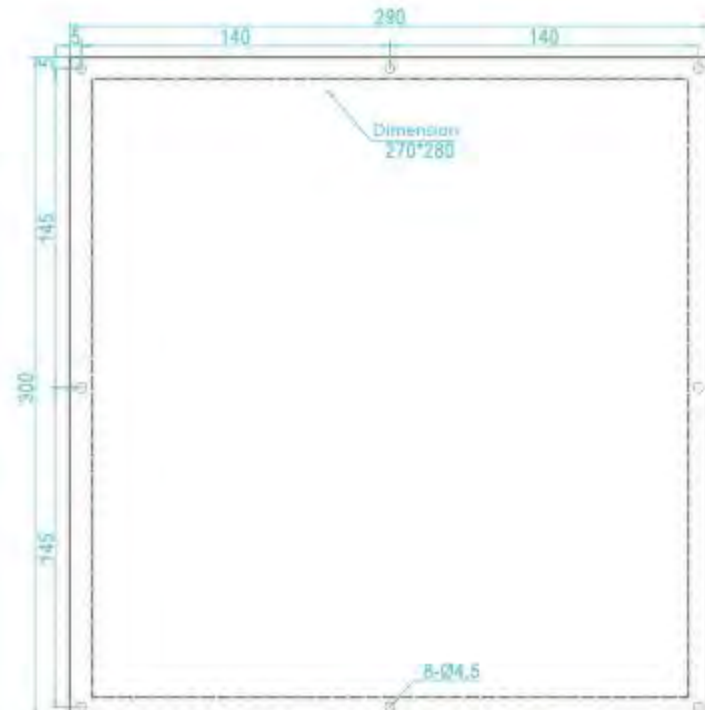
SS-4025T-JZ



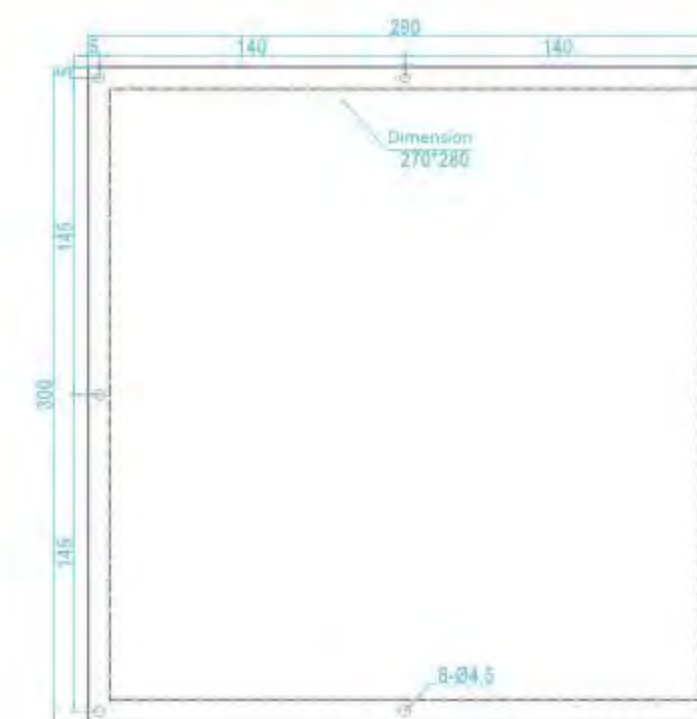
HNC-808DiT-10L



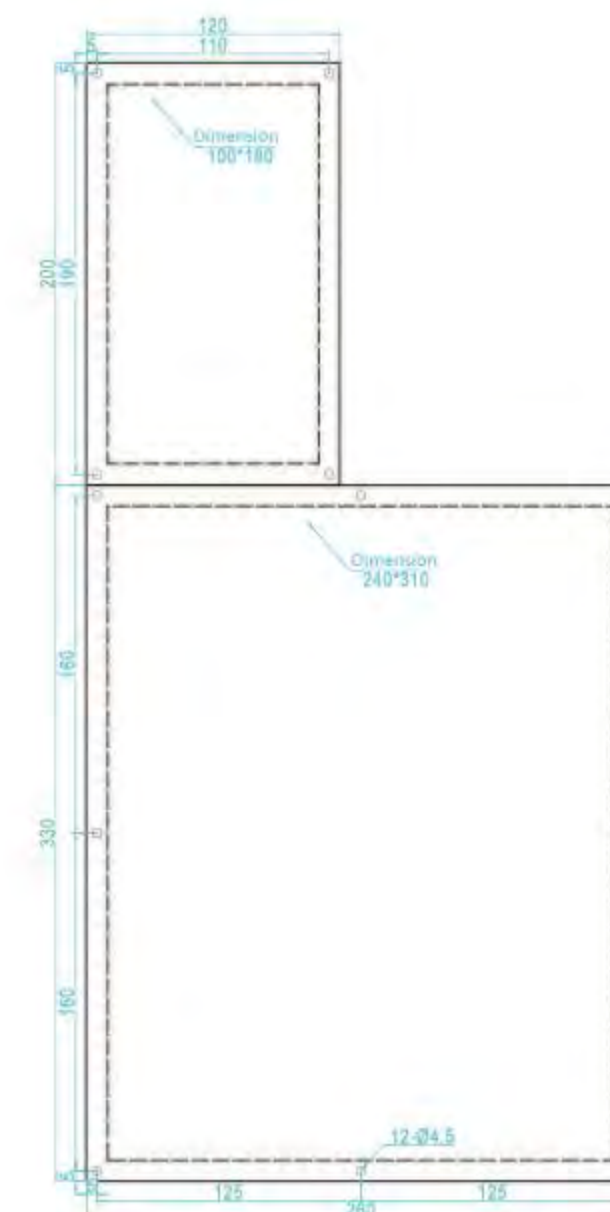
KB-FVC1



SS-2930-ZG



SS-2633-ZG-B-TY



Product Information	
Product Name	Standard lathe panel
Product Model	SS-4025T-JZ
Dimension Appearance	400×250
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption and remote-control support

Product Information	
Product Name	Standard lathe panel
Product Model	HNC-808DiT-10L
Dimension Appearance	290×300
Applicable System	Fanuc/Customized
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Not supported for the panel

Product Information	
Product Name	Standard lathe panel
Product Model	KB-FVC1
Dimension Appearance	290×300
Applicable System	Fanuc
Working Voltage	DC24V ± 5%
Communication Method	Bus type
Encryption Method	Software encryption and remote-control support

Product Information	
Product Name	Standard Drilling and Tapping Machine Panel
Product Model	SS-2930-ZG
Dimension Appearance	290×300
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption and remote-control support

Product Information	
Product Name	Standard Drilling and Tapping Machine Panel
Product Model	SS-2633-ZG-B-TY
Dimension Appearance	260×330+120×200
Applicable System	Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption and remote-control support



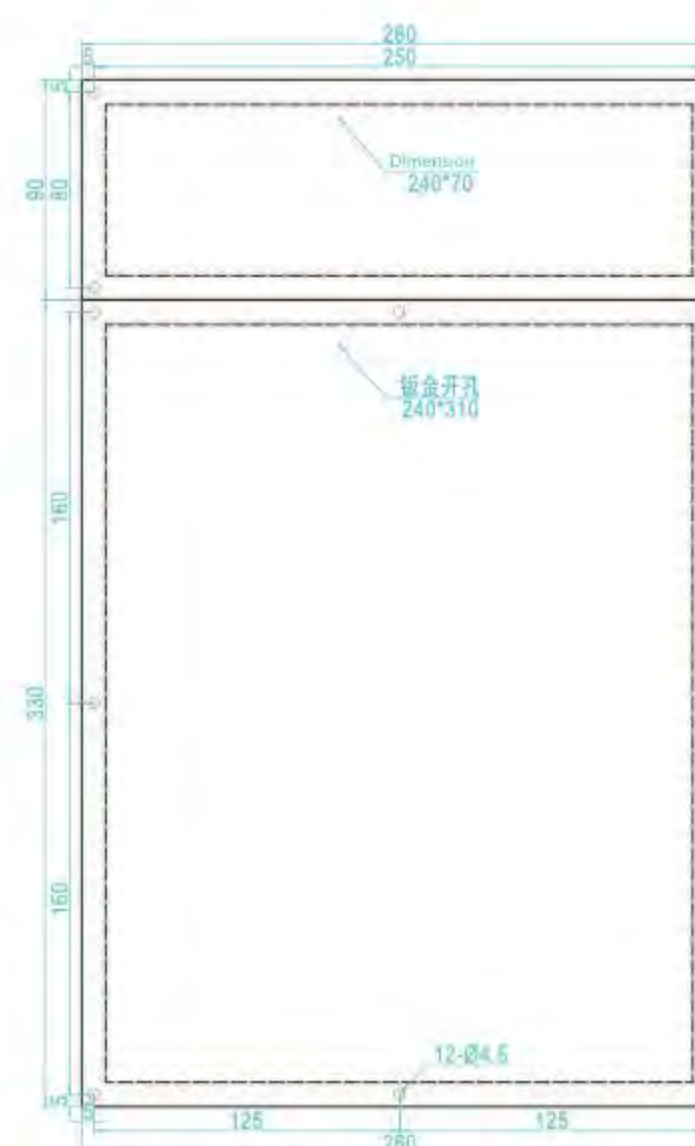
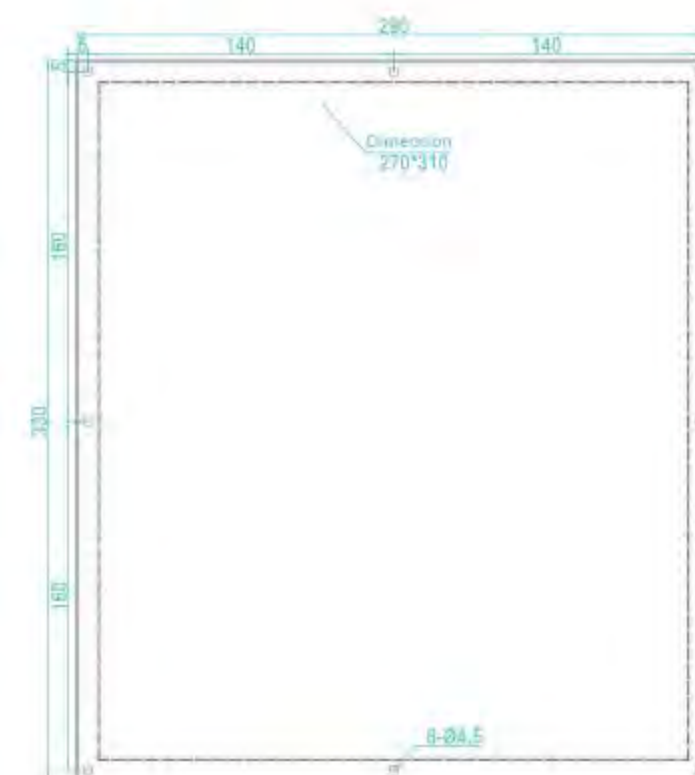
SS-2933-ZG-B



TD500A-JZ

Product Information	
Product Name	Standard Drilling and Tapping Machine Panel
Product Model	SS-2933-ZG-B
Dimension Appearance	290×330
Applicable System	Fanuc/Mitsubishi
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption, and remote-control support

Product Information	
Product Name	Standard Drilling and Tapping Machine Panel
Product Model	TD500A-JZ
Dimension Appearance	260×330+260×90
Applicable System	Fanuc
Working Voltage	DC24V ± 5%
Communication Method	Matrix Type
Encryption Method	Software encryption, and remote-control support

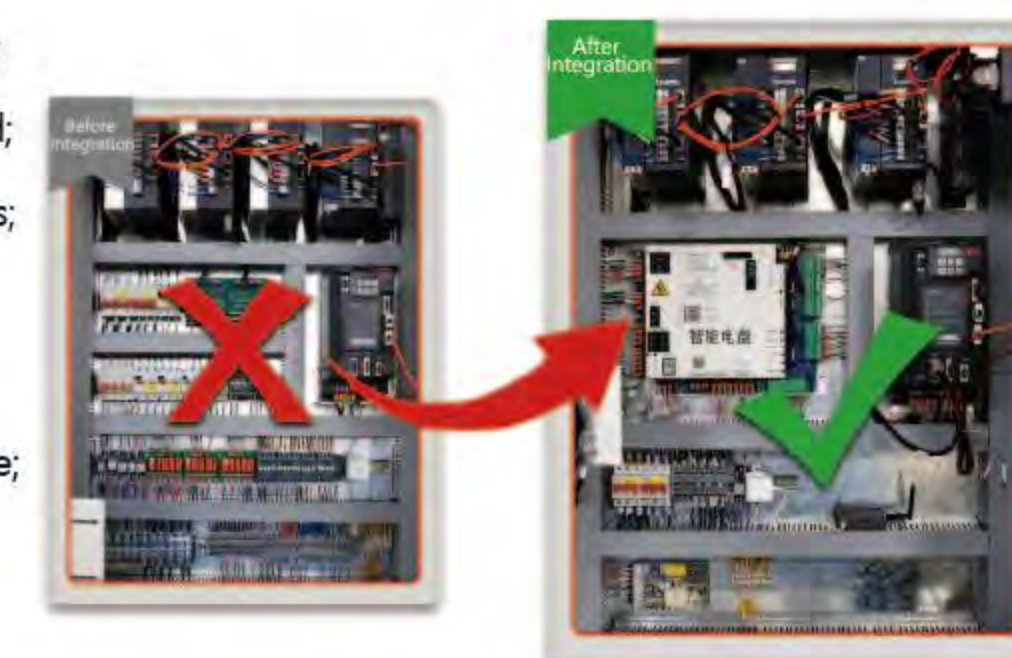


PRODUCT OVERVIEW

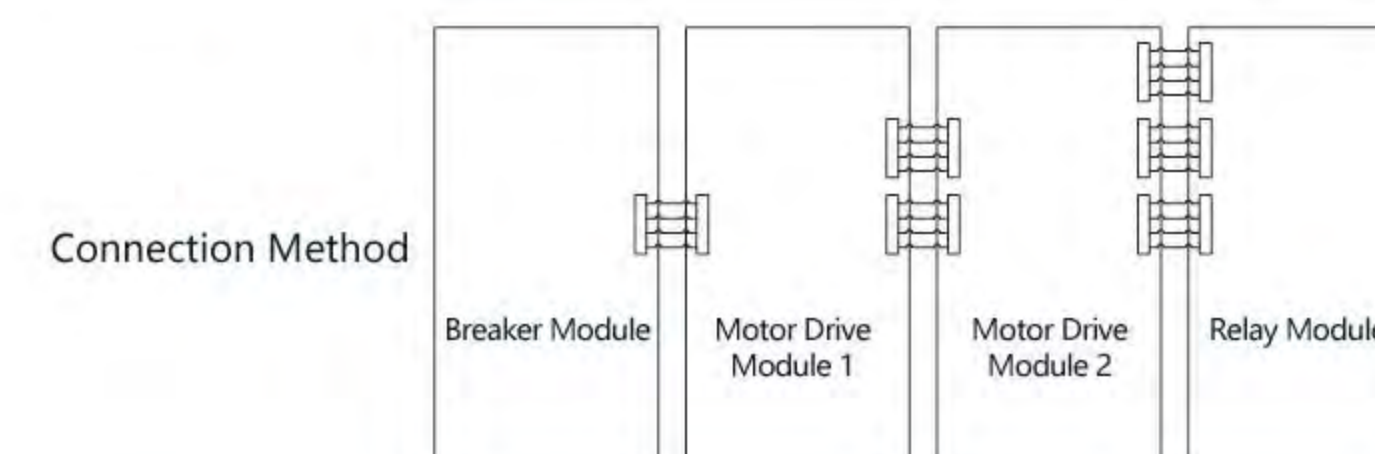
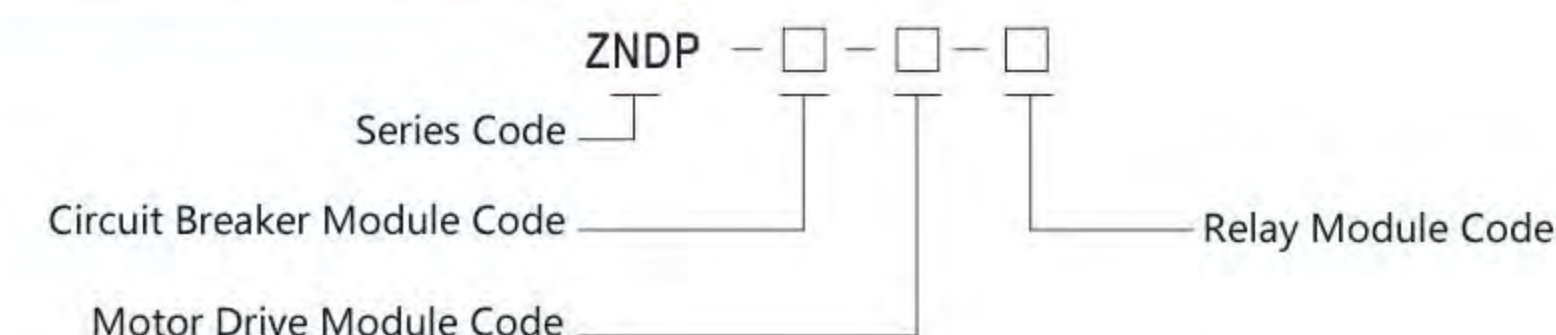
Intelligent Switchboard is developed on the basis of the traditional Switchboard, which can replace some common components controlling the three-phase asynchronous motor in the original panel, including the circuit breaker, AC contactor, thermal protection relay, arc extinguisher with impedance and capacitor, relay module and others; it features simple wiring, strong anti-interference ability, small size, easy to install, cost savings, low failure rate, versatility, high reliability, high coefficient of safety and other advantages.

FEATURES IN BRIEF

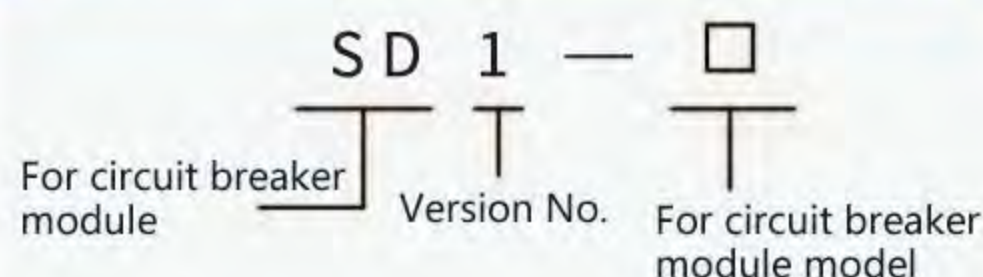
- 1.Highly integrated, modularity in design, with high reliability;
- 2.Protection function for motor phase failure, short circuit, overload;
- 3.Circuit breakers with oil damping replace metal bellows circuit breakers;
- 4.Wide adjustable range of overload current;
- 5.Fast response time for short-circuit protection;
- 6.Control signals of high and low levels are commonly applicable;
- 7.Diversified selection of motor drive modules;
- 8.Modules can be replaced, maintenance is simple and fast.



MODEL DESCRIPTION



CIRCUIT BREAKER MODULE DESCRIPTION



MODULE TYPE

Code	1	2	3	4
Model	SD1-A	SD1-B-V1	SD1-C	SD1-D

Config & Electrical Specs

Model	Configuration				Code	Layout		
SD1-A	1 × 3-P breaker 6 × 1-P breakers 3 × fuses (270×89mm)				1			
	Code	QF0(3P)	QF1(1P)	QF2(1P)	QF3(1P)	QF4(1P)	QF5(1P)	QF6(1P)
	1	2A	2A	3A	3A	3A	6A	10A
	1A	10A	3A	3A	3A	6A	6A	10A
	1B	4A	2A	3A	3A	3A	10A	10A
	1C	4A	6A	3A	3A	3A	10A	10A
	1D	4A	4A	4A	4A	2A	2A	2A
	1E	4A	2A	2A	10A	10A	10A	10A
	1F	8A	4A	4A	4A	4A	10A	10A
	1G	2A	4A	6A	6A	6A	10A	10A
	1H	8A	2A	4A	6A	6A	6A	6A
	1I	--	3A	3A	3A	3A	6A	10A
	1J	10A	3A	3A	3A	3A	3A	3A
1K	5A	3A	10A	10A	10A	6A	1A	
SD1-B-V1	3 × fuses (270×25mm)				2			
SD1-C	4 × 1-P breakers 3 × fuses (270×80mm)				3			
	Code	QF1(1P)		QF2(1P)		QF3(1P)		QF4(1P)
	3	3A		6A		6A		6A
	3A	6A		6A		6A		6A
	3B	6A		6A		10A		10A
	3C	2A		2A		3A		4A
	3D	1A		2A		3A		5A

Model	Configuration		Code	Layout
SD1-D	1 × 2-P breaker 2 × 1-P breakers 3 × fuses (270×80mm)		4	
	Code	QF1(2P)	QF2(1P)	QF3(1P)
	4	6A	10A	6A
	4A	6A	6A	3A
	4B	6A	6A	6A
	4C	10A	6A	6A
	4D	10A	10A	6A
	4E	3A	6A	3A

INDICATOR LIGHT DESCRIPTION

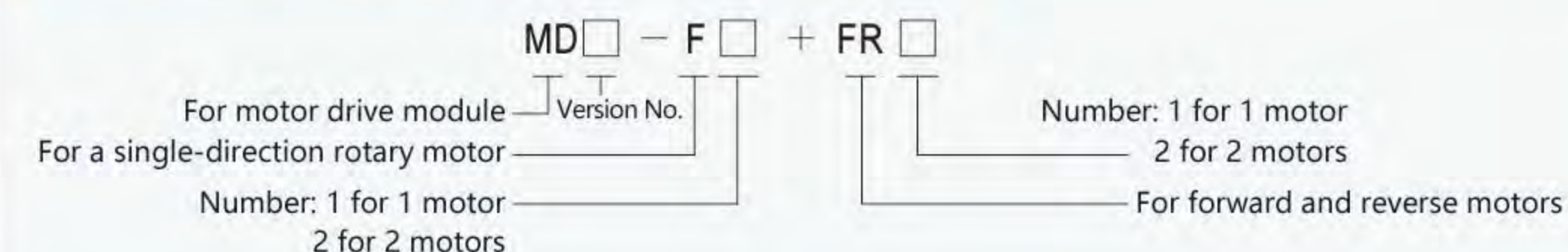
The Power indicator lights up when three-phase AC power is present.

AL1 / AL2 / AL3 indicators remain OFF during normal operation and will illuminate if the corresponding fuse fails.

PROCAUTIONS

- 1. Disconnect power before servicing; eliminate the root cause before replacing fuses; use only the specified fuse rating; do not power on until the fault is resolved; damage caused by incorrect fuse replacement is not covered under warranty.
- 2. Hydraulic circuit breakers are highly sensitive. Proper sizing must account for inrush current and operating conditions to prevent nuisance tripping;

MOTOR DRIVE MODULE DESCRIPTION



MODULE TYPE

Code	A	B	C	D	E	F	G	S*
Model	MD□-F1	MD□-FR1	MD□-F2	MD□-F1+FR1	MD□-FR2	MD□-F2+FR1	MD□-F1+FR2	MD□-F4+FR2

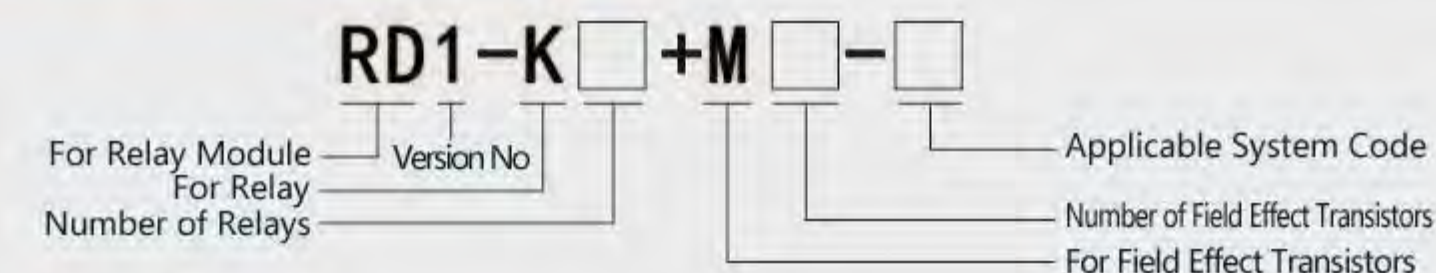
If a motor drive module can not meet the requirements, the above modules can be used in combination, motor drive module Codes can be added for selection, such as A + F.

S is a double-layer plate to reduce the mounting area and can drive 4 single-direction rotary motors and 2 forward and reverse motors.

General Motor Drive Module

Model	Configuration	Code	Layout
MD20-F1	For one unidirectional three-phase induction motor 270 × 60 mm	A	
MD20-FR1	For one reversible three-phase induction motor 270 × 80 mm	B	
MD20-F2	For two unidirectional three-phase induction motors 270 × 105 mm	C	
MD20-F1+FR1	For one unidirectional and one reversible three-phase induction motor, 270 × 120 mm	D	
MD20-FR2	For two reversible three-phase induction motors, 270 × 140 mm	E	
MD20-F2+FR1	For two unidirectional and one reversible three-phase induction motor, 270 × 155 mm	F	
MD20-F1+FR2	For one unidirectional and two reversible three-phase induction motors, 270 × 180 mm	G	

RELAY MODULE DESCRIPTION



Relay Module

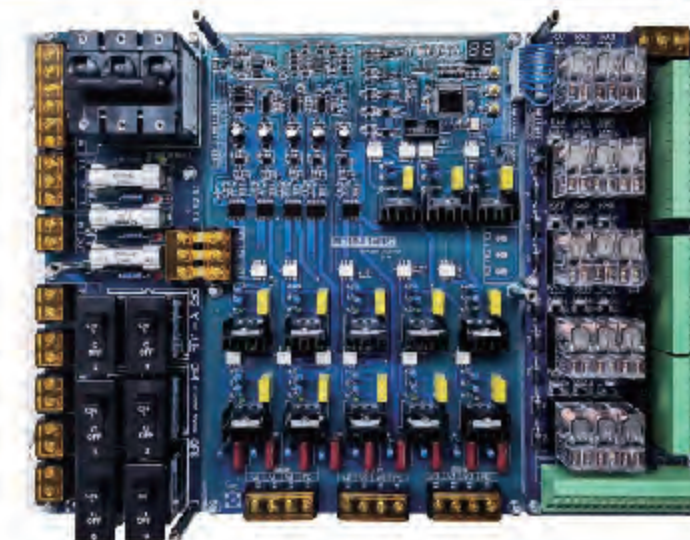
Model	Configuration	Code	Layout
RD1-K5+M8	Compatible with FANUC, Huazhong, Siemens, etc. 1 system-defined 50-pin interface; 24 inputs, 16 outputs; 5 main relays; 8 MOSFET; 1 power-on relay; Pluggable Terminal Block; 270 × 90 mm	1	
RD1-K5+M8-XD	Compatible with Syntec; 2 system-defined 20-pin interfaces; 16 inputs, 16 outputs; 5 main relays; 8 MOSFET; 1 power-on relay; 2 spare relays; Screw Terminal Block; 270 × 90 mm	1-XD	
RD1-K16+M15+BY2	Compatible with FANUC, Huazhong, Siemens, etc. 2 system-defined 50-pin interfaces; 48 inputs, 32 outputs; 16 main relays; 15 MOSFET; 1 power-on relay; 2 spare relays; Screw Terminal Block; 270 × 170 mm	2	
RD1-K16+M15+BY2-M80	Compatible with Mitsubishi M80; 1 system-defined 50-pin interface; 1 system-defined 40-pin interface; 48 inputs, 32 outputs; 16 main relays; 15 MOSFET; 1 power-on relay; 2 spare relays; Screw Terminal Block; 270 × 170 mm	2-M80	
RD1-K14-TY	Compatible with FANUC, Huazhong, Siemens, etc. 2 system-defined 50-pin interfaces; 48 inputs, 32 outputs; 14 main relays; 1 power-on relay; Screw Terminal Block; 270 × 100 mm	3	
RD1-K14-M80	Compatible with Mitsubishi M80; 1 system-defined 50-pin interface; 1 system-defined 40-pin interface; 48 inputs, 32 outputs; 14 main relays; 1 power-on relay; Screw Terminal Block; 270 × 100 mm	3-M80	

Model	Configuration	Code	Layout
RD1-K19	Compatible with FANUC, Huazhong, Siemens, etc. 2 system-defined 50-pin interfaces; 48 inputs, 32 outputs; 19 main relays; 1 power-on relay; Screw Terminal Block; 270 × 130 mm	4	
RD1-K2+M12	Compatible with FANUC, Huazhong, Siemens, etc. 2 system-defined 50-pin interfaces; 48 inputs, 32 outputs; 2 main relays; 12 MOSFET; 1 power-on relay; Screw Terminal Block; 270 × 93 mm	5	
RD2-K5+M8-XD	Based on Syntec RIO bus communication; 16 inputs, 16 outputs; 5 main relays; 8 MOSFET; 1 power-on relay; 2 spare relays; Pluggable Terminal Block; 270 × 90 mm	6	
RD1-K8+M16+BY2-XD	Based on Syntec RIO bus communication; 48 inputs, 32 outputs; 8 main relays; 16 MOSFET; 2 power-on relays; 2 spare relays; Spring-Clamp Terminal Block; 270 × 183 mm	7	
RD3-K5+M8(MT) Preferred model	Compatible with FANUC, Huazhong, Siemens, etc. 1 system-defined 50-pin interface; 24 inputs, 16 outputs; 5 main relays; 8 MOSFET; 1 power-on relay; Pluggable Terminal Block; 270 × 90 mm	8	

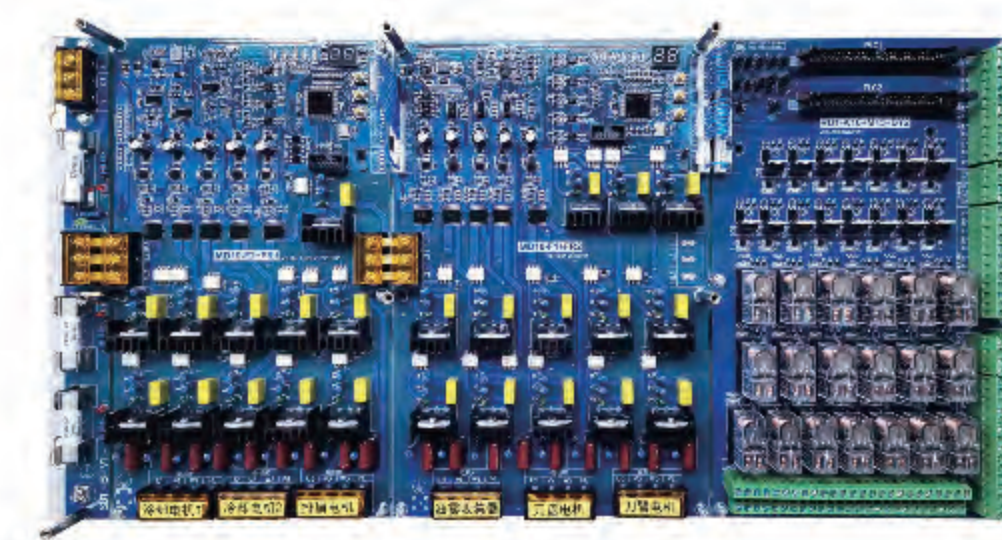
PRECAUTIONS

- 1. The effective value of the control signal of the relay module can be selected by using the mini jumper, when the output is effective at high level, the COM terminal and OV are shorted. When the output is effective at low level, COM terminal and 24V are shorted; and the corresponding mini jumper on the motor drive module should be set synchronously;
- 2. FET driver only outputs DC +24V, maximum current 2A, not for controlling AC loads or high voltage loads;
- 3. The start and overload signals of the three-phase asynchronous motor controlled by the smart panel will occupy the input and output points of the system.

MODELING EXAMPLES

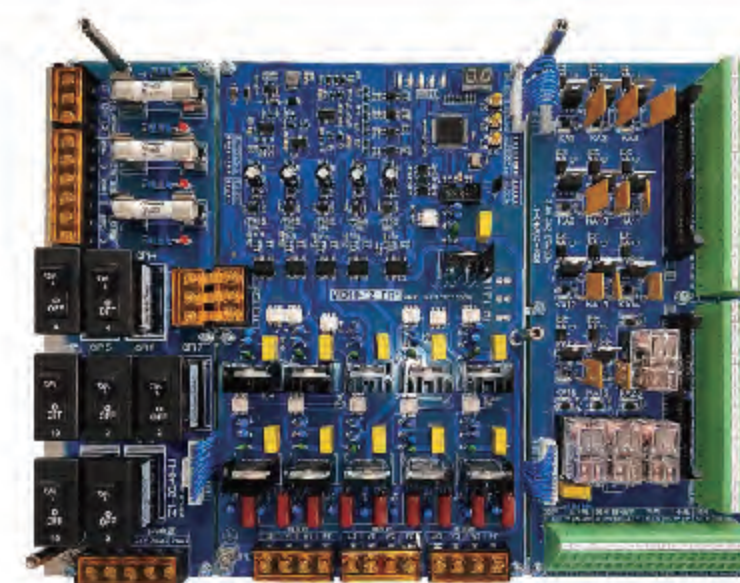


Model: ZNDP-1-G-3

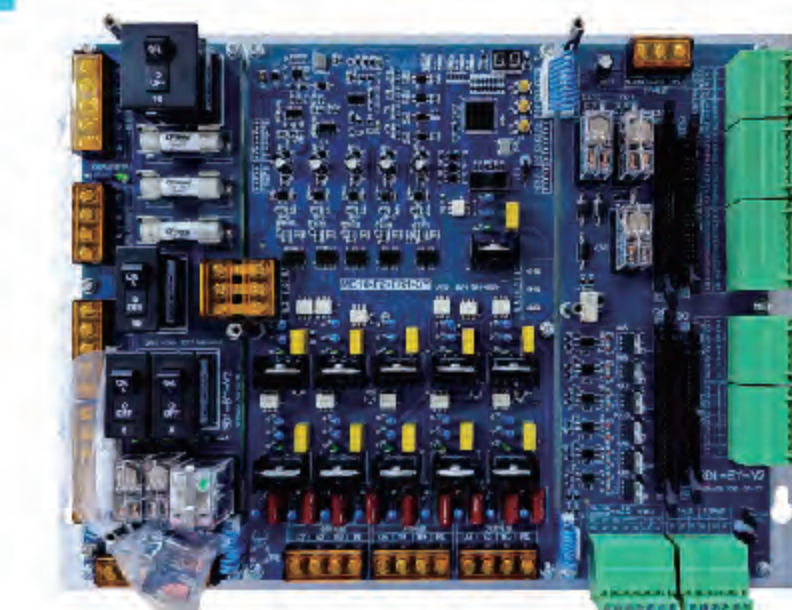


Model: ZNDP-2-F+G-2

CUSTOMIZED DESIGN EXAMPLES



Model: ZNDP-2040-L1
System: Fanuc



Model: ZNDP-BY-V2
System: Huazhong or KND



Model: ZNDP-XAJL-V2
System: Fanuc or Syntec



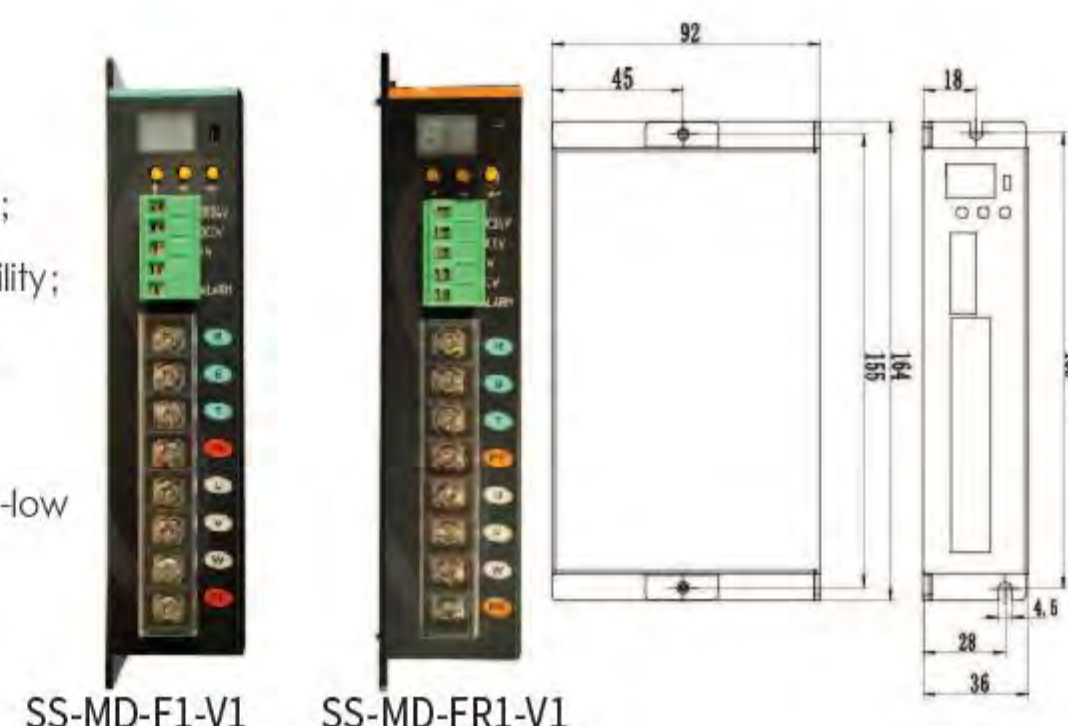
Model: ZNDP-MF85QSa
System: Fanuc or Huazhong

Product Overview

The motor drive module is designed for three-phase asynchronous motor control. It integrates protection functions including short circuit, overload, overcurrent, and phase loss, and features alarm output and real-time current monitoring. The module replaces conventional control components such as intermediate relays, circuit breakers, AC contactors, motor protection devices, and arc suppression devices.

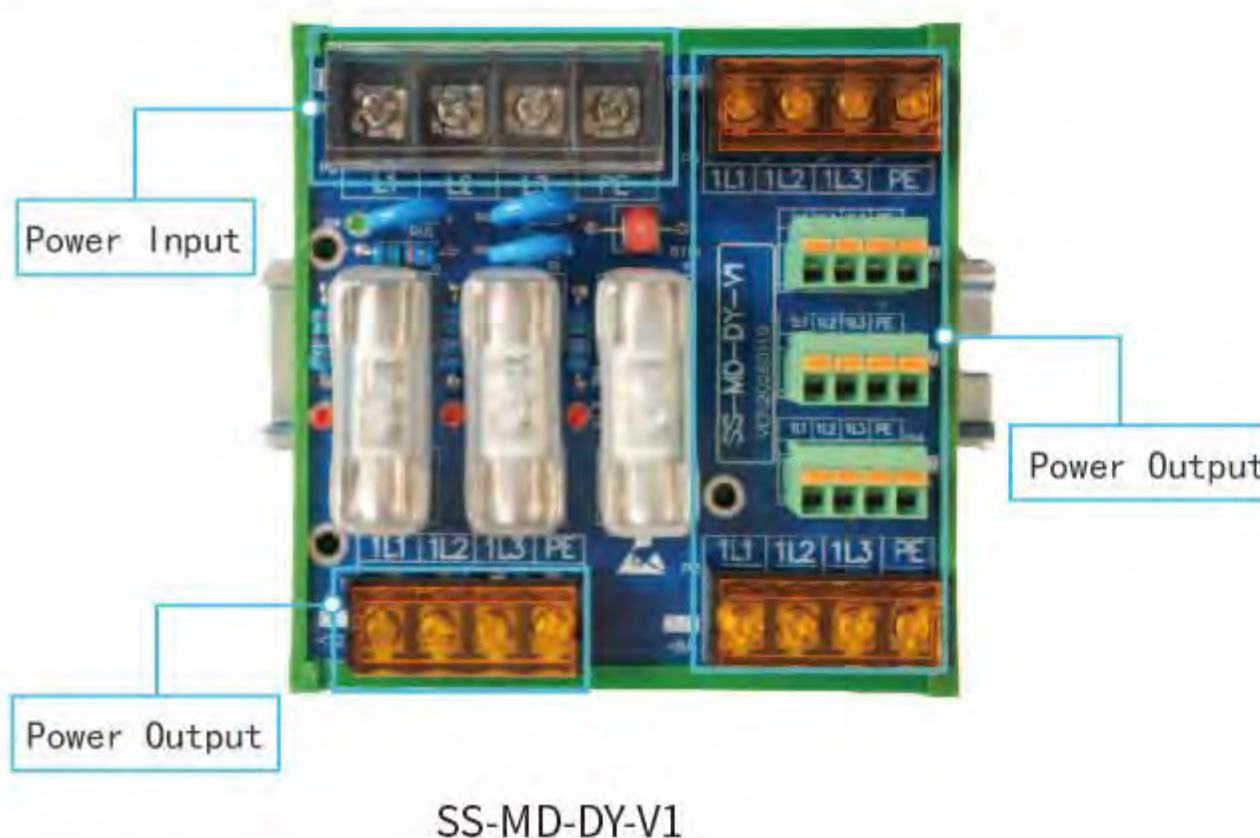
Features in brief

- 1、 Simple wiring, compact size, vertical design for easy installation;
- 2、 Long service life, low noise, low failure rate, and high compatibility;
- 3、 Real-time operating current display with fault code indication;
- 4、 Main power supply: AC 220V / 380V, 50 Hz;
- 5、 Control power supply: DC 24V; selectable active-high or active-low control signals;
- 6、 Adjustable rated current: 0.5 – 12 A;



Power Module

The power module is used in conjunction with the motor drive module, providing power supply and short-circuit protection. One power module can support up to six motor drive modules.



No.	Item	Specification	Remarks
1	Model	SS-MD-DY-V1	
2	Mounting Method	DIN rail mounting	
3	Dimensions	(L × W)	117mm × 115mm
4	Load Capacity	Up to 6 motor drive modules	
5	Input Terminal	P0	380V / 220V, 3-phase, 50 Hz, <20 A
6	Output Terminal	P1	<12A
7	Output Terminal	P2,P3	<8A
8	Output Terminal	P4,P5,P6	<5A
9	Indicator	AL1,AL2,AL3	Indicator lights on when fuse is blown

PRODUCT OVERVIEW

Safety door switches are used to detect the opening and closing status of doors, and are used in equipment, assembly lines, and specific job A device that meets specific safety requirements for the premises and is a standard accessory in CNC machine tools.



FEATURES IN BRIEF

- ◆ 1. Dual choice of metal head and plastic or metal housing to ensure overall strength and improve reliability
- ◆ 2. Cable outlet direction adjustable, metal head allows four directions of adjustment, providing five kinds of plug options
- ◆ 3. Provide manual unlocking and allow manual unlocking in case of emergencies
- ◆ 4. Quick and easy installation, high flexibility and compatibility
- ◆ 5. Hazards and risks to personnel can be reduced



FEATURE DESCRIPTION

- ◆ Metal switch head for 4-way adjustment
- ◆ Five plug types optional
- ◆ With manual unlocking mechanism
- ◆ Outlet method in 3 directions optional

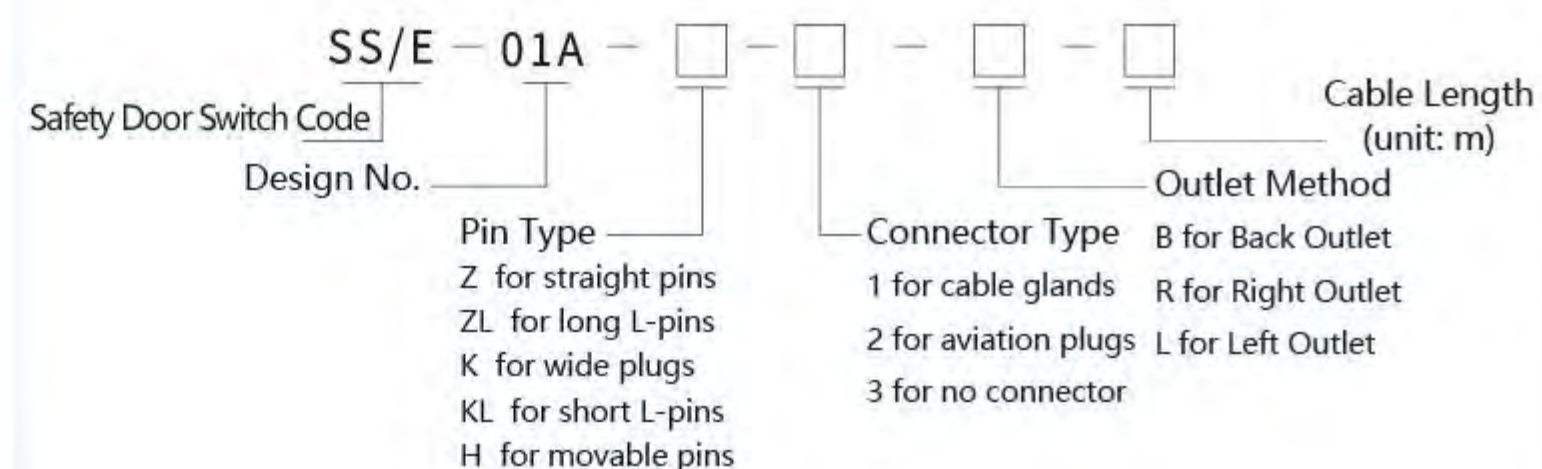


LOCKING METHOD

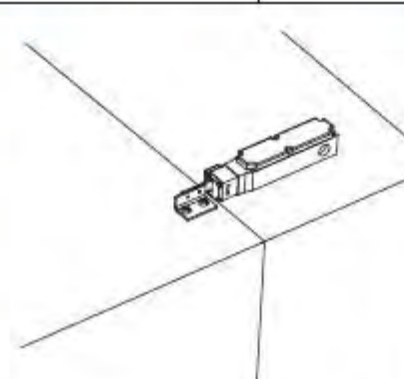
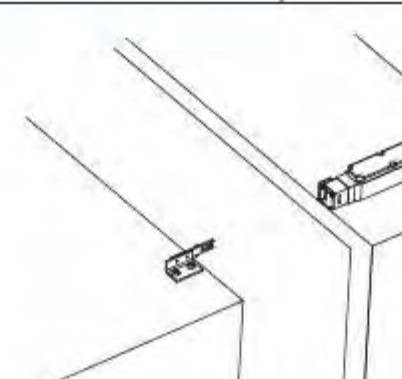
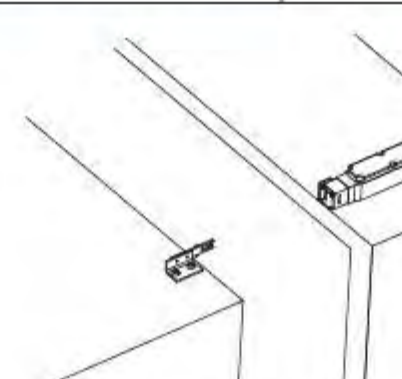
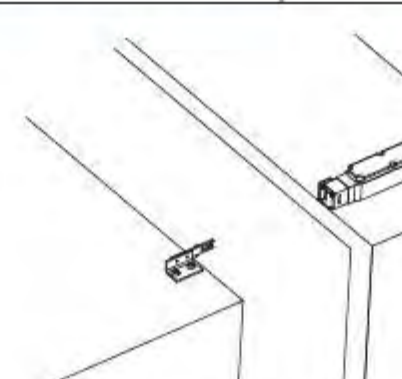
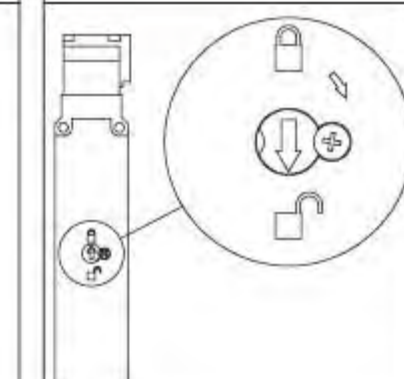
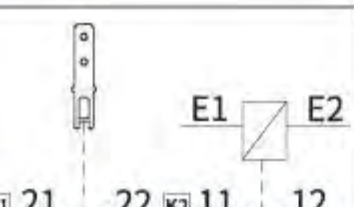
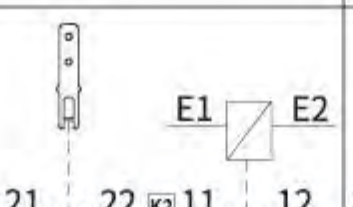
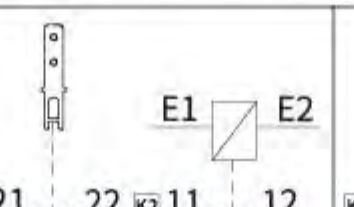
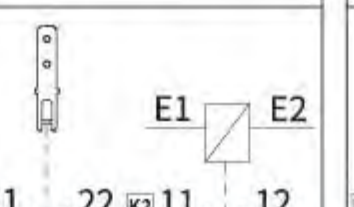
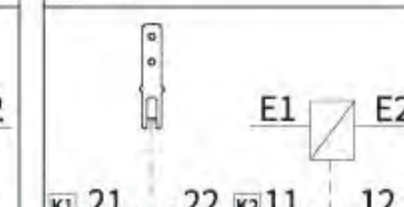


Power-to-unlock

MODEL DESCRIPTION



OPERATING STATES AND CIRCUIT DIAGRAM

Action State	State 1	State 2	State 3	State 4	Manual unlock state
	- Door Closed - Equipment running - Coil power off	- Door Closed - Equipment stops - Coil power on	- Door Opened - Equipment stops - Coil power off after 2S delay	- Door Opened - Equipment stops - Coil power off	- Equipment stops - Coil power off
Safety door status diagram					
Contact Status Diagram					

CONTACT CAPACITY

Rated Voltage		30V	250V
Rated Current	AC	Resistive load(AC-12)	—
		Inductive load(AC-15)	—
	DC	Resistive load(DC-12)	2A
		Inductive loads(DC-13)	1A

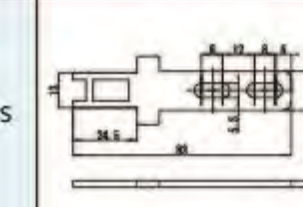
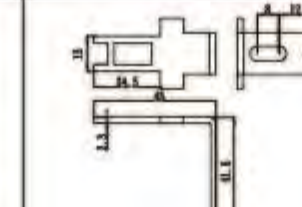
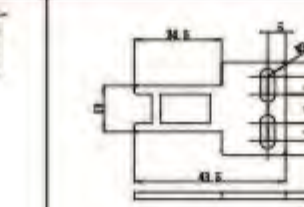
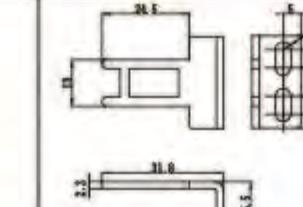
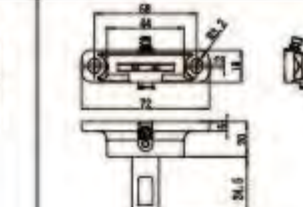
SOLENOID COIL

Rated voltage	DC24V	+10% -15%
Rated current	0.4A	
Insulation class	Level B	

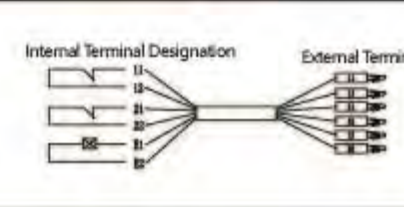
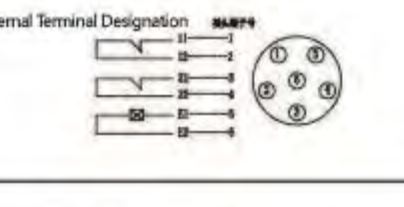
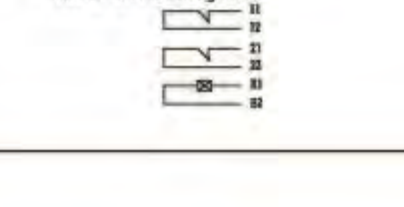
PERFORMANCE SPECIFICATIONS

Production standard	T/SDMTGM0007-2020
Operating environment	Better than pollution level 3
Ambient temperature	-5~40°C
Relative humidity	45~80%
Protection class	IP67 (without induction port)
Mechanical service life	Not less than 1 million times
Electrical service life	Not less than 100,000 cycles(AC-12 250V 4A)
	Not less than 1 million times(24V AC/DC 100mA)
Tensile strength	2000N

PLUG

Coding	Z	ZL	K	KL	H
Name	Straight pin	Long L-pin	Wide Pin	Short L-pin	Movable pin
Sizes					
Contour					

OUTLET CONNECTOR TYPE

Connector Type	Photo	Connector Type	Wiring Diagram
1. Cable waterproof connector		Internal Terminals 	Internal Terminal Designation External Terminal Designation 
2. Aviation plug		Internal Terminals 	Internal Terminal Designation External Terminal Designation 
3. No connector		Internal Terminals 	Internal Terminal Designation External Terminal Designation 

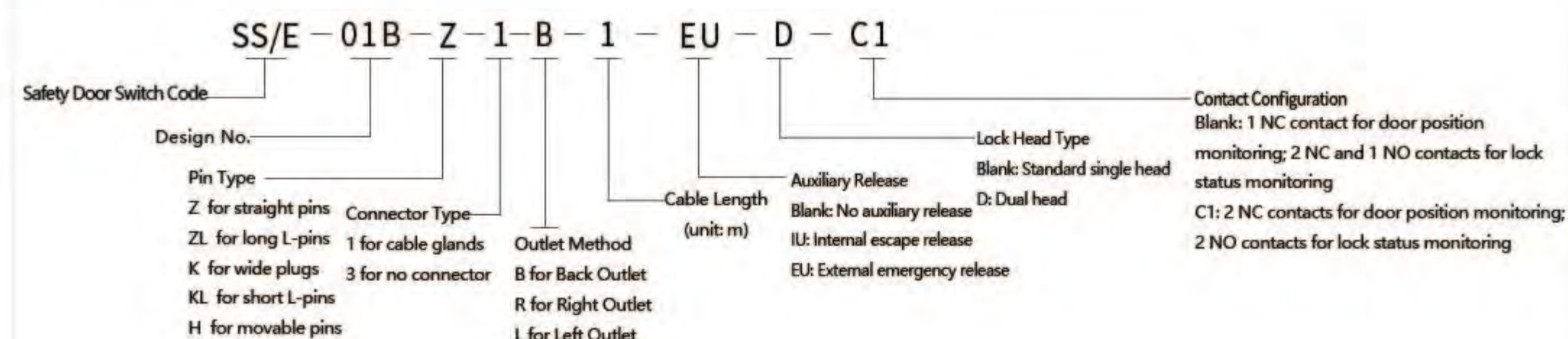
FEATURE DESCRIPTION

- ◆ Metal switch head for 4-way adjustment
- ◆ Five plug types optional
- ◆ With manual unlocking mechanism
- ◆ Increase the number of contact groups to 4 groups
- ◆ Outlet method in 3 directions optional



LOCKING METHOD Power-to-unlock

MODEL DESCRIPTION



PERFORMANCE SPECIFICATIONS

Production standard	T/SDMTGM0007-2020
Operating environment	Better than pollution level 3
Ambient temperature	-5~40°C
Relative humidity	45~80%
Protection class	IP67 (without induction port)
Mechanical service life	Not less than 1 million times
Electrical service life	Not less than 100,000 cycles(AC-12 250V 4A) Not less than 1 million times(24V AC/DC 100mA)
Tensile strength	2500N

SOLENOID COIL

Rated voltage	DC24V	+10% -15%
Rated current	0.31A	
Insulation class	Level B	

EMERGENCY RELEASE



OPERATING STATES AND CIRCUIT DIAGRAM

	State 1	State 2	State 3	State 4	Manual unlock state
Action State	- Door Closed - Equipment running - Coil power off	- Door Closed - Equipment can't start - Coil power on	- Door Opened - Equipment can't start - Coil power off after 2S delay	- Door Opened - Equipment can't start - Coil power off	- Equipment stops - Coil power off
Safety door status diagram					
Standard					
C1					

PLUG

Coding	Z	ZL	K	KL	H
Name	Straight pin	Long L-pin	Wide Pin	Short L-pin	Movable pin
Sizes					
Contour					

OUTLET CONNECTOR TYPE

Connector Type	Photo	Connector Type	Wiring Diagram
		Internal Terminals	Standard C1
1. Cable waterproof connector			
3. No connector			

FEATURE DESCRIPTION

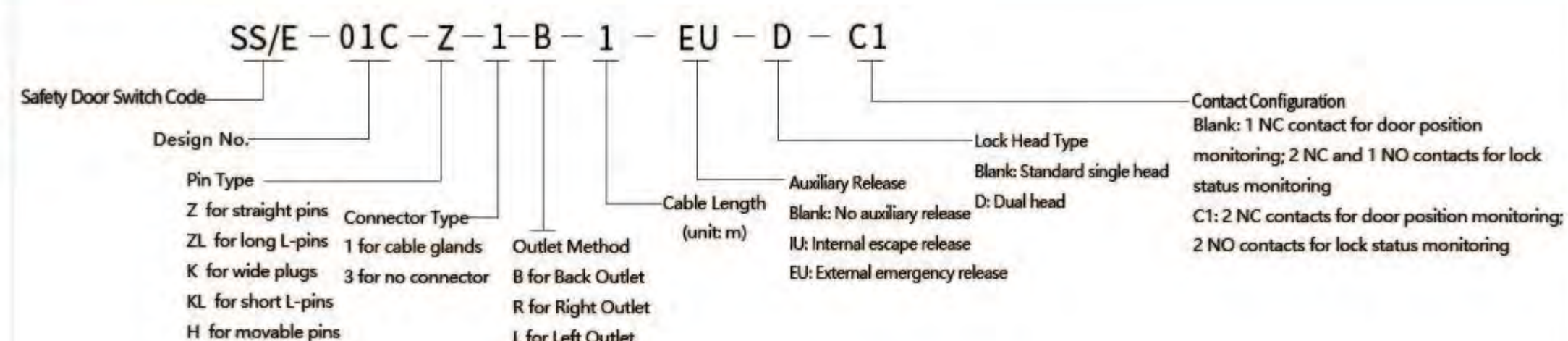
- ◆ Metal switch head for 4-way adjustment
- ◆ Five plug types optional
- ◆ With manual unlocking mechanism
- ◆ Increase the number of contact groups to 4 groups
- ◆ Outlet method in 3 directions optional



LOCKING METHOD

Power-to-lock

MODEL DESCRIPTION



PERFORMANCE SPECIFICATIONS

Production standard	T/SDMTGM0007-2020
Operating environment	Better than pollution level 3
Ambient temperature	-5~45°C
Relative humidity	45~80%
Protection class	IP67 (without induction port)
Mechanical service life	Not less than 1 million times
Electrical service life	Not less than 100,000 cycles(AC-12 250V 4A) Not less than 1 million times(24V AC/DC 100mA)
Tensile strength	2500N

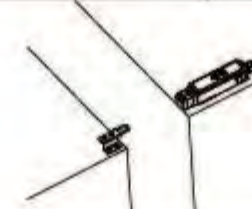
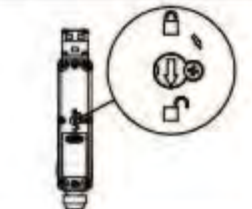
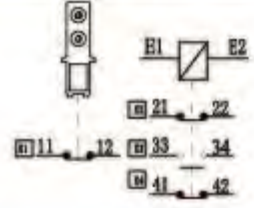
SOLENOID COIL

Rated voltage	DC24V	+10% -15%
Rated current	0.31A	
Insulation class	Level B	

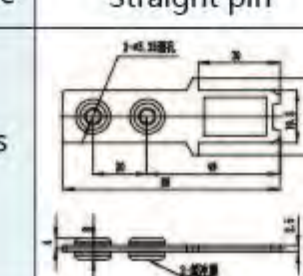
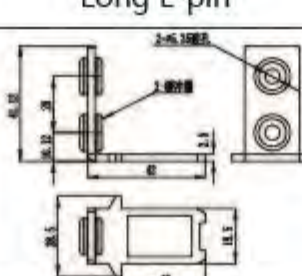
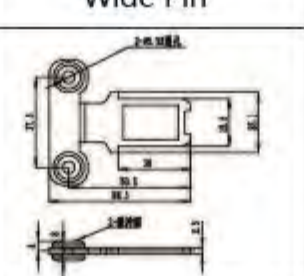
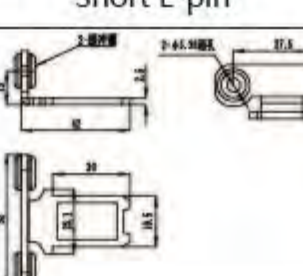
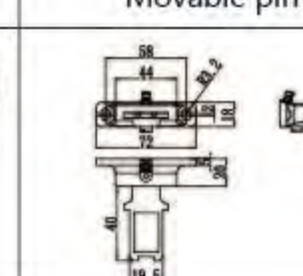
EMERGENCY RELEASE



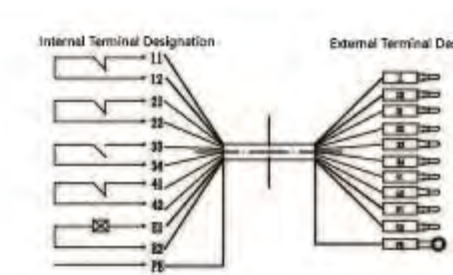
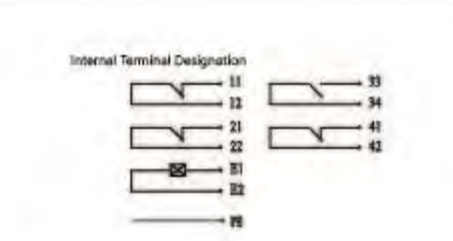
OPERATING STATES AND CIRCUIT DIAGRAM

	State 1	State 2	State 3	Manual unlock state
Action State	- Door Closed - Equipment running - Coil power on	- Door Closed - Equipment can't start - Coil power off	- Door Opened - Equipment can't start - Coil power off	- Equipment stops - Coil power off
Safety door status diagram				
Standard				
C1				

PLUG

Coding	Z	ZL	K	KL	H
Name	Straight pin	Long L-pin	Wide Pin	Short L-pin	Movable pin
Sizes					
Contour					

OUTLET CONNECTOR TYPE

Connector Type	Photo	Connector Type	Wiring Diagram
		Internal Terminals	
1.Cable waterproof connector			
3. No connector			

FEATURE DESCRIPTION

- ◆ Square shape structure
- ◆ Metal switch head for 4-way adjustment
- ◆ Spring force for unlocking by solenoid coil excitation
- ◆ Assisted unlocking mechanism as standard
- ◆ Independent circuits of indicator lights can respond to a variety of uses

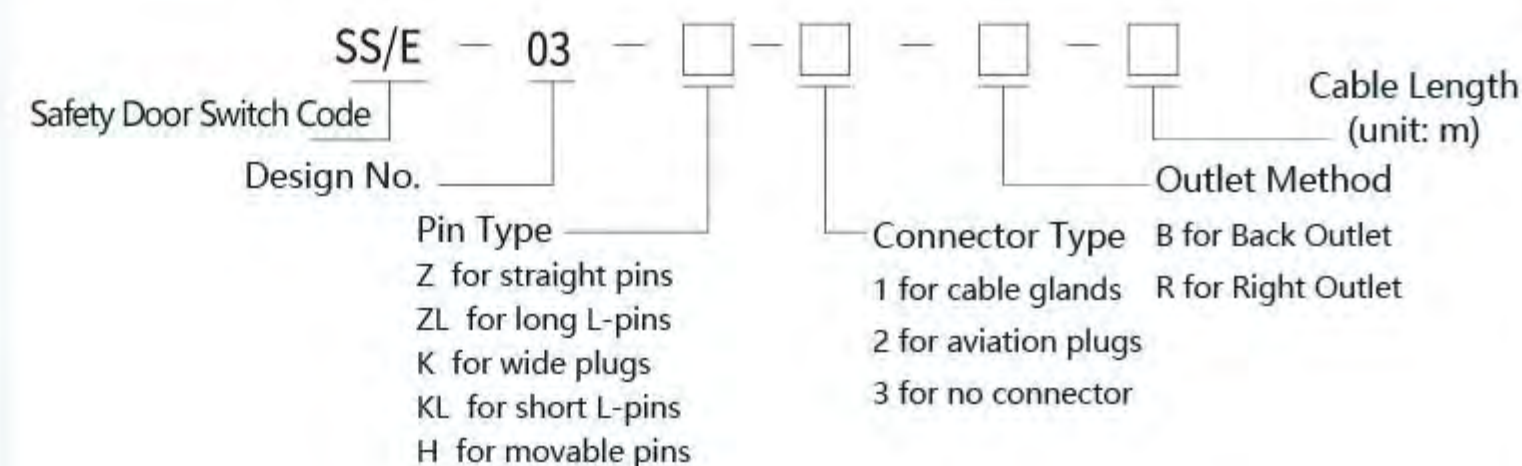


LOCKING METHOD

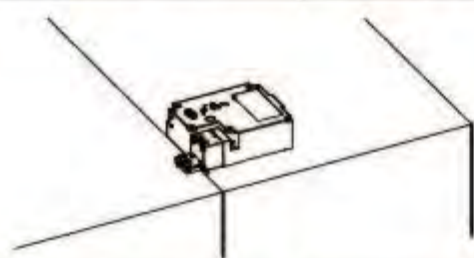
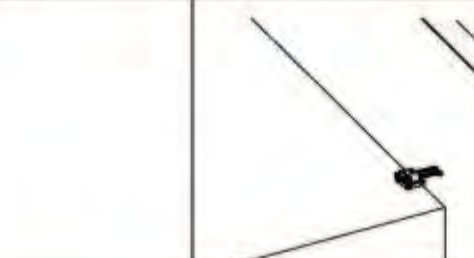
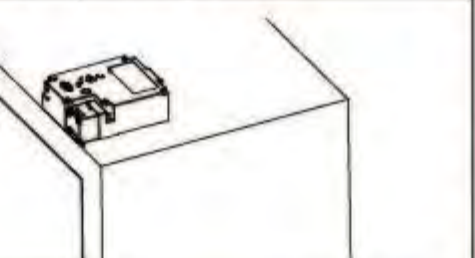
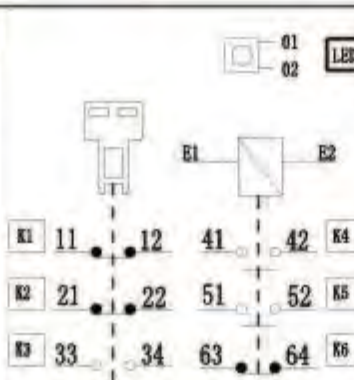
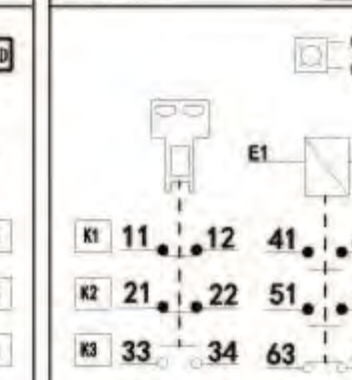


Power-to-unlock

MODEL DESCRIPTION



OPERATING STATES AND CIRCUIT DIAGRAM

	State 1	State 2	State 3	State 4	Manual unlock state
Action State	- Door Closed - Equipment started - Coil power off	- Door Closed - Equipment can't start - Coil power on	- Door Opened - Equipment can't start - Coil power off after 2S delay	- Door Opened - Equipment can't start - Coil power off	- Equipment stops - Coil power off
Safety door status diagram					
Wiring diagram					

CONTACT CAPACITY

Rated Voltage		30V	250V
Rated Current	AC	Resistive load(AC-12)	—
		Inductive load(AC-15)	—
	DC	Resistive load(DC-12)	2A
		Inductive loads(DC-13)	1A

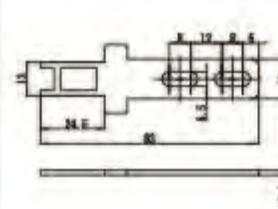
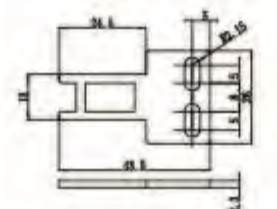
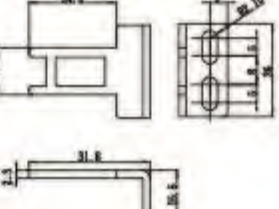
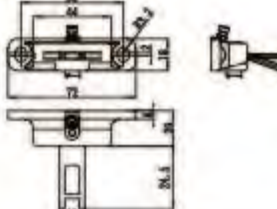
SOLENOID COIL

Rated voltage	DC24V	+10% -15%
Rated current	0.4A	
Insulation class	Level B	

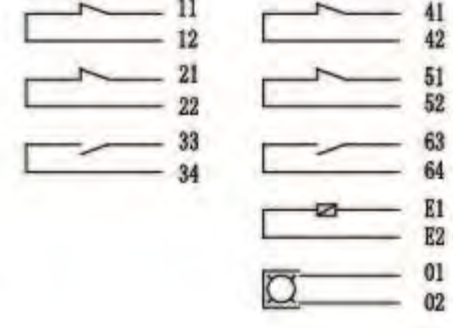
PERFORMANCE SPECIFICATIONS

Production standard	T/SDMTGM0007-2020
Operating environment	Better than pollution level 3
Ambient temperature	-5~40°C
Relative humidity	45~80%
Protection class	IP67 (without induction port)
Mechanical service life	Not less than 1 million times
Electrical service life	Not less than 100,000 cycles(AC-12 250V 4A)
	Not less than 1 million times(24V AC/DC 100mA)
Tensile strength	2700N

PLUG

Coding	Z	ZL	K	KL	H
Name	Straight pin	Long L-pin	Wide Pin	Short L-pin	Movable pin
Sizes					
Contour					

OUTLET CONNECTOR TYPE

Connector Type	Photo	Connector Type Internal Terminals	Wiring Diagram
1.Cable waterproof connector			
2. Aviation plug			
3. No connector			

FEATURE DESCRIPTION

- ◆ Attractive force of suction cup electromagnet is used as locking force
- ◆ Detecting the opening and closing of Safety doors by switching signals
- ◆ The suction plate is equipped with a position compensation function to ensure reliable locking
- ◆ The base is available in plastic or metal
- ◆ Clamping force of 600N

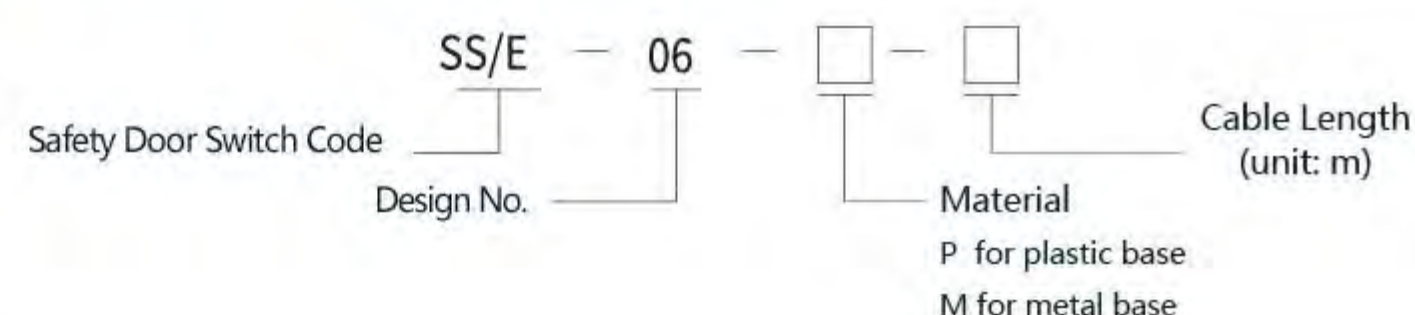


LOCKING METHOD



Power-to-lock: When the safety door switch is de-energized, the safety door switch unlocks and the machine or Equipment stops running.

MODEL DESCRIPTION



CONTACT CAPACITY

Rated voltage	DC24V ^{+10%} _{-15%}
Rated current	2mA

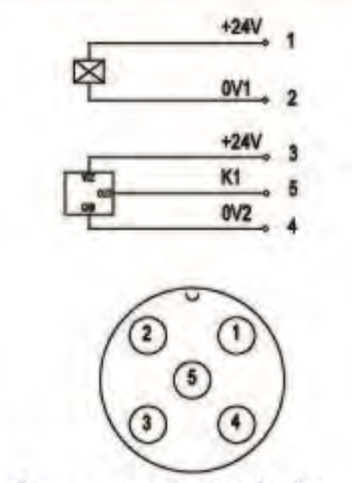
SOLENOID COIL

Rated voltage	DC24V ^{+10%} _{-15%}
Rated current	0.25A
Insulation class	Level B

CONTACT CAPACITY

Production standard	T/SDMTGM0007-2020
Operating environment	Better than pollution level 3
Ambient temperature	-5~40°C
Relative humidity	45~80%
Protection class	IP50
Mechanical service life	Not less than 1 million times
Electrical service life	Not less than 100,000 cycles(AC-12 250V 4A) Not less than 1 million times(24V AC/DC 100mA)
Tensile strength	600N

OUTLET CONNECTOR TYPE

Connector Type	Photo	Connector Type	Wiring form
1.Cable waterproof connector			 5 pole connector terminal number

FUNCTIONAL DESCRIPTION

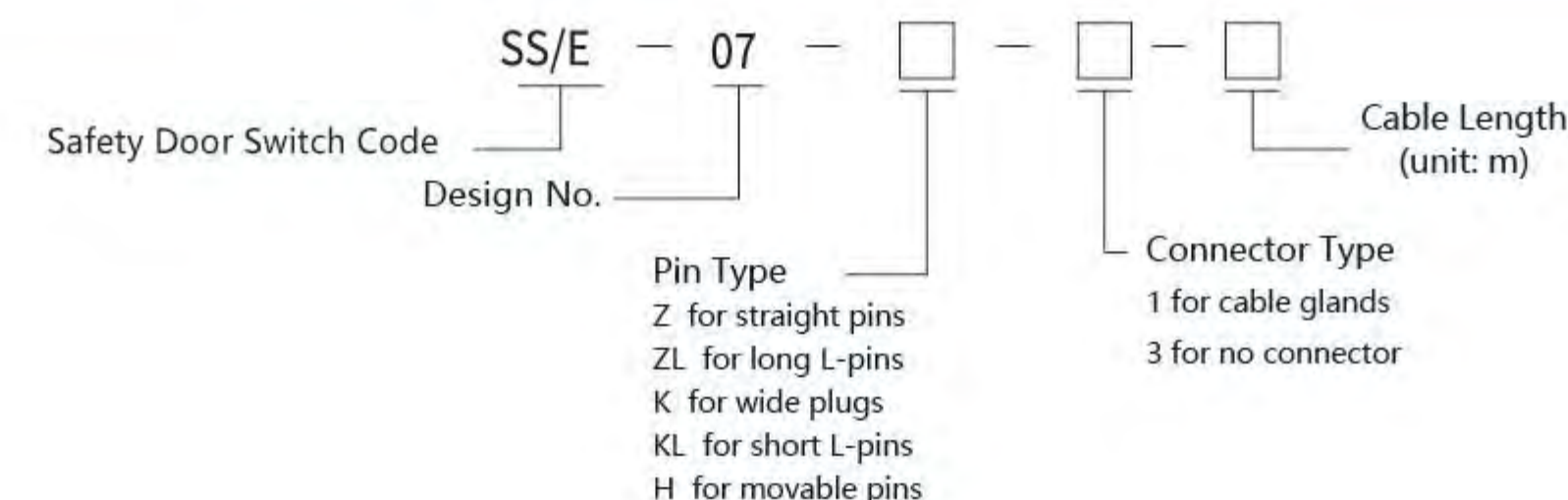
There is no locking function for the Safety door, and the contact switch signal is used to detect whether the Safety door is closed or not, to determine whether the equipment can be opened.



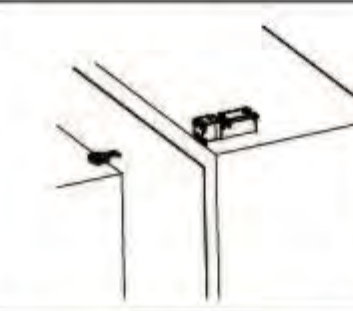
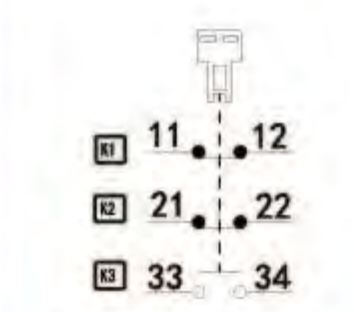
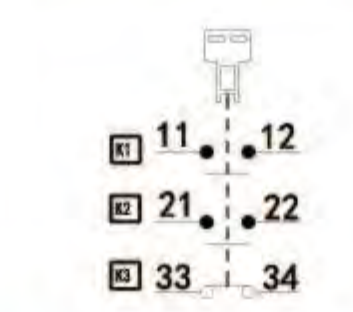
CHARACTERISTICS

- ◆ Small body for narrow installation space.
- ◆ Metal switch head for 4-direction adjustment.
- ◆ Built-in 3 sets of contacts, can complete a variety of wiring methods.
- ◆ The standardized contacts ensure high reliability of contact.

MODEL DESCRIPTION



OPERATING STATES AND CIRCUIT DIAGRAM

	State 1	State 2
Action State	● Door Closed ● Equipment running	● Door Closed ● Equipment stops
Safety door status diagram		
Wiring diagram		

PERFORMANCE SPECIFICATIONS

Production standard	T/SDMTGM0007-2020
Operating environment	Better than pollution level 3
Ambient temperature	-5~40°C
Relative humidity	45~80%
Protection class	IP67 (without induction port)
Mechanical service life	Not less than 1 million times
Electrical service life	Not less than 100,000 cycles(AC-12 250V 4A) Not less than 1 million times(24V AC/DC 100mA)
Tensile strength	None

FUNCTIONAL DESCRIPTION

This safety door switch protects people and equipment. It can be used on its own (door lock function only) or in conjunction with a wide range of safety door switches, making it easy to realize the optimal solution for different scenarios. When the door opens, the mechanism and the safety door switch synchronize their movements to issue a stop command, reducing the risk factor.

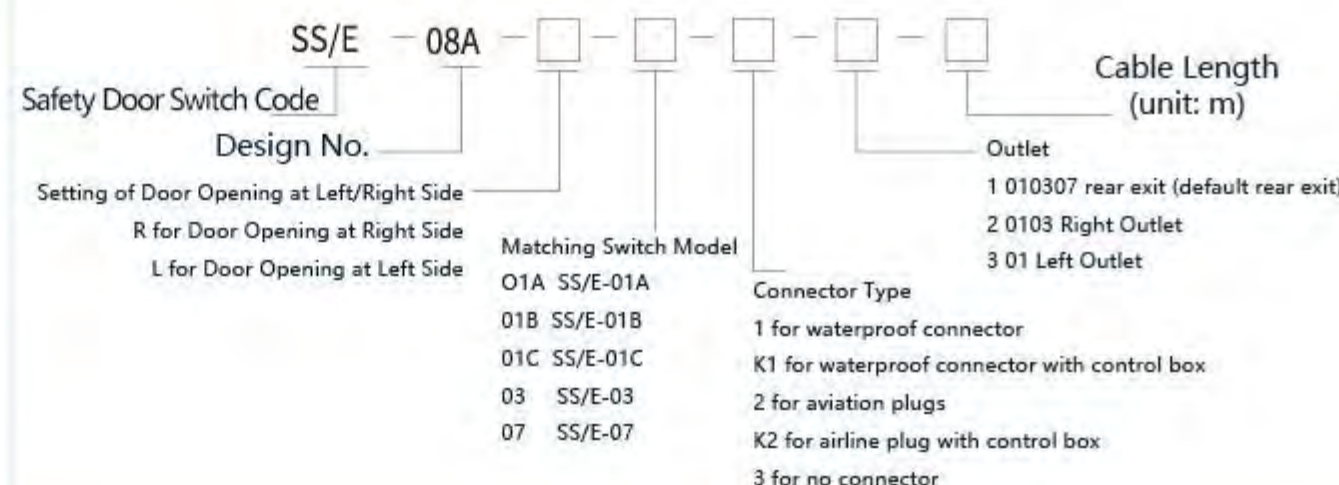
The risk factor determines the level of the safety control factor, and different matching safety door switches are selected according to the different levels.



CHARACTERISTICS

- Aluminum alloy frame with high overall strength and reliability;
- The screw connection method is easy to assemble and is more lenient to the installation conditions;
- Outstanding color matching, highly recognizable in the installation environment;
- There are two directions of left and right opening, choose as needed;
- Matching control box independent control function module.

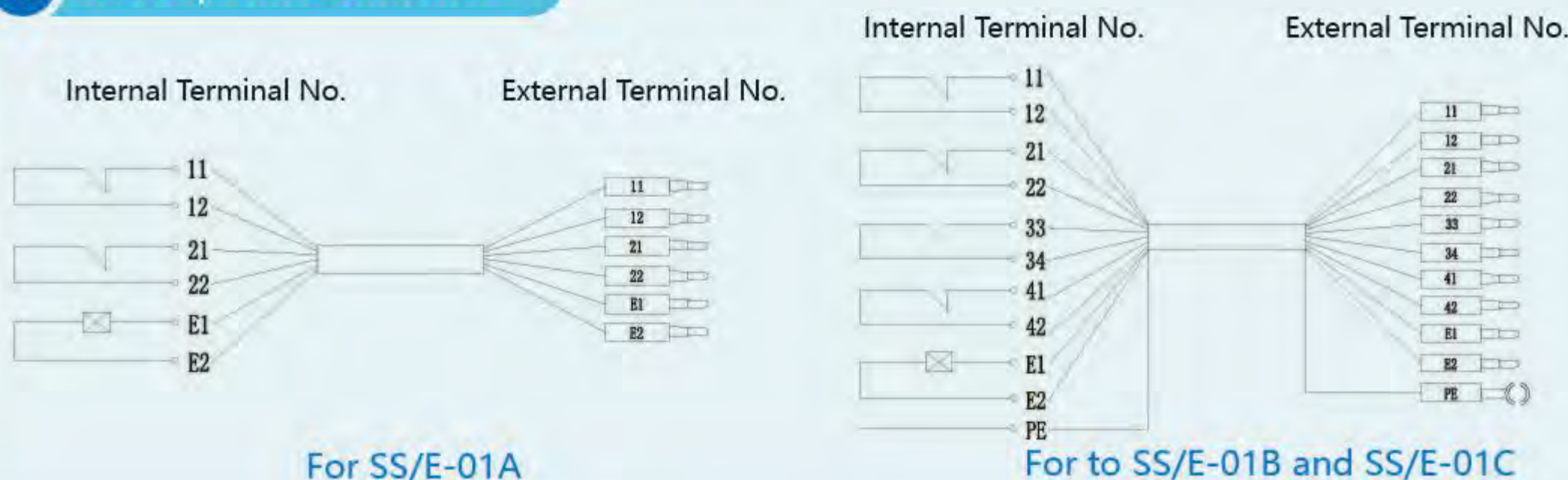
MODEL DESCRIPTION



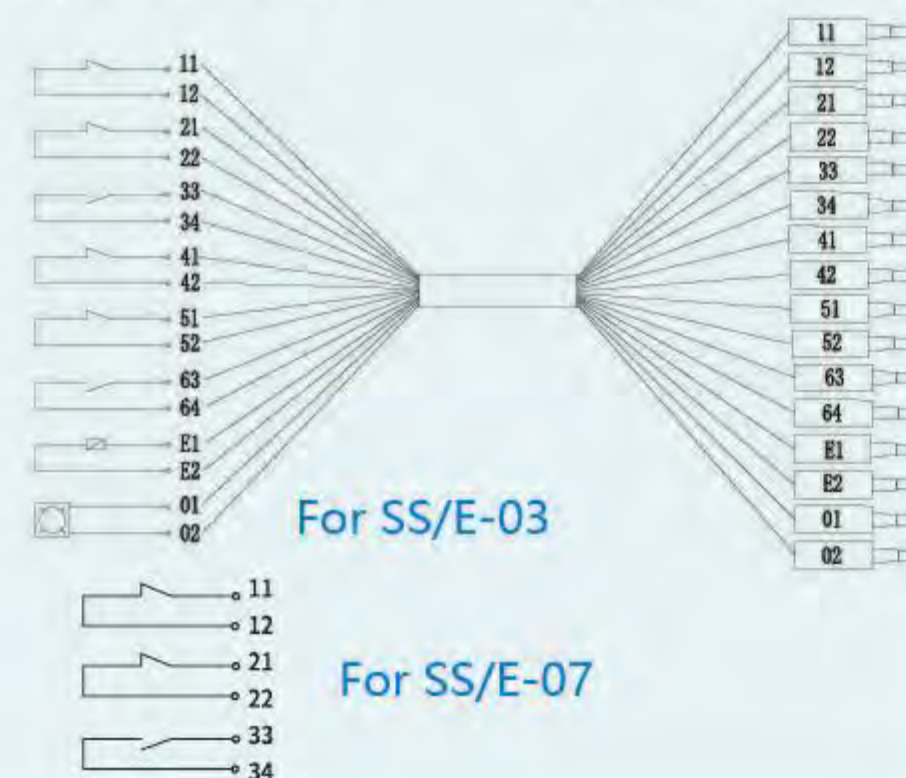
Note: The definition of left/right opening is only for SS/E-03, other matching safety door switch models can be used for left/right opening, and this definition cannot be selected when selecting the model.

OPTIONAL CONTROL BOX WIRING DIAGRAM

01 Waterproof Connector

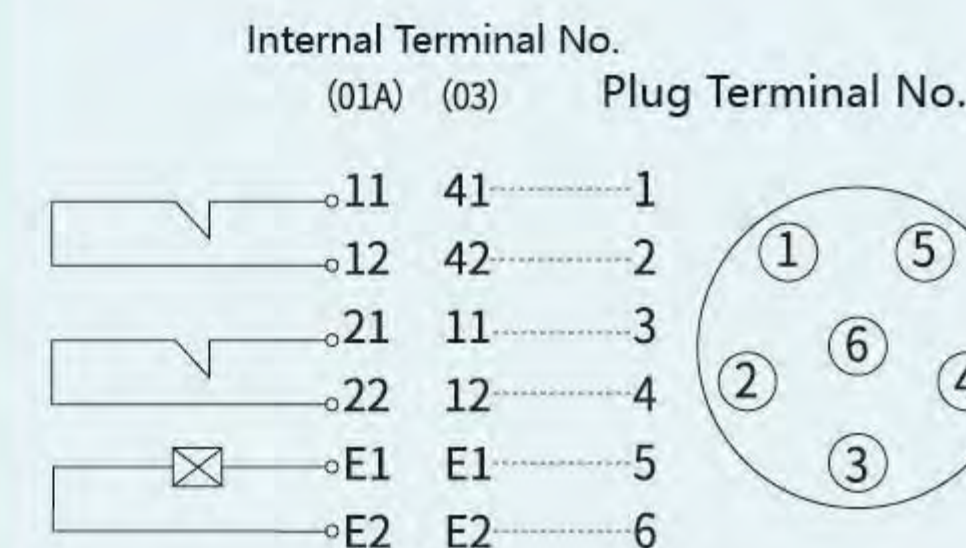


Internal Terminal No. External Terminal No.



02 Aviation Plug

Matching Switch Type 01A, 03



CONTACT CAPACITY

Rated Voltage		30V	250V
Rated Current	AC	Resistive load(AC-12)	—
		Inductive load(AC-15)	—
	DC	Resistive load(DC-12)	2A
		Inductive loads(DC-13)	1A

SOLENOID COIL

Rated voltage	DC24V +10% -15%
Rated current	0.4A
Insulation class	Level B

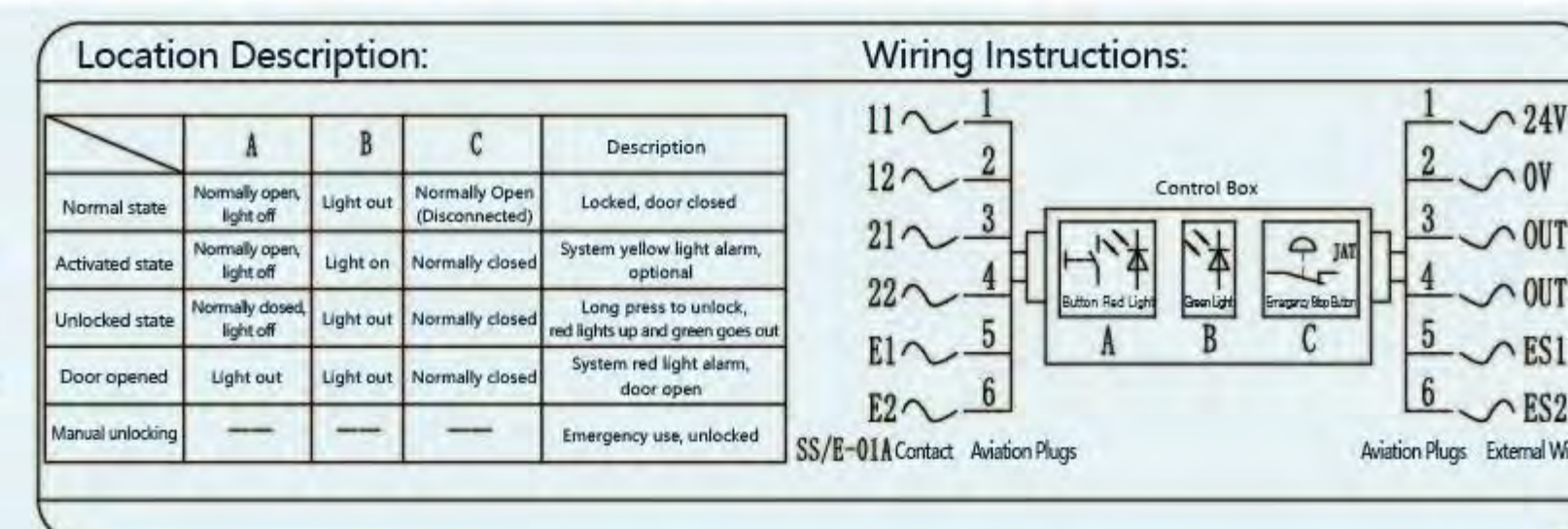
PERFORMANCE SPECIFICATIONS

Production standard	Safety door switches*
Operating environment	Better than pollution level 3
Ambient temperature	-5~40°C
Relative humidity	45~80%
Protection class	IP67 (without induction port)
Mechanical service life	Not less than 1 million times
Electrical service life	Not less than 100,000 cycles(AC-12 250V 4A) Not less than 1 million times(24V AC/DC 100mA)
Tensile strength	SS/E-01A: 2000N SS/E-01B: 2500N SS/E-01C: 2500N SS/E-03: 2700N

Note: * It indicates that the standard is a group standard, standard number: T/SDMTGM0007-2020.

INDIVIDUAL CONTROL BOX DESCRIPTION

SS/E-01A Example Description



PRODUCT OVERVIEW

Manual pulse generator (hereinafter referred to as MPG) for CNC machine tools in the origin setting, manual stepping fine-tuning, processing interruptions and insertion, etc., the product is divided into: SE, SS, SM, SF four major series, can be widely used in CNC machine tools, printing machinery, automation systems and so on.

FEATURES IN BRIEF

- ◆ Humanized design, more comfortable handfeeling and more beautiful appearance;
- ◆ High-performance core encoder, non-contact optical detecting structure, accuracy unchanged after millions of times of use;
- ◆ Built-in strong magnet, base type hanging box, more convenient and firm to place;
- ◆ High-quality standard spring cable, guaranteed 200,000 times stretching;
- ◆ Optional emergency stop, enable, add manual and quick buttons;
- ◆ Wireless portable MPG adopts 433M wireless transmission technology, encrypted transmission and anti-interference;
- ◆ Shielded design, anti-electromagnetic interference;
- ◆ Adopts anti-interference, wear-resistant, oil-resistant and drop-resistant design;
- ◆ Can be customized according to customers' requirements.



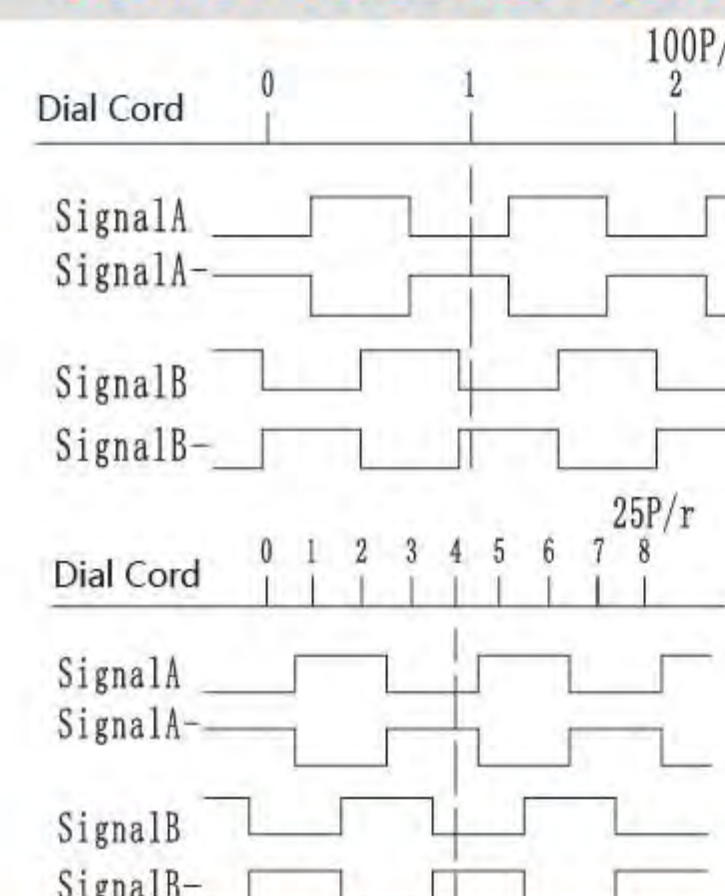
MODEL SELECTION INSTRUCTIONS

Series Code	Selection of Axes	Pulse Output Signal	Output Pulse	Axis/Feedrate Switch Encoding	Coiled Cable Length	Circular Connector Options	Emergency Stop Switch	Enable Switch
SS	2:OFF.X.Z 3:OFF.X.Y.Z 4:OFF.X.Y.Z.4 5:OFF.X.Y.Z.4.5 6:OFF.X.Y.Z.4.5.6 Note: Custom axis labeling is available upon request.	1: 5V voltage output 2: 5V differential output 3: 12V voltage output 4: 24V voltage output	25P/r 100P/r	D: Direct (point-to-point) B: Gray code (COM = 24V) B0: Gray code (COM = 0V) B1: Binary code (COM = 24V) B10: Binary code (COM = 0V) Note: Diode encoding is used. The COM terminal level of both the axis selector and feedrate switch must be specified.	0: No cable 3: 3M 5: 5M (default) 10: 10M	P: Straight plug P1: Right-angle plug Blank: No connector (0508 terminal) (Suffix) /XM: Panel-mounted receptacle with X m flying lead (Suffix) Blank: Panel-mounted receptacle only (no cable)	E: Single-Channel E-Stop E2: Dual-Channel E-Stop Blank: No buttons	S: Single-Channel Enable S2: Dual-Channel Enable Blank: No buttons

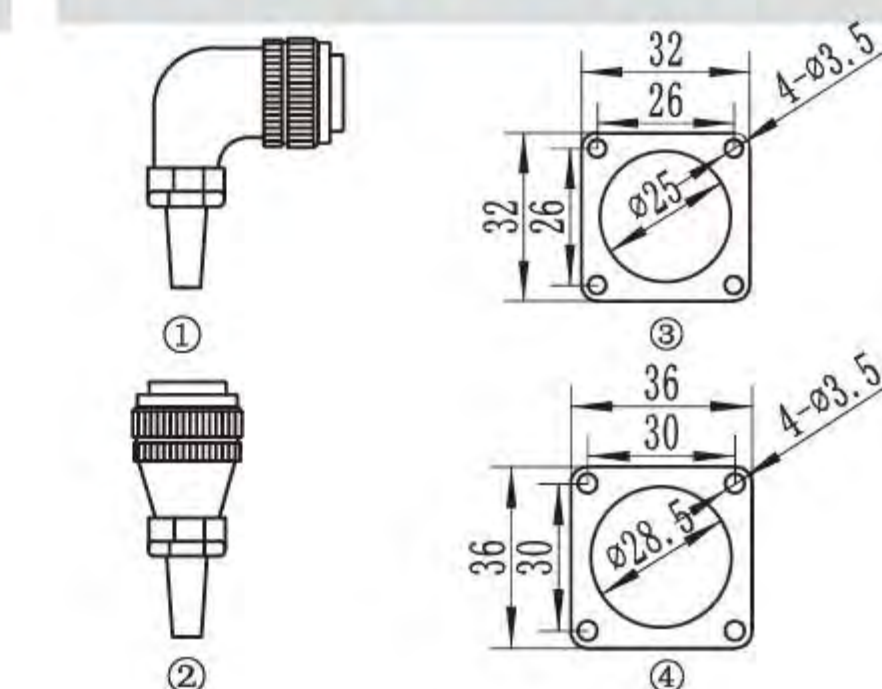
EXAMPLES OF MECHANICAL & ELECTRICAL CHARACTERISTICS

Model No.	SE-31-100-D	SS-42-100-B	SM-54-100-B0	SF-43-25-D
Applicable systems	Fanuc/domestic system	Siemens/Fagor	Siemens PLC/PLC	Mitsubishi
Pulse output	100P/r	100P/r	100P/r	25P/r
Scope of supply	DC5V ± 5%	DC5V ± 5%	DC24V ± 5%	DC12V ± 5%
Axis selection	OFF, X, Y, Z	OFF, X, Y, Z, 4	OFF, X, Y, Z, 4, 5	OFF, X, Y, Z, 4
Number of Membrane Keys	3	None	None	None
Magnification	3 or 4-position	3-position	3-position	3-position
Switching output method	Corresponding type	Coding type (COM=24V)	Coding type (COM=0V)	Corresponding type
Frequency response	0~20kHz			
Isolation resistor	≥20MΩ			
Operating temperature	-10~+60℃ (without freezing)			
Output form	Voltage output	Differential output	Voltage output	

RELATIONSHIP BETWEEN WAVEFORM OUTPUT VS. SCALE POSITION

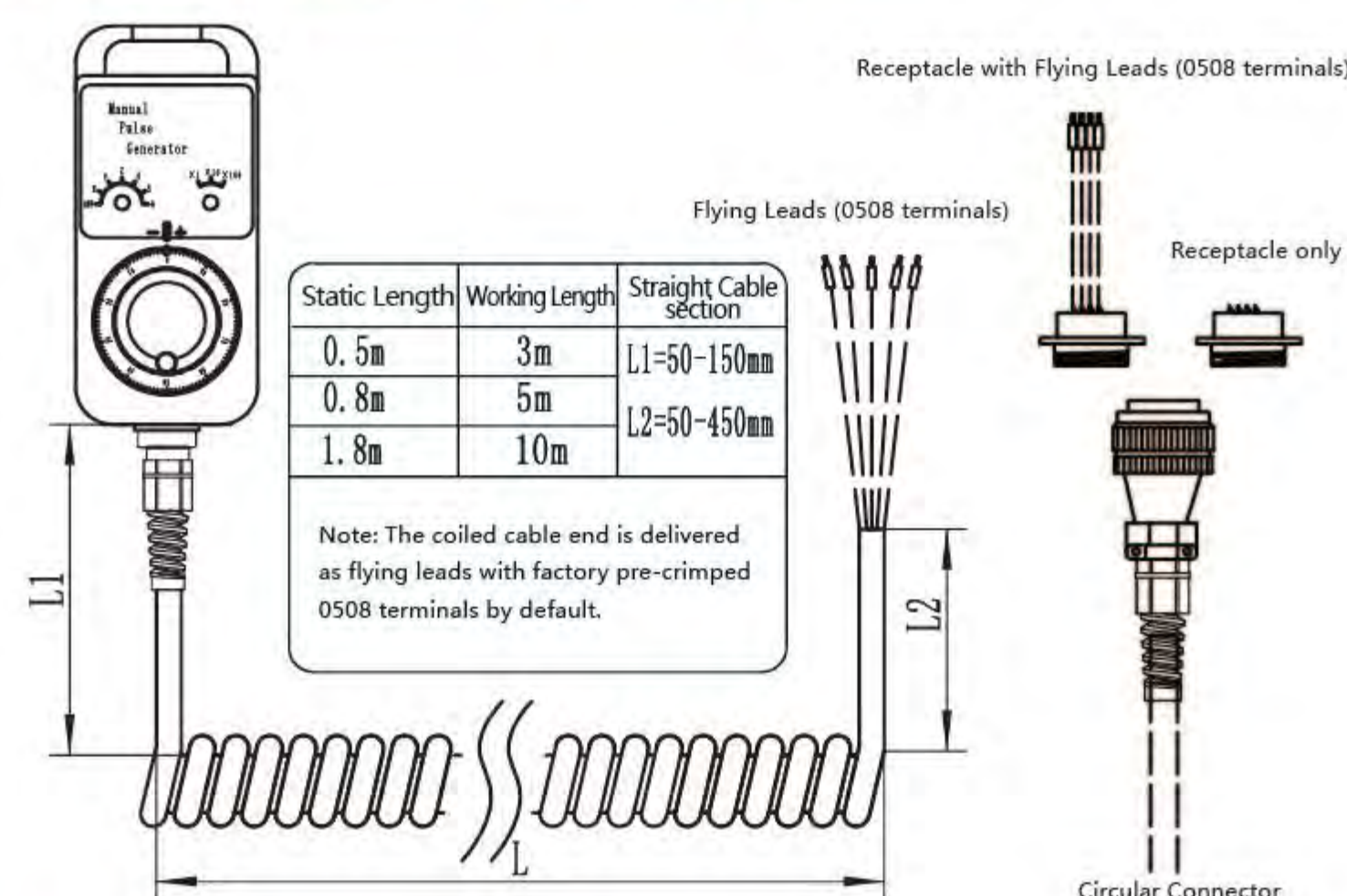


CONNECTOR SPECIFICATIONS

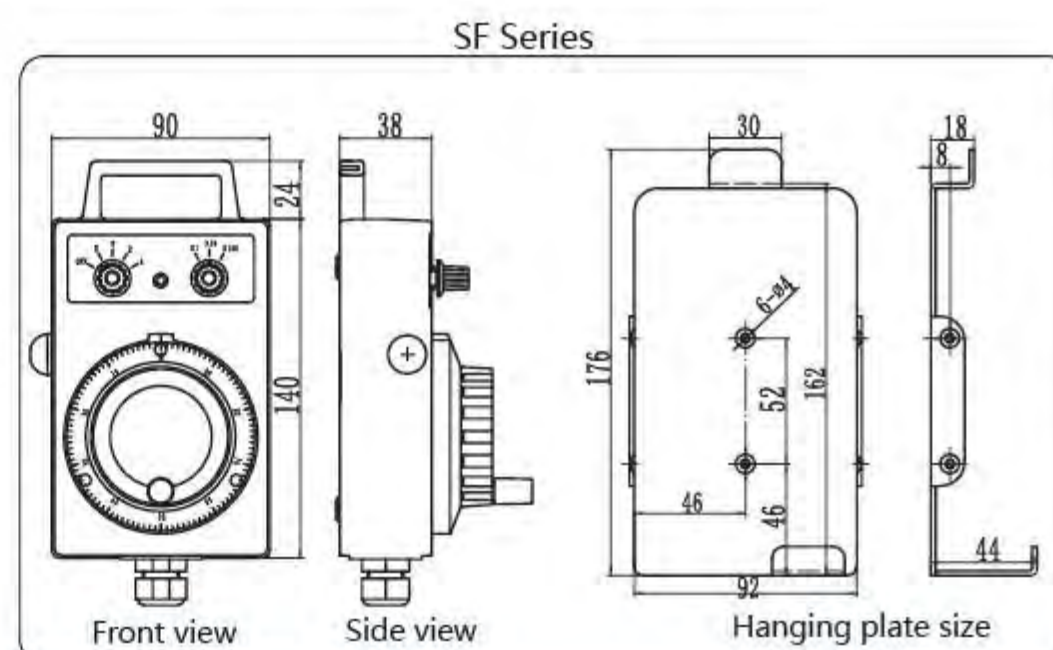
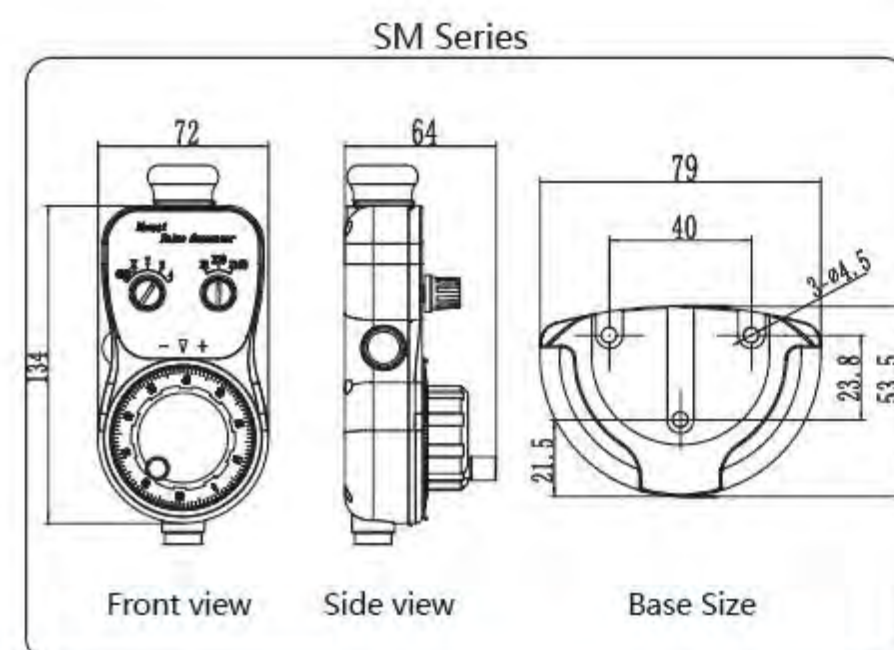
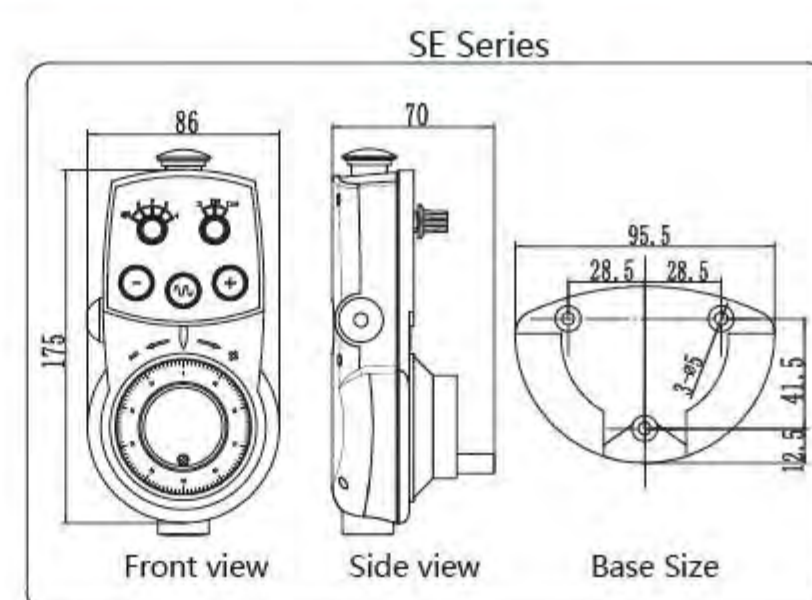
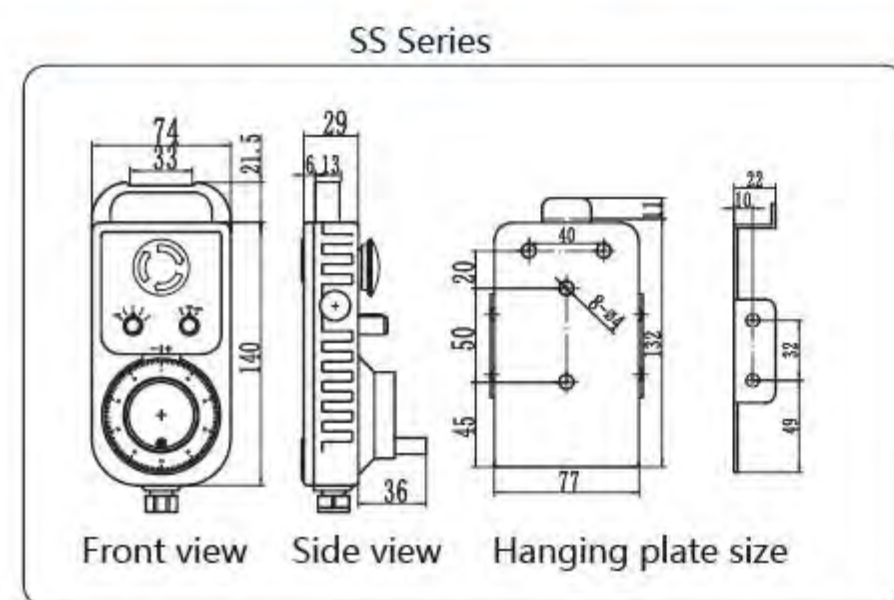


①: Right-angle plug ②: Straight plug
③: 19-pole Socket Opening Size ④: 16, 20, 24 & 26-pole Socket Opening Size
Note: See drawing for special connector dimensions

SPRING CABLE SPECIFICATIONS



DIMENSION APPEARANCES



WIRING DIAGRAM

SE Series

S/N	Wire Color	Signal (Corresponding type)	Signal (Coding type)	Item
1	Red	+5V	+5V	Handwheel Encoder
2	Black	0V	0V	
3	Yellow	HA	HA	
4	White	HB	HB	
5	Pink	HA-	HA-	Differential Option
6	Dark green	HB-	HB-	
7	Purple	COM	COM	Input Common Terminal
8	Yellow/Black	X1	R1	Magnification
9	Light Blue/Black	X10	R2	
10	Transparent/Black	X100	R4	Axis selection
11	Brown	X	L1	
12	Orange	Y	L2	
13	Pale blue	Z	L4	
14	Deep Blue	4	L8	Manual feeding
15	Transparent	-	-	
16	Pale purple	RAPID	RAPID	
17	Gray	+	+	Emergency stop
18	Red and white	EMG	EMG	
19	Red and black	EMGC	EMGC	
20	Light green	EMG1	EMG1	
21	Red and green	EMG1C	EMG1C	

SS/SM Series

S/N	Wire Color	Signal (Corresponding type)	Signal (Coding type)	Item
1	Red	+5V	+5V	Handwheel Encoder
2	Black	0V	0V	
3	Yellow	HA	HA	
4	White	HB	HB	
5	Pink	HA-	HA-	Differential Option
6	Dark green	HB-	HB-	
7	Transparent	L+	L+	Indicator light
8	Pale purple	L-	L-	
9	Purple	COM	COM	Input Common Terminal
10	Yellow/Black	X1	R1	Magnification
11	Light Blue/Black	X10	R2	
12	Transparent/Black	X100	R4	Axis selection
13	Gray	5		
14	Brown	X	L1	
15	Orange	Y	L2	
16	Pale blue	Z	L4	Emergency stop
17	Deep Blue	4	L8	
18	Red and white	EMG	EMG	
19	Red and black	EMGC	EMGC	
20	Light green	EMG1	EMG1	
21	Red and green	EMG1C	EMG1C	

CODING TABLE

SF Series

S/N	Wire Color	Signal (Corresponding type)	Item
1	Red	+5V	Handwheel Encoder
2	Black	0V	
3	Yellow	HA	
4	White	HB	
5	Pink	HA-	Differential Option
6	Dark green	HB-	
7	Transparent	L+	Indicator light
8	Pale purple	L-	
9	Purple	COM	Input Common Terminal
10	Yellow/Black	X1	Magnification
11	Light Blue/Black	X10	
12	Transparent/Black	X100	Axis selection
13	Gray	5	
14	Brown	X	
15	Orange	Y	
16	Pale blue	Z	
17	Deep Blue	4	
18			
19			

	Axis selection			
	L4	L2	L1	
OFF	0	0	0	
X	0	0	1	
Y	0	1	1	
Z	0	1	0	
4	1	1	0	
5	1	1	1	
6	1	0	1	
7	1	0	0	
Magnification				
	R4	R2	R1	
X1	0	0	1	
X10	0	1	1	
X100	0	1	0	
X1000	1	1	0	

	Axis selection			
	L4	L2	L1	
OFF	0	0	0	
X	0	0	1	
Y	0	1	0	
Z	0	1	1	
4	1	0	0	
5	1	0	1	
6	1	1	0	
7	1	1	1	
Magnification				
	R4	R2	R1	
X1	0	0	1	
X10	0	1	0	
X100	0	1	1	
X1000	1	0	0	

Precautions

- The color in the wiring diagram is for reference only, the specific use of color shall prevail.
- Coiled cable ends with flying leads (0508 pin-type terminals) by default. When circular connectors are selected, the receptacle is supplied without wiring. Pre-wire must be specified at the time of ordering.
- When encoding type is selected, Gray code output is used by default (COM = 24V). For use with our matrix panel systems, this must be clearly specified.
- Custom configurations are supported upon request.

PRODUCT FEATURES

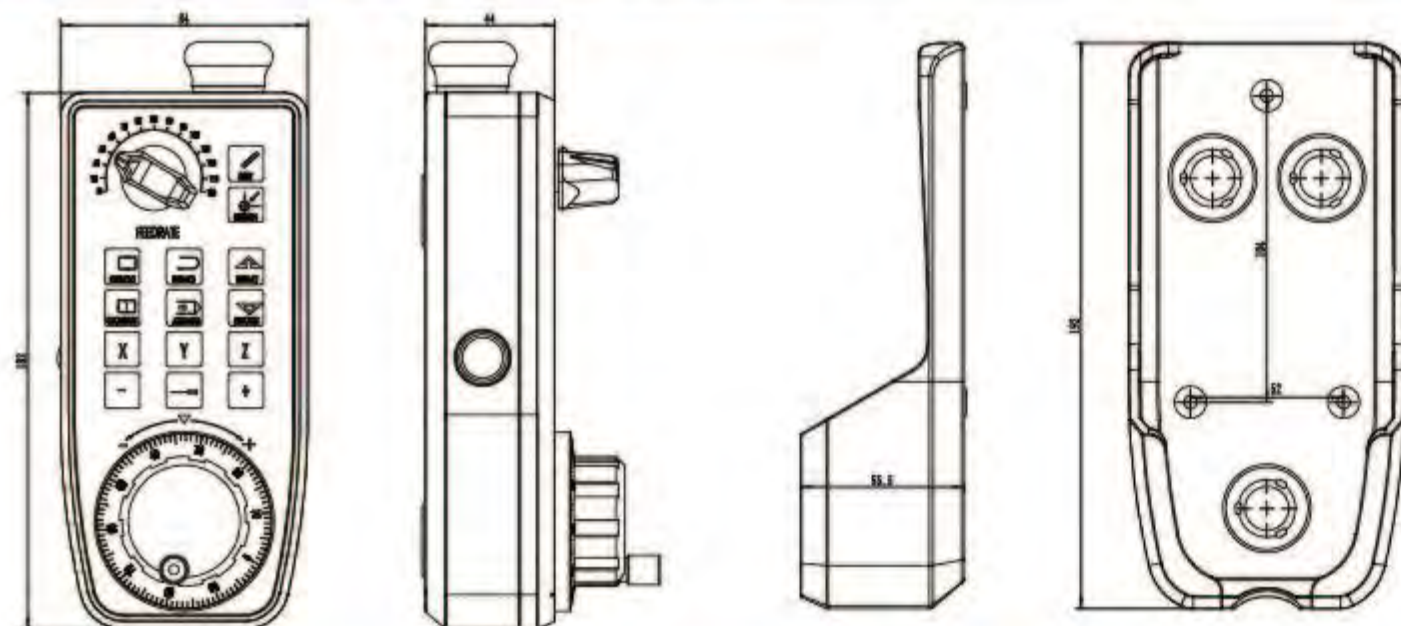
- ◆ The core circuit board is controlled by a single-chip computer with matrix keyboard input;
- ◆ Universal shape design, more comfortable and beautiful hand feeling;
- ◆ High-performance core encoder, non-contact optical check-out structure;
- ◆ Built-in strong magnet, base type hanging box, more convenient and firm to place;
- ◆ High-quality standard spring cable, guaranteed 200,000 times stretching;
- ◆ Optional emergency stop, enable, and diversified key styles;
- ◆ Customized design is available according to customers' requirements.



APPLICATION AREAS

- ◆ Siemens, Mitsubishi, Fanuc, Guangzhou CNC, Huazhong CNC and other CNC systems
- ◆ Specialized automation equipment, CNC machine tools, printing machines, PLC control systems, etc.

OUTLINE DRAWING



WIRING DIAGRAM

Circular Connector

	Pin No.	Code	Color
Input matrix	1	IN1	White and red
	2	IN2	White and green
	3	IN3	White and blue
	4	IN4	White and black
	5	IN5	White and brown
	6	IN6	White and purple
	7	IN7	Pale blue
	8	IN8	Orange
	9	IN9	Gray
Output matrix	10	O1	Yellow and red
	11	O2	Yellow and green
	12	O3	Yellow and blue
	13	O4	Yellow and black
	14	O5	Transparent
	15	O6	Transparent black
	16	O7	Blue and black
	17	O8	Blue and brown
Handwheel Signal	18	+5V	Red
	19	0V	Black
	20	HA	White
	21	HA-	Yellow
Emergency stop	22	HB	Green
	23	HB-	Purple
	24	EMG	Brown
	25	EMGC	Blue

INPUT SIGNAL ADDRESS TABLE OUTPUT SIGNAL ADDRESS TABLE

Address Matrix	IN5	IN4	IN3	IN2	IN1
Horizontal Intermediate Address	M100.4	M100.3	M100.2	M100.1	M100.0
IN6					
Intermediate Address	M101.4	M101.3	M101.2	M101.1	M101.0
IN7					
Intermediate Address	M102.4	M102.3	M102.2	M102.1	M102.0
IN8					
Intermediate Address	M103.4	M103.3	M103.2	M103.1	M103.0
IN9		F0V8	F0V4	F0V2	F0V1

Address Matrix	O8	O7	O6	O5
Horizontal Intermediate Address	M104.3	M104.2	M104.1	M104.0
O1				
Intermediate Address	M105.3	M105.2	M105.1	M105.0
O2				
Intermediate Address	M106.3	M106.2	M106.1	M106.0
O3	X1			
Intermediate Address	M107.3	M107.2	M107.1	M107.0
O4		X1000	X100	X10

Note: Wiring and address mapping are based on a Siemens custom configuration example and may vary depending on the actual system and application requirements.

PRODUCT OVERVIEW

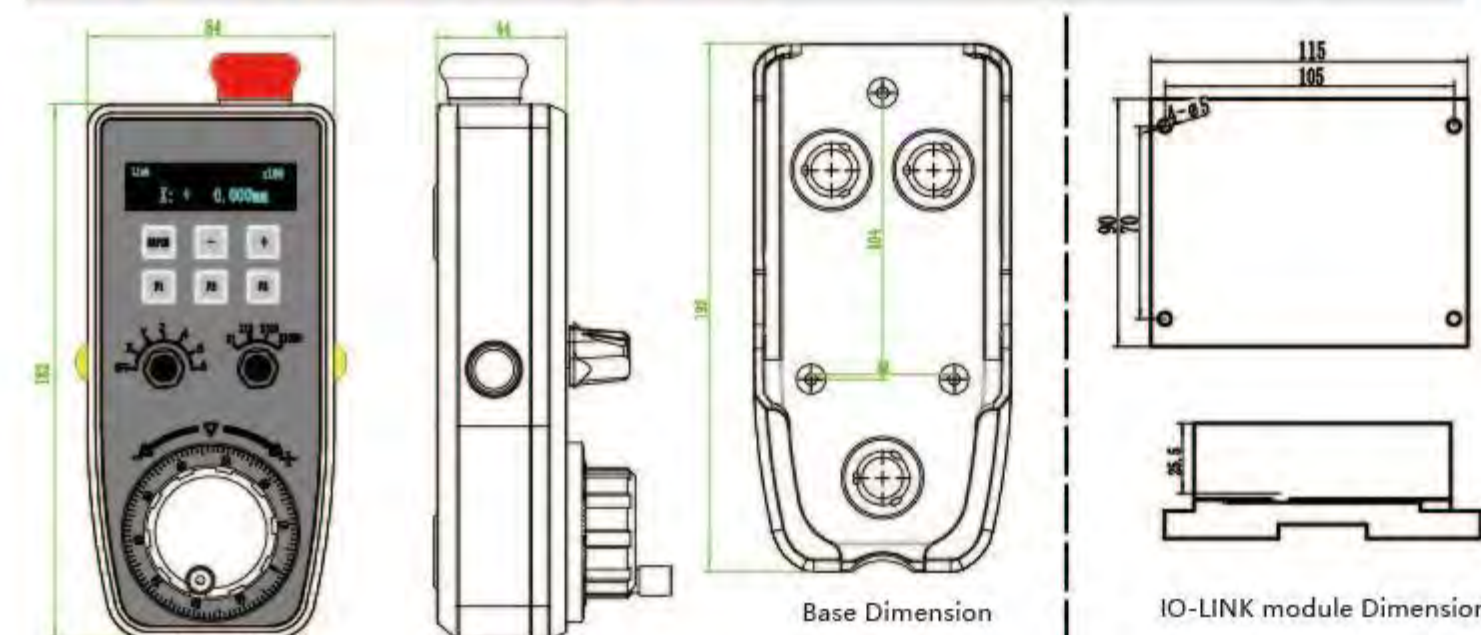
Integrated with the FANUC control via IO-Link, the handheld unit provides real-time coordinate display and is connected via a coiled cable for flexible operation.

FEATURES

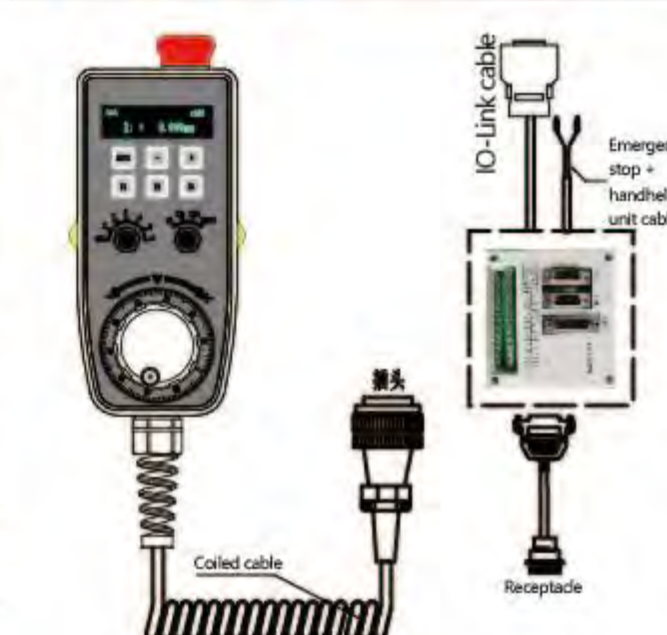
- ◆ Emergency stop connection via hardwired interface;
- ◆ Three user-defined buttons (F1-F3) with IO-Link signal output;
- ◆ Jog function via IO-Link interface;
- ◆ 6-axis selection via IO-Link interface;
- ◆ 4-step feedrate override via IO-Link interface;
- ◆ Dual enable buttons or EU-compliant 3-position enable switch for safe operation;
- ◆ Pulse encoder support with A/B signal output to the CNC handwheel interface.



OUTLINE DRAWING



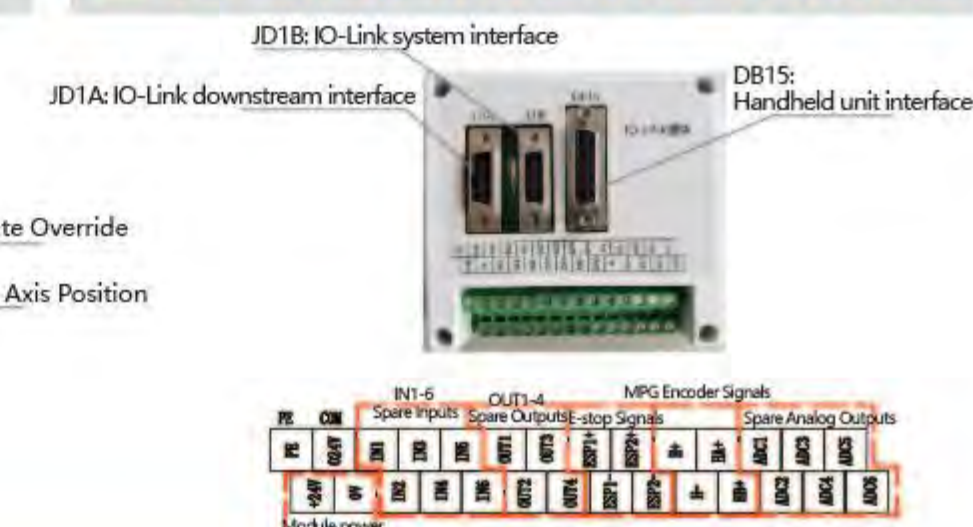
Wiring Overview



DISPLAY INDICATIONS



IO-LINK MODULE WIRING



PRODUCT CHARACTERISTICS

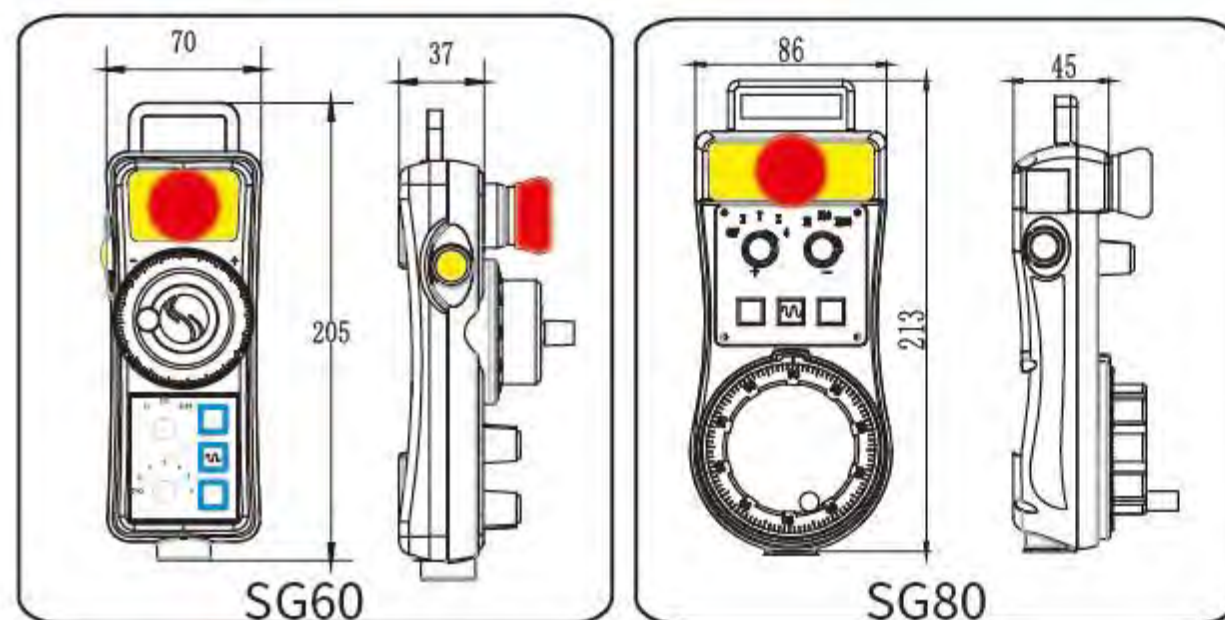
- ◆ Ergonomic design, feel more comfortable, more beautiful appearance;
- ◆ High-performance core encoder, non-contact optical detecting structure, accuracy unchanged after millions of times of use;
- ◆ Built-in strong magnet, base type hanging box, more convenient and firm to place;
- ◆ High-quality standard spring cable, guaranteed 200,000 times stretching;
- ◆ Shielded design, anti-electromagnetic interference;
- ◆ Adopts anti-interference, wear-resistant, oil-resistant and drop-resistant design;



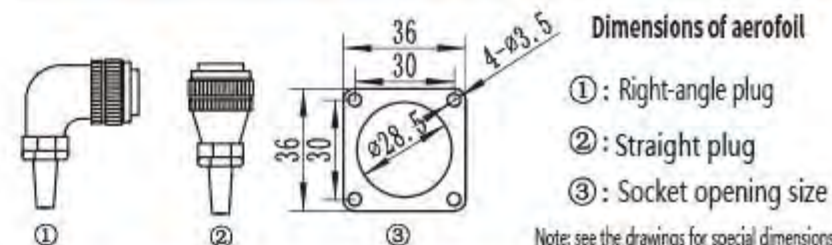
MODEL SELECTION INSTRUCTIONS

SG60	Selection of Axes	Pulse Output Signal	Output Pulse	Axis/Feedrate Switch Encoding	Coiled Cable Length	Circular Connector Options	Emergency Stop Switch	Enable Switch	Function Buttons
Series Code	2:OFF.X.Z 3:OFF.X.Y.Z 4:OFF.X.Y.Z.4 5:OFF.X.Y.Z.4.5 6:OFF.X.Y.Z.4.5.6 Note: Custom axis labeling is available upon request.	1:5V voltage output 2:5V differential output 3:12V voltage output 4:24V voltage output	25P/r 100P/r	D:Direct (point-to-point) B: Gray code (COM = 24V) B0: Gray code (COM = 0V) B1: Binary code (COM = 24V) B10: Binary code (COM = 0V) Note: Diode encoding is used. The COM terminal level of both the axis selector and feedrate switch must be specified.	0: No cable 3: 3M 5: 5M (default) 10: 10M	P: Straight plug P1: Right-angle plug Blank: No connector (0508 terminal) (Suffix) /XM: Panel-mounted receptacle with X m flying lead (Suffix) Blank: Panel-mounted receptacle only (no cable)	E: Single-Channel E-Stop E2: Dual-Channel E-Stop	S: Single-Channel Enable S2: Dual-Channel Enable SG60 supports single enable only. SG80 supports both single and dual enable options.	

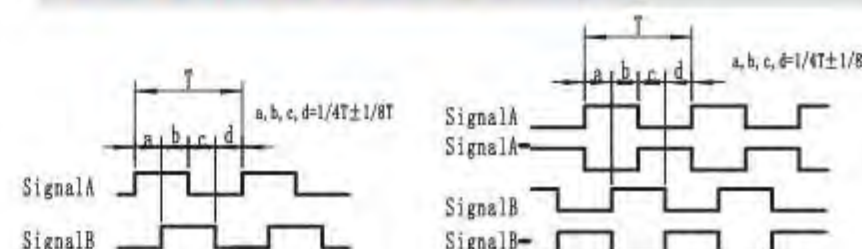
EXTERNAL DRAWING



CONNECTOR SPECIFICATIONS



WAVEFORM OUTPUT



WIRING DIAGRAM

S/N	Wire Color	Signal	Signal	Item
1	Red	+5V	+5V	Handwheel Encoder
2	Black	0V	0V	
3	Yellow	HA	HA	
4	White	HB	HB	
5	Pink	HA-	HA-	
6	Dark green	HB-	HB-	
7	Purple	COM	COM	
8	Yellow/Black	X1	R1	Magnification
9	Light Blue/Black	X10	R2	
10	Transparent/Black	X100	R4	
11	Brown	X	L1	
12	Orange	Y	L2	
13	Pink/Blue	Z	L4	
14	Dark Blue	4	L8	
15	Gray	a	a	
16	Pink/purple	RAPID	RAPID	Manual feeding
17	Transparent	-	-	
18	Red and white	EMG	EMG	
19	Red and black	EMGC	EMGC	
20	Light green	EMGI	EMGI	Emergency stop
21	Red and green	EMGIC	EMGIC	

CODING TABLE

Axis selection	L4	L2	L1
OFF	0	0	0
X	0	0	1
Y	0	1	1
Z	0	1	0
4	1	1	0
6	1	1	1
6	1	0	1
7	1	0	0
Magnification	R4	R2	R1
X1	0	0	1
X10	0	1	1
X100	0	1	0
X1000	1	1	0

PRECAUTIONS

1. The color in the wiring diagram is for reference only, the specific use of color shall prevail.
2. Coiled cable ends with flying leads (0508 pin-type terminals) by default. When circular connectors are selected, the receptacle is supplied without wiring. Pre-wire must be specified at the time of ordering.
3. When encoding type is selected, Gray code output is used by default (COM = 24V). For use with our matrix panel systems, this must be clearly specified.
4. Custom configurations are supported upon request.

PRODUCT CHARACTERISTICS

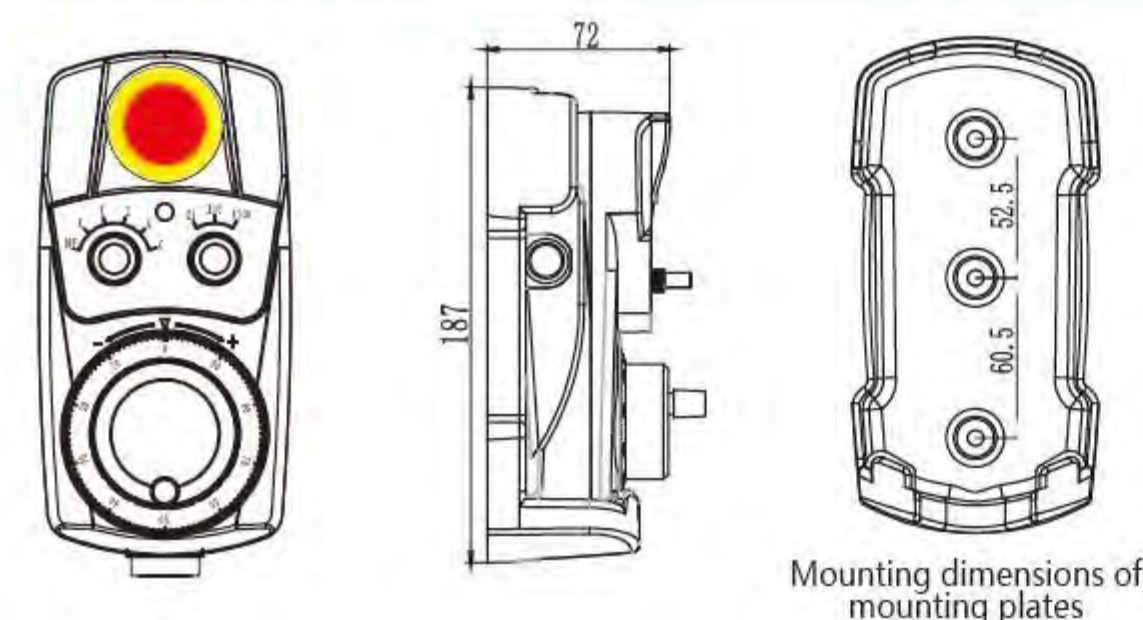
- ◆ Ergonomic design, feel more comfortable, more beautiful appearance;
- ◆ High-performance core encoder, non-contact optical detecting structure, accuracy unchanged after millions of times of use;
- ◆ Built-in strong magnet, base type hanging box, more convenient and firm to place;
- ◆ High-quality standard spring cable, guaranteed 200,000 times stretching;
- ◆ Shielded design, anti-electromagnetic interference;
- ◆ Adopts anti-interference, wear-resistant, oil-resistant and drop-resistant design;



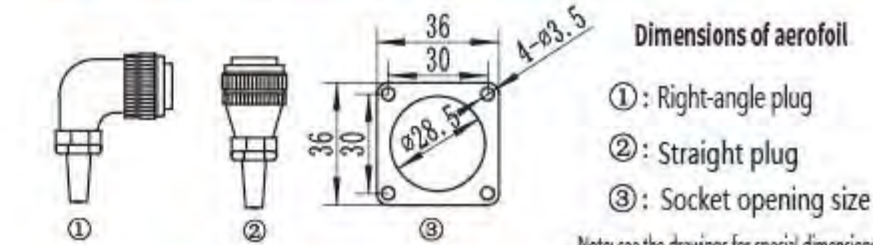
MODEL SELECTION INSTRUCTIONS

SK	Selection of Axes	Pulse Output Signal	Output Pulse	Axis/Feedrate Switch Encoding	Coiled Cable Length	Circular Connector Options	Emergency Stop Switch	Enable Switch
Series Code	2:OFF.X.Z 3:OFF.X.Y.Z 4:OFF.X.Y.Z.4 5:OFF.X.Y.Z.4.5 6:OFF.X.Y.Z.4.5.6 Note: Custom axis labeling is available upon request.	1:5V voltage output 2:5V differential output 3:12V voltage output 4:24V voltage output	25P/r 100P/r	D:Direct (point-to-point) B: Gray code B1: Binary code	0: No cable 3: 3M 5: 5M (default) 10: 10M	P: Straight plug P1: Right-angle plug Blank: No connector (0508 terminal) (Suffix) /XM: Panel-mounted receptacle with X m flying lead (Suffix) Blank: Panel-mounted receptacle only (no cable)	E: Single-Channel E-Stop E2: Dual-Channel E-Stop	S: Single-Channel Enable S2: Dual-Channel Enable Blank: No buttons

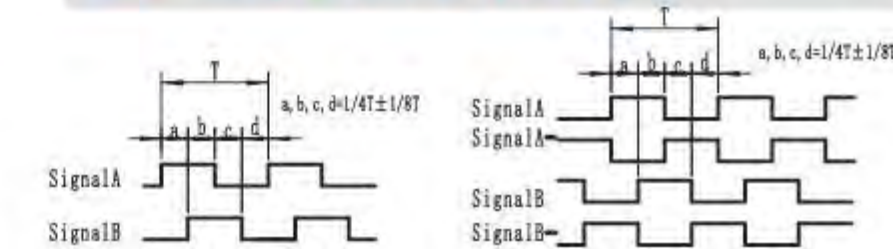
EXTERNAL DRAWING



CONNECTOR SPECIFICATIONS



WAVEFORM OUTPUT



WIRING DIAGRAM

S/N	Wire Color	Signal	Signal	Item
1	Red	+5V	+5V	Handwheel Encoder
2	Black	0V	0V	
3	Yellow	HA	HA	
4	White	HB	HB	
5	Pink	HA-	HA-	
6	Dark green	HB-	HB-	
7	Transparent	L+	L+	Select and use
8	Pink/purple	L-	L-	Indicator light
9	Purple	COM	COM	Head connection terminal
10	Yellow/Black	X1	R1	
11	Light Blue/Black	X10	R2	
12	Transparent/Black	X100	R4	
13	Gray	S	S	
14	Brown	X	L1	
15	Orange	Y	L2	
16	Pink/Blue	Z	L4	
17	Dark Blue	4	L8	
18	Red and white	EMG	EMG	
19	Red and black	EMGC	EMGC	
20	Light green	EMGI	EMGI	Emergency stop
21	Red and green	EMGIC	EMGIC	

CODING TABLE

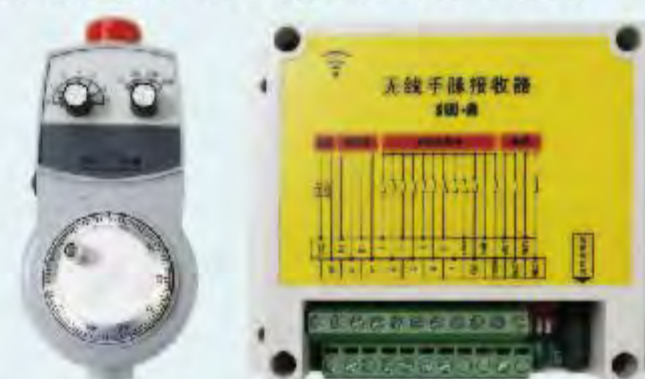
Axis selection	L4	L2	L1
OFF	0	0	0
X	0	0	1
Y	0	1	1
Z	0	1	0
4	1	1	0
6	1	1	1
7	1	0	0
Magnification	R4	R2	R1
X1	0	0	1
X10	0	1	1
X100	0	1	0
X1000	1	1	0

PRECAUTIONS

1. The color in the wiring diagram is for reference only, the specific use of color shall prevail.
2. Coiled cable ends with flying leads (0508 pin-type terminals) by default. When circular connectors are selected, the receptacle is supplied without wiring. Pre-wire must be specified at the time of ordering.
3. When encoding type is selected, Gray code output is used by default (COM = 24V). For use with our matrix panel systems, this must be clearly specified.
4. Custom configurations are supported upon request.

FEATURES IN BRIEF MODEL:SW-A

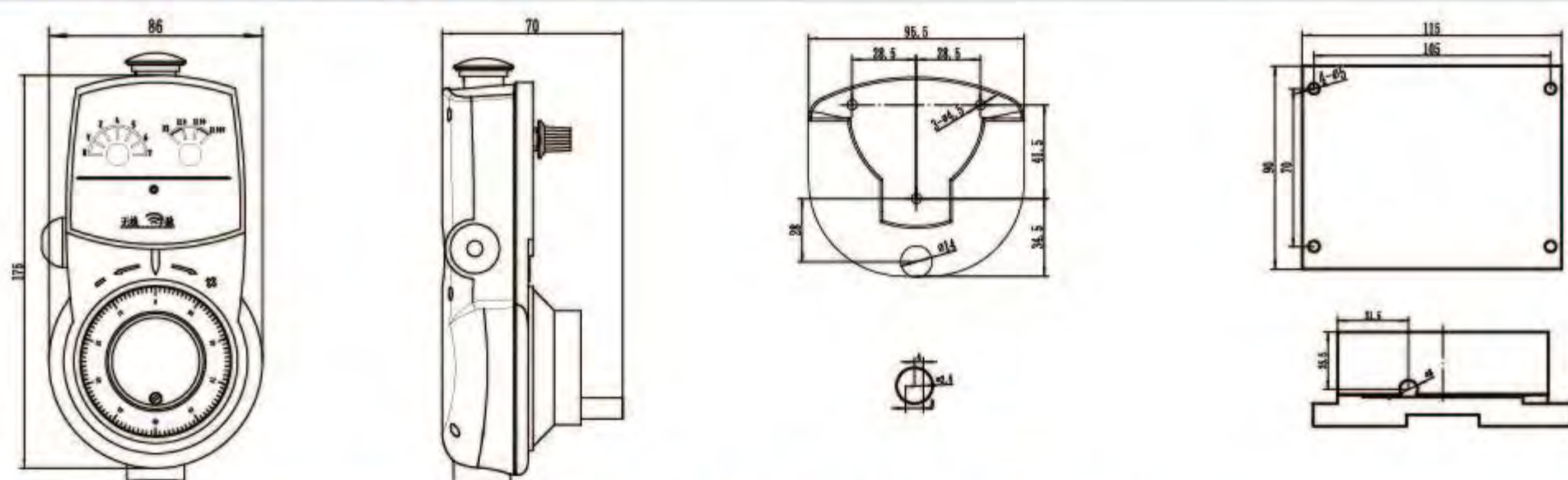
- ◆ Adopting 433M wireless transmission technology, data encrypted transmission, stable and reliable, strong anti-interference;
- ◆ Wireless transmission distance 100 meters (open), stable and reliable;
- ◆ Response speed is fast, complete signal transmission and reception within 1ms;
- ◆ Low voltage alarm function, standby automatically enters the dormant mode;
- ◆ Adopting alloy encoder, stable and reliable performance; good hand feeling and clear tooth position;
- ◆ With emergency stop, enable, axis selection (max. 7 axes) and multiplier function;
- ◆ It has the functions of selecting axis selection and multiplier coding mode and selecting common terminal;
- ◆ 3.7v rechargeable lithium battery, low power consumption design, energy saving and environmental protection, random charging.



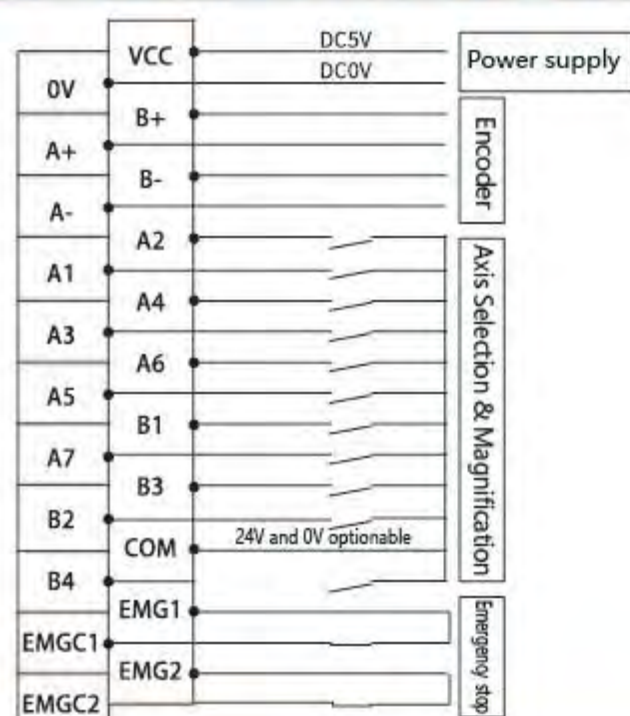
APPLICATION AREAS

- ◆ CNC lathes, CNC engraving and milling machines, machining centers, large gantry machines, laser cutting machines and other equipment
- ◆ Adapted to Siemens, Mitsubishi, Fanuc, Guangzhou CNC, Huazhong CNC, KND and other systems.

OUTLINE DRAWING



WIRING DIAGRAM



P2P STATUS TABLE

Axis Selection Switch Status Table							
Terminal No.	X	Y	Z	4	5	6	7
A1	●						
A2		●					
A3			●				
A4				●			
A5					●		
A6						●	
A7							●

Magnification Switch Status Table				
Terminal No.	X1	X10	X100	X1000
B1	●			
B2		●		
B3			●	
B4				●

GRAY CODE STATUS TABLE

Axis Selection Switch Status Table							
Terminal No.	X	Y	Z	4	5	6	7
A1	●	●			●	●	
A2		●	●	●	●		
A3				●	●	●	●

Magnification Switch Status Table				
Terminal No.	X1	X10	X100	X1000
B1	●	●		
B2		●	●	
B3			●	●



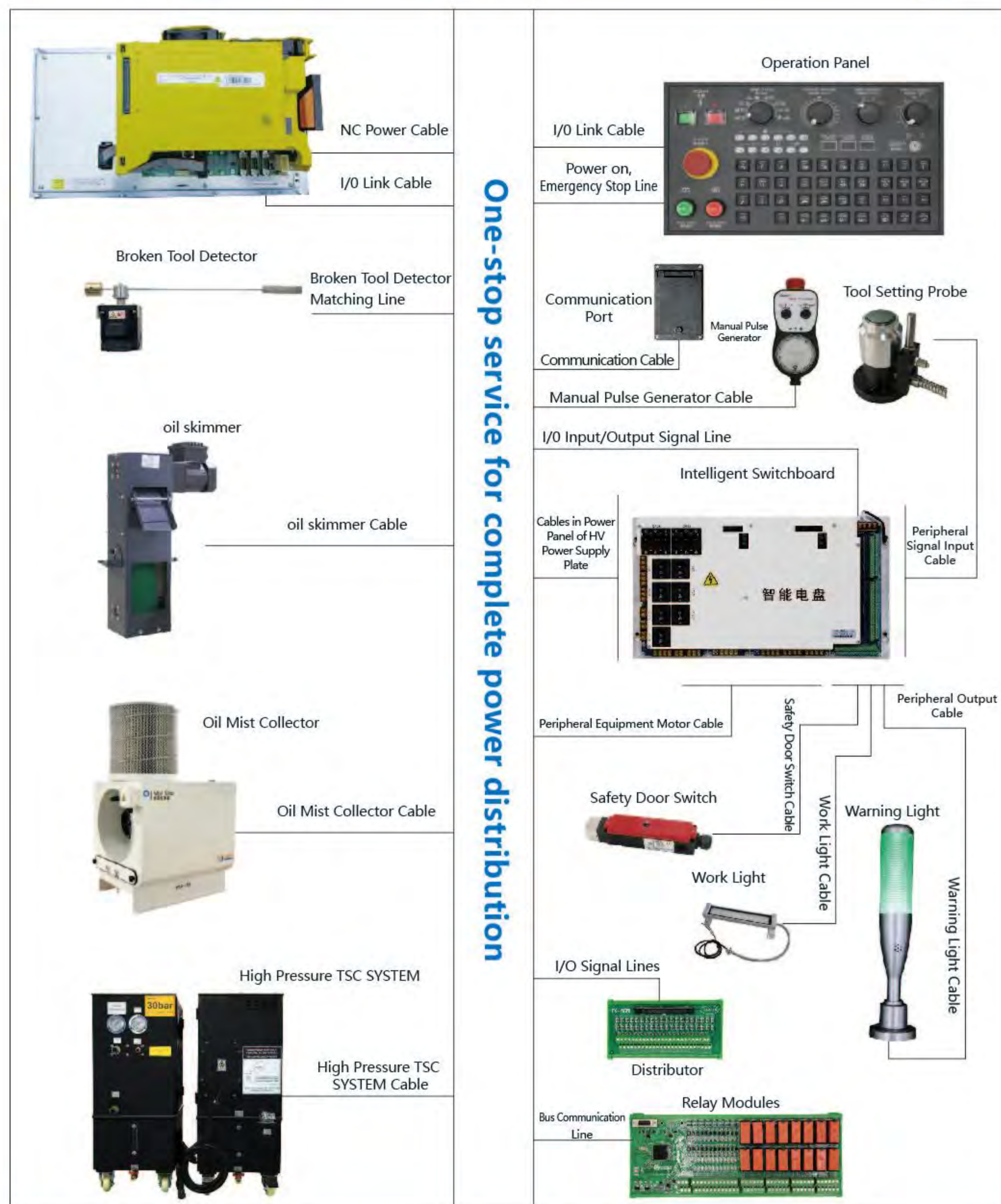
Switchboard Production & Assembly Site

In line with the concept of serving customers, SHANSEN CNC has launched the overall power distribution program, making OEM CNC machine tool distribution cabinets and switchboards, supporting the company's production of machine Operation Panels, safety door switches, hand-held pulse generators, warning lamps, work lights, intelligent electrical panels, relay modules, splitters, broken tool detector, oil mist collector, oil-water separator, center water equipment, complete sets of cables, etc., in order to facilitate the convenience of the customer! One-stop stocking.



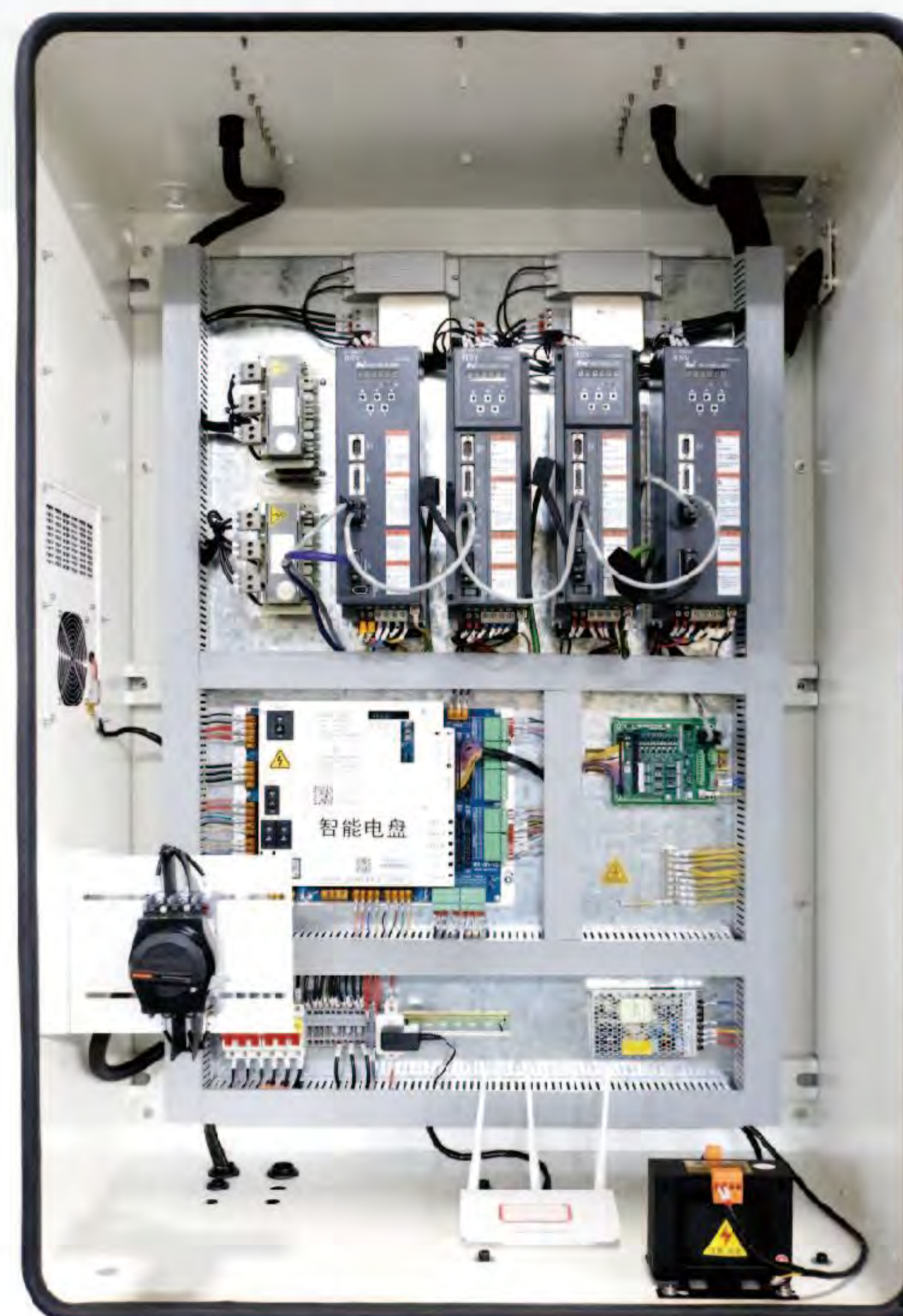
Control Box & Assembly Site

MULTIPLE PRODUCT MATCHING



DOMESTIC AND FOREIGN SYSTEMS WITH INTELLIGENT SWITCHBOARD ELECTRICAL CABINET

Highly integrated, separation of strong and weak power, reasonable layout, easy wiring, overall aesthetics; scalability, circuit design considerations and reserved functions, additional functions can save costs when not needed, need to directly add, convenient and quick.



INTEGRATED SUPPLY OF CONVENTIONAL ELECTRICAL PANELS AND WIRING HARNESSES

The company specializes in providing electrical cabinet design and construction, the overall layout is reasonable, wiring operation standards, clear marking, quality, safety and reliability; wiring harness supporting the production, according to the customer's actual need for reasonable selection of materials, wire length flexible control, to meet the customer's site under the circumstances of the use of the environment, and strive to achieve environmental protection, energy saving, cost reduction.



- ◆ 1. Familiar with various domestic and foreign CNC systems, servo drive and other signal interface cable production.
- ◆ 2. According to the wire harness use environment and occasions and other requirements, reasonable selection of wire materials for design and production.
- ◆ 3. System wiring harness and peripheral supporting function wiring harness can be made according





Oil & folding-resistant servo cables



Cables for CNC systems



Cable sets for peripheral equipment

PRODUCT OVERVIEW

Relay module is the integration and modularization design of several groups of single relays in the electrical control cabinet, which saves the space of the equipment, reduces the intermediate wiring links and improves the production efficiency. Mainly used for signal output port amplification and isolation, suitable for CNC machine tools, automation equipment, electrical control part. Applicable to Fanuc, Mitsubishi, Siemens, GSK, Huazhong CNC, KND, Lynuc and other domestic and foreign CNC systems or industrial control PLC.

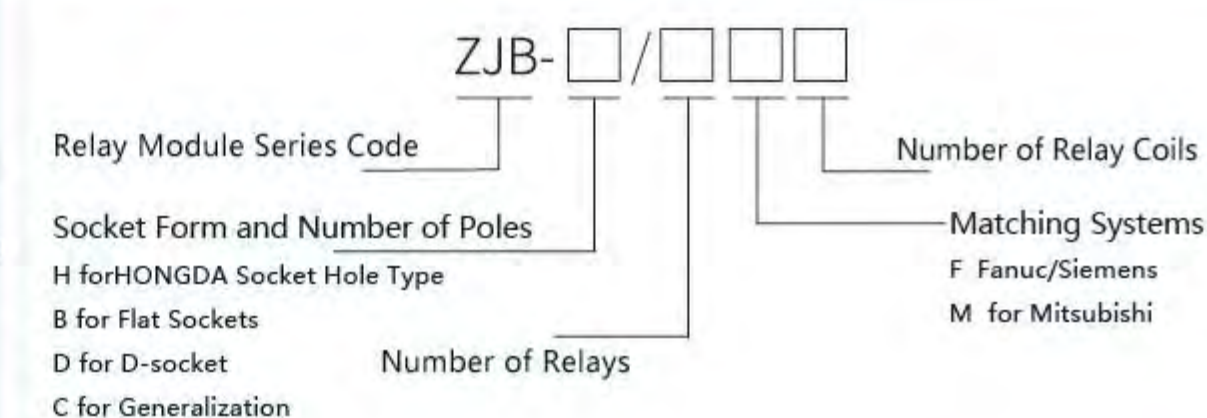
Installation method : 35mm U-rail.

INSTRUCTIONS FOR USE

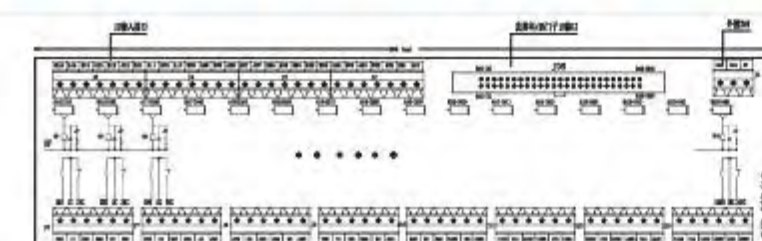
ZJB-50B/16F16

- ◆ Suitable for FANUC/ Siemens etc. system I/O expansion
- ◆ Connecting plug is a 50-pole bullhorn plug and I/O connection
- ◆ 24V power supply connected to the right-side terminal of bullhorn
- ◆ The common terminal of all relay coils is OV
- ◆ KA1-KA16 are 16 NO/NC relays.
- ◆ Relay brand optional (OMRON, TE Connectivity, IDEC IZUMI)

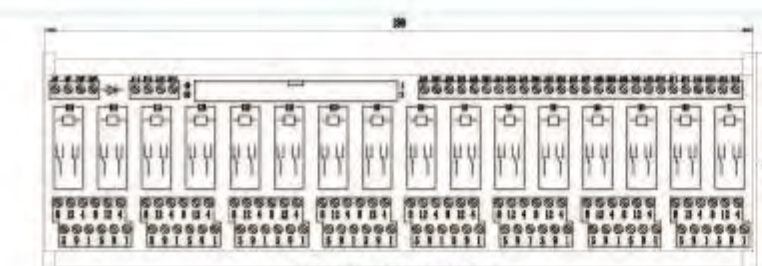
MODEL DESCRIPTION



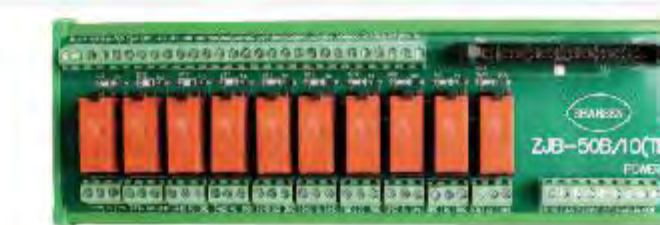
PRODUCT EXAMPLES



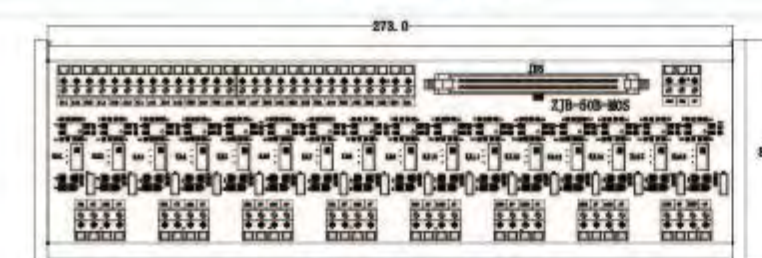
ZJB-50B/16F16



ZJB-FL50/16



ZJB-50B/10(TE)



ZJB-50B-MOS



ZJB-40B_16(M70_M80)



TB16OUT-6.1

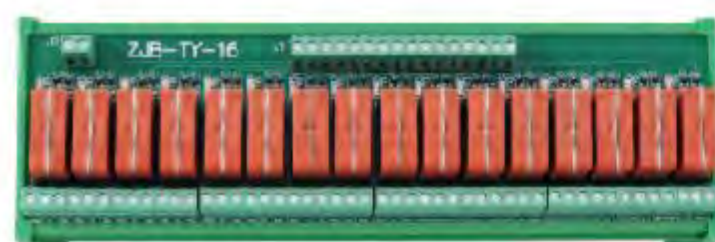


TB16OUT-R8-1.0

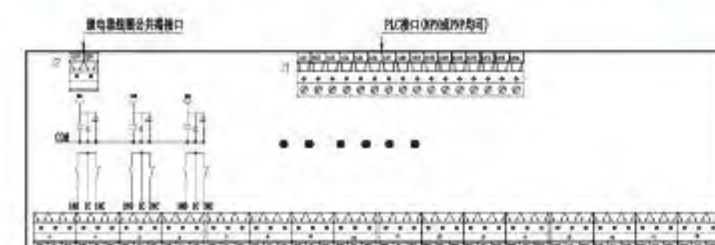


ZJB-16C_16

GENERAL PURPOSE RELAY MODULES



ZJB-TY-16

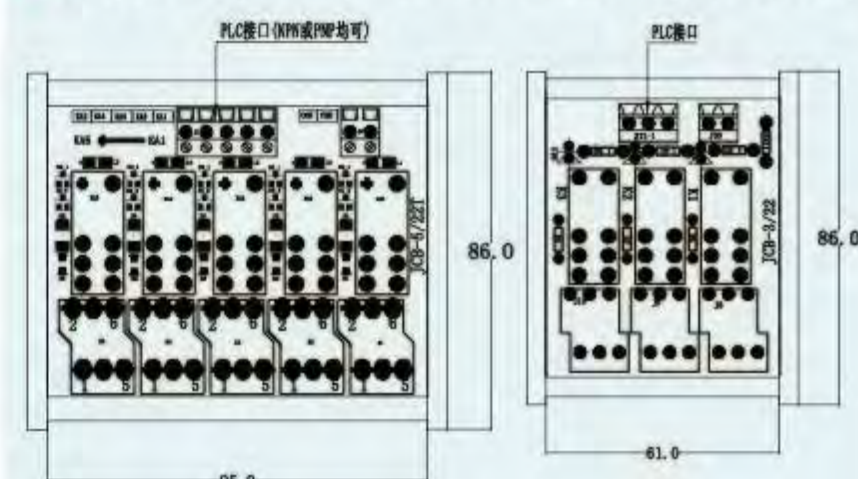


ZJB-16C/16

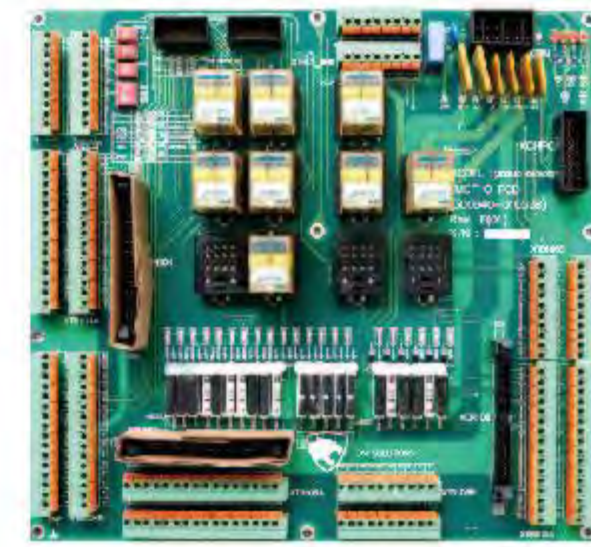
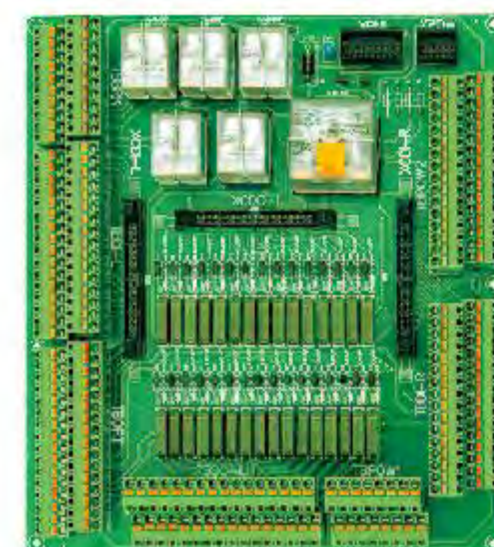
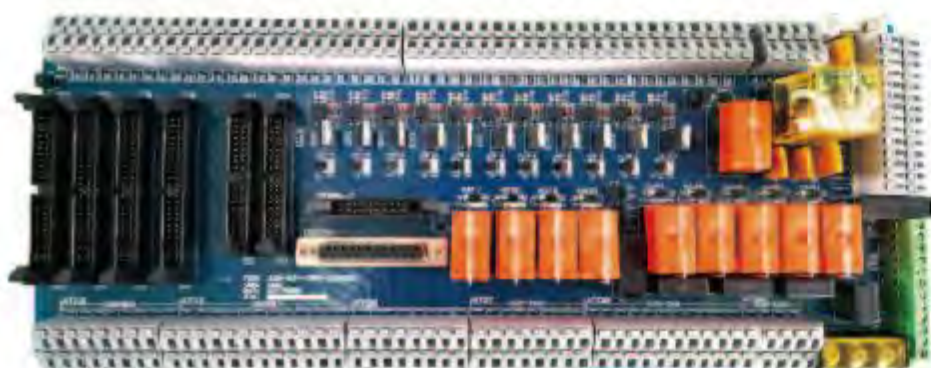
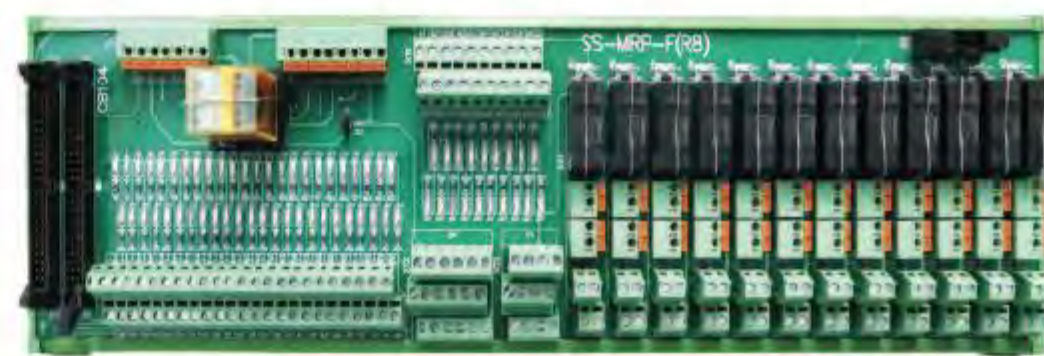
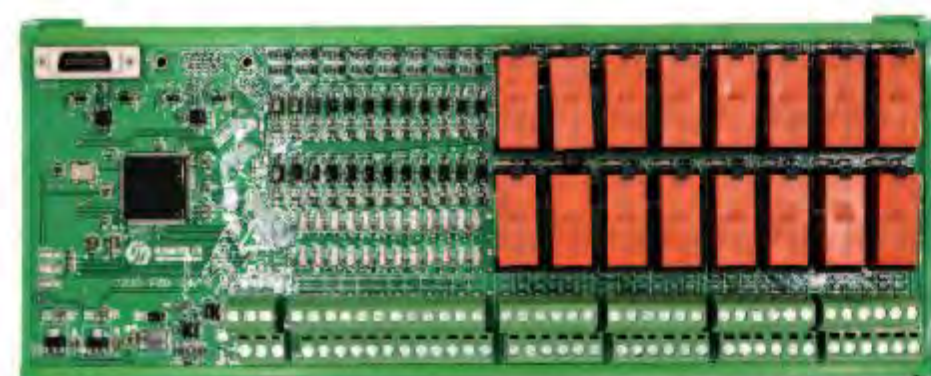
INSTRUCTIONS FOR USE

ZJB-TY-16

- ◆ Applicable to various PLC output controls
- ◆ COM=0V or COM=24V optional
- ◆ KA1-KA16 are 16 NO/NC relays.
- ◆ Relay brand optional (OMRON, TE Connectivity, IDEC IZUMI)

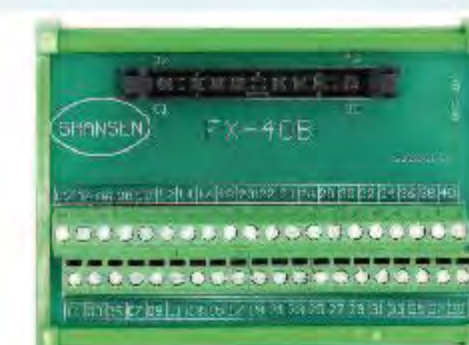


CUSTOMIZED PRODUCT SHOW



PRODUCT OVERVIEW

Distributor modules are wiring interface modules that break down any cable signal in the form of a plug into terminals for easy connection and measurement, optimizing the assembly and wiring process, saving space in the equipment and increasing wiring efficiency.



FX-40B



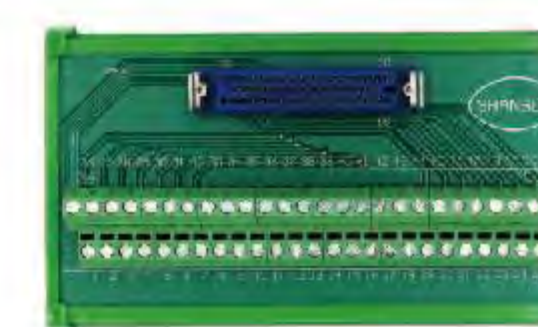
FX-50BL



FX-50B



FX-D25/Z

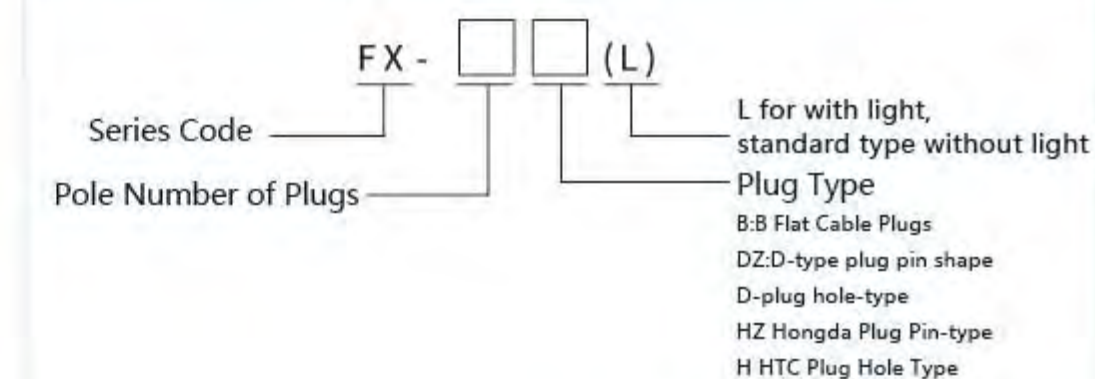


FX-50K



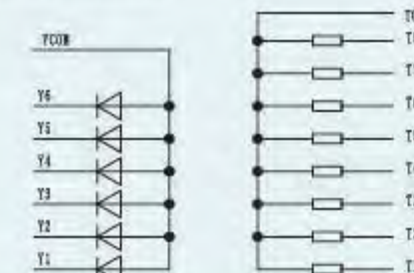
FX-40BL

MODEL DESCRIPTION

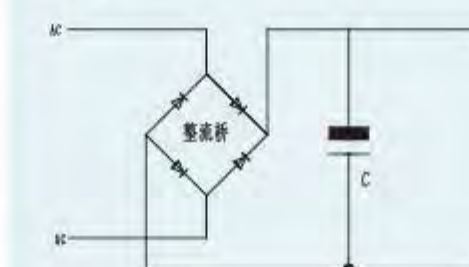


FUNCTIONAL MODULE

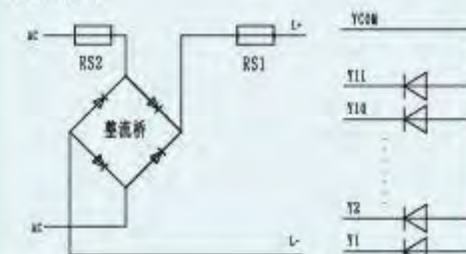
CK-D8-Y6 pull-up resistors and counter-voltage boards are used for pull-up resistors for tool position signals on CNC lathes and diodes for counter-voltage release of solenoid valves and other devices on the machine.



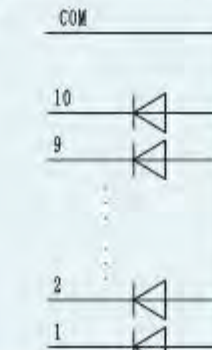
AC/DC-24 power supply module, small size, easy to install alignment, suitable for a variety of CNC machine tool power supply.



MJ-AD-Y11 power supply and counter-voltage board module, DC24V power supply is used to provide 5A power supply for CNC machine tools, and the diode is used for releasing counter-voltage of machine solenoid valve and other devices.



FX-KV10 type counter-voltage plate is suitable for counter-voltage release of devices such as solenoid valves on CNC lathes.



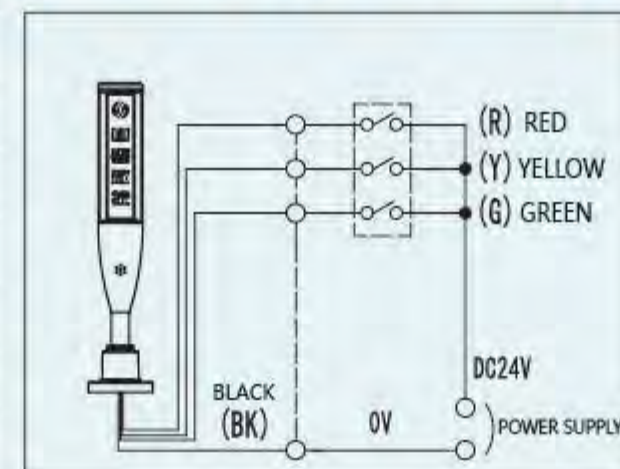
JCB-7 SERIES WARNING LIGHT SERIES

PRODUCT FEATURES

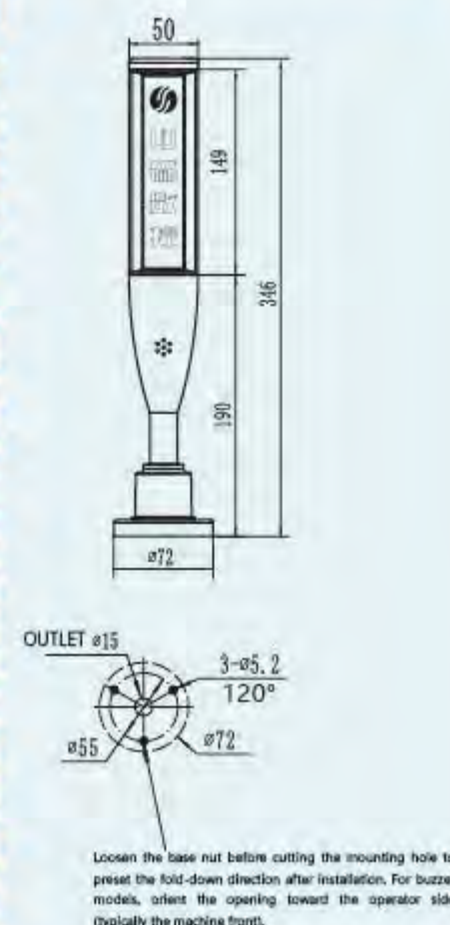
- 1. Dual-layer light guide structure, with customizable inner light guide columns for user-defined patterns.
- 2. Built-in high-efficiency buzzer.
- 3. Constant-current LED driving, using high-brightness SMD LEDs for extended service life.
- 4. 90° adjustable base, allowing the light to be folded down after installation, reducing protrusion to minimize damage risk during transportation for machine builders.

TECHNICAL PARAMETERS ■ WIRING METHOD

Rated voltage	DC24V
Operating voltage rang	80%~120% of rated voltage
Operating Temperature	-30~+60°C
Light Color	red, yellow, green
Power Consumption	≤3W
Buzzer Noise	≥90dB
Waterproof and Dustproof Level	IP30



INSTALLATION INSTRUCTIONS



JCB-8 SERIES WARNING LIGHT SERIES

PRODUCT FEATURES

- 1. Compact curved-profile design for easy installation and maintenance.
- 2. Acrylic light guide with internal thread pattern ensures uniform, glare-reduced illumination using high-brightness LEDs.
- 3. ABS housing provides a lightweight and corrosion-resistant structure suitable for machine tool environments.
- 4. Constant-current DC drive ensures stable performance and extended LED service life.
- 5. 90° adjustable base allows the light to be folded down after installation, reducing protrusion during machine transportation.
- 6. Patent No.: ZL2017101850276



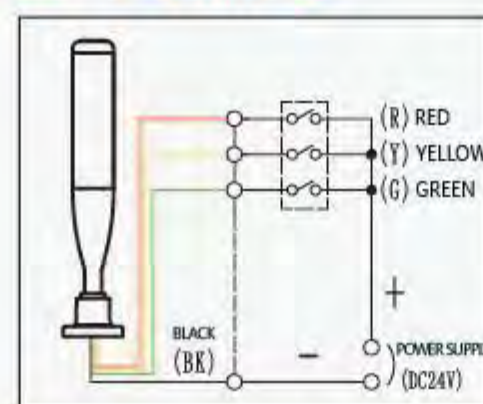
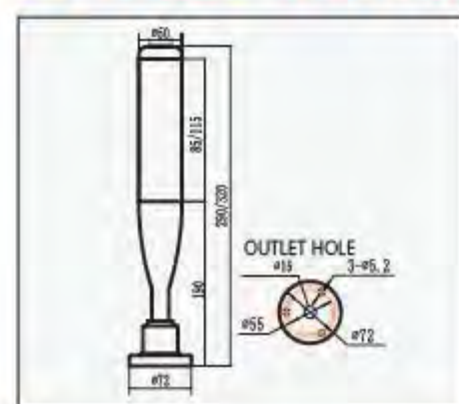
MODEL DESCRIPTION



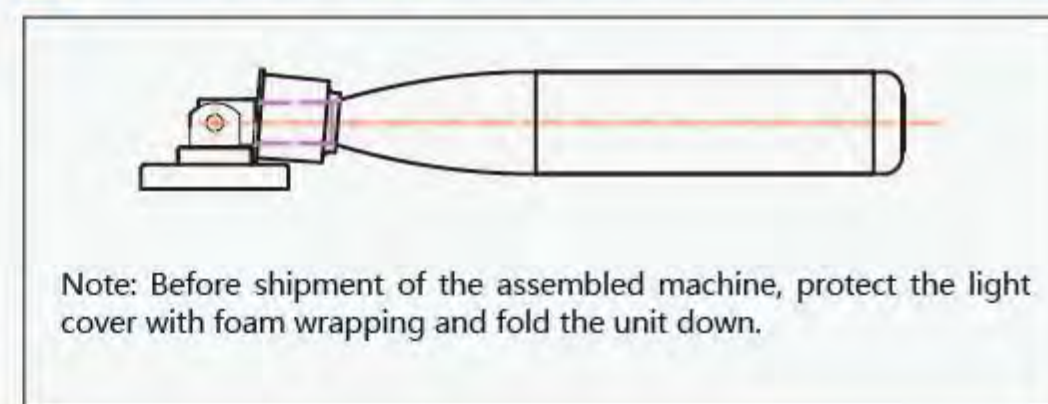
TECHNICAL PARAMETERS

Rated voltage	DC24V
Operating voltage rang	80%~120% of rated voltage
Operating Temperature	-30~+60°C
Light Color	red, yellow, green
Power Consumption	≤3W
Waterproof and Dustproof Level	IP54

INSTALLATION INSTRUCTIONS ■ WIRING



SHIPPING INSTRUCTIONS: EQUIPMENT CAN BE ROTATED WHEN PACKAGED FOR SHIPPING



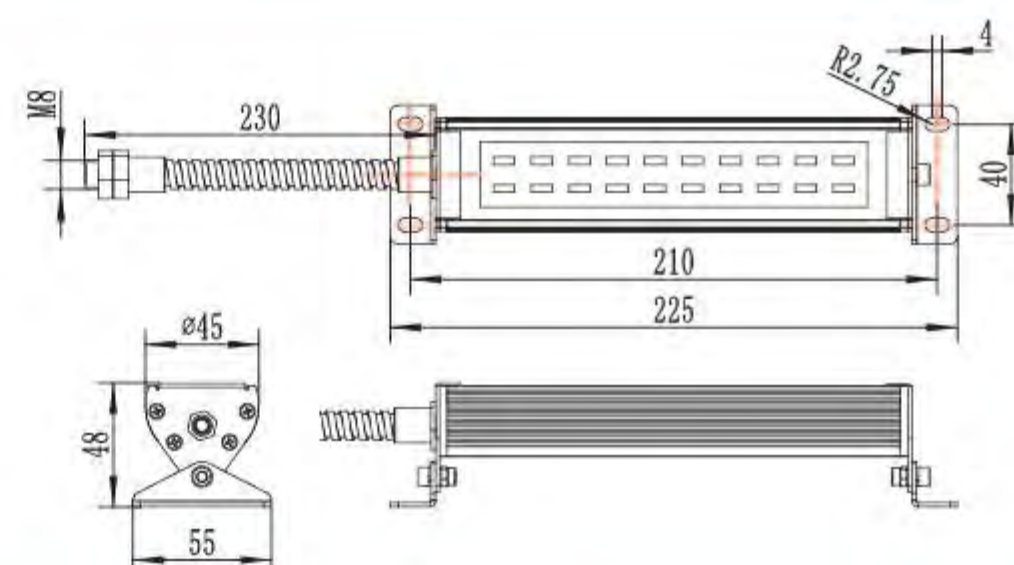
TECHNICAL PARAMETERS AND FEATURES

Model	GZD-L210-40	GZD-L236KB	GZD-L402-59-MS	GZD-L21W-KB
Technical Parameters				
Lens Material	Soda-lime glass	Soda-lime glass	Soda-lime glass	Soda-lime glass
Color temperature	6000~6500k	6000~6500k	6000~6500k	6000~6500k
Angle of illumination	138°	138°	138°	138°
Operating voltage	DC24V±2V	DC24V±2V	DC24V±2V	AC/DC24V±2V
Rated power	6W	6W	12W	21W
Service life	50000h	50000h	50000h	50000h
Ambient temperature	-30°C至+50°C	-30°C至+50°C	-30°C至+50°C	-30°C至+50°C
Insulation Resistance	≥ 500 MΩ (between live parts and non-live metal parts)			
Dielectric Strength	No breakdown at AC 500 V for 1 minute (between live parts and non-live metal parts)			
Product Features	★Anodized aluminum alloy housing with excellent wear, heat, and corrosion resistance; ★Efficient heat dissipation for extended LED service life; ★Adjustable mounting bracket with ±45° light angle adjustment; ★High-brightness LED chips with uniform light distribution and high efficiency; ★304 stainless steel flexible conduit at cable outlet for enhanced cable protection; ★Fully sealed end caps with potting, rated IP67 for water and dust protection;			
适用机型	CNC machining centers, CNC lathes, drilling and tapping centers, large laser systems, and other industrial machinery.			

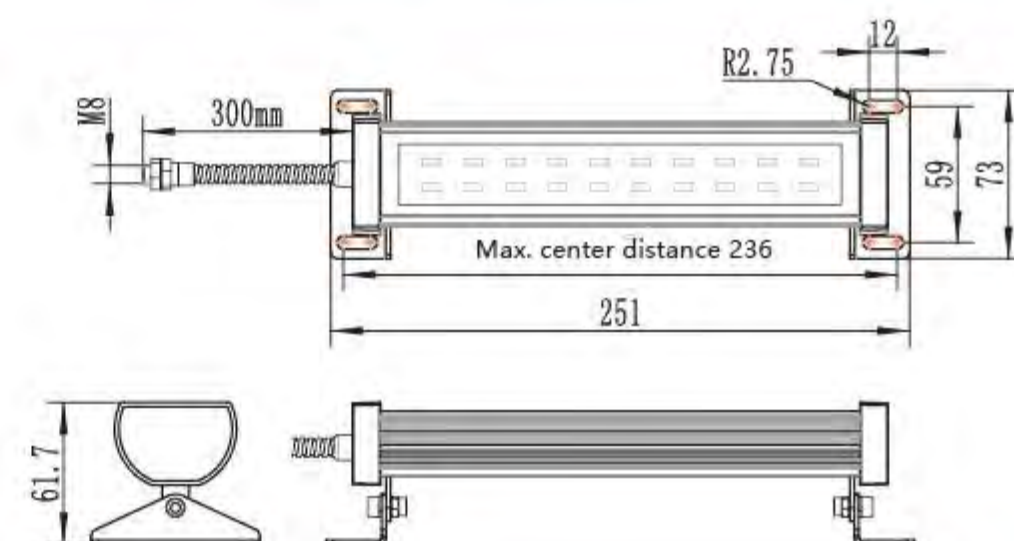
PRECAUTIONS

- 1. Must be wired by qualified personnel. Ensure all connections are secure and verify correct power input polarity/voltage;
- 2. Slight variations in brightness are inherent to LED manufacturing and do not indicate a defect;
- 3. Operate strictly within the rated voltage range. Over-voltage will cause irreversible damage;
- 4. Handle with care. Do not strike or apply pressure to the glass lens;
- 5. The flexible conduit fitting features an M8 thread. Compatible with M16×1.5 or M20×1.5 adapters.

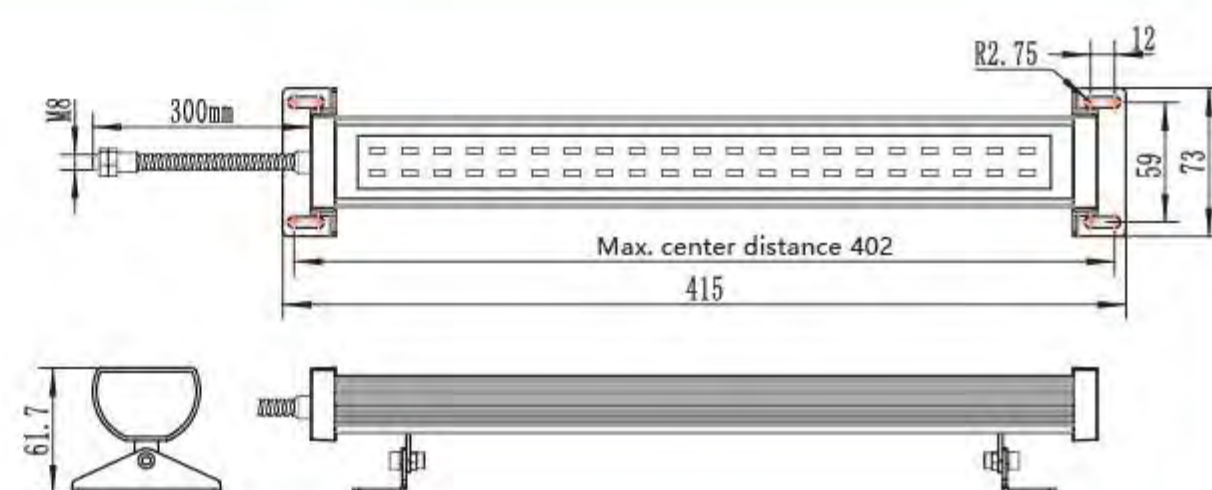
GZD-L210-40



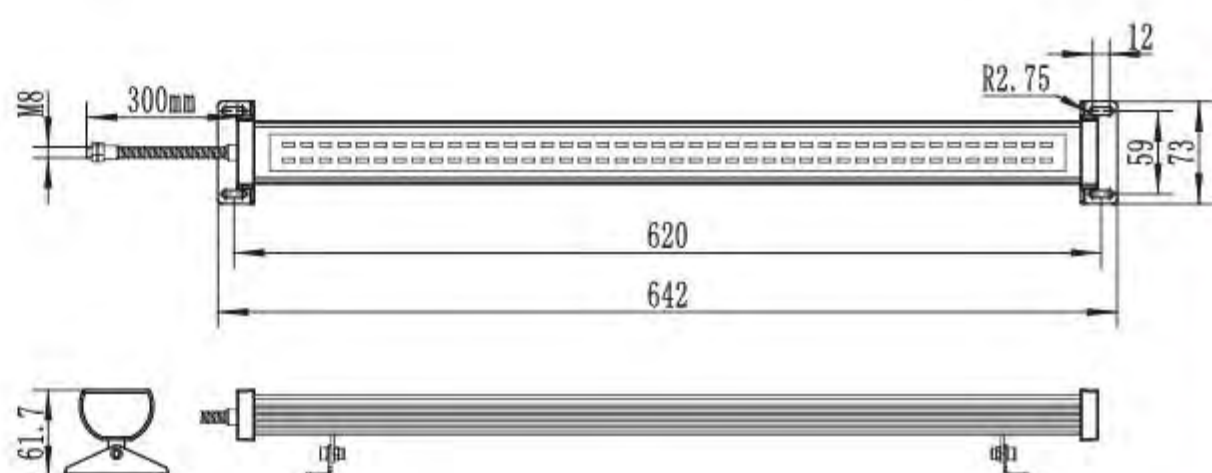
GZD-L236KB



GZD-L402-59-MS



GZD-21W-KB



GZD-E-YTDK SERIES WORK LIGHT

FEATURES

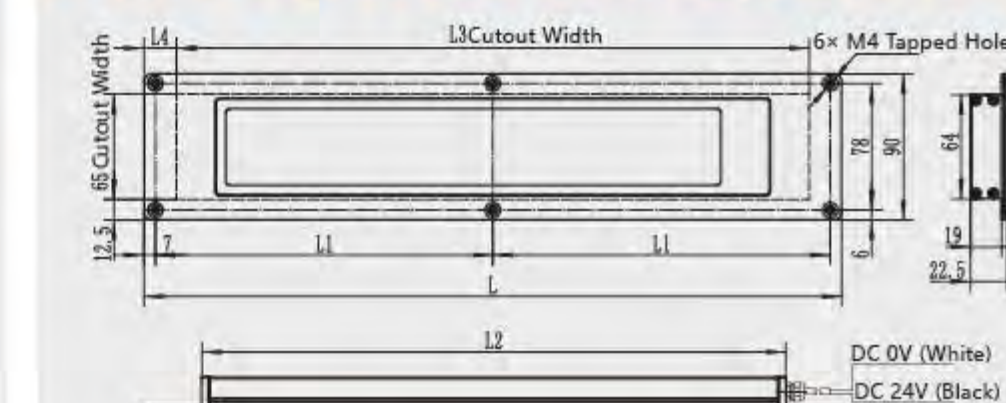
- ◆ Brushed aluminum finish with a sleek matte texture;
- ◆ Aluminum housing with excellent wear, heat, and corrosion resistance;
- ◆ Efficient heat dissipation for extended LED service life;
- ◆ High-brightness LEDs paired with a high-transmittance sandblasted diffuser deliver uniform illumination;
- ◆ Flush-mount installation conserves space inside the machine enclosure;
- ◆ Operates on safe DC 24 V power with built-in reverse polarity protection;

TECHNICAL PARAMETERS

Lens Material	Ultra-clear tempered glass
Color Temperature	6000~6500k
Operating Voltage	DC24V±2V
Rated Power	12W 18W 24W
Service Life	50000h
Ambient Temperature	-20°C~+50°C
Insulation Resistance	≥ 500 MΩ (between live parts and non-live metal parts)
Dielectric Strength	No breakdown at AC 500 V for 1 minute (between live parts and non-live metal parts)



MOUNTING DIMENSIONS



FUNCTIONAL DESCRIPTION

Machining generates oil mist and coolant vapor that can affect operator health, reduce efficiency, and accelerate machine wear. An oil mist collector removes airborne contaminants, improving the working environment and extending equipment service life.



APPLICATION

The oil mist collector is used to purify and recycle the oil mist generated by various processing equipment. It has a wide range of applications and is suitable for fully enclosed and semi-enclosed processing equipment, such as CNC numerical control equipment, gear processing equipment, and is especially suitable for metal processing, sheet metal processing and welding, mold manufacturing, automotive parts manufacturing, fasteners production, and other manufacturing industry equipment.

STRUCTURAL FEATURES

Mechanical-type structure with multi-stage filtration effectively captures and recovers oil mist, achieving over 99% collection efficiency under standard test conditions and maintaining high efficiency across varying concentrations.

Multi-stage filtration with progressively finer efficiency, compliant with JB/T 12907-2016.

Low noise design (≤ 75 dB(A)) for improved shop-floor conditions.

Compact, space-saving structure with flexible installation.

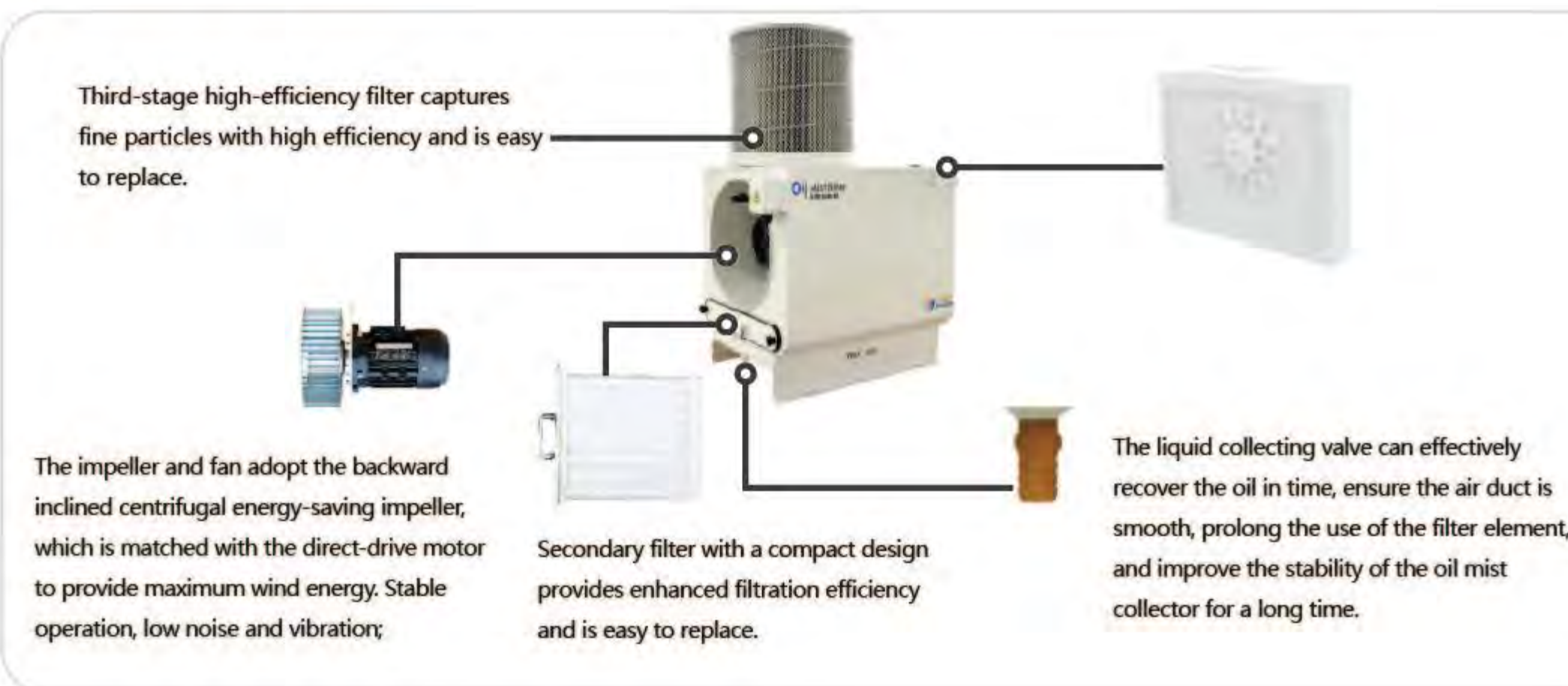
Simple design for easy installation and maintenance, reducing both initial investment and long-term operating costs.

Configurable filter combinations to suit different application requirements.

ADVANTAGES OF USE

- 1. Reduced impact on employees: Oil mist particles of 0.3 to 3.5 μm can remain in the body, posing a health hazard.
- 2. Reduce workplace accidents: Oil mist deposition makes the work area, floor, and walkways slippery and prone to fall accidents.
- 3. Reduce the damage to mechanical equipment: a large amount of oil mist generated by high-speed cutting for a long time adsorbed on the equipment and workpiece, may become the cause of mechanical equipment and electrical system failure. To the maintenance of machinery and equipment work to bring a lot of trouble, but also make the processing accuracy of machinery and equipment is greatly reduced.
- 4. Reduce the consumption of coolant: the recovered oil mist can be reused, reducing the expenditure of coolant for the factory.
- 5. Reduce damage to the environment and waste of resources: If the oil mist gas is discharged to the outdoor, it will damage the environment and cause waste of resources.

YWS2 SERIES



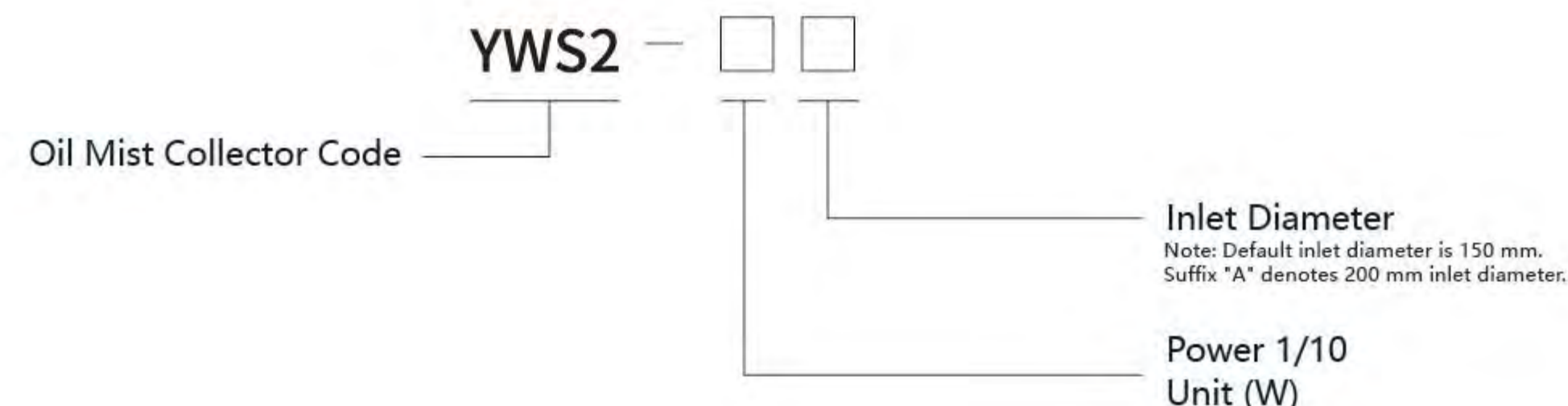
MODEL SELECTION METHOD

Recommended models are provided below based on typical applications and industry standards; final selection should be determined according to actual operating conditions.

For fully enclosed machines	Oil Mist Models	Inlet Diameter(mm)	Air Volume	Door openings and closings per minute, general value (times/minute)	Suitable for processing room volume(m^3)
	YWS2-55	$\Phi 148$	600	4~10	1~2.5
	YWS2-75	$\Phi 148$	800	4~10	1.5~3.5
	YWS2-150	$\Phi 148$	1000-1300	4~10	3~5
	YWS2-150A	$\Phi 198$	1300-1500	4~10	4~6
	YWS2-220	$\Phi 148$	1500-1800	4~10	5~7
	YWS2-220A	$\Phi 198$	1800-2100	4~10	7~10
General Formula		Airflow = Volume*Opening Frequency*60			

For partially enclosed machines	Oil Mist Models	Inlet Diameter(mm)	Air Volume	Estimated air speed required to absorb oil mist, general value(m/s)	Suitable for the opening area of the processing room(m^2)
	YWS2-55	$\Phi 148$	600	$0.5 < V < 1$	0.3~0.6
	YWS2-75	$\Phi 148$	800	$0.5 < V < 1$	0.4~0.8
	YWS2-150	$\Phi 148$	1000-1300	$0.5 < V < 1$	0.5~1.0
	YWS2-150A	$\Phi 198$	1300-1500	$0.5 < V < 1$	0.6~1.2
	YWS2-220	$\Phi 148$	1500-1800	$0.5 < V < 1$	0.9~1.8
	YWS2-220A	$\Phi 198$	1800-2100	$0.5 < V < 1$	1.1~2.2
General Formula		Air volume = open area * estimated wind speed * 3600			

MODEL DESCRIPTION



PRODUCT PARAMETERS

Model No.	YWS2-55	YWS2-75	YWS2-150	YWS2-150A	YWS2-220	YWS2-220A
Power supply	3-phase, 220V/380V	3-phase, 220V/380V	3-phase, 220V/380V	3-phase, 220V/380V	3-phase, 220V/380V	3-phase, 220V/380V
Power (kW)	0.55	0.75	1.5	1.5	2.2	2.2
Rotating speed (R.P.M)	2740	2840	2840	2840	2840	2840
Current (A)	2.33/1.35	3.06/1.77	5.77/3.33	5.77/3.33	8.15/4.72	8.15/4.72
Air Volume (m ³ /h)	600	800	1000-1300	1300-1500	1500-1800	1800-2100
Noise dB (A)	66±2	66±2	68±2	68±2	68±2	68±2
Efficiency (%)	99	99	99	99	99	99
Inlet Diameter (mm)	Φ148	Φ148	Φ148	Φ198	Φ148	Φ198
Diameter of Oil Return Port (mm)	16	16	16	16	16	16
Element Material	Synthetic Fiber	Synthetic Fiber	Synthetic Fiber	Synthetic Fiber	Synthetic Fiber	Synthetic Fiber
Dimensions (L × W × H) (mm, without three-stage cartridge and holder)	610 × 400 × 530	630 × 410 × 550	640 × 450 × 586	640 × 450 × 586	640 × 450 × 586	655 × 450 × 586
Power Cord	4-core	4-core	4-core	4-core	4-core	4-core
Color	RAL9010 Customizable	RAL9010 Customizable	RAL9010 Customizable	RAL9010 Customizable	RAL9010 Customizable	RAL9010 Customizable

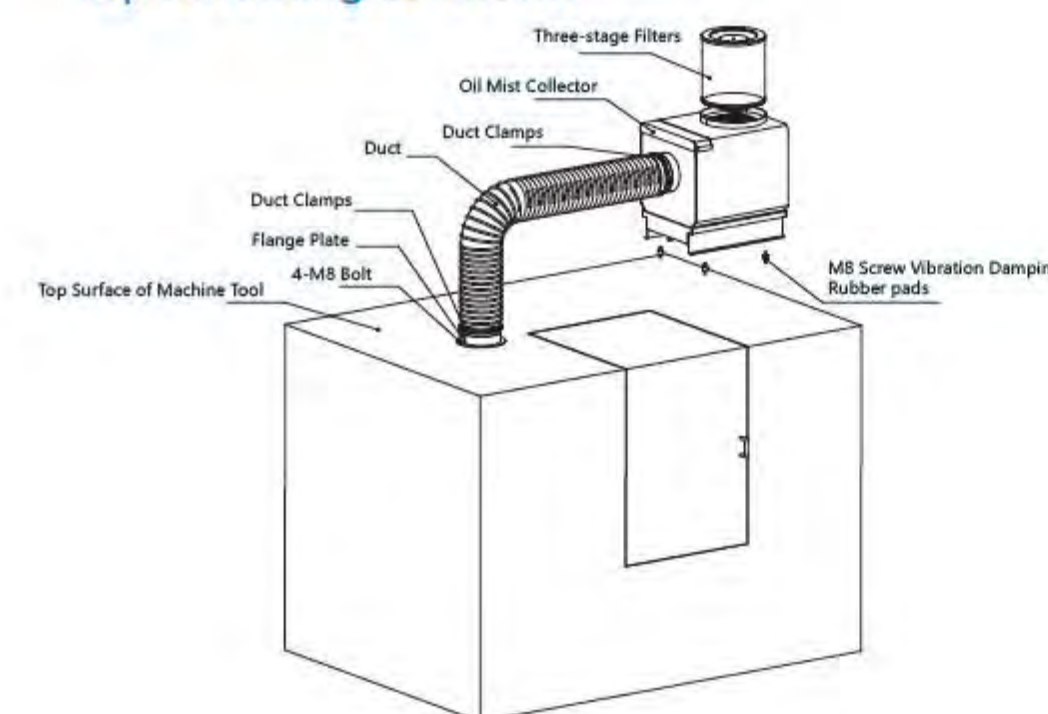
Note: Customers with special requirements for products support customization.

OPTIONAL ACCESSORIES

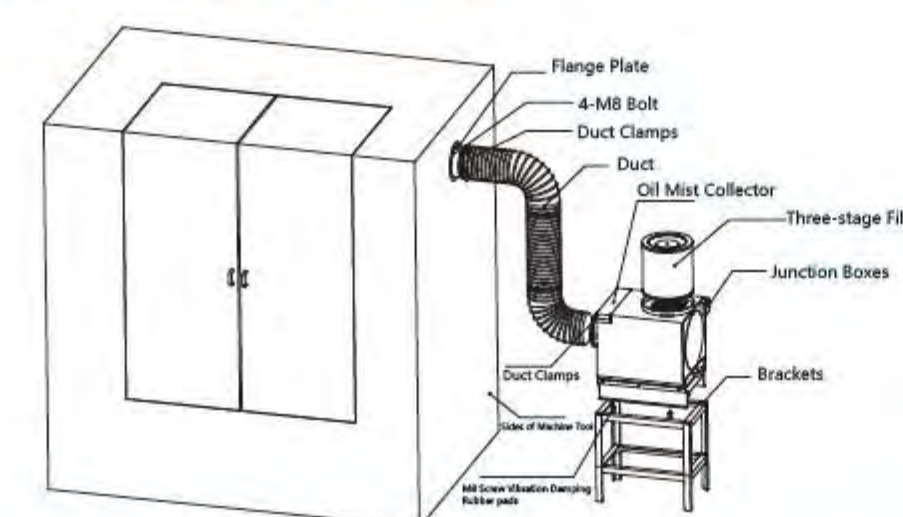


INSTALLATION METHOD

Top Mounting as Shown



Side Mounting as Shown



COLLECTION METHOD

CENTRIFUGAL AGGREGATION,
RETURN PIPE RETURN

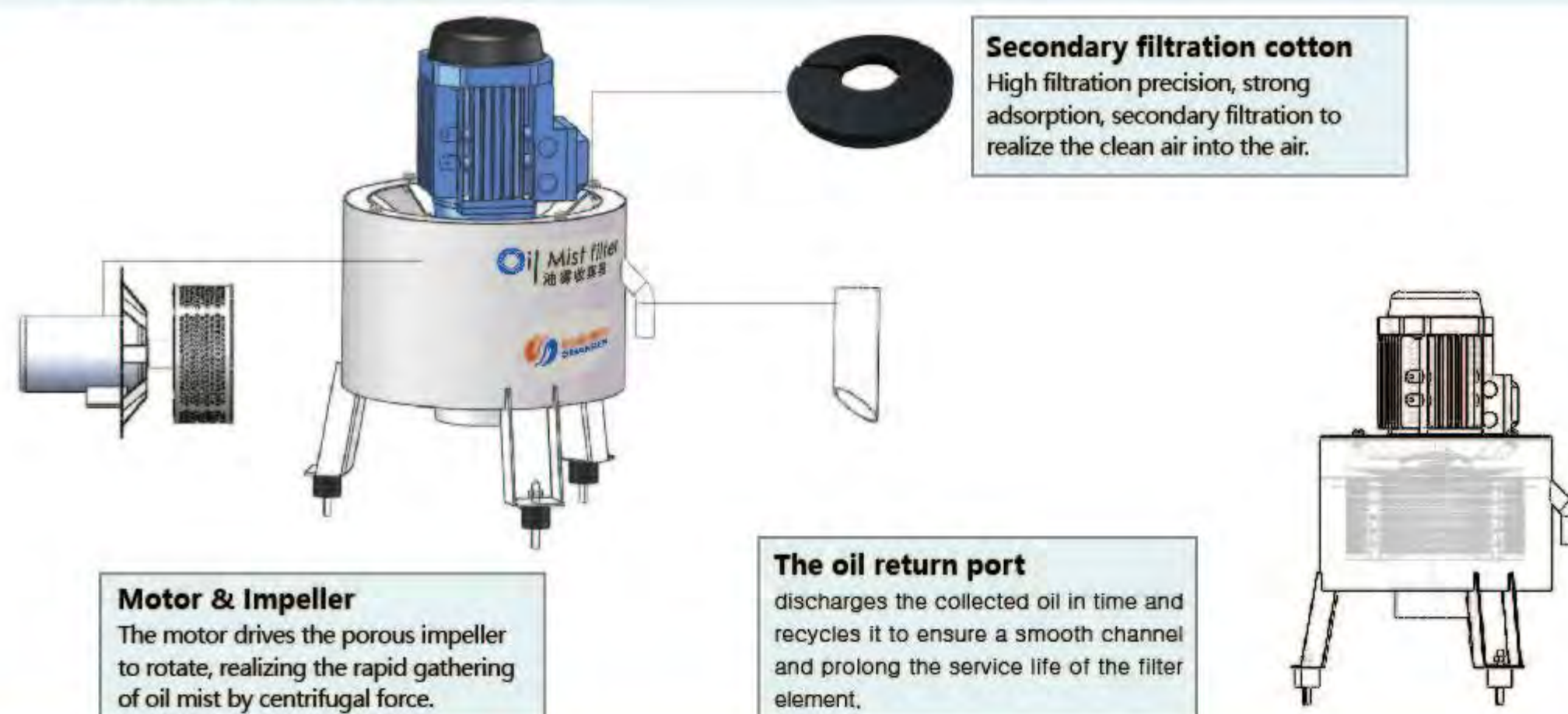
STRUCTURAL FEATURES

- Oil mist collector adopts mechanical centrifugal structure, using porous centrifugal impeller collision, fine filter cotton cohesion on the effective collection and recovery of oil mist, the collection rate of more than 99%, and for different concentrations of oil mist All have excellent recycling efficiency.
- High working efficiency, high filtration precision, effective collection and recycling.
- The equipment is stable and reliable, and complies with the industry standard JB/T12907-2016.
- Low upfront investment and post maintenance costs.
- Low noise design to improve the quality of workshop working environment.
- Scientific design, simple structure, easy to install and maintain.

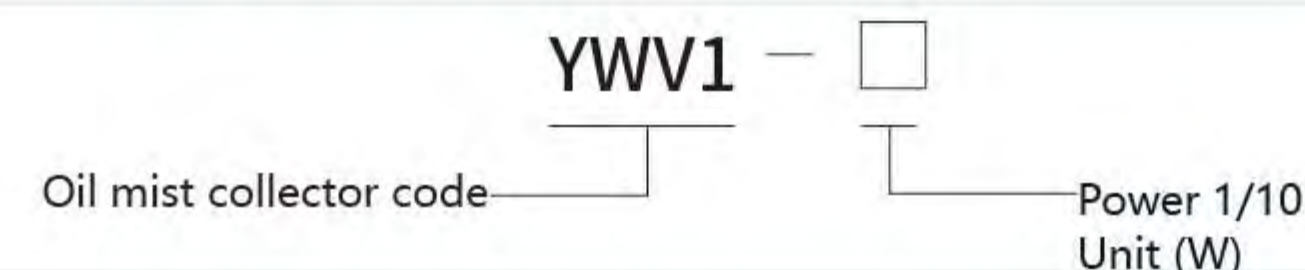


ADVANTAGES

- Reduce the impact on employees: 0.3-3.5um oil mist particles are inhaled and difficult to expel, jeopardizing health.
- Reduces workplace accidents: Oil mist deposits make work areas and floors slippery and prone to fall accidents.
- Reduced damage to machinery and equipment: oil mist adsorbed on equipment and workpieces for long periods of time can lead to mechanical and electrical system failures. Obstacles. Affects the work of mechanical equipment and reduces the machining accuracy of mechanical equipment.
- Reduce the consumption of coolant: the recovered oil can be reused, reducing the cost of the enterprise.
- Reduces environmental damage and resource waste: Oil mist discharged into the air damages the environment and also causes resource waste.
- Reduces environmental damage and resource waste: Oil mist discharged into the air damages the environment and also causes resource waste.



MODEL DESCRIPTION



PRODUCT PARAMETERS

Model No.	Power supply	Power (kW)	Rotating speed (R.P.M)	Current (A)	Air Volume (m3/h)	Noise dB (A)	Efficiency (%)	Inlet Diameter (mm)	Diameter of Oil Return Port (mm)	Element Material	Dimensions (d×h)	Power Cord	Color
YWV1-18	3-phase, 220V/380V, 50Hz	0.18	2800	0.92/0.53	400	66±2	99	100	16	Synthetic Fiber	260×388	4芯	RAL9010(Customizable)
YWV1-37	3-phase, 220V/380V, 50Hz	0.37	2800	3.04/1.76	600	66±2	99	100	16	Synthetic Fiber	300×526	4芯	RAL9010(Customizable)
YWV1-150	3-phase, 220V/380V, 50Hz	1.5	2840	5.77/3.33	1500	68±2	99	200	16	Synthetic Fiber	360×600	4芯	RAL9010(Customizable)

Note: Customers with special requirements for products support customization.

MODEL SELECTION METHOD

Recommended models are provided below based on typical applications and industry standards; final selection should be determined according to actual operating conditions.

For fully enclosed machines	Oil Mist Models	Air Volume	Door openings and closings per minute, general value (times/minute)	Suitable for processing room volume(m³)
	YWV1-18	400	4~10	0.5~1
	YWV1-37	600	4~10	1~2
	YWV1-150	1500	4~10	2~5
	General Formula: Airflow = Volume*Opening Frequency*60			
For partially enclosed machines	Oil Mist Models	Air Volume	Estimated air speed required to absorb oil mist, general value(m/s)	Suitable for the opening area of the processing room(m²)
	YWV1-18	400	0.5<V<1	0.05~0.1
	YWV1-37	600	0.5<V<1	0.1~0.15
	YWV1-150	1500	0.5<V<1	0.15~1
	General Formula: Open Area * Estimated Wind Speed * 3600			

CLOSED-ENDED TYPE CALCULATION METHOD

Q—Oil mist collector air volume, in cubic meters per hour (m³ / h);
W×D×H—The volume of the processing chamber cavity (length×width×height), unit is meter (m)
A—The number of air changes per minute in the processing room, in units of times per minute (times/min).

OPEN-ENDED TYPE CALCULATION METHOD

Q—Oil mist collector air volume, in cubic meters per hour (m³ / h);
A × B—Opening size of the processing chamber (length x width), in meters (m)
V—Oil mist suction is expected to require wind speed, the unit is meters per second (m/s), generally more than 0.5m/s

CONSUMABLES REPLACEMENT



COLLECTION METHODS

ELECTROSTATIC ADHERENCE,
RETURN OIL PIPE RETURN FLOW

FUNCTIONAL SPECIFICATION

Machining generates oil mist and coolant vapor that can affect operator health, reduce efficiency, and accelerate machine wear. An oil mist collector removes airborne contaminants, improving the working environment and extending equipment service life. Highly integrated, filter-free design reduces maintenance costs while effectively improving workshop air quality.



STRUCTURAL FEATURES

- ◆ Mainly for the collection and recovery of oil-based atomized particles in the machining industry.
- ◆ The electrostatic oil mist collector adheres the oil smoke to the collector by means of electrostatic collection to achieve the purpose of purifying the oil.
- ◆ All basic components and electrostatic modules can be used again after cleaning, no disposable solid waste, low maintenance costs.
- ◆ Oil mist and oil smoke particles are mechanically separated through the honeycomb metal mesh, and smaller oil mist and particles are purified by the electrostatic module.
- ◆ The equipment is stable and accessible, in line with industry standard JB/T 12907-2016.
- ◆ Compact structure, easy to install, clean and maintain, improve the flexibility of the equipment.
- ◆ Low nest sound design $\leq 72\text{db(a)}$, improve the quality of the workshop working environment.

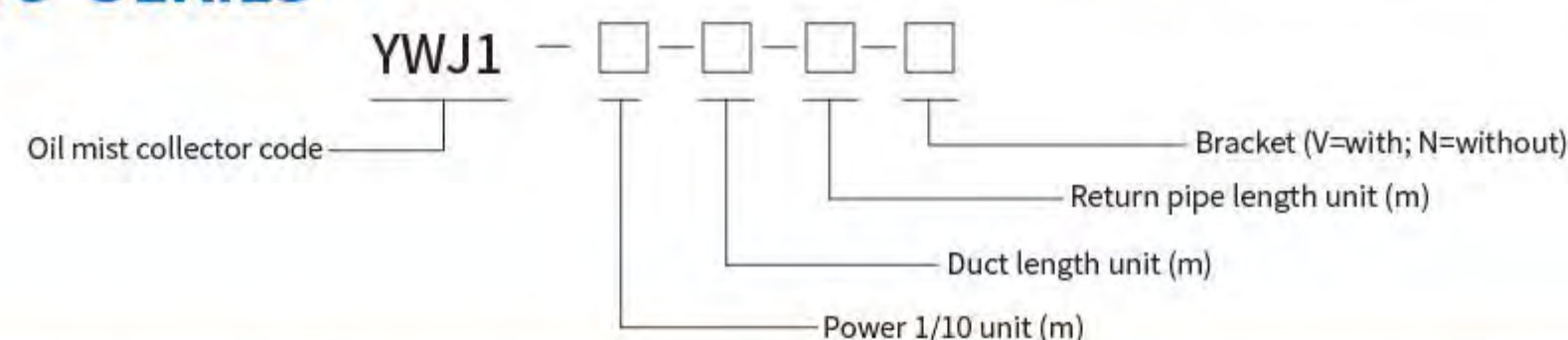
USE ADVANTAGE

- ◆ Efficient purification: The electrostatic oil mist collector can efficiently remove oil mist particles with a size of 0.1-0.01 microns, with a purification efficiency of over 98%.
- ◆ Reduce industrial accidents: oil mist deposition makes the working area, floor, walkway slippery, easy to cause fall accidents.
- ◆ Low operating cost: the equipment does not need to replace the filter material, low operating cost, simple maintenance.
- ◆ Reduce damage to mechanical equipment: a large amount of oil mist generated by high-speed cutting is adsorb on equipment and workpieces for a long time, can be the cause of mechanical equipment and electrical system failure. It brings no small trouble to the maintenance of machinery and equipment, it also greatly reduces the processing accuracy of mechanical equipment.
- ◆ Reduce damage to the environment and waste of resources: if the oil mist gas is discharged to the outside, it will damage the environment and cause capital waste on the source.

PRODUCT PARAMETERS

Model number	Adaptive power supply	Fan Power (kW)	Handling air volume (m ³ /h)	Electrode form	Output voltage HV (kV)	Output voltage LV (kV)	Output current (mA)	Electrostatic power (W)	Processing efficiency	Suction air temperature	Suction diameter (mm)	Size/quantity of electric field	Dimensions LxWxH (mm)	Mounting Dimension LxW (mm)	Weight (kg)
YWJ1-15	220V 50HZ	0.15	600-800	Double high voltage wire board	12	6	20	300	$\geq 98\%$	$< 80^{\circ}\text{C}$	150	340x361x360/1	664x488x480	535x285	45

YWJ1-15 SERIES

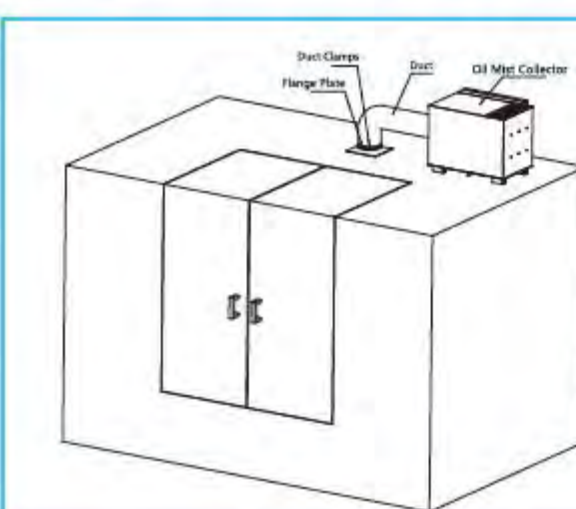


INTERPRETATION OF RESULTS

- ◆ The oil mist collector consists of a main body unit, electrical control box, pre-filter, and an integrated electrostatic field (high-voltage ionization with low-voltage collection).
- ◆ The main unit includes an integrated motor-impeller assembly and an oil drain valve.
- ◆ Modular design allows for efficient maintenance.

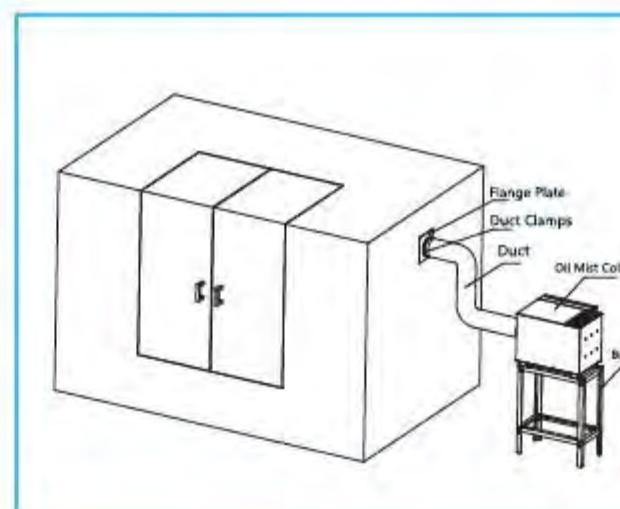


MOUNTING METHOD



Top Mounting

- ◆ Prepare suction opening if not pre-installed.
- ◆ Mount main body unit on machine top and secure; install flange over opening.
- ◆ Connect flexible duct with hose clamp; avoid U-shaped routing.



Side Mounting

- ◆ Prepare floor bracket and mounting holes according to installation dimensions.
- ◆ Place main body unit on bracket and secure; install flange to machine suction opening.
- ◆ Connect flexible duct with hose clamp; avoid U-shaped routing.

OPTIONAL ACCESSORIES



ELECTROSTATIC FIELD CLEANING PROCEDURE

1. Switch off the main power supply.
2. Discharge residual voltage using an insulated tool.
3. Remove the electrostatic unit.
4. Prepare a cleaning solution (approx. 60 ° C water with caustic soda at 50:1, or a dedicated cleaner).
5. Immerse the unit for about 20 minutes.
6. Rinse with a low-pressure water jet to remove oil residues, then allow to dry completely.
7. Reinstall the unit and close the electrical cabinet.

Note:

- ◆ Do not alter the spacing between plates.
- ◆ Ensure the unit is completely dry before reinstallation (air-dry ≥ 20 hours until no moisture remains).

OIL SKIMMER

PRODUCT OVERVIEW

The oil skimmer is designed to remove non-water-soluble oils floating on the surface of coolant tanks, such as lubricating and cutting oils.

During operation, oils from lubrication and machining processes enter the coolant system, affecting cooling performance and causing odor and environmental concerns.

The use of an oil skimmer effectively removes surface oils, helping maintain coolant quality and ensure stable production.

PRODUCT ADVANTAGES

- ◆ 1.Simple structure, easy to maintain.
- ◆ 2.Using waterproof bearings, high reliability.
- ◆ 3. Compact modular design with physical separation, generating no secondary contamination.
- ◆ 4.Scraper provides adjustable angle function, which is convenient for users.

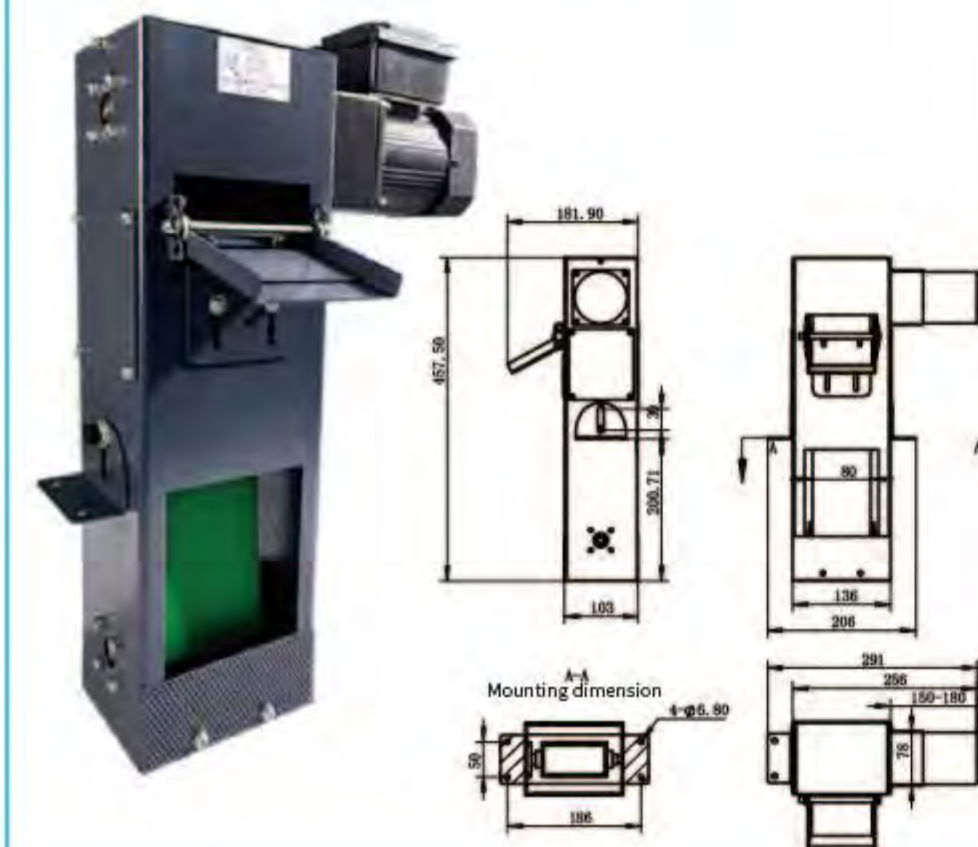
TECHNICAL PARAMETERS

Model No.	YSF2-25150	YSF3-350	YSF3-25150-YP	YSF3-14020
Power Supply	THREE-PHASE380V/220V SINGLE-PHASE220V	SINGLE-PHASE110V/220V	THREE-PHASE380V/220V SINGLE-PHASE220V	SINGLE-PHASE220V
Power (W)	25W	6W	25W	14W
Motor Speed (r/min)	1250	1400	1250	20
Gear Reduction Ratio	1:150	1:120	1:150	
Current (A)	0.4	0.3	0.4	0.11
Separation Efficiency and Flow Rate(Uh)	99% 1.5	99% 1.5	99% 1.5	99% 1.5
Synchronous Belt Material	PU	PU	stainless	stainless
Dimensions (L×W×H, without oil box)	291×200×460	265×130×465	320×120×311	260×140×379
Color	Black/gray (customizable)			

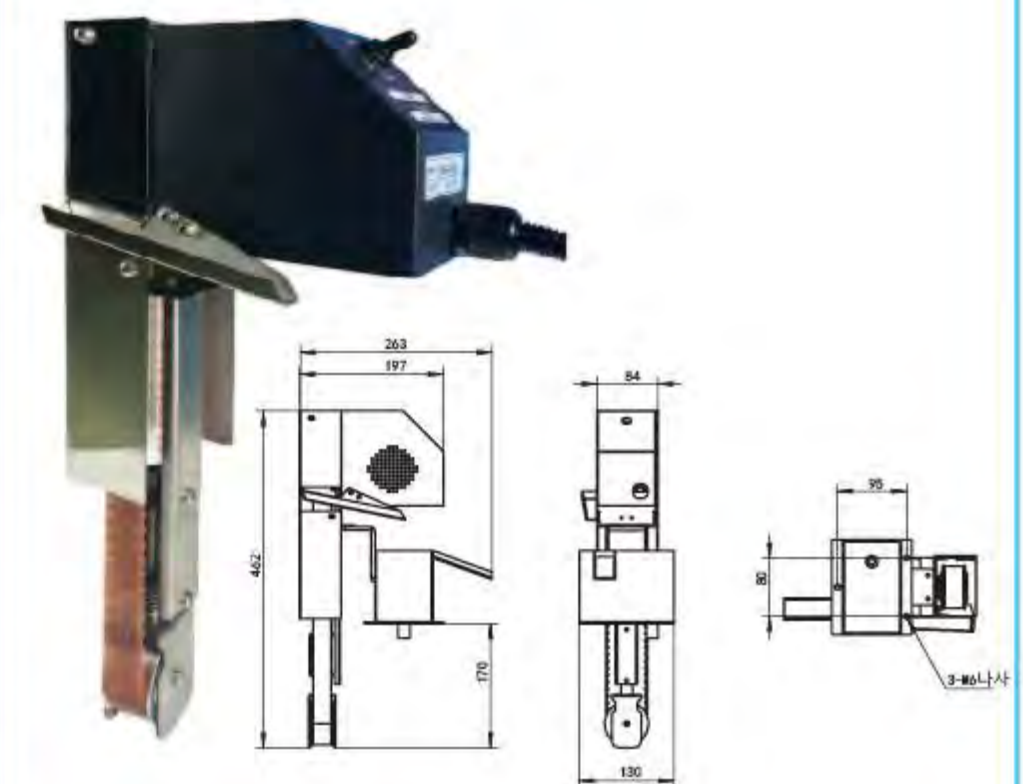
OIL SKIMMER

OUTLINE AND MOUNTING DIMENSIONS

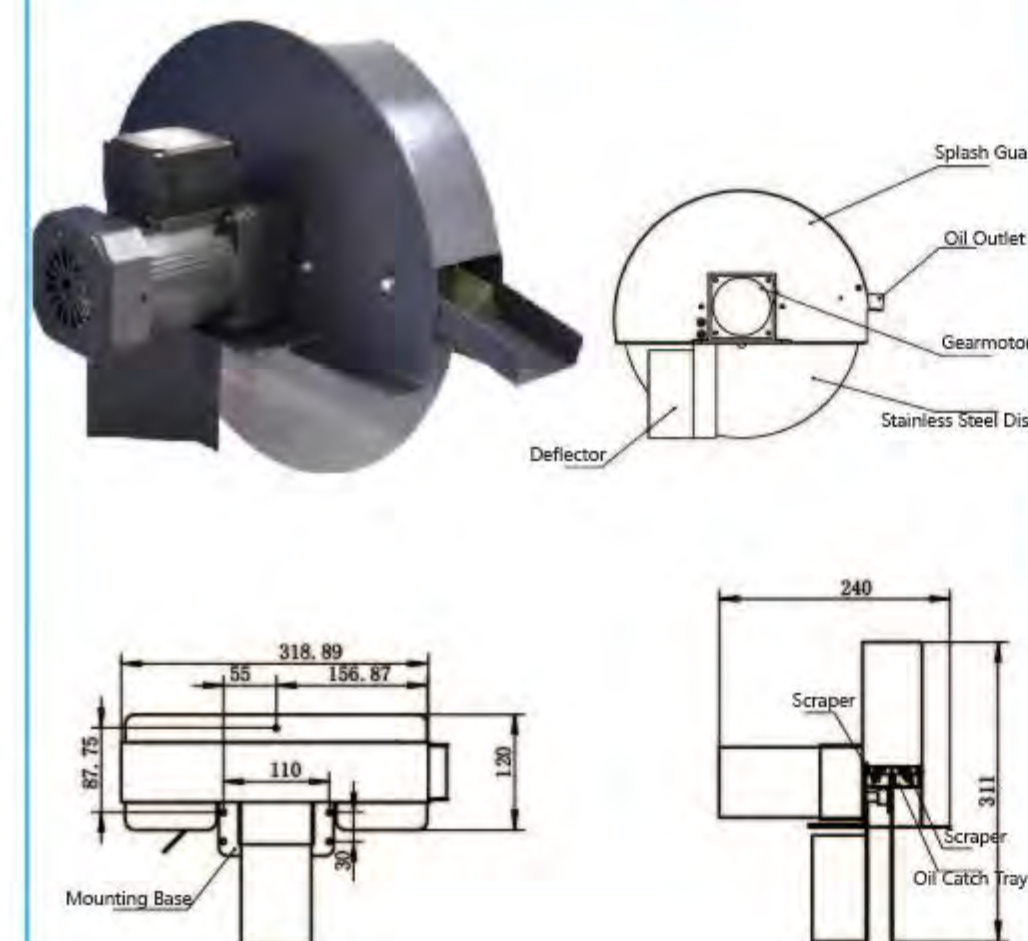
YSF2-25150 Size Description



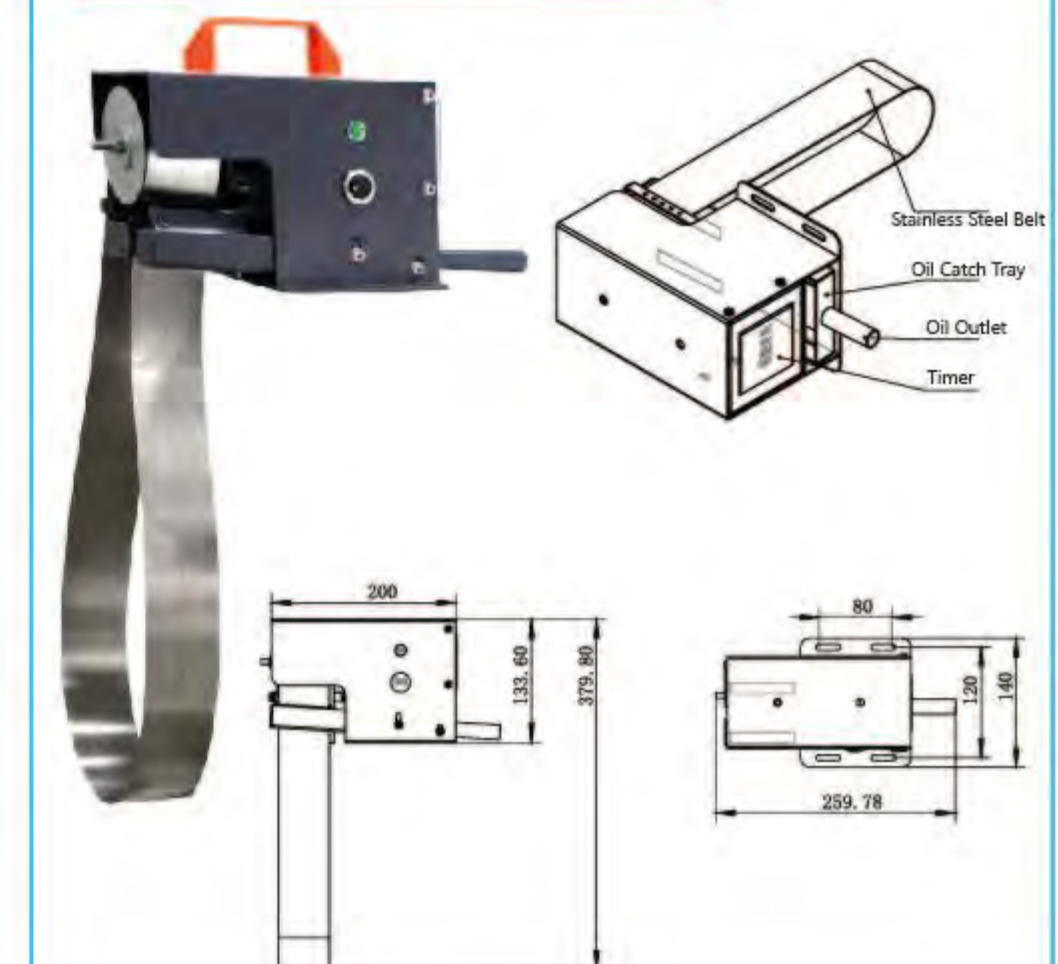
YSF3-350 Size Description



YSF3-25150-YP Size Description



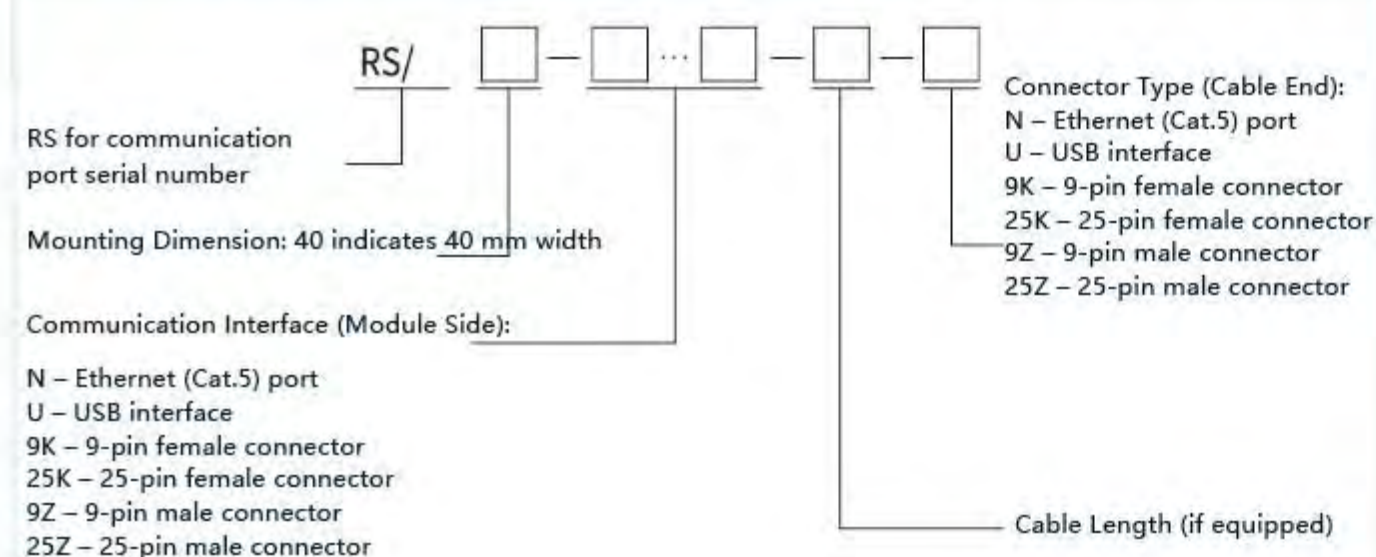
YSF3-14020 Size Description



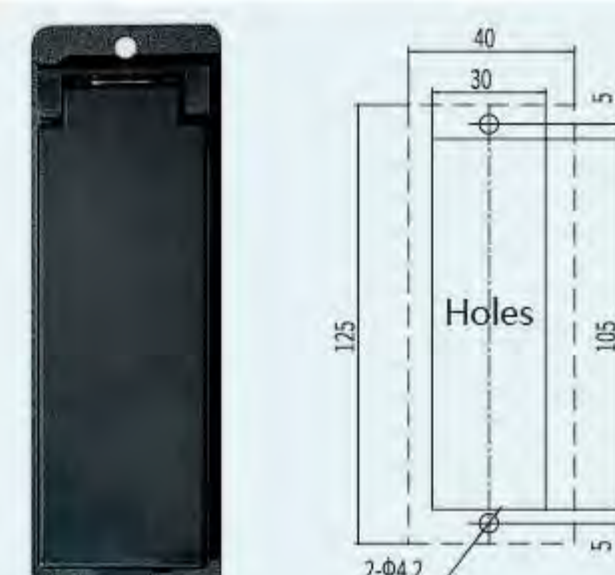
RS40 COMMUNICATION PORT

Used for data communication between CNC machines and computers, the module supports various interface combinations (9-pin, 25-pin, USB, Ethernet) and can be customized with cables and connectors as required.

MODEL DESCRIPTION



RS40 MOUNTING DIMENSIONS



RS40-N

RS40--N-U

RS40-9K



RS40-9K-N

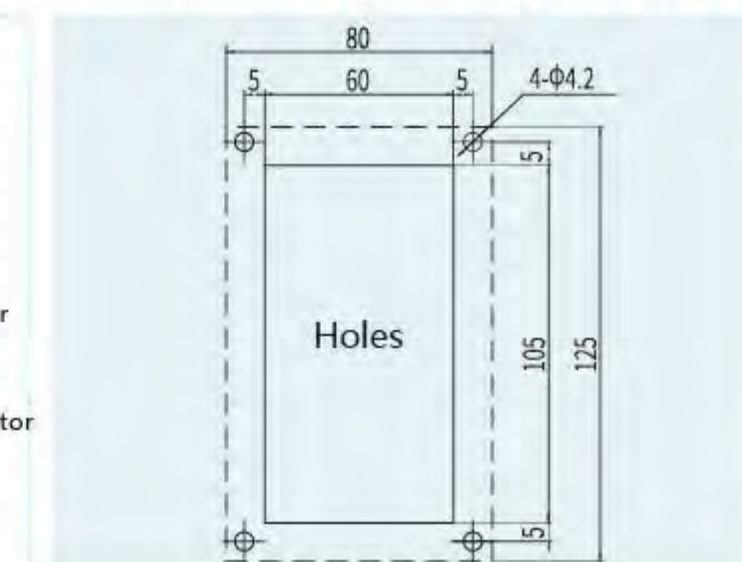
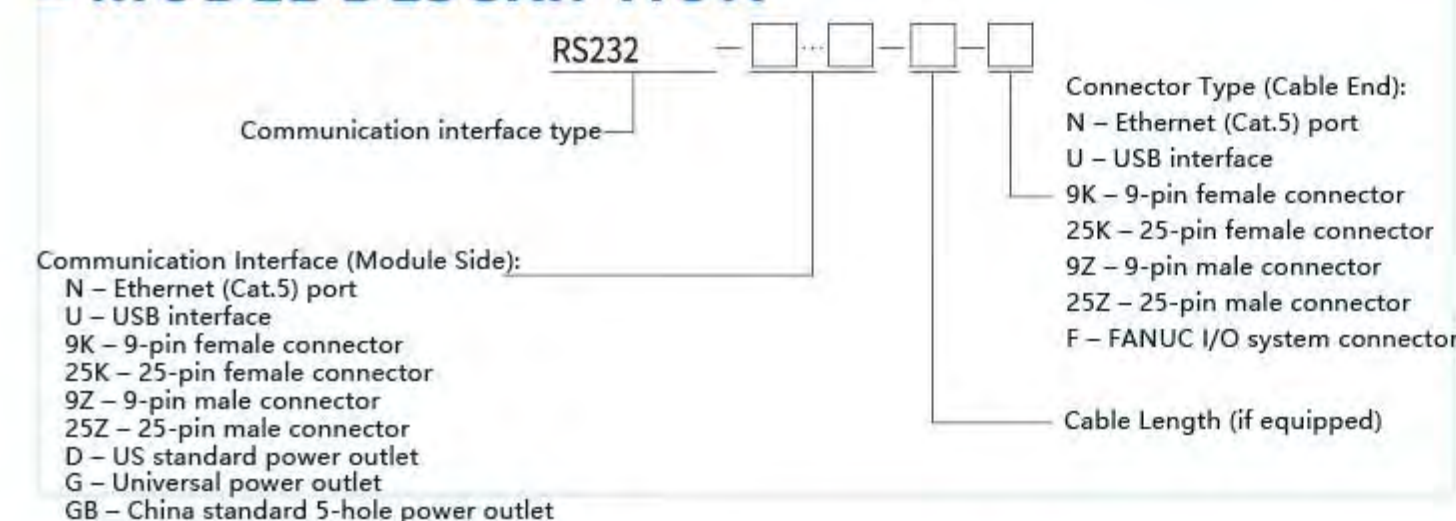


RS40-25K

RS232 COMMUNICATION PORT

DIMENSION INSTALLATION

MODEL DESCRIPTION



RS232-9K25K-N-D-1M-N



RS232-NU-GB

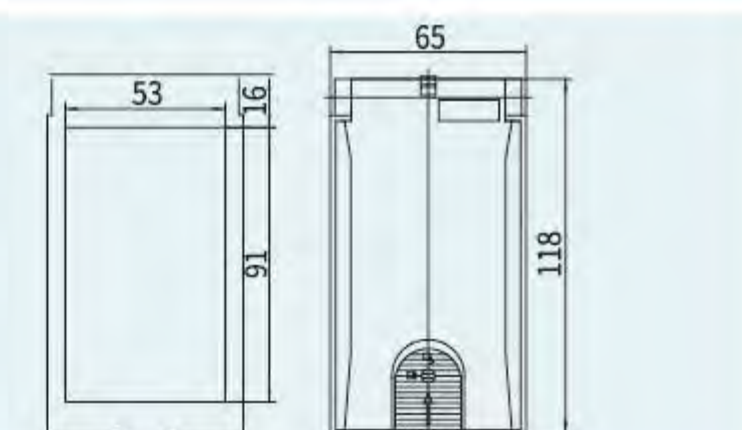
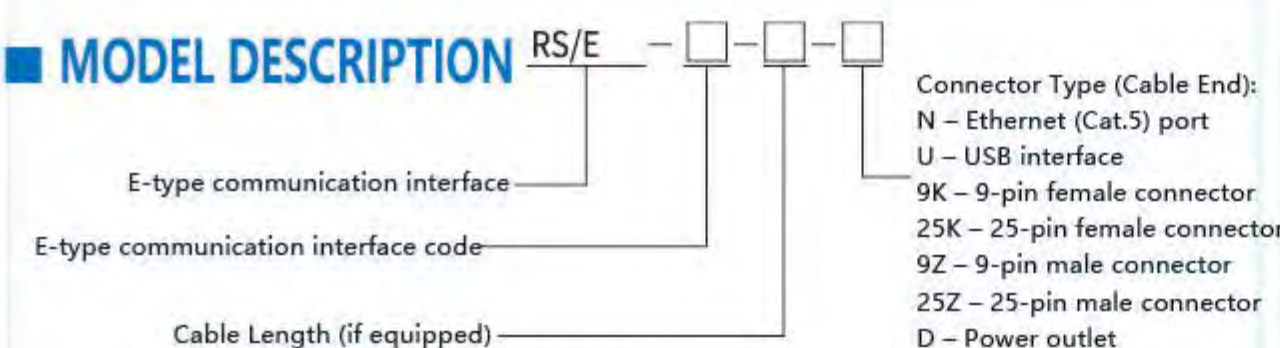


RS232-25KN-1M1M-FN-GB

E-TYPE COMMUNICATION PORT

Communication port module is mainly used for communication between CNC machine tools and computers, with 9-core, 25-core, USB port, NIC socket and other combinations, according to user requirements can be with the transmission line and the plug connected to the end of the CNC system. Won the national utility model patent, patent number ZL2008200246001.

MODEL DESCRIPTION



E-TYPE COMMUNICATION PORT CODE DESCRIPTION

Code	1	2	3	4	5	6	7	8
Panel Connectors								
Note	China Standard Multi-function Socket Single-phase 220V5A	With USB Socket RJ45 Socket D-shape 9-pole Socket	With USB Socket RJ45 Socket D-shape 25-pole Socket	With BNC Socket RJ45 Socket D-shape 9-pole Socket	With D-type 25-pole Socket D-type 9-pole Socket	German Standard (VDE) Multi-function Socket Single Phase 230V6A	American Standard (NEMA5-15) Multi-function Socket Single-phase, 120V, 5A D-shape 9-pole Socket	Australia Single Phase 220V5A



PRODUCTS

ZD-15 AC motor electronic brake is an electronic control device to realize fast and effective braking of AC asynchronous motor. ZD-15S is mounted by 35mm standard clamping rail and ZD-15L is mounted by connecting plate.



ZD-15S



ZD-15L

PRODUCT FEATURES

- 1. Braking effect is fast, effective and long service life.
- 2. Braking current and braking time can be set according to AC motor and load.
- 3. Can monitor whether the AC motor braking stall, in the motor braking stall half a second to one second to stop the output of the braking signal.
- 4. Conveniently connected with the main circuit of AC motor, applicable to single-speed, multi-speed, star connection, angle connection, and can be interlocked with the control circuit to ensure safe and reliable operation.
- 5. For the user, the use of the device relative to the use of traditional braking device has the advantages of low cost, easy to install, rapid braking, long service life and so on.

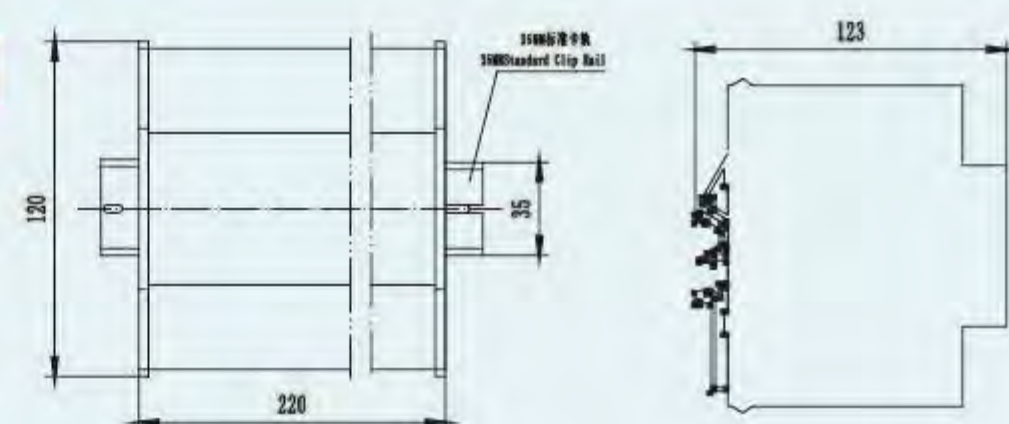
PRECAUTIONS

- 1. In the case of braking time allows to reduce the braking current, in order to avoid overheating and vibration of the motor, generally set the braking current should be less than 1.2 times the rated current of the motor.
- 2. When connecting the external line, you must ensure that the brake contactor and the motor forward and reverse contactor are interlocked to prevent the power supply from short-circuiting.

INSTALLATION INSTRUCTIONS

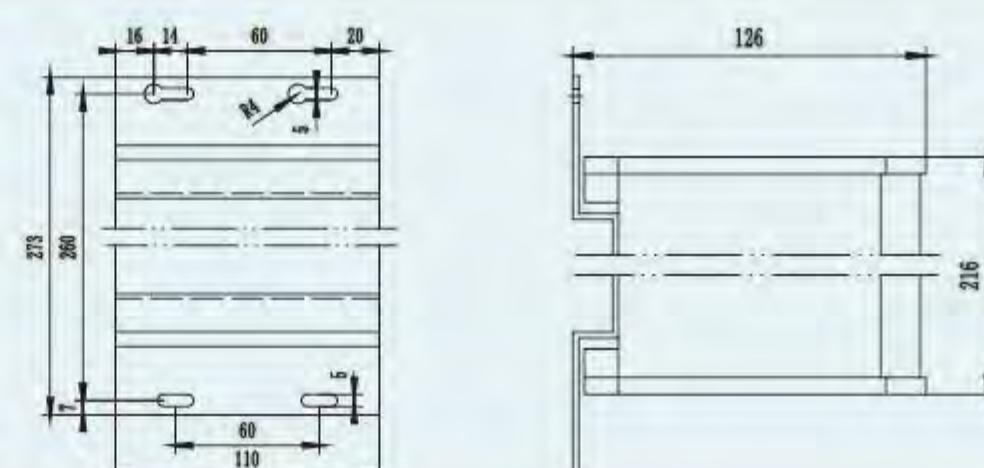
ZD-15S installation dimensions and description

Mounted on a 35mm rail, firmly grounded, the input power supply should be connected to a two-phase air switch before connecting to the power supply side of the brake.



ZD-15L installation dimensions and description

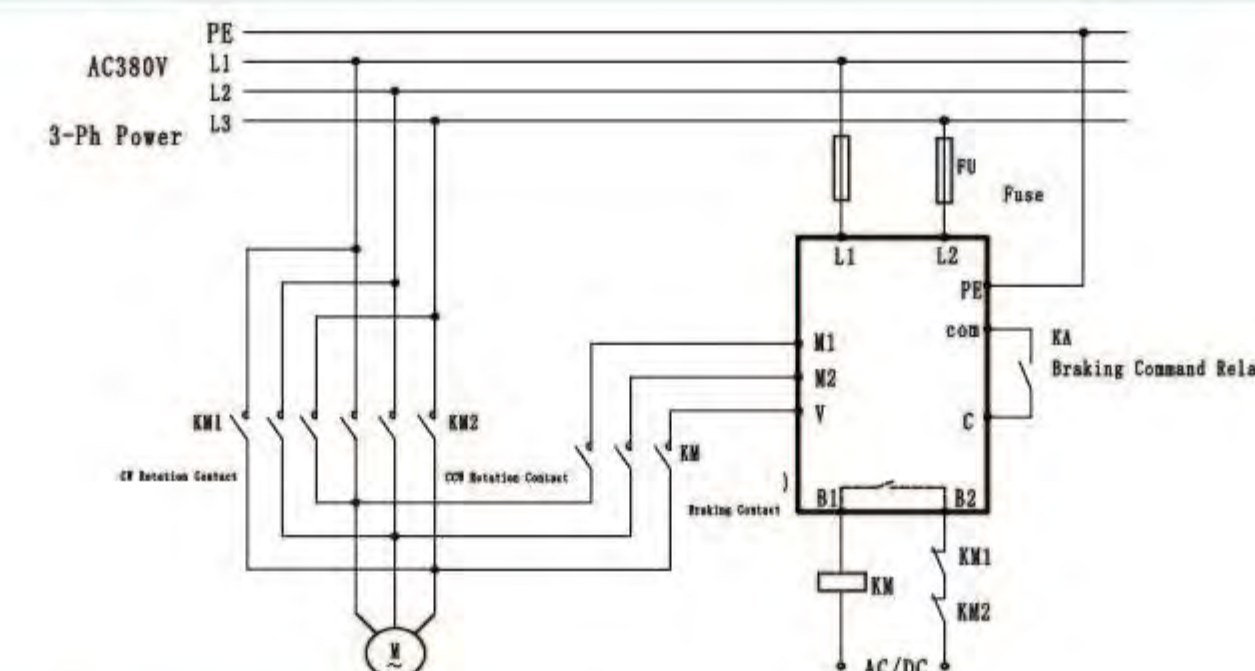
Mounted with a connection plate and firmly grounded, the input power supply terminal should be connected to a two-phase air switch before connecting to the power supply terminal of this brake.



ELECTRICAL PARAMETERS

Model No.	Applicable Motors	Braking Current	Input Voltage
ZD-15	$\leq 7.5\text{KW}$	$\leq 22\text{A}$	AC380V $\pm 10\%$ (AC220V to be Customized)

ELECTRICAL DRAWINGS



TERMINAL DESCRIPTION

B1、B2	Two normally open contacts of the brake's internal relay for controlling the brake contactor, capacity AC240V3ADC28V3A.
B3、B4	The two normally open contacts of the brake's internal relay can be backed up.
C、COM	Brake internal power supply, when the need for motor braking, external brake trigger signal control C and COM closed for more than 0.1 seconds to trigger the braking process.
L1、L2	Brake operating power input, usually AC380V (when AC220V is required, special order is required).
M1、M2	The brake current output terminals are connected to any two-phase leads of the motor through the two main contacts of the brake contactor.
V	The speed measurement input terminal is connected through the other main contact of the brake contactor to the other phase terminal of the motor except the one connected to M1 and M2.
PE	Ground wire terminal, need to be firmly grounded.
Braking Time	Used to set the braking time limit in the range of 1.5 to 9 seconds.
Braking Current	Used to set the braking current, range 7-22A, adjusted to match the motor.

SETTING INSTRUCTIONS

1. Braking time limit setting (blank for switch downward OFF)

Level	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1									ON	ON	ON	ON	ON	ON	ON	ON
2					ON	ON	ON	ON					ON	ON	ON	ON
3			ON	ON			ON	ON					ON	ON		
4		ON		ON		ON		ON		ON		ON		ON		ON
Time Limit(s)	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9

2. Brake current setting (blank for switch down OFF)

Level	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
5									ON	ON	ON	ON	ON	ON	ON	ON
6					ON	ON	ON	ON					ON	ON	ON	ON
7			ON	ON			ON	ON				ON	ON		ON	ON
8		ON		ON		ON		ON		ON		ON		ON		ON
Braking Current(A)	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

PRODUCT OVERVIEW

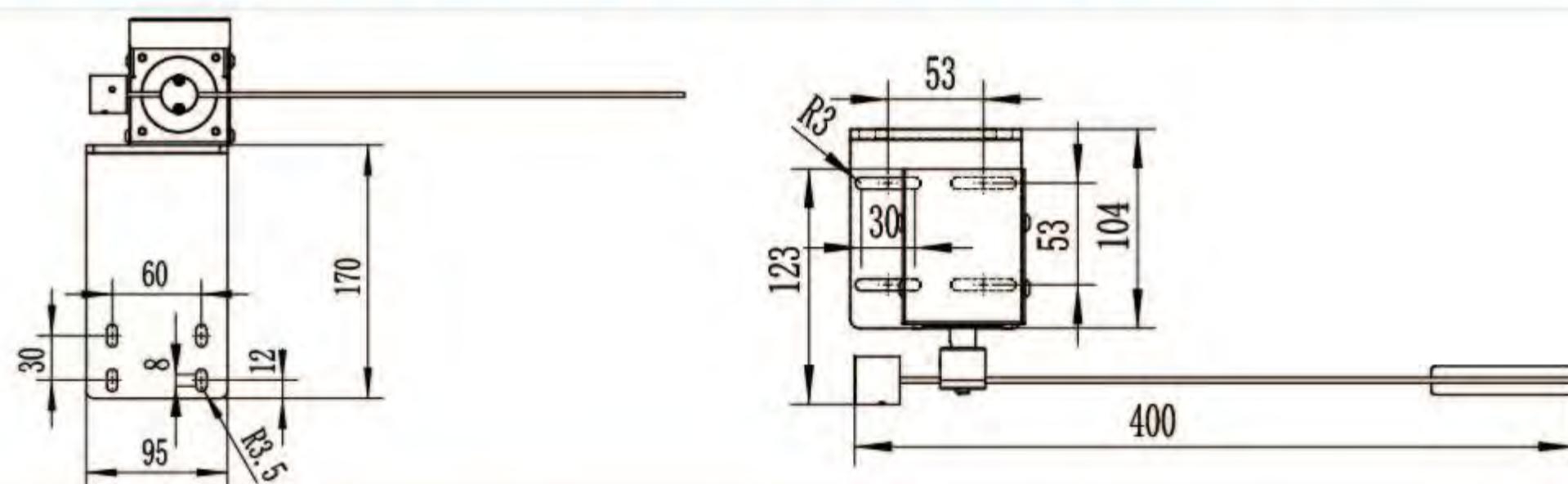
CNC machine tools in the process of automatic machining, due to high cutting intensity, high temperature, residual cutting, tool aging and other factors, may lead to tool wear or breakage, if you can not find the damage of the tool in time, it will cause major production and even safety accidents. This product can effectively detect the wear or breakage of the tool, and the whole inspection process is executed in the tool magazine, without taking up the processing time. It can be used for the detection of tools in disk-type tool magazine and chain-type tool magazine.



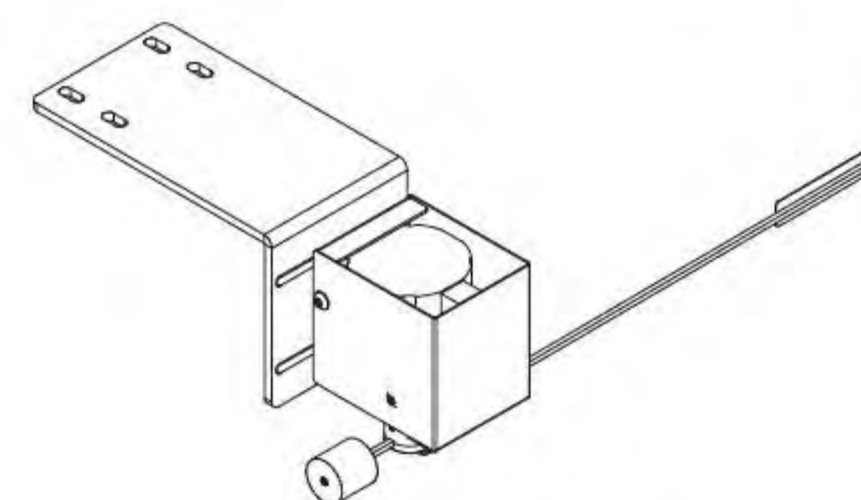
MODEL DESCRIPTION

SFBK21-□-□-□			
Markings	Serial No.	Markings	Motor Cable Length
SFBK21	Standard style	22M	Line Length 22m
SFBK24	Tape display	33M	Line Length 33m
		Standard Type of 15m	
Markings	Customized Holder	Markings	Detection Rod Length
W	Horizontal Holder	480	Pole Length 480mm
L	Old Model Holder	Standard Type of 400mm	
		Standard Type with No Holder	

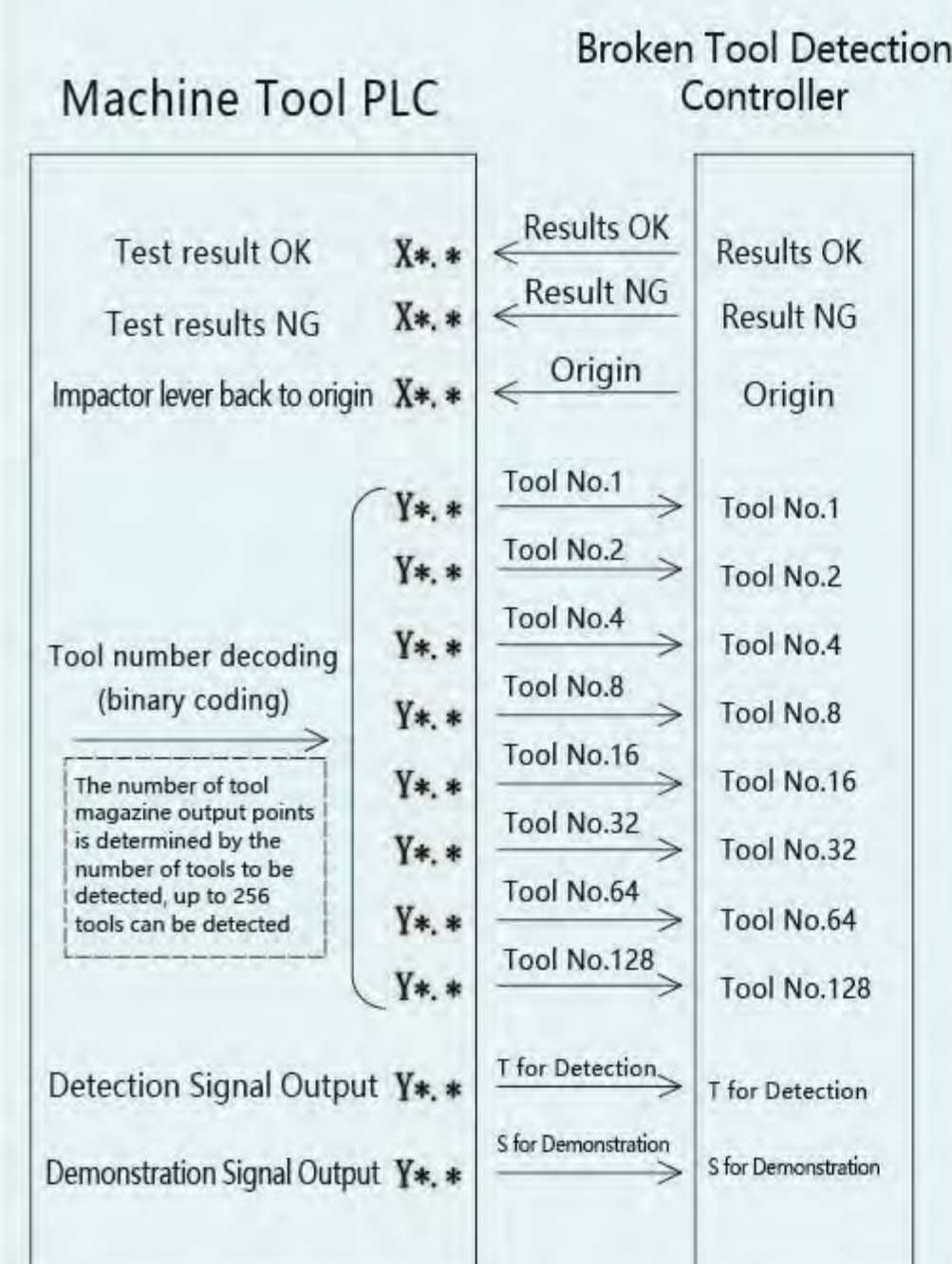
OVERALL INSTALLATION DIMENSION DRAWING



OVERALL EFFECT DIAGRAM



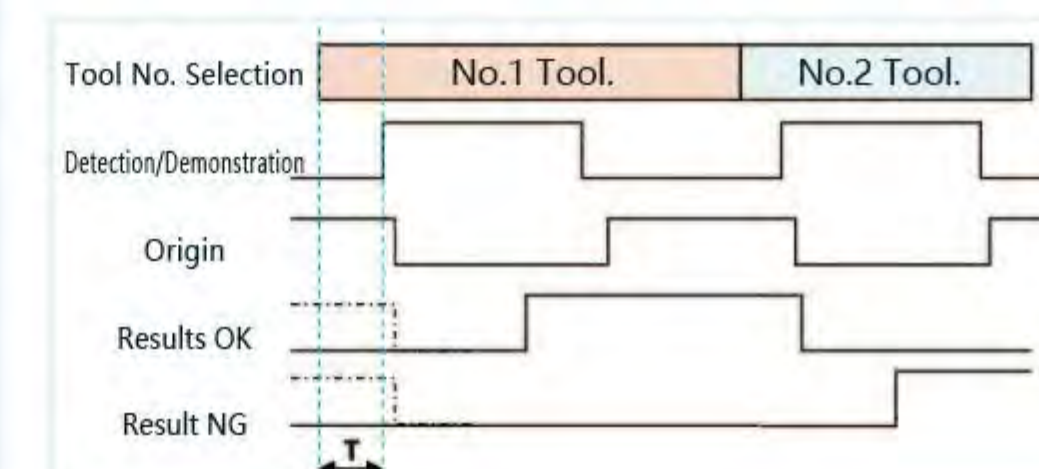
MACHINE INTERFACE SCHEMATIC



MAIN TECHNICAL PARAMETERS

Serial Number	Item	Standard
1	Rated Power	220W
2	Controller Power Supply	24V DC±10%
3	Driver Power Supply	220V AC
4	Input & Output Levels	24V effective
5	Ambient Temperature for Operation	-10°C~+60°C
6	Protection Level	Detection device IP67
7	Detection Rod Length	400mm
8	Detection Angle	5°~150°
9	Working life	10 million times
10	Single Detection Time	0.3-2 sec
11	Detection Accuracy	Adjustable up to 1mm
12	Trigger force	Adjustable
13	Direction of rotation	Adjustable
14	Tool No. & alarm code	viewable
15	Zero-back mode	Manual/automatic
16	Pre-positioning	have
17	Display interface	Function selection
18	Mounting Holder	Adjustable Position
19	Net product weight	5.2kg

DETECTION/DEMONSTRATION TIMING CHART



DEMONSTRATION INSTRUCTIONS

Detect No. 1 tool, output result OK, detect No. 2 tool, output result NG.

The demonstration/detection signal needs to lag the tool number selection signal by at least time T50ms.

The output of the demonstration/detection signal needs to be greater than 50ms.

The CNC can check the status of OK or NG after the home position is in place.

PRODUCTS INTRODUCTION

Cutting workpiece will produce high temperature vapor, the water vapor on the surface of the workpiece will isolate the cutting fluid from adhering, resulting in less than 20% of the cooling effect of the workpiece or tool, the only way to achieve the most efficient cooling effect is to pressurize the cutting fluid to more than 30 bar, so that the cutting fluid can directly contact the workpiece and tool.

Advantages of Use

- 1. Reduce tool wear during cutting and machining, saving tool costs.
- 2. Improvement of iron filings generated by cutting, which is conducive to the introduction of automation.
- 3. The high-pressure center water discharge function effectively improves the drilling depth and cutting speed of the machine. It greatly improves the stability of cutting size during machine tool machining and increases the qualified rate of workpiece at the same time. Increase the feeding speed and cutting speed, increase the eating force, tap more productivity in production.
- 4. Fine filtration of the cartridge optimizes the cutting water quality and avoids the blockage of the circulating pipeline.
- 5. Reduce the risk of tool breakage, significantly reduce the local high temperature during machining, and extend tool life.

USE

High pressure center outlet water system is used for machine tools, industrial cleaning equipment and other working conditions, can be applied to different temperature, flow, pressure range, filtration accuracy of 25μm, pressure of 20, 30, 50, 70bar.

Same workpiece high pressure center water system (high pressure) VS low pressure cooling (traditional)

	High pressure center outlet system	Conventional low pressure cooling
Outlet mode		
material	Stainless steel	Stainless steel
Tool life (average)	3000pcs needs a new drill bit	80pcs requires a new drill bit
Shutdown time for tool change	The tool is changed once every 4 days, and the tool is changed within 1 hour a week	Eight tool changes in 24 hours and nine hours of downtime a week
Chip breaking condition	Chip breaking condition is good	There is often rolling debris
Chip breaking condition		

FILTERING MODE

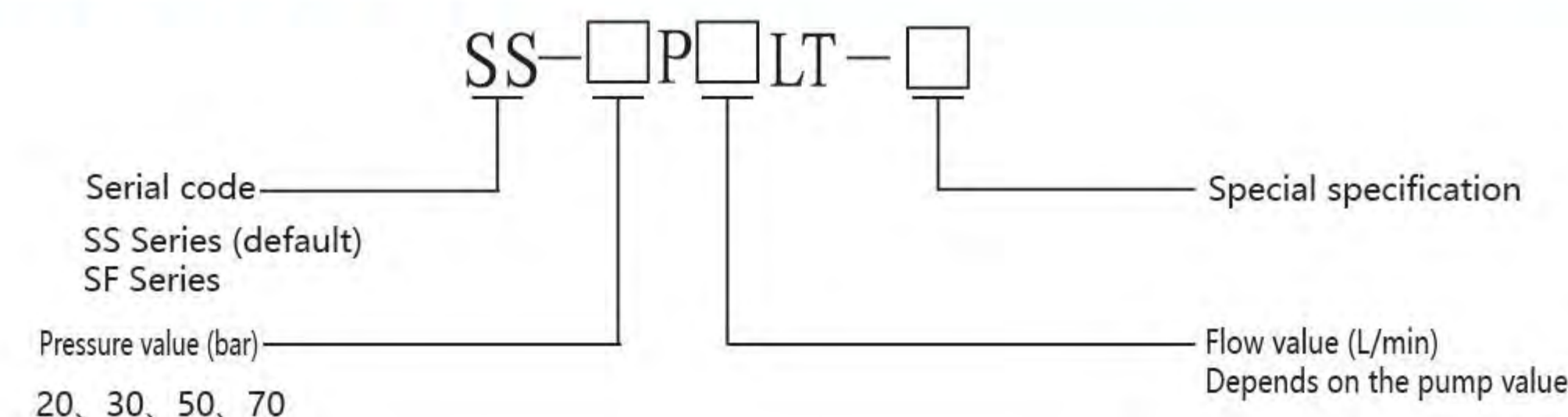


The turbine separator works mainly on the principle of centrifugal force. When the mixed liquid such as oily sewage enters the turbine separator, under the centrifugal force generated by the high-speed rotating turbine, the dense liquid is thrown to the outside of the separator, while the less dense liquid is gathered to the center. Through the reasonable setting of the outlet channel, the oil and water can be respectively drawn out, so as to achieve the purpose of separation.



Bag filter is a common filter equipment, mainly used to remove solid particles in gases or liquids. It can be used as either a dust collector or a liquid filter. (The bag filter needs to be changed regularly after a period of time).

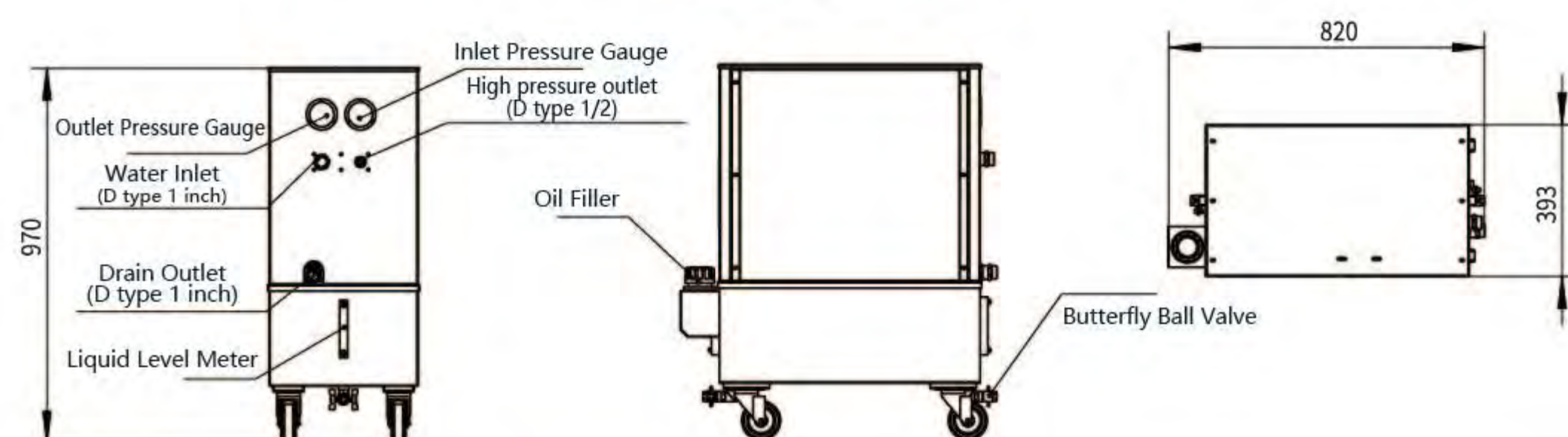
TYPE DESCRIPTION



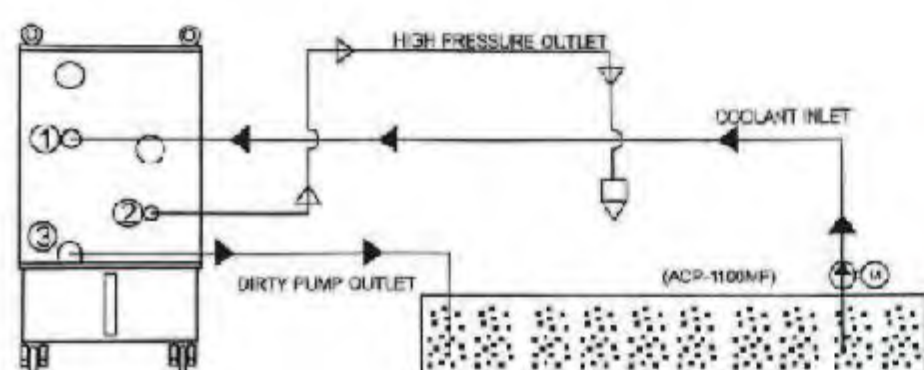
SELECTION METHOD

Product type	SF-MSHC-30P20LT	SF-MSHC-30P50LT	SS-20P50LT-BD	SS-30P50LT-BD	SS-50P30LT-BD	SS-70P30LT-BD
Outlet pressure (kg)	30	30	20	30	50	70
Discharge flow (L/min)	20	50	50	50	30	30
Rated power (kw)	1.5	2.25	2.2	4	7.5	7.5
Power frequency	220/380V 50Hz					
Filtration method (25μm)	Vortex separator	Vortex separator	Bag filtration	Bag filtration	Bag filtration	Bag filtration
Pump type	gear pump	gear pump	centrifugal pump	centrifugal pump	screw pump	screw pump
Pump brand	a-ryung	dgsnlp	Cnppump	Cnppump	rsppump	rsppump
Overall dimensions (mm)	820×385×950	820×385×950	700×550×1200	700×550×1200	794×547×1094	794×547×1094
Overall dimensions (mm)	60kg	60kg	50kg	60kg	72kg	72kg
Volume (L)	60	60	180	180	140	140

SF SERIES



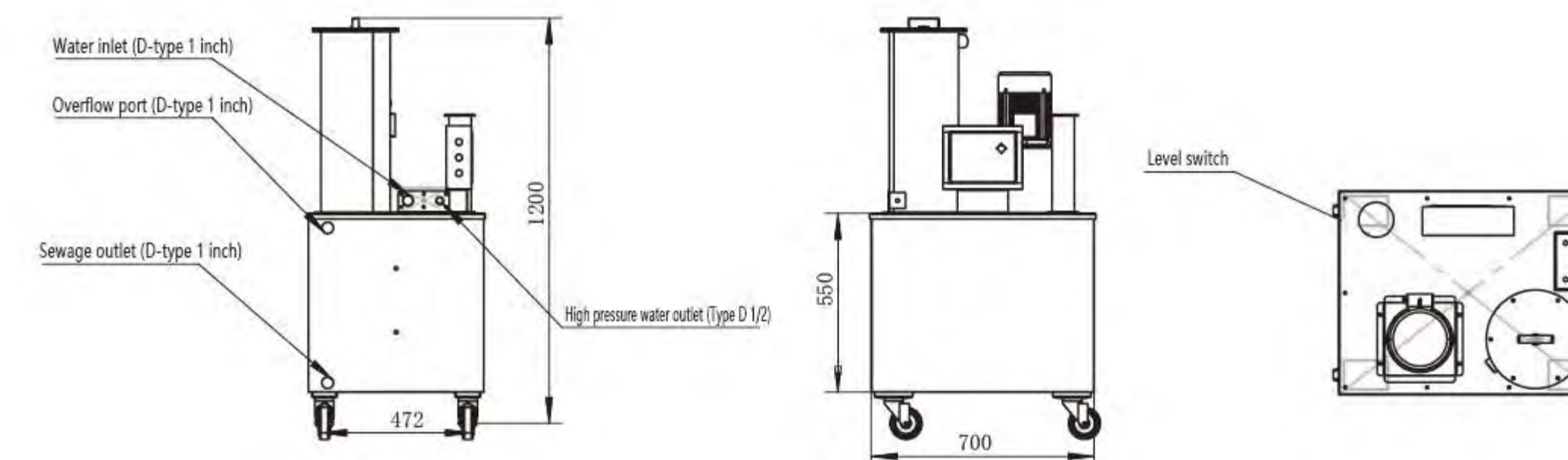
PRODUCT DESCRIPTION



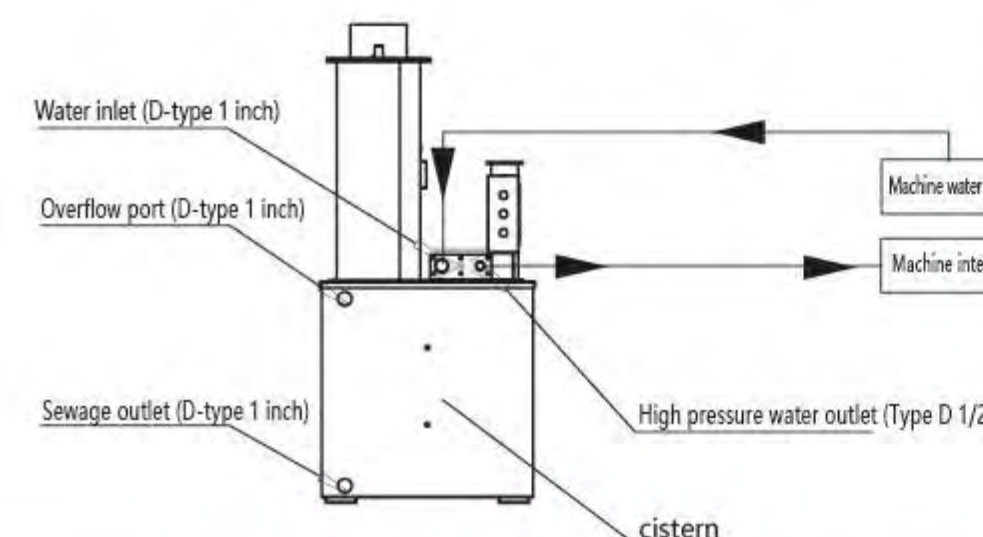
Mark description:

- 1. Water inlet interface (D-type 1 inch): The line interface from the machine tank lifting pump to the water inlet of the high-pressure center outlet system.
- 2. High pressure water outlet interface (Type D 1/2): The line interface from the high pressure center water outlet system to the machine tool entrance.
- 3. Sewage outlet interface (interface D type 1 inch): The line interface of the filtered sewage from the sewage tank to the machine tank.

SS SERIES



PRODUCT DESCRIPTION



Mark specification:

- 1. Machine tool water tank lift pump - High pressure central outlet water tank intake - filter bucket (D type 1 inch)- central outlet water tank (complete filtration).
- 2. Central water tank - High pressure pump (Type D 1/2 outlet) - inside the machine.
- 3. The overflow port can be replaced with a 1-inch bamboo joint or D-type 1-inch interface according to different requirements.