ETEK
TOTAL AUTOMATION SOLUTIONS

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ETEK
TOTAL AUTOMATION SOLUTIONS

2025

Training Equipment

PNEUMATIC HYDRAULIC

ETEK Automation Solution

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PNEUMATIC

Name	Code
BASIC PNEUMATIC PRACTICE SET	ST.HP.K0101
ADVANCED PNEUMATIC PRACTICE SET	ST.HP.K0201
BASIC ELECTRICAL PNEUMATICS PRACTICE SET	ST.HP.K1101
ADVANCED ELECTROPNEUMATIC PRACTICE SET	ST.HP.K1201
PNEUMATIC SERVO CONTROL CIRCUIT DEVICE MODEL	ST.HP.T2000

HYDRAULIC

Name	Code
BASIC HYDRAULIC PRACTICE SET	ST.HP.T0101
ADVANCED HYDRAULIC PRACTICE SET	ST.HP.T0201
BASIC HYDRAULIC PRACTICE SET	ST.HP.T1101
ADVANCED HYDRAULIC PRACTICE SET	ST.HP.T1201
HYDRAULIC SERVO CONTROL CIRCUIT MODEL	ST.IE.A5023

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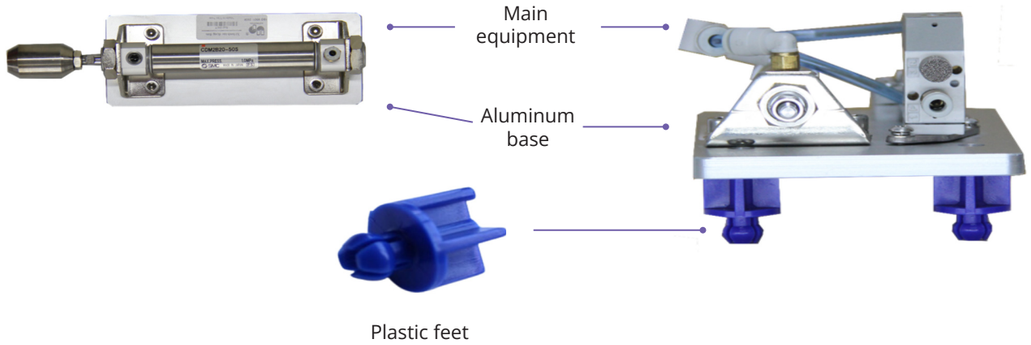
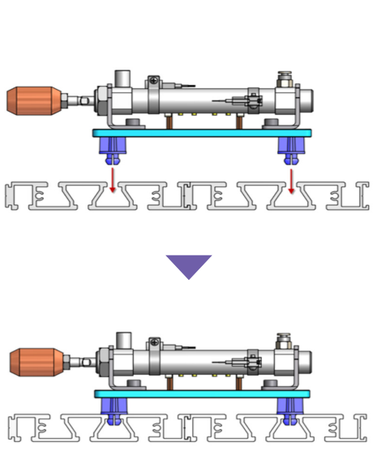
PNEUMATIC MODULE MOUNTING CONCEPT DESIGN

DEVICE MODULE



INSTALLATION SOLUTIONS



Module installation

Module installation

Complete Practice Set

LIST OF PRACTICE SETS

Basic Pneumatic Practice Set

Advanced Pneumatics Practice Set

Basic Electrical Pneumatic Practice Set

Advanced Electrical Pneumatics Practice Set

Pneumatic Servo Control Circuit Device Mode

ST.HP.K0101 BASIC PNEUMATIC PRACTICE SET

SPECIFICATIONS

- The equipment set is designed as separate modules with standardized dimensions and connection types, allowing flexible configuration during practice sessions and easy product upgrades.
- Pneumatic components by SMC Japan (global origin).
- Mounting base includes:
  + Aluminum alloy, surface-treated for scratch resistance
  + Self-locking ABS plastic feet with cylindrical tops featuring a “+” slot for elasticity
- Mounting style on the practice table:
  + Self-locking plastic feet structure allows quick and convenient installation and removal on the aluminum tabletop
  + The cylindrical foot top contracts when fitted into table grooves and securely locks pneumatic components onto the table when released, providing a firm grip.

SKILLS ACHIEVED

- Skills in calculating pneumatic transmission systems
- Skills in problem analysis, equipment selection, and suitable control methods
- Troubleshooting skills for identifying malfunctions, recognizing error patterns, and decision-making to resolve issues

TRAINING CONTENT

1. Basic Practice

- Learn the structure, operating principles, and practical use of pneumatic components
- Understand and draw circuit diagrams for various valves and cylinders as per applications
- Learn to operate single-acting and double-acting cylinders
- Understand the operation of 3/2 and 5/2 valves
- Practice cylinder speed adjustment using flow control valves
- Control cylinder delay

2. Application Practice

Practice connecting pneumatic circuits for different applications:

- Workpiece supply device
- Product sorting
- Parcel distribution
- Vertical material sorting station
- Metal edge folding machine
- Stamping machine
- Material feeder for measuring machines
- Workpiece direction-changing station
- Paint box vibrating machine
- Material supply and distribution system
- Plastic heat-sealing machine
- Stone screening machine
- Camera shell clamping mechanism
- Material supply station for laser cutting machine
- Semi-automatic grinding machine

PNEUMATIC

ST.HP.K0101 BASIC PNEUMATIC PRACTICE SET

EQUIPMENT LIST

No.	Equipment name	Code	Quantity
1	Specialized hydraulic practice table, double-sided	TPAD.B3401	01
2	Pressure gauge	TPAD.T3401	05
3	Flow control valve	TPAD.T1901	02
4	One-way flow control valve	TPAD.T4401	01
5	Shut-off valve	TPAD.T3901	01
6	One-way valve, opening pressure 0.4 bar	TPAD.T4001	01
7	One-way valve, opening pressure 5 bar	TPAD.T4101	01
8	T-connector	TPAD.T3101	05
9	Safety valve	TPAD.T2101	02
10	Auxiliary safety valve	TPAD.T2301	01
11	Pressure regulator	TPAD.T2201	01
12	Hydraulic check valve	TPAD.T2001	01
13	Double-acting cylinder	TPAD.T3601	01
14	Hydraulic motor	TPAD.T2401	01
15	Hydraulic distribution manifold (P1, P2, T)	TPAD.T3201	01
16	Hydraulic oil distribution manifold	TPAD.T5201	01
17	Accumulator bladder	TPAD.T5102	01
18	Load, 9 kg	TPAD.T3801	01
19	Hand-operated 4/2 valve	TPAD.T1101	01
20	Hand-operated 4/3 valve, central recirculation position	TPAD.T1301	01
21	Stopwatch	HS-3V	01
22	Flow sensor	TPAD.T4901	01
23	Speedometer training module	TPAD.T3405	01
24	Flexible hose, 600 mm	TPAD.T5301	19
25	Hydraulic power unit	TPAD.T4201	01
26	Flexible hose, 1000 mm	TPAD.T5401	04
27	Pressure relief device	TPAD.T5701	01
28	Practice documentation	.	01

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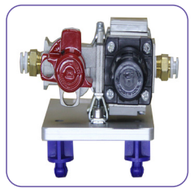
ST.HP.K0201 ADVANCED PNEUMATIC PRACTICE SET

SPECIFICATIONS

- The equipment set is designed as separate modules with standardized dimensions and connection types, allowing flexible configuration and easy upgrades.
- Pneumatic components by SMC Japan (global origin).
- Mounting base includes:
  + Aluminum alloy, surface-treated for scratch resistance
  + Self-locking ABS plastic feet with cylindrical tops featuring a “+” slot for elasticity
- Mounting style on the practice table:
  + Self-locking plastic feet allow quick installation and removal on the aluminum tabletop
  + The cylindrical top of the plastic foot contracts when fitted into table grooves, securing the pneumatic components firmly.



SKILLS ACHIEVED

- Skills in calculating pneumatic transmission systems
- Skills in problem analysis, equipment selection, and choosing appropriate control methods
- Troubleshooting skills for identifying malfunctions, understanding errors, and decision-making

TRAINING CONTENT

1. Basic Practice

- Explore the structure, operating principles, and practical use of pneumatic components
- Understand and draw circuit diagrams for various valves and cylinders as per applications
- Learn the operation of single-acting and double-acting cylinders
- Study the operation of 3/2 and 5/2 valves
- Practice cylinder speed adjustment with flow control valves
- Control cylinder delay
- Understand the structure, operation, and advantages of shock-absorbing cylinders
- Learn about rodless cylinders: structure, operation, and advantages
- Vacuum unit structure and applications
- Pneumatic counter structure and applications
- Structure and application of pneumatic valve blocks

2. Application Practice

Connect pneumatic circuits for different applications:

- Pneumatic theory
- Furnace door control
- Step-by-step transfer system
- Workpiece separation mechanism
- Wood block drilling unit
- Multi-bit drilling system
- Weight-based feed mechanism
- Design of pneumatic counters
- Door opening and closing mechanisms
- Workpiece transportation
- Calculating cylinder forces

PNEUMATIC

ST.HP.K0201 ADVANCED PNEUMATIC PRACTICE SET

EQUIPMENT LIST

No.	Category	Equipment name	Code	Quantity
1	Air Supply	Filter, regulator with 3/2 distribution valve	TPAD.K2301	01
2		Air distribution manifold	TPAD.K2501	01
3		Pressure regulator with gauge	TPAD.K2401	01
4		Pressure gauge, 1 MPa	TPAD.K2601	01
5	Hand and Mechanical Valves	Normally closed 3/2 push-button valve	TPAD.K3201	01
6		Double push-button 3/2 valve	TPAD.K3101	01
7		Normally closed/open 3/2 push-button valve	TPAD.K3401	01
8		Emergency stop 3/2 normally closed valve	TPAD.K3801	01
9		Normally closed 3/2 roller lever valve	TPAD.K3001	02
10		Unidirectional 3/2 roller lever valve	TPAD.K2901	02
11		Switch-type 3/2 valve	TPAD.K3301	01
12		5/2 push-button valve	TPAD.K3501	01
13		5/2 switch-type valve	TPAD.K3701	01
14		5/3 three-position switch-type valve	TPAD.K3601	01
15	Pneumatic Actuated Valves	Single-acting 3/2 pneumatic valve, normally closed	TPAD.K4701	01
16		Timer-operated 3/2 normally closed switchable valve	TPAD.K5102	01
17		Single 5/2 pneumatic valve	TPAD.K4901	01
18		Double-acting 5/2 pneumatic valve	TPAD.K4801	02
19		Block of 2 double-acting 5/2 valves and 1 single-acting 5/2 valve	TPAD.K5001	01
20	Flow Control Devices	OR valve	TPAD.K4201	01
21		Double OR valve	TPAD.K4101	01
22		AND valve	TPAD.K4001	02
23		Double AND valve	TPAD.K3901	01
24		One-way flow control valve (double-acting)	TPAD.K4501	01
25		Quick exhaust valve	TPAD.K4301	01
26		Adjustable one-way flow control valve	TPAD.K4601	01
27		Two-way flow control valve for single-acting cylinder	TPAD.K2801	01
28	Actuators	Single-acting cylinder	TPAD.K5202	01
29		Double-acting cylinder	TPAD.K5302	02
30		Double-acting cylinder with adjustable cushioning	TPAD.K5401	01
31		Rodless magnetic cylinder	TPAD.K5601	01
32		Cylinder with load	TPAD.K5501	01
33		Load for cylinder	TPAD.K5511	01
34		Pneumatic motor	TPAD.K7601	01
35		Rotary actuator	TPAD.K7701	01
36	Other Pneumatic Components	Vacuum cup/generator	TPAD.K5801	01
37		Red pressure indicator	TPAD.K2701	01
38		Pressure tank	TPAD.K5901	01
39		Pneumatic counter	TPAD.K5701	01
40	Accessories	Air hose	.	01
41		Set of 10 T-connectors	.	01
42		Set of 10 plugs, 4 mm	.	01
43		Pipe cutter	.	01
44		Pipe removal tool	.	01
45		Practice documentation	.	01

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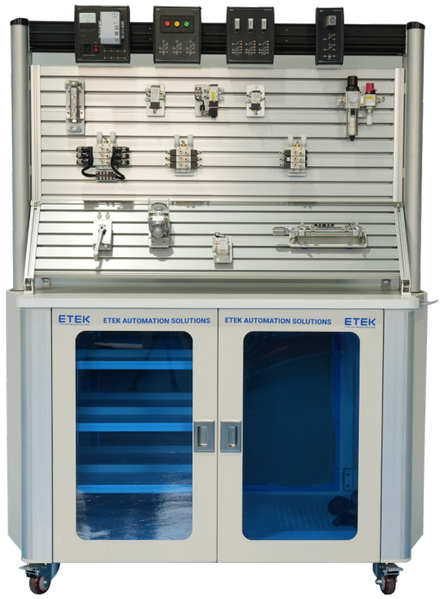
ST.HP.K1101 BASIC ELECTRICAL PNEUMATICS PRACTICE SET



SPECIFICATIONS

- The equipment set is designed as separate modules with standardized dimensions and consistent connection interfaces, enabling flexible configuration and easy upgrades.
- Pneumatic components are sourced from SMC Japan (global origin).
- Mounting base is made of scratch-resistant aluminum alloy with ABS self-locking plastic feet, featuring a cylindrical top with a "+" slot for elasticity.
- The design allows quick installation and removal on the practice table, thanks to self-locking plastic feet.
- Control modules include integrated plastic mounts and 2mm plug-in connections for electrical wiring.

SKILLS ACHIEVED

- Skills in calculating pneumatic transmission systems
- Analytical skills in problem-solving, selecting appropriate equipment, and control methods
- Troubleshooting skills to identify malfunctions, recognize error symptoms, and make decisions to solve issues

TRAINING CONTENT

1. Basic Practice

- Explore the structure, principles, and practical use of pneumatic and electro-pneumatic components
- Understand and draw circuit diagrams for various valves and cylinders in different applications
- Learn to operate single-acting and double-acting cylinders
- Study the operation of 3/2 and 5/2 electrically actuated valves
- Program and control cylinders based on electrical signal feedback, including the use of sensors for detecting motion in practical applications
- Simulate the principles of real-world applications

2. Application Practice

Connect pneumatic circuits for various applications, such as:

- Sorting and switching devices
- Rotation and capping mechanisms on conveyors
- Assembly station
- Cutting mechanism
- Tilt adjustment and control of containers
- Product redirection devices
- Fan valve control
- Gravity-fed multi-lane feeder
- Conveyor control device
- Labeling station turntable
- Sliding table
- Devices for clamping, direction inversion, sealing with heat
- Transport station
- Product classification (flow control valve practice)
  + Sorting device (OR valve practice)
  + Press device (AND valve practice)
  + Feed device (time relay practice)

PNEUMATIC

ST.HP.K1101 BASIC ELECTRICAL PNEUMATICS PRACTICE SET

EQUIPMENT LIST

No.	Category	Equipment name	Code	Quantity
1	Air Supply	Filter, regulator with 3/2 distribution valve	TPAD.K2301	01
2		Air distribution manifold	TPAD.K2501	01
3		Pressure regulator with gauge	TPAD.K2401	01
4		Pressure gauge, 1 MPa	TPAD.K2601	01
5	Flow Control Devices	One-way throttle valve (double)	TPAD.K4501	01
6		OR valve	TPAD.K4201	01
7		AND valve	TPAD.K4001	01
8	Cylinder Mechanism	Single-acting cylinder	TPAD.K5201	01
9		Double-acting cylinder	TPAD.K5301	02
10	Electro-Pneumatic Solenoid Valves	Normally closed 3/2 single-coil solenoid valve	TPAD.K6101	01
11		Timer-operated 3/2 normally closed valve	TPAD.K5102	01
12		5/2 single-coil solenoid valve	TPAD.K6301	01
13		5/2 double-coil solenoid valve	TPAD.K6401	01
14	Control Modules	DC power supply module	TPAD.K0701	01
15		Push-button training module	TPAD.K0301	01
16		Intermediate relay training module	TPAD.K0901	01
17		Time relay training module (ON-delay relay)	TPAD.K2001	01
18		Time relay training module (OFF-delay relay)	TPAD.K2201	01
19		Indicator light and alarm training module	TPAD.K0801	01
20		Power distribution training module	TPAD.K1001	01
21		Electrical limit switch	TPAD.K7201	02
22		Capacitive proximity sensor	TPAD.K6801	01
23		Optical proximity sensor	TPAD.K6901	01
24		Magnetic proximity sensor	TPAD.K6701	01
25		Counter training module	TPAD.K0401	01
26	Electro-Pneumatic Converters	Pressure-to-electrical switch	TPAD.K7301	01
27		Pressure gauge with integrated pressure switch	TPAD.K7501	01
28	Accessories	Pneumatic tube	TU0425BU-20	
29		Set of 10 T-Connectors	KQ2T04-00A	
30		Set of 10 4mm End Caps	KQ2P-01	
31		Pipe Cutter	TK-3	
32		Pipe Stripper	TG-1	
33		Practice Kit	.	

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ST.HP.K1201 ADVANCED ELECTROPNEUMATIC PRACTICE SET

SPECIFICATIONS

- The equipment set comprises separate modules of standardized size for flexible configuration and easy upgrading.
- Pneumatic components from SMC Japan (global origin).
- Pneumatic element mounting base: scratch-resistant aluminum alloy. Self-locking ABS plastic feet with cylindrical ends featuring "+" grooves for elasticity.
- Mounting style on the lab table: uses self-locking plastic feet, allowing quick assembly and disassembly on the aluminum table.
- Plastic feet compress to fit the table's grooves, then expand to securely hold pneumatic elements in place.
- Integrated plastic mounts for control modules with 2mm electrical plugs, and gear mechanism.

SKILLS ACHIEVED

- Skills in calculating pneumatic drive systems
- Analytical skills for problem-solving, equipment selection, and control method optimization
- Troubleshooting skills to identify faults, interpret error symptoms, and implement solutions

TRAINING CONTENT

1. Basic Practice

- Understand the structure, operation, and practical application of pneumatic and electro-pneumatic components.
- Learn to draw circuit diagrams for various valves and cylinders in different applications.
- Study the operation of single-acting and double-acting cylinders.
- Learn to operate 3/2 and 5/2 electrically actuated valves.
- Control cylinders using electrical signal feedback and sensors for detecting travel in real-world applications.
- Simulate the principles of selected real-world applications.
- Control the electro-pneumatic system with a PLC.
- Implement control system features like single-run, continuous-run, and emergency stop.

2. Application Practice

Connect and operate pneumatic circuits for applications such as:

- Drill press
- Punching holes in metal strips
- Filling, stamping, embossing, drilling, and boring machines
- Loading stations
- Vise (clamping mechanism) and material separation system
- Cylinder force calculations
- Cutting machine – PLC programming
- Multi-bin gravity-fed system – PLC programming
- Labeling turntable – PLC programming
- Sliding table – PLC programming
- Vise mechanism – PLC programming
- Pressing device – PLC programming
- Transport mechanism – PLC programming

PNEUMATIC

ST.HP.K1201 ADVANCED ELECTROPNEUMATIC PRACTICE SET

EQUIPMENT LIST

No.	Category	Equipment name	Code	Quantity
1	Air Supply	Filter, regulator with 3/2 distribution valve	TPAD.K2301	01
2		Air manifold	TPAD.K2501	01
3		Pressure regulator with gauge	TPAD.K2401	01
4		Pressure gauge, 1 MPa	TPAD.K2601	01
5	Flow Regulators	One-way flow control valve (double-acting)	TPAD.K4501	01
6		Flow control valve with one-way control	TPAD.K4601	01
7	Actuators	Single-acting cylinder	TPAD.K5201	01
8		Double-acting cylinder	TPAD.K5301	02
9		Loaded cylinder	TPAD.K5501	01
10		Cylinder load	TPAD.K5511	01
11	Other Pneumatic Components	Vacuum suction cup / Vacuum generator	TPAD.K5801	01
12	Electro-Pneumatic Solenoid Valves	Normally closed 3/2 single-coil solenoid valve	TPAD.K6101	01
13		Normally closed 3/2 double-coil solenoid valve	TPAD.K6201	01
14		5/2 single-coil solenoid valve	TPAD.K6301	01
15		5/2 double-coil solenoid valve	TPAD.K6401	01
16		5/3 double-coil solenoid valve with center-closed position	TPAD.K6501	01
17		Solenoid valve unit with two 5/2 double-coil and one single-coil valve	TPAD.K6601	01
18	Control Modules	DC power supply module	TPAD.K0701	01
19		ON/OFF switch training module	TPAD.K0201	01
20		Emergency stop switch	TPAD.K0101	01
21		Push-button training module	TPAD.K0301	01
22		Intermediate relay training module	TPAD.K0901	04
23		Indicator and alarm module	TPAD.K0801	01
24		Time relay module (ON-delay)	TPAD.K2001	01
25		Time relay module (OFF-delay)	TPAD.K2201	01
26		Power distribution training module	TPAD.K1001	01
27		Counter module	TPAD.K0401	01
28		Magnetic proximity sensor	TPAD.K6701	01
29		Capacitive proximity sensor	TPAD.K6801	01
30		Optical proximity sensor	TPAD.K6901	01
31		Electrical limit switch	TPAD.K7201	02
32		PLC S7 1200 training module	TPAD.K0270	01
33	Electro-Pneumatic Converters	Electrical-pressure switch	TPAD.K7301	01
34		Electrical-pressure switch with transistor output	TPAD.K7401	01
35		Pressure gauge with pressure switch	TPAD.K7501	01
36	Accessories	Pneumatic compression	TU0425BU-20	01
37		Set of 10 T-connectors	KQ2T04-00A	01
38		Set of 10 4mm sockets	KQ2P-01	01
39		Tube cutter	TK-3	01
40		Removal tool	TG-1	01
41		Set of 10 Y-connectors	KQ2U04-00A	01
42		Document execution	.	01

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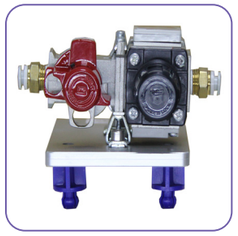
ST.HP.T2000 PNEUMATIC SERVO CONTROL CIRCUIT DEVICE MODEL

SPECIFICATIONS

- Power supply: AC 1 phase 220 VAC, 50Hz
- Equipment mounting table material: T-slotted aluminum
- Integrated sensors
- Electrical and pneumatic mechanisms: Solenoid valves, linear valves, position sensors
- Working modes: Position control, speed control



SKILLS ACHIEVED

- Basic skills on operating principles, calculation methods of hydraulic transmission systems and control systems, knowing how to build system control circuits
- Thinking skills, design purposes, design thinking, analysis
- Skills to find the cause of damage and solve problems occurring in hydraulic circuits

TRAINING CONTENT

1. Basic practice

- Adjusting and observing the parameter values of the pneumatic servo unit
- Building a PID model for pneumatic position and speed control
- Adjusting the PID unit parameters
- Control and electrically coupled mechanical structures
- Application of sensors and pneumatic components on the automatic system
- Applications on the control panel
- Application of coupling / installation
- Diagnosis, detection and repair

2. Application practice

Practice connecting pneumatic circuits:

- Equipment mounting table material: T-slotted aluminum
- Integrating various types of sensors
- Electrical and hydraulic mechanisms: Solenoid valves, hydraulic linear valves, position sensors
- Working modes: Position control, speed control

PNEUMATIC

ST.HP.T2000 PNEUMATIC SERVO CONTROL CIRCUIT DEVICE MODEL

EQUIPMENT LIST

No.	Equipment name	Code	Quantity
1	Pneumatic training table	TPAB.M1000	01
2	Silent air compressor	TPAK.C0100	01
3	Cylinder position control test set when compressed using servo valve	TPAK.B4000	01
4	Linear pressure regulator when compressed	TPAK.G6000	01
5	Pneumatic servo control valve	TPAK.G7000	01
6	Pressure filter	TPAK.C2000	01
7	Air distributor	TPAK.C6000	01
8	AUTONICS pressure sensor	TPAK.F4100	02
9	24VDC power module	TPAK.A7100	01
10	DC power training module	TPAC.A5710	01
11	Power source module	TPAC.A7400	01
12	Data acquisition module	TPAK.B5000	01
13	Vacuum generator	TPAK.R0100	01
14	3/2 normally closed pneumatic solenoid valve	TPAK.K0100	01
15	5/2 single suction coil pneumatic solenoid valve	TPAK.L0100	01
16	5-pin M8 female connection cable	M8B-M05-C	01
17	Power supply unit	-	01
18	Industrial computer	-	01

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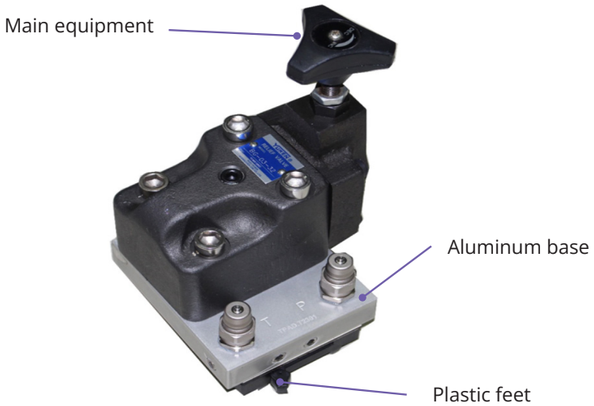
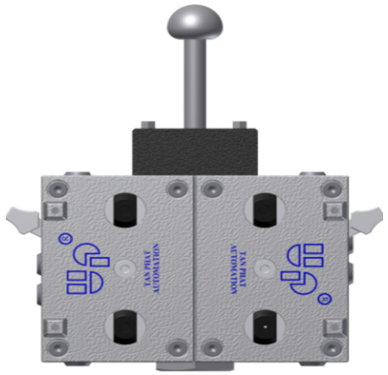
HYDRAULIC MODULE MOUNTING DESIGN CONCEPT

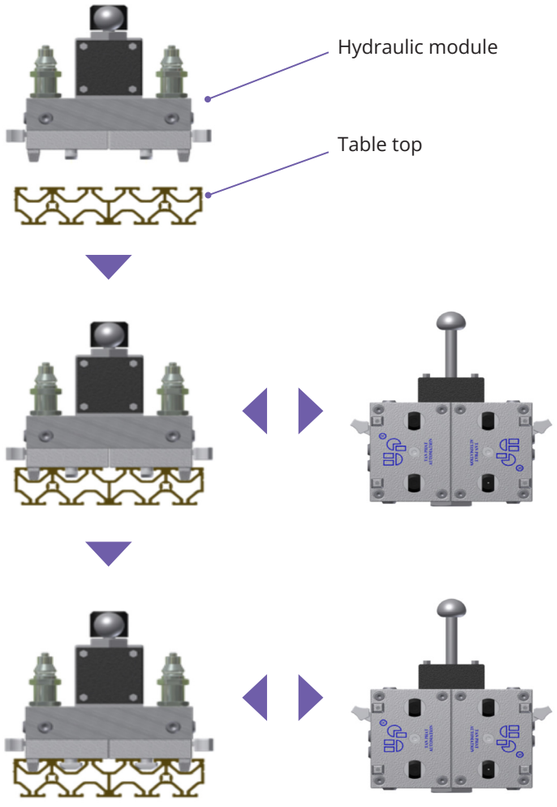
DEVICE MODULE





Rotate 90 degrees

INSTALLATION SOLUTIONS



Module installation

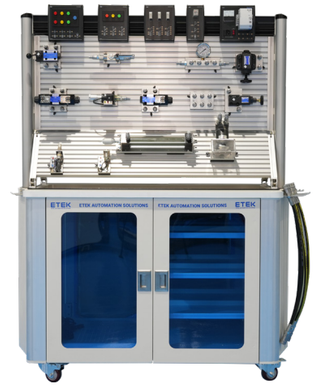
Complete Practice Set

LIST OF PRACTICE SETS

Basic Hydraulics Practice Set

Advanced Hydraulics Practice Set

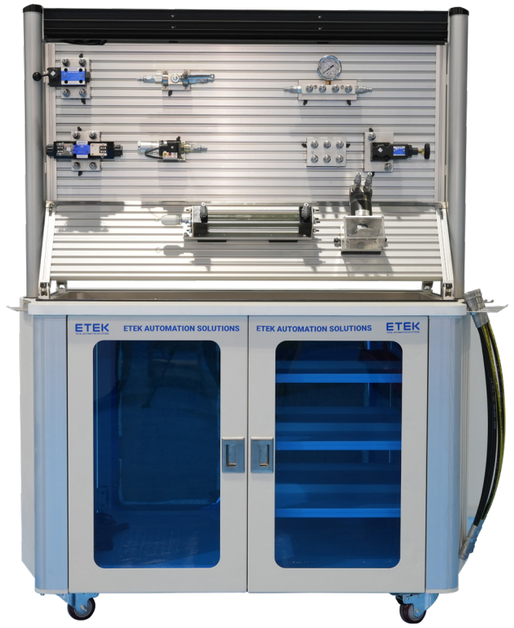
Basic Electro-Pneumatic Practice Set

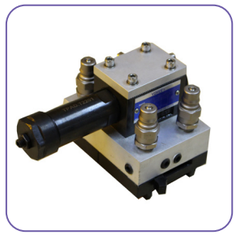


Advanced Electro-Pneumatics Practice Set

Hydraulic Servo Control Circuit Spread Model

ST.HP.T0101 BASIC HYDRAULICS PRACTICE SET





SPECIFICATIONS

- The equipment set is designed into separate modules with standard sizes and the same connection standards, helping to flexibly connect equipment during practice and easily upgrade products.
- The hydraulic equipment mounting base is machined from solid aluminum, anodized surface ensures hardness, durability and aesthetics.
- The modules in the practice set are manufactured according to ISO 9001:2015 Quality Management standards
- The module has a built-in plastic mounting foot:
- The mounting foot uses a gear mechanism connecting the lever and the plastic foot.
- The plastic mounting foot is rectangular, the locking operation is by rotating the brake lever 90 degrees to easily insert into the aluminum groove and lock

SKILLS ACHIEVED

- Basic skills on operating principles, calculation methods of hydraulic transmission systems and control systems, knowing how to build system control circuits
- Thinking skills, design purposes, design thinking, analysis
- Skills to find the cause of damage and solve problems occurring in hydraulic circuits

TRAINING CONTENT

1. Basic Practice

- Physical Principles of Hydraulics.
- Characteristics of Hydraulic Pressure and Flow
- Pressure Reduction on Hydraulic Pipes
- Learn the Functions and Uses of Hydraulic Valves and Other Components.
- Basic Hydraulic System Control
- Understand and redraw existing hydraulic circuit diagrams
- Practice with hydraulic components

2. Application Practice

Assembly and operation of control circuits:

- Lesson 1: Automatic lathe
- Lesson 2: Package lifting device
- Lesson 3: Part punching machine
- Lesson 4: Rolling mill billet feeding device
- Lesson 5: Heat treatment furnace lid lifting device
- Lesson 6: Kiln door control
- Lesson 7: Conveyor belt tensioning device
- Lesson 8: Cold storage door opening and closing device
- Lesson 9: Turntable processing station
- Lesson 10: Paint booth
- Lesson 11: Embossing machine
- Lesson 12: Surface grinder
- Lesson 13: Drilling machine
- Lesson 14: Combustion chamber door opening and closing device
- Lesson 15: Ferry bridge lifting device
- Lesson 16: Container operation

HYDRAULIC

ST.HP.T0101 BASIC HYDRAULICS PRACTICE SET

EQUIPMENT LIST

No.	Equipment name	Code	Quantity
1	Hydraulic practice bench with dual work surfaces	TPAD.B3401	01
2	Pressure gauge	TPAD.T3401	05
3	Flow control valve	TPAD.T1901	02
4	Check flow control valve	TPAD.T4401	01
5	Shutoff valve	TPAD.T3901	01
6	One-way valve, opening pressure 0.4 bar	TPAD.T4001	01
7	One-way valve, opening pressure 5 bar	TPAD.T4101	01
8	T-connector	TPAD.T3101	05
9	Safety valve	TPAD.T2101	02
10	Auxiliary actuated safety valve	TPAD.T2301	01
11	Pressure regulator	TPAD.T2201	01
12	Hydraulic-assist one-way valve	TPAD.T2001	01
13	Double-acting cylinder	TPAD.T3601	01
14	Hydraulic motor	TPAD.T2401	01
15	Hydraulic distributor (P1, P2, T)	TPAD.T3201	01
16	Hydraulic oil distributor	TPAD.T5201	01
17	Diaphragm accumulator	TPAD.T5102	01
18	Load set, 9 kg	TPAD.T3801	01
19	4/2 hand-operated valve	TPAD.T1101	01
20	4/3 hand-operated valve, center recirculation position	TPAD.T1301	01
21	Stopwatch	HS-3V	01
22	Flow sensor	TPAD.T4901	01
23	Training module for speedometer	TPAD.T3405	01
24	Flexible hose, 600 mm	TPAD.T5301	19
25	Hydraulic power unit	TPAD.T4201	01
26	Flexible hose, 1000 mm	TPAD.T5401	04
27	Pressure relief tool	TPAD.T5701	01
28	Practice documentation kit	.	01

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ST.HP.T0201 ADVANCED HYDRAULICS PRACTICE SET

TRAINING CONTENT

1. Basic Practice

- Physical Principles of Hydraulics.
- Characteristics of Hydraulic Pressure and Flow
- Pressure Reduction on Hydraulic Pipes
- Learn the Functions and Uses of Hydraulic Valves and Other Components.
- Basic Hydraulic System Control
- Understand and redraw existing hydraulic circuit diagrams
- Practice with hydraulic components

2. Application practice

Assembly and operation of control circuits:

- Lesson 1: Control system of hose winding roller for tanker
- Lesson 2: Control device of rough grinding table
- Lesson 3: Lifting device with two cylinders
- Lesson 4: High-speed device for drilling machine
- Lesson 5: Control system of deburring press
- Lesson 6: Gearbox housing clamping device
- Lesson 7: Plastic injection molding machine
- Lesson 8: Steel pipe bending machine
- Lesson 9: Single-column press
- Lesson 10: Machining center
- Lesson 11: Magnetic crane
- Lesson 12: Edge bender
- Lesson 13: Earth drill

SPECIFICATIONS

- The equipment set is designed into separate modules with standard sizes and the same connection standards, helping to flexibly connect equipment during practice and easily upgrade products.
- The hydraulic equipment mounting base is machined from solid aluminum, anodized surface ensures hardness, durability and aesthetics.
- The modules in the practice set are manufactured according to ISO 9001:2015 Quality Management standards
- The module has a built-in plastic mounting foot:
- The mounting foot uses a gear mechanism connecting the lever and the plastic foot.
- The plastic mounting foot is rectangular, the locking operation is by rotating the brake lever 90 degrees to easily insert into the aluminum groove and lock

SKILLS ACHIEVED

- Basic skills on operating principles, calculation methods of hydraulic transmission systems and control systems, knowing how to build system control circuits
- Thinking skills, design purposes, design thinking, analysis
- Skills to find the cause of damage and solve problems occurring in hydraulic circuits

HYDRAULIC

ST.HP.T0201 ADVANCED HYDRAULICS PRACTICE SET

EQUIPMENT LIST

No.	Equipment name	Code	Quantity
1	Hydraulic practice bench with dual work surfaces	TPAD.B3401	01
2	Pressure gauge	TPAD.T3401	04
3	Flow control valve	TPAD.T1901	02
4	One-way flow control valve	TPAD.T4401	01
5	One-way valve, opening pressure 0.4 bar	TPAD.T4001	01
6	One-way valve, opening pressure 5 bar	TPAD.T4101	04
7	Auxiliary controlled one-way valve	TPAD.T2001	01
8	T-connector	TPAD.T3101	08
9	Safety valve	TPAD.T2101	03
10	Diaphragm accumulator	TPAD.T5102	01
11	Pressure regulating valve	TPAD.T2201	01
12	Load set, 9 kg	TPAD.T3801	01
13	4/2 manual control valve	TPAD.T1101	01
14	4/3 manual control valve, center recirculation position	TPAD.T1301	01
15	Double-acting cylinder	TPAD.T3601	02
16	Flow divider valve	TPAD.T5001	01
17	4/3 manual control valve, center lock position	TPAD.T4501	01
18	4/3 manual control valve, center exhaust position	TPAD.T4601	01
19	Stopwatch	HS-3V	01
20	Flow sensor	TPAD.T4901	01
21	Speedometer training module	TPAD.T3405	01
22	Flexible hose, 600 mm	TPAD.T5301	25
23	Hydraulic power unit	TPAD.T4201	01
24	Hydraulic motor	TPAD.T2401	01
25	Hydraulic distributor (P1, P2, T)	TPAD.T3201	01
26	Hydraulic oil distributor	TPAD.T5201	01
27	Flexible hose, 1000 mm	TPAD.T5401	04
28	Pressure relief tool	TPAD.T5701	01
29	Hydraulic limit switch	TPAD.T4801	01
30	Practice documentation kit	.	01

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ST.HP.T1101 BASIC ELECTRO-PNEUMATIC PRACTICE SET

SPECIFICATIONS

- The equipment set is designed into separate modules with standard sizes and the same connection standards, helping to flexibly connect equipment during practice and easily upgrade products.
- The hydraulic equipment mounting base is machined from solid aluminum, anodized surface ensures hardness, durability and aesthetics.
- The modules in the practice set are manufactured according to ISO 9001:2015 Quality Management standards
- The module has a built-in plastic mounting foot:
- The mounting foot uses a gear mechanism connecting the lever and the plastic foot.
- The plastic mounting foot is rectangular, the locking operation is by
- turning the brake lever 90 degrees to easily insert it into the aluminum groove and lock it

TRAINING CONTENT

1. Basic Practice

- Physical principles of hydraulics.
- Characteristics of hydraulic pressure and flow
- Pressure reduction on hydraulic pipes
- Learn the functions and uses of hydraulic valves and other components.
- Basic hydraulic system control
- Understand and redraw existing hydraulic circuit diagrams
- Practice with hydraulic components

2. Application Practice

Assembly and operation of control circuits:

- Lesson 1: Equipment arrangement
- Lesson 2: Product classification on conveyor
- Lesson 3: Lifting station
- Lesson 4: Sheet metal bending equipment
- Lesson 5: Press-assembly equipment
- Lesson 6: Pressing machine
- Lesson 7: Door control
- Lesson 8: Cutting equipment
- Lesson 9: Feeding equipment for drilling machines
- Lesson 10: Press machine
- Lesson 11: Feeding equipment
- Lesson 12: Assembly equipment

SKILLS ACHIEVED

- Các kỹ năng cơ bản về nguyên tắc hoạt động, các phương pháp tính toán các hệ thống truyền động và hệ thống điều khiển bằng thủy lực, biết xây dựng các mạch điều khiển hệ thống
- Kỹ năng tư duy, mục đích thiết kế, tư duy thiết kế, phân tích
- Kỹ năng tìm nguyên nhân hư hỏng và giải quyết vấn đề xảy trong các mạch thủy lực

HYDRAULIC

ST.HP.T1101 BASIC ELECTRO-PNEUMATIC PRACTICE SET

EQUIPMENT LIST

No.	Equipment name	Code	Quantity
1	Specialized hydraulic practice bench with dual work surfaces	TPAD.B3401	01
2	Pressure gauge	TPAD.T3401	02
3	One-way flow control valve	TPAD.T4401	01
4	One-way valve, opening pressure 0.4 bar	TPAD.T4001	01
5	One-way valve, opening pressure 5 bar	TPAD.T4101	01
6	T-connector	TPAD.T3101	05
7	Pressure reducing valve, sequential pressure valve	TPAD.T2101	02
8	Flow control valve	TPAD.T1901	01
9	Auxiliary controlled one-way valve	TPAD.T2001	01
10	Double-acting cylinder	TPAD.T3601	01
11	Hydraulic motor	TPAD.T2401	01
12	Hydraulic distributor (P1, P2, T)	TPAD.T3201	01
13	Hydraulic oil distributor	TPAD.T5201	01
14	9 kg load	TPAD.T3801	01
15	Intermediate relay installation training module (Set of 3 relays)	TPAD.K0901	01
16	Push-button installation training module (Input signal generator set)	TPAD.K0301	01
17	Indicator light and horn training module	TPAD.K0801	01
18	4/2 solenoid valve	TPAD.T1501	01
19	4/3 solenoid valve with middle closed position	TPAD.T4701	01
20	Right limit switch	TPAD.T3001	01
21	Left limit switch	TPAD.T2901	01
22	600 mm hydraulic hose	TPAD.T5301	16
23	1000 mm hydraulic hose	TPAD.T5401	04
24	DC power module	TPAD.K0701	01
25	Hydraulic power unit	TPAD.T4201	01
26	Pressure relief tool	TPAD.T5701	01
27	Pressure switch	TPAD.T3501	01
28	Practice documentation kit	.	01

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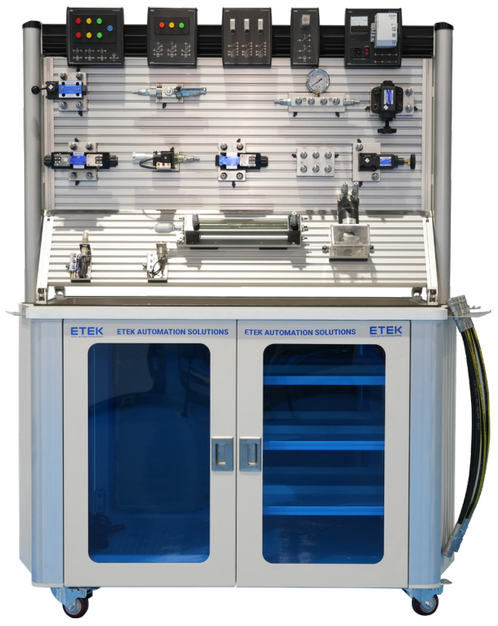
ST.HP.T1201 ADVANCED ELECTRO-PNEUMATICS PRACTICE SET



TRAINING CONTENT

1. Basic Practice

- Physical principles of hydraulics.
- Characteristics of hydraulic pressure and flow
- Pressure reduction on hydraulic pipes
- Learn the functions and uses of hydraulic valves and other components.
- Basic hydraulic system control
- Understand and redraw existing hydraulic circuit diagrams
- Practice with hydraulic components

2. Application Practice

Assembly and operation of control circuits:

- Lesson 1: Equipment arrangement
- Lesson 2: Product classification on conveyor
- Lesson 3: Lifting station
- Lesson 4: Sheet metal bending equipment
- Lesson 5: Press-assembly equipment
- Lesson 6: Pressing machine
- Lesson 7: Door control
- Lesson 8: Cutting equipment
- Lesson 9: Feeding equipment for drilling machines
- Lesson 10: Press machine
- Lesson 11: Feeding equipment
- Lesson 12: Assembly equipment

SPECIFICATIONS

- The equipment set is designed into separate modules with standard sizes and the same connection standards, helping to flexibly connect equipment during practice and easily upgrade products.
- The hydraulic equipment mounting base is machined from solid aluminum, anodized surface ensures hardness, durability and aesthetics.
- The modules in the practice set are manufactured according to ISO 9001:2015 Quality Management standards
- The module has a built-in plastic mounting foot:
- The mounting foot uses a gear mechanism connecting the lever and the plastic foot.
- The plastic mounting foot is rectangular, the locking operation is by
- turning the brake lever 90 degrees to easily insert it into the aluminum groove and lock it

SKILLS ACHIEVED

- Basic skills on operating principles, calculation methods of hydraulic transmission systems and control systems, knowing how to build system control circuits
- Thinking skills, design purposes, design thinking, analysis
- Skills to find the cause of damage and solve problems occurring in hydraulic circuits

HYDRAULIC

ST.HP.T1201 ADVANCED ELECTRO-PNEUMATICS PRACTICE SET

EQUIPMENT LIST

No.	Equipment name	Code	Quantity
1	Time Delay Relay Training Module (OFF relay)	TPAD.K2301	01
2	Time Delay Relay Training Module (ON relay)	TPAD.K2501	01
3	Indicator Light and Horn Training Module	TPAD.K2401	01
4	Emergency Stop Button Module	TPAD.K2601	01
5	Push-button Installation Training Module (Input Signal Generator Set)	TPAD.K4501	01
6	DC Power Module	TPAD.K4601	01
7	Intermediate Relay Installation Training Module (Set of 3 Relays)	TPAD.K5201	01
8	Pressure Control Valve	TPAD.K5301	02
9	Safety Valve	TPAD.K5501	01
10	Flow Control Valve	TPAD.K5511	01
11	Pilot Operated Safety Valve	TPAD.K5801	01
12	Hydraulic Motor	TPAD.K6101	01
13	4/2 Solenoid Valve with Single Coil	TPAD.K6201	01
14	Controlled One-way Valve	TPAD.K6301	01
15	Magnetic Proximity Sensor	TPAD.K6401	01
16	Optical Proximity Sensor	TPAD.K6501	01
17	Capacitive Proximity Sensor	TPAD.K6601	01
18	Pressure Gauge	TPAD.K0701	01
19	Left Actuating Electric Limit Switch	TPAD.K0201	01
20	Right Actuating Electric Limit Switch	TPAD.K0101	01
21	T-Connector	TPAD.K0301	01
22	Pressure Switch	TPAD.K0901	04
23	Double-acting Cylinder	TPAD.K0801	01
24	0.4 bar One-way Valve	TPAD.K2001	01
25	5 bar One-way Valve	TPAD.K2201	01
26	Hydraulic Power Unit	TPAD.K1001	01
27	Electric Distribution Training Module	TPAD.K0401	01
28	One-way Flow Control Valve	TPAD.K6701	01
29	4/3 Solenoid Valve, ABPT closed in center position	TPAD.K6801	01
30	Flow Divider Valve	TPAD.K6901	01
31	Pressure Accumulator	TPAD.K7201	02
32	600 mm Hydraulic Hose	TPAD.K0270	01
33	1000 mm Hydraulic Hose	TPAD.K7301	01
34	Pressure Relief Tool	TPAD.K7401	01
35	9 kg Load	TPAD.K7501	01
36	Hydraulic Distributor (P1, P2, T)	TU0425BU-20	01
37	Hydraulic Oil Distributor	KQ2T04-00A	01
38	Counter	KQ2P-01	01
39	4/3 Solenoid Valve, PT open in center	TK-3	01
40	Specialized Hydraulic Practice Bench with Dual Work Surfaces	TG-1	01
41	Practice Documentation Kit	KQ2U04-00A	01

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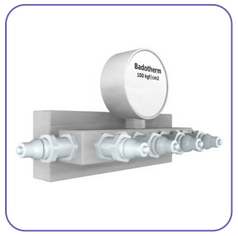
ST.IE.A5023 HYDRAULIC SERVO CONTROL CIRCUIT SPREAD MODEL



SPECIFICATIONS

- Frame material: Aluminum profile and CT3 powder coated
- Equipment mounting table material: T-slotted aluminum
- Integrated sensors
- Electrical and hydraulic mechanisms: Solenoid valve, hydraulic linear valve, position sensor
- Working modes: Position control, speed control

TRAINING CONTENT

1. Basic Practice

- Adjusting and observing the parameter values of the hydraulic servo unit
- Building a PID model for hydraulic position and speed control
- Adjusting the PID unit parameters
- Electrically coupled mechanical control and structure
- Application of sensors and hydraulic components on automatic systems
- Applications on control panels
- Application of coupling / installation
- Diagnosis, detection and repair

SKILLS ACHIEVED

- Basic skills on operating principles, calculation methods of hydraulic transmission systems and control systems, knowing how to build system control circuits
- Thinking skills, design purposes, design thinking, analysis
- Skills to find the cause of damage and solve problems occurring in hydraulic circuits

HYDRAULIC

ST.IE.A5023 HYDRAULIC SERVO CONTROL CIRCUIT SPREAD MODEL

EQUIPMENT LIST

No.	Equipment name	Code	Quantity
1	Dedicated hydraulic practice bench with dual working surfaces	TPAB.M2000	01
2	Hydraulic power source	TPAT.A1000	01
3	Hydraulic distributor (P1, P2, T)	TPAT.A3000	01
4	Hydraulic oil distributor with pressure gauge	TPAT.A3100	01
5	Hydraulic proportional valve	-	01
6	Amplifier for servo valve	-	01
7	Hydraulic cylinder, 32 mm diameter, 150 mm stroke	TPAT.F1000	01
8	DC power module	TPAK.A7100	01
9	600 mm hydraulic hose	TPAT.A4000	06
10	1000 mm hydraulic hose	TPAT.A4100	04
11	Data acquisition module for computer connection	TPAD.E8400	01
12	Computer	-	01
13	Hydraulic motor	TPAT.G0100	01
14	Rotational speed measurement module	-	01

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ST.HP.T5000 SPECIALIZED TABLE FOR HYDRAULIC TRAINING

SPECIFICATIONS

- Overall dimensions: 1280x766x1600 mm (LxWxH)
- The table is divided into 2 main parts: Mobile practice table and pneumatic installation panel
- Mobile practice table
- Overall dimensions: 1280 x 766 x 860mm (LxWxH)
- Material: CT3 powder coated combined with aluminum profile
- Hydraulic installation panel
- Vertical hydraulic equipment mounting bracket:
- Dimensions: 1133 x 30 x 444mm (LxWxH).

SPECIFICATIONS

- Overall dimensions: 1280x766x1640 mm (LxWxH)
- The table is divided into 2 main parts: Mobile practice table and Hydraulic installation panel
- Mobile practice table
  + Overall dimensions: 1280 x 766 x 860mm (LxWxH)
  + Material: CT3 powder coated combined with aluminum profile
- Hydraulic installation panel
  + Vertical hydraulic equipment mounting bracket:
- Dimensions: 1133 x 30 x 444mm (LxWxH).

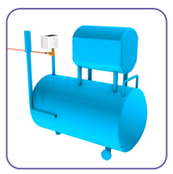
ST.HP.T3000 SYMBOLS FOR MAGNETIC PNEUMATIC AND HYDRAULIC ELEMENTS

SPECIFICATIONS

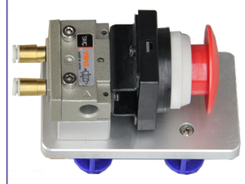
- Dimensions: 490 x 280 x 110mm (LxWxH)
- The suitcase is made of wood.
- The compartments and lid are made of 10mm thick wood, the compartment is 80mm high.
- The partitions are made of 10mm thick wood, 60mm high.
- The suitcase is divided into 9 equal compartments with dimensions of 150mm x 80mm.
- The suitcase has a handle, 2 hinges, 2 locks.
- The set of symbols for pneumatic and hydraulic elements includes elements such as single cylinders, double cylinders, valves, filters, etc.

SPECIFICATIONS

- Dimensions: 600x300x600mm (LxWxH)
- Laboratory air compressor, very low noise
- Operating voltage: 220VAC, 50Hz
- Power: 550W
- Noise level: 65dB
- Tank volume: 25l



TPAD.K3801 EMERGENCY STOP 3/2 NORMALLY CLOSED VALVE



- Number of ports: 03 ports
- Location: 02
- Thread hole size: 1/8”
- Red mushroom-type push button indicates emergency stop situation
- Normally closed type NC valve
- Quick connector for 4mm diameter pipe
- Working pressure from -100KPA to 1MPA
- Spring return type
- Sound damper at discharge port

TPAD.K3001 NORMALLY CLOSED 3/2 ROLLER LEVER VALVE

- Number of ports: 03 ports
- Position: 02
- Hole size: 1/8”
- Quick connector: 4mm diameter
- Normally closed type valve NC, metal wheel return by spring
- Working pressure range from -100KPA to 1MPA

TPAD.K2901 UNIDIRECTIONAL 3/2 ROLLER LEVER VALVE

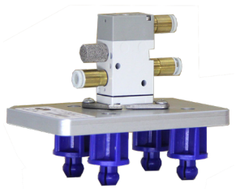
- Number of ports: 03 ports
- Position: 02
- Hole size: 1/8”
- Quick connector: 4mm diameter
- NC normally closed valve, metal wheel acts in 1 direction and returns by spring
- Working pressure range from -100KPA to 1MPA

TPAD.K3301 SWITCH-TYPE 3/2 VALVE

- Number of ports: 03 ports
- Position: 02
- Quick connector: 4mm diameter
- Direct acting type
- Normally closed valve NC
- Working pressure range from 0 to 1MPA
- Return by spring

TPAD.K3701 5/2 SWITCH-TYPE VALVE

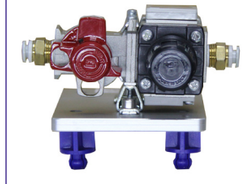
- Number of ports: 05 ports
- Position: 02
- Hole size: 1/8”
- Direct acting type
- Switch type.
- Working pressure range from 0.15 to 1 MPa



TPAD.K4701 SINGLE-ACTING 3/2 PNEUMATIC VALVE, NORMALLY CLOSED

- Number of ports: 03 ports
- Position: 02
- Quick connector: 4mm diameter
- Hole size: M5
- Working pressure range: from 0.15 to 0.7MPa
- Type of valve normally closed NC
- Reset type: spring
- Spool valve

TPAD.K2301 FILTER, REGULATOR WITH 3/2 DISTRIBUTION VALVE



- Integrated equipment includes: 01 Filter and pressure regulator, 01 3/2 shut-off valve
- The 3/2 distribution valve has the function of cutting off the air supply to all gas elements. The effect is similar to the “power switch” supplying the air source.
- The 3/2 distribution valve can be locked in combination with the lock to prevent students from opening it themselves when there is no practice time.
- Filter size up to 5 micrometer
- Pressure adjustment range: 0.5-7bar
- Quick inlet/outlet connector size: 6mm

TPAD.K2501 AIR DISTRIBUTION MANIFOLD

- Number of ports: 09 ports
- Hole size: 4mm quick connector
- Inlet: 6mm diameter
- Air supply heads are one-way valve type, when the air pipe is not plugged in, the valve automatically closes to prevent air from escaping.

TPAD.K2401 PRESSURE REGULATOR WITH GAUGE

- Number of ports: 02 ports
- Thread size: 1/4”
- Quick connection pipe size: 4mm
- Pressure adjustment range: 0.5-7bar
- Withstanding pressure: 10 MPa

TPAD.K2601 PRESSURE GAUGE, 1 MPA

- Number of ports: 01 port
- Quick connection pipe size: 4mm diameter
- Pressure display range: from 0 to 1MPa

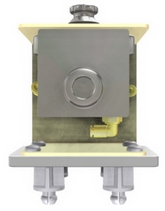
TPAD.K3201 NORMALLY CLOSED 3/2 PUSH-BUTTON VALVE

- Number of ports: 03 ports
- Position: 02
- Thread size: M5
- Quick connector for 4mm diameter pipe
- Working pressure from -100KPA to 1MPA
- Spring return type
- Sound damper at discharge port.

TPAD.K3401 NORMALLY CLOSED/OPEN 3/2 PUSH-BUTTON VALVE

- Number of ports: 03 ports
- Position: 02
- Thread size: 1/8”
- Quick connector for 4mm diameter pipe
- Working pressure from -100KPA to 1MPA
- Spring return type
- Sound damper at discharge port.

TPAD.K5102 TIMER-OPERATED 3/2 NORMALLY CLOSED SWITCHABLE VALVE



- Adjustment time: 0.5 to 60 s
- Working pressure range: 0.1 to 1.0 MPa
- Orifice size: 4mm pipe
- Type Normally closed valve

SINGLE 5/2 PNEUMATIC VALVE TPAD.K4901

- Number of ports: 03 ports
- Position: 02
- Quick connector: 4mm diameter
- Hole size: M5
- Working pressure range: from 0.15 to 0.7MPa
- Type of valve normally closed NC
- Reset type: spring
- Spool valve

TPAD.K4801 DOUBLE-ACTING 5/2 PNEUMATIC VALVE

- Number of ports: 02 control air ports
- Position: 02
- Working pressure range: from 0.15 0.7MPA
- Valve structure Slider type
- Reset type: Spring
- Logic type: Self-remembering valve Position
- Orifice size: 4mm tube

OR VALVE TPAD.K4201

- Number of ports: 05 ports + 02 control air ports
- Position: 02
- Working pressure range: from -100KPA to 0.7MPA
- Valve structure Slider type
- Reset type: spring
- Logic type: Self-remembering valve Position
- Orifice size: 4mm tube

TPAD.K4001 AND VALVE

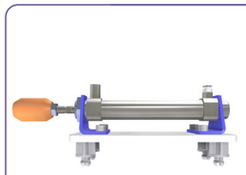
- Number of ports: 03 ports/valve
- Location: 02
- Orifice size: 4mm pipe
- Working pressure range: 0.05 to 1.0 MPa
- Flow rate from inlet X,Y to outlet A: 200l/ min

ONE-WAY FLOW CONTROL VALVE (DOUBLE-ACTING) TPAD.K4501

- Flow from port A to B: 0 to 200 l/min
- Flow from port B to A: 200 l/min
- Orifice size: 4mm pipe
- Working pressure range: 0.1 to 0.7 MPa (1 to 7 bar)

TPAD.K4301 QUICK EXHAUST VALVE

- Hole size: 4mm tube
- Working pressure range: 0.1 to 1.0 MPa (1 to 10 bar)

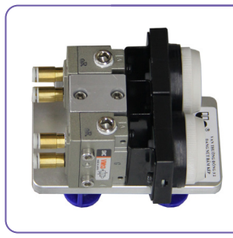


SINGLE-ACTING CYLINDER TPAD.K5202

- Number of ports: 01 port
- Diameter: 20mm
- Stroke: 50mm
- Spring return
- Working pressure range: 0.05 to 1MPa
- Cylinder speed: 50 750 mm/s
- Spring return

TPAD.K5302 DOUBLE-ACTING CYLINDER

- Number of ports: 02 ports
- Diameter: 20mm
- Stroke: 100mm
- Working pressure range: 0.05 to 1Mpa
- Cylinder speed 50 750 mm/s



DOUBLE PUSH-BUTTON 3/2 VALVE TPAD.K3101

- Quantity: 2 push buttons per set
- Valve type: 3/2
- Quick connector for 4mm diameter pipe
- Working pressure from: -100 KPa 1 MPa
- Spring return type
- Sound damper at discharge port.

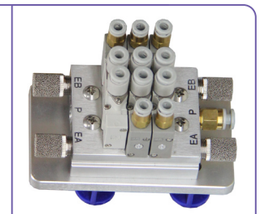
TPAD.K7601 PNEUMATIC MOTOR

- GAST Equipment
- Maximum Power: 0.45 hp
- Maximum Speed: 6000 rpm
- Air Consumption: 27 cfm (47 m3/h)
- Quick Connector Size: 1/8”

5/3 THREE-POSITION SWITCH-TYPE VALVE TPAD.K3601

- Number of ports: 05 ports
- Position: 03 (middle discharge)
- Quick connector for 4mm diameter pipe
- 3-position electric switch operation
- Working pressure: 0 to 1 MPa

TPAD.K5001 BLOCK OF 2 DOUBLE-ACTING 5/2 VALVES AND 1 SINGLE-ACTING 5/2 VALVE



- Number of ports: 05 ports/valve
- Working pressure range: 0.15 0.7 MPa
- Orifice size: 4mm pipe

DOUBLE OR VALVE TPAD.K4101

- Number of ports: 03 ports/valve
- Location: 02
- Orifice size: 4mm pipe
- Working pressure range: 0.05 to 1.0 MPa
- Flow rate from inlet X,Y to outlet A: 210l/ min / 1 valve

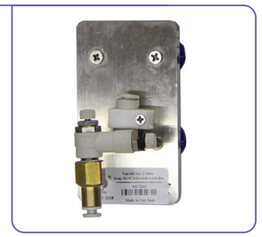
TPAD.K3901 DOUBLE AND VALVE

- Number of ports: 03 ports/Valve
- Location: 02
- Number of valves per set: 02
- Hole size: 4mm pipe
- Working pressure range: 0.05 to 1.0 MPa
- Flow rate from inlet X,Y to outlet A: 120 l/ min / 1 valve

ADJUSTABLE ONE-WAY FLOW CONTROL VALVE TPAD.K4601

- Integrated one-way valve and throttle to adjust air flow
- Flow from port B to A: 180l/min adjustable
- Orifice size: 4mm tube
- Working pressure range: 0.1 to 1.0 MPa (1 to 10 bar)

TPAD.K2801 TWO-WAY FLOW CONTROL VALVE FOR SINGLE- ACTING CYLINDER



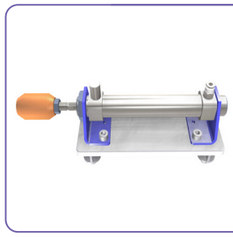
- Integrated check valve and throttle to adjust the air flow
- Flow from port B to A: 180l/min yes Number of ports: 02 ports
- Orifice size: 4mm tube
- Working pressure range: 0.1 to 1.0 MPa (1 to 10 bar)
- Flow from port B to A and from A to B: 0-75l/ min adjustable. adjustable
- Orifice size: 4mm tube
- Working pressure range: 0.1 to 1.0 MPa (1 to 10 bar)

DOUBLE-ACTING CYLINDER WITH ADJUSTABLE CUSHIONING TPAD.K5401

- Number of ports: 02 ports
- Diameter: 20mm
- Stroke: 100mm
- Working pressure range: 0.05 to 1MPa
- Cylinder speed 50 750 mm/s
- End-of-stroke damping is controlled by a hexagon wrench.

TPAD.K5601 RODLESS MAGNETIC CYLINDER

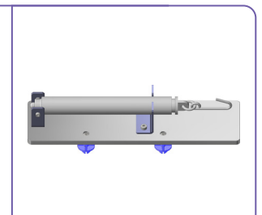
- Number of ports: 02 ports
- Diameter: 10mm
- Stroke: 100mm
- Loading part mounted on the cylinder mounting flange
- Loading capacity when mounted vertically: 2.7 kg
- Loading capacity when mounted horizontally: 3 kg



CYLINDER WITH LOAD TPAD.K5501

- Number of ports: 02 ports
- Cylinder diameter/stroke: 20mm/50mm

TPAD.K5511 LOAD FOR CYLINDER

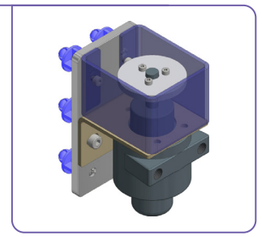


- Display range: 10 kg

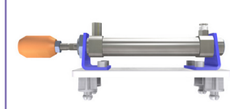
DOUBLE PUSH-BUTTON 3/2 VALVE TPAD.K3101

- Quantity: 2 push buttons per set
- Valve type: 3/2
- Quick connector for 4mm diameter pipe
- Working pressure from: -100 KPa 1 MPa
- Spring return type
- Sound damper at discharge port.

TPAD.K7601 PNEUMATIC MOTOR



- GAST Equipment
- Maximum Power: 0.45 hp
- Maximum Speed: 6000 rpm
- Air Consumption: 27 cfm (47 m3/h)
- Quick Connector Size: 1/8”



ROTARY ACTUATOR TPAD.K7701

- SMC pneumatic equipment
- Working pressure range: 0.1 to 1Mpa
- Number of ports: 02 ports
- 90 degree rotation angle
- Hole size: 4mm tube
- With attached impact cam, used for practice

TPAD.K5801 VACUUM CUP/GENERATOR

- Vacuum Valve
- Working Pressure Range: 0.1 to 0.6 MPa
- Minimum Vacuum Pressure: -88KPA
- Suction Pipe Diameter: 1 mm
- Maximum Flow Rate: 24 l/min
- Air Consumption: 46 l/min
- Connection Port Size: 1/8”

RED PRESSURE INDICATOR TPAD.K2701

- Number of ports: 02 ports
- Installation type: serial connection on the pipeline
- Display red alarm when there is pressure on the pipeline

TPAD.K5901 PRESSURE TANK

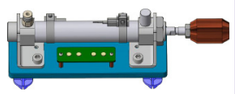
- Number of ports: 01 port
- Capacity 200ml
- Maximum pressure: 1.5MPa

PNEUMATIC COUNTER TPAD.K5701

- Working pressure range: 0.2 to 0.8MPa
- Mechanical counting principle with pneumatic pressure counting signal
- Display: 5 digits
- Reset: manual or pneumatic signal (executed after 180 ms)
- Minimum counting pulse width: 10 ms
- Response frequency when counting continuously

TPAD.K5201 SINGLE-ACTING CYLINDER

- Number of ports: 01 port
- Capacity 200ml
- Maximum pressure: 1.5MPaWorking pressure range: 0.2 to 0.8MPa
- Mechanical counting principle with pneumatic pressure counting signal
- Display: 5 digits
- Reset: manual or pneumatic signal (executed after 180 ms)
- Minimum counting pulse width: 10 ms
- Response frequency when counting continuously: 20 Hz

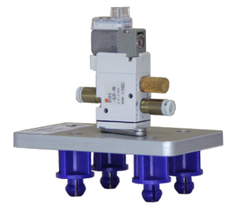


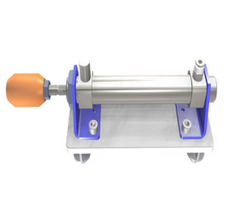
DOUBLE-ACTING CYLINDER TPAD.K5301

- Number of ports: 02 ports
- Diameter: 20mm
- Stroke: 100mm
- Working pressure range: 0.05 to 1Mpa
- Cylinder speed 50 750 mm/s
- Integrated magnetic ring for use with sensors on the cylinder body

TPAD.K6101 NORMALLY CLOSED 3/2 SINGLE-COIL SOLENOID VALVE

- Working pressure range: 0.15 to 0.7MPa
- Response time: 25 ms or less (at 0.5 MPa pressure)
- Type NC Normally closed valve
- Quick connection port: M5
- Spring return
- LED operation display and protection circuit
- 24VDC coil voltage





5/2 SINGLE-COIL SOLENOID VALVE TPAD.K6301

- Working pressure range: 0.15 to 0.7MPa
- Response time: 15ms or less
- NC Normally closed valve type
- 4mm quick connector
- Spring return and manual action
- LED operation display and protection circuit
- 24VDC coil voltage

TPAD.K5302 PNEUMATIC SOLENOID VALVE 5/2 DOUBLE SUCTION COIL

- Working pressure range: 0.1 to 0.7MPa
- Response time: 15ms or less
- NC Normally closed valve type
- 4mm quick connector
- Spring return
- LED operation display and protection circuit
- 24VDC coil voltage

DC POWER MODULE TPAD.K0701

- Meets TCVN 5699-1:2010 and IEC 60335-1:2010 standards for power, leakage current, high voltage
- PHOENIX CONTACT components
- Input voltage: 100 240 VAC
- Output voltage: 24VDC/4.2A
- Power 100 W
- With short circuit protection, LED display

TPAD.K0301 PUSH-BUTTON TRAINING MODULE

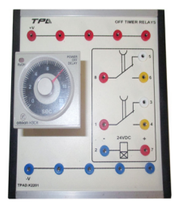
- Meets TCVN 5699-1:2010 and IEC 60335-1:2010 standards for power, leakage current, high voltage
- Power supply: 24VDC
- 3 input buttons, including 1 self-holding button
- Maximum load current through contact: 1A

INTERMEDIATE RELAY TRAINING MODULE TPAD.K0901

- Meets TCVN 5699-1:2010 and IEC 60335-1:2010 standards for power, leakage current, high voltage
- OMRON components
- Coil voltage: 24VDC
- 3 relays, each relay has 2 pairs of contacts.
- Total load capacity: 90W
- Action time: 15ms
- Contact release time: 10ms

TPAD.K2001 TIME RELAY INSTALLATION TRAINING MODULE (ON TIME RELAY)

- Meeting TCVN 5699-1:2010 and IEC 60335-1:2010 standards on power, leakage current, high voltage
- AUTONICS components
- Power supply 100 240 VAC/24 240 VDC
- Maximum load current: 5A

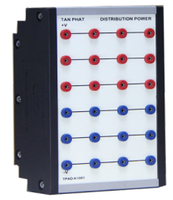


TPAD.K2201 TIME RELAY INSTALLATION TRAINING MODULE (OFF TIME RELAY)

- Meeting TCVN 5699-1:2010 and IEC 60335-1:2010 standards on power, leakage current, high voltage
- OMRON components
- Electrical Coil voltage: 24VDC
- Delay time: 0.05 to 12s

TPAD.K0801 TRAINING MODULE FOR INSTALLING INDICATORS AND BELLS (BELL DISPLAY SYSTEM)

- Meeting TCVN 5699-1:2010 and IEC 60335-1:2010 standards on power, leakage current, high voltage
- Pilot light and 1 bell
- Can be used for display and power distribution.
- Power supply: 24VDC



TPAD.K1001 ELECTRIC DISTRIBUTION TRAINING MODULE

- Divided into 6 D-source lines
- Each line has 4 points with 2mm safety pins
- Meeting TCVN 5699-1:2010 and IEC 60335-1:2010 standards on capacity, leakage current, high voltage

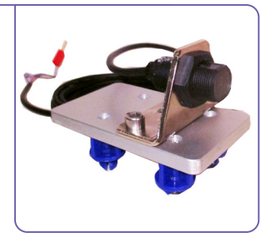
TPAD.K7201 ELECTRIC LIMIT SWITCH

- OMRON device
- Used for detecting the end of the cylinder stroke
- Contact gap: 0.9mm
- Rated current: 10 A
- 01 NO contact, 01 NC contact in the form of a switch

TPAD.K6801 CAPACITARY PROXIMITY SENSOR

- OMRON component
- Working voltage: 1224VDC
- Detecting distance: 8 mm = 10%
- Adjusting distance: 05.6 mm
- Maximum operating frequency: 100 Hz
- Output contact: NO, PNP
- Maximum output current: 200 mA
- Consumption current: 15mA

TPAD.K6901 OPTICAL PROXIMITY SENSOR



- OMRON brand components
- Installation size: M18
- Working voltage: 1224VDC
- Detecting distance: 100 mm
- Response time: 0.5 ms
- Output contact: NPN
- Consumption current: 25 mA
- Output current: 100mA Max

TPAD.K6701 MAGNETIC PROXIMITY SENSOR

- OMRON brand components
- Working voltage: 1224VDC
- Detecting distance: 8 mm ± 10%
- Adjusting distance: 06.4 mm
- Maximum operating frequency: 500Hz
- Output contact: NO, PNP
- Current Maximum output: 200mA
- Consumption current: 10mA

TPAD.K5302 COUNTER TRAINING MODULE

- Components: Omron
- Coil voltage: 12 24VDC
- Contacts: 1 Pair
- Counting pulse width: 20ms
- 4 digit display.
- Meets TCVN 5699-1:2010 and IEC 60335-1:2010 standards for power, leakage current, high voltage

TPAD.K0701 DC POWER MODULE

- Meets TCVN 5699-1:2010 and IEC 60335-1:2010 standards for power, leakage current, high voltage
- PHOENIX CONTACT components
- Input voltage: 100 240 VAC
- Output voltage: 24VDC/4.2A
- Power 100 W
- With short circuit protection, LED display

TPAD.K7301 PRESSURE SWITCH - ELECTRIC

- Max working pressure: 0.7 MPa
- Adjustment range: 0.1 0.4MPa
- With actual pressure display

TPAD.K0901 PRESSURE GAUGE WITH PUSH PRESSURE SWITCH

- Working pressure: 01 MPa
- Adjustment range: 10.8 Mpa
- Quick connector size: 1/8”
- The dial shows 2 needles: 1 needle for actual pressure, the other needle to set the closing pressure

TPAD.K6201 NORMALLY CLOSED PNEUMATIC SOLENOID VALVE 3/2 DOUBLE SUCTION COIL

- Number of ports: 03 ports
- Position: 02
- Number of suction coils: 02
- Suction coil voltage: 24VDC
- LED operation display and protection circuit

TRAINING MODULE FOR INSTALLING TIME RELAY (OFF TIME RELAY) TPAD.K2201

- Meeting TCVN 5699-1:2010 and IEC 603351:2010 standards on capacity, leakage current, high voltage OMRON components
- Suction coil voltage: 24VDC
- Delay time: 0.05 to 12s

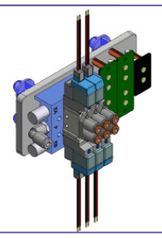
TPAD.K6201 PNEUMATIC SOLENOID VALVE NORMALLY CLOSED 3/2 DOUBLE SUCTION COIL

- Number of ports: 03 ports
- Position: 02
- Number of suction coils: 02
- Suction voltage: 24VDC
- LED operation display and protection circuit

PNEUMATIC SOLENOID VALVE 5/3, CLOSED, DOUBLE SUCTION COIL TPAD.K6501

- Number of ports: 03 ports
- Position: 02
- Number of suction coils: 02
- Suction coil voltage: 24VDC
- LED operation display and protection circuit

TPAD.K6601 PNEUMATIC SOLENOID VALVE ASSEMBLY CONSISTS OF 2 5/2 DOUBLE SUCTION COIL VALVES



- Valve quantity: 3 Pieces Set includes 2 5/2 double suction valves and 1 single suction valve
- Port quantity: 05 ports/valve
- Position number: 02
- Working pressure range: 0.1 to 0.7Mpa
- Response time: 20ms or less
- Quick connector size: M5
- Suction coil voltage 24VDC
- Air pipe diameter: 4mm
- Spring return
- LED operation display and protection circuit

TPAD.K0201 SWITCH INSTALLATION TRAINING MODULE (ON/OFF)

- Size: 155x105x96mm (LxWxH)
- Meets TCVN 5699-1:2010 and IEC 60335-1:2010 standards for power, leakage current, high voltage
- Manufacturer: IDEC Components
- 2mm jack
- Two pairs of independent NO/NC contacts

TPAD.K0101 EMERGENCY STOP SWITCH

- Size: 155x105x96mm (LxWxH)
- Manufacturer: IDEC Components
- 2mm jack
- Red mushroom-shaped push button with locking

PLC S7 1200 TRAINING MODULE TPAD.K0270

- SIEMENS components
- CPU type: 1214C
- Profinet communication with Ethernet physical method
- 6 high-speed counters: max 100KHz
- Number of digital inputs: 14DI
- Number of digital outputs: 10DO
- Digital input, output type: Transistor
- Number of analog inputs: 2AI, voltage range 0~10V
- Power supply: 24VDC

TPAD.K5302 COUNTER TRAINING MODULE

- Components: Omron
- Coil voltage: 12 24VDC
- Contacts: 1 Pair
- Counting pulse width: 20ms
- Display 4 digits
- Meets TCVN 5699-1:2010 and IEC 60335-1:2010 standards for power, leakage current, high voltage

DC POWER MODULE TPAD.K0701

- Meets TCVN 5699-1:2010 and IEC 60335-1:2010 standards for power, leakage current, high voltage
- PHOENIX CONTACT components
- Input voltage: 100 240 VAC
- Output voltage: 24VDC/4.2A
- Power 100 W
- With short circuit protection, LED display

TPAD.K7301 PRESSURE SWITCH - ELECTRIC

- Max working pressure: 0.7 MPa
- Adjustment range: 0.1 0.4MPa
- With actual pressure display

PRESSURE GAUGE WITH PUSH PRESSURE SWITCH TPAD.K0901

- Working pressure: 01 MPa
- Adjustment range: 1 0.8 Mpa
- Quick connector size: 1/8”
- The dial shows 2 needles: 1 needle for actual pressure, the other needle to set the closing pressure

TPAD.K0270 PLC S7 1200 TRAINING MODULE

- Number of ports: 03 ports
- Position: 02
- Number of coils: 02
- Coil voltage: 24VDC
- LED operation display and protection circuit

ELECTRIC PRESSURE SWITCH, TRANSISTOR OUTPUT TPAD.K2201

- Power supply: 12 24 VDC
- Consumption current: 17 MA
- Output: PNP
- Adjustment range: 0 1Mpa
- Withstanding pressure: 1.5 MPa
- Quick connector size: 1/8”
- Response time: 5 ms

TPAD.B3401 SPECIALIZED TABLE FOR HYDRAULIC PRACTICE WITH 2 WORKING SIDES

- Size: 1291x805x1724 (LxWxH)
- Technical characteristics
- Quick installation and removal of hydraulic components
- Easy to move, thanks to the locking wheels
- Can work on both sides

PRESSURE GAUGE TPAD.T3401

- Max pressure display gauge: 10 Moa

TPAD.T1901 THROTTLE VALVE

- Max working pressure: 25 Mpa
- Flow rate: 30 l/min
- Action type: manual
- Spring return
- LED operation display and protection circuit

ONE-WAY THROTTLE VALVE TPAD.T4401

- Max working pressure: 31.5 Mpa
- Max flow rate: 40 (L/min)

TPAD.T3901 LOCK VALVE (SHUT DOWN)

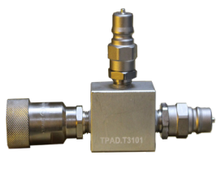
- Shut off valve is equipped with quick connectors at both ends.
- Max working pressure 35Mpa
- Quick connector Rc 1/4

ONE-WAY VALVE, OPENING PRESSURE 0.4 BAR TPAD.T4001

- One-way valve 0.4 bar is equipped with quick connectors at both ends
- Max working pressure: 25 Mpa
- Flow: 16 l/p
- Opening pressure 0.04 Mpa

TPAD.T4101 ONE-WAY VALVE, OPENING PRESSURE 5 BAR

- One-way valve 5 bar is equipped with quick connectors at both ends
- Max working pressure: 25 Mpa
- Flow rate: 16 l/p
- Opening pressure 5 bar



T-CONNECTOR TPAD.T3101

- Working pressure: 25 Bar

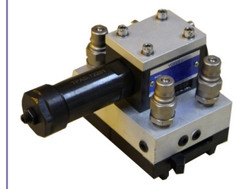
TPAD.T2101 SAFETY VALVE

- Hydraulic material: YUKEN
- Max flow: 16l/min
- Pressure adjustment range: 7-21 MPa

SAFETY VALVE, AUXILIARY TPAD.T2301

- Hydraulic material: YUKEN
- Max working pressure: 25 Mpa
- Max flow: 100 l/min

TPAD.T2201 PRESSURE ADJUSTMENT



- Pressure adjustment range: 7-21 MPa
- Max flow rate 351/min
- Manual adjustment

TPAD.T2001 ONE-WAY VALVE, HYDRAULIC AUXILIARY

- Max working pressure: 25 Mpa
- Flow rate: 40 l/min

TPAD.T3601 DOUBLE ACTING CYLINDER

- Double stroke cylinder
- Body diameter: 32 mm
- Shaft diameter: 14 mm
- Stroke: 200 mm

TPAD.T2401 HYDRAULIC MOTOR

- Max speed: 630 rpm
- Min speed: 30 rpm
- Max torque: 40 Nm
- Max output power: 2.4 KW
- Max oil flow: 20 l/p
- Max starting pressure: 4 bar
- Equipment mounting base made of stainless steel 304

TPAD.T3201 HYDRAULIC DISTRIBUTOR (P1, P2, T)

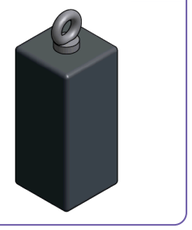
- Number of branches: 06
- Hydraulic materials: NITTO KOHKI

TPAD.T5201 HYDRAULIC OIL DISTRIBUTOR

- Number of branches: 06
- Max pressure gauge: 10 Mpa

TPAD.T5102 MEMBRANE TYPE ACCUMULATOR

- Help students learn about the operating principle of the accumulator 4/3 hand valve, ABPT in the middle
- Max pressure 25 Mpa
- Max flow 351/p



TPAD.T3801 LOADING SET, 9 KG

- Weight: 9 Kg
- The load is precisely machined, chrome plated to prevent rust
- The top of the load has a hook welded on it

TPAD.T1101 4/2 MANUAL ACTION VALVE

- Max working pressure: 21 Mpa
- Number of ports: 04
- Number of positions: 02
- Action type: manual

TPAD.T1301 4/3 MANUAL ACTION VALVE, MIDDLE OF CIRCULATION POSITION

- Max working pressure: 21 Mpa
- Number of ports: 04
- Number of positions: 03
- Action type: manual

HS-3V STOPWATCH

- Origin: China
- CASIO digital stopwatch
- Handheld device

TPAD.T4901 FLOW SENSOR

- Power supply: 24VDC
- Resolution: 100 Pulses/1 revolution
- Output phase: 3 Phases A, B, Z (Line driver: Phase A, A, B, B, Z, Z)
- Frequency response: Max. 300kHz

TPAD.T3405 SPEED METER TRAINING MODULE

- Meeting TCVN 5699-1:2010 and IEC 60335-1:2010 standards on power, leakage current, high voltage
- Speed meter:
- Manufacturer: Autonics
- Power supply 100-240VAC, 50/60Hz
- Power for external sensor: 12VDC ±10%, 80mA
- Input frequency: solid state Max 50KHz, contact Max 45Hz
- Display cycle 0.05/0.5/1/2/4/8 seconds
- Recording range 0~ 9999 seconds
- Display: Led, 5 digits (-19999 to 99999)

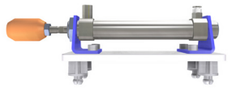
TPAD.T5301 FLEXIBLE HOSE, 600 MM

- Size: length 600 mm
- Specialized hydraulic hose, 2 ends are fitted with quick connectors

TPAD.T5401 FLEXIBLE HOSE, 1000 MM

- Size: length 1000 mm
- Specialized hydraulic hose, 2 ends are fitted with quick connectors

TPAD.T5701 RESIDUAL PRESSURE RELIEF TOOL



- Release of field pressure
- Manual action

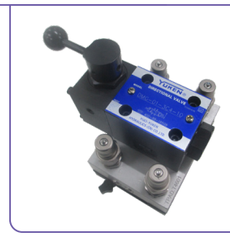
TPAD.T5001 THROTTLE VALVE

- Working pressure range: 10-350 bar
- Max flow: 54 l/p
- Dividing ratio A:B-50:50

TPAD.T4501 4/3 MANUAL ACTION VALVE, MID POSITION LOCK

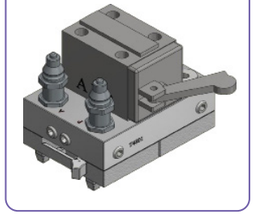
- Pressure range: 0-250kgf/cm2
- Working pressure: 60kgf/cm2
- Action type: manual
- Hydraulic materials: YUKEN

TPAD.T4601 4/3 MANUAL ACTION VALVE, MIDDLE POSITION OF DISCHARGE



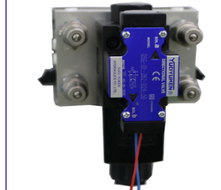
- Working pressure range: 0-250kgf/cm2
- Working pressure: 60kgf/cm2
- Manual operation
- Intermediate position of supply port Discharge port

TPAD.T4801 HYDRAULIC LIMIT SWITCH



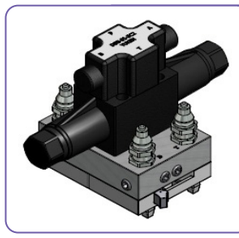
- Hydraulic materials: YUKEN
- Max working pressure: 21 Mpa
- Max flow: 30 liters/minute

TPAD.T1501 4/2 SOLENOID VALVE



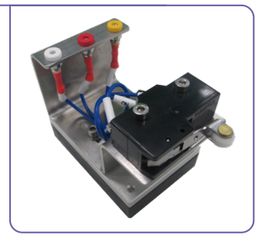
- Hydraulic materials: YUKEN
- Suction coil source: 24 VDC
- Max working pressure: 35 Mpa
- Max flow: 100 l/p
- Number of ports: 04
- Number of positions: 02
- Action type: electric

TPAD.T4701 4/3 SOLENOID VALVE WITH CLOSED MID POSITION



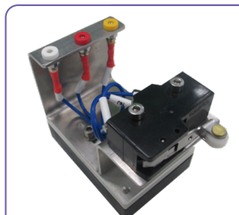
- Hydraulic material: YUKEN
- Suction coil source: 24 VDC
- Max working pressure: 35 Mpa
- Max flow: 100 l/p
- Number of ports: 04
- Number of positions: 03
- Action type: spring return

TPAD.T3001 RIGHT TRAVEL LIMIT SWITCH



- Material: OMRON
- Operating frequency: Mechanical 240 times/min, Electrical 20 times/min
- Contact type: SPDT
- Switch action gap: 0.5 mm
- Output contact: 15A, 250VAC
- Contact type: NO or NC
- Operating life: 2,000,000 times
- Device mounting base made of 304 stainless steel

TPAD.T2901 LEFT TRAVEL LIMIT SWITCH

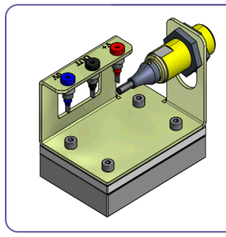


- Materials: OMRON
- Operating frequency: Mechanical 240 times/minute, Electrical 20 times/minute
- Contact type: SPDT
- Switch action clearance: 0.5 mm
- Output contact: 15A, 250VAC
- Contact type: NO or NC
- Operating life: 2,000,000 times
- Device mounting base made of 304 stainless steel

TPAD.T3501 PRESSURE SWITCH

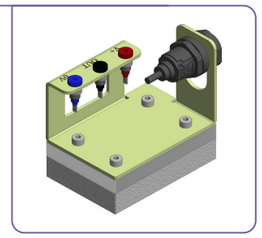
- The device flange is made of precision machined aluminum, with anodized surface to ensure hardness, durability and aesthetics.
- Safety pins are integrated on the 304 stainless steel plate
- Quick connector Rc ¼
- Pressure switch:
- Max working pressure: 410 bar
- Adjustment range: 50 350bar
- Display: Led, 5 digits (-19999 to 99999)

TPAD.T2501 MAGNETIC PROXIMITY SENSOR



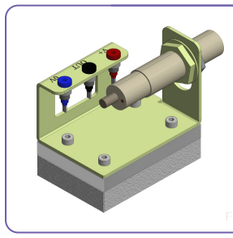
- Materials: OMRON
- Mounting size: M18
- Detecting distance: 8 mm ± 10%
- Adjusting distance: 0-6.4 mm
- Detecting material: steel
- Response frequency: 0.5 kHz
- Power supply: 12-24 VDC
- Consumption current: 10 mA max
- Control output: PNP, NO
- Output current: 200 mA
- Device mounting base made of 304 stainless steel

TPAD.T2601 OPTICAL PROXIMITY SENSOR



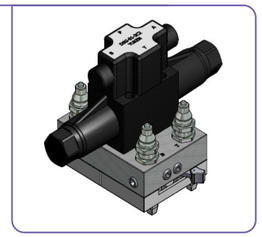
- Materials: OMRON
- Power supply: 10-30 VDC
- Mounting size: M18
- Sensing distance: 100 mm
- Control output: PNP
- Output current: 200 mA
- Device mounting base made of 304 stainless steel

TPAD.T2701 CAPACITARY PROXIMITY SENSOR



- Materials: OMRON
- Power supply: 12 - 24 VDC
- Mounting size: M18
- Sensing distance current: 8 mm ± 10%
- Adjustment range: 0 - 5.6 mm
- Control output: PNP, NO
- Output current: 200 mA
- Device mounting base made of 304 stainless steel

TPAD.T1401 4/3 SOLENOID VALVE, MID-WAY PT



- Hydraulic materials: YUKEN
- Suction coil power supply: 24VDC
- Max working pressure: 35 Mpa
- Number of ports: 04
- Number of positions: 03
- Action type: electric

TPAD.B4001 SPECIALIZED TABLE FOR PNEUMATIC ELECTRO-PNEUMATIC TRAINING

- Used in research, practice of installing pneumatic components into pneumatic control circuits

TPAD.B3302.05 CABINET WITH TRAY FOR PNEUMATIC COMPONENTS

- Used to store and preserve basic pneumatic components during training, avoiding loss and dust
- Overall dimensions: 730 x 630 x 600mm (LxWxH)
- Number of equipment compartments: 04 compartments

TPAD.B3302.06 TEST WIRE HOLDER

- Purpose of use: To hang 2mm and 4mm safety wires
- Includes 02 wire hangers
- Material: Stainless steel, 2mm thick, scratch-resistant surface
- For up to 40 wires

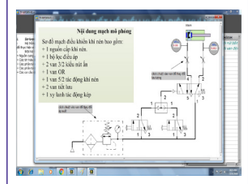
TPAD.K2109 AIR COMPRESSOR WITH TANK

- Size: 600x300x600mm (LxWxH)
- Air compressor for laboratory use, very low noise
- Operating voltage: 220VAC, 50Hz
- Power: 550W
- Noise: 65dB
- Tank volume: 251

TPAD.B5402 MAGNETIC PNEUMATIC AND HYDRAULIC ELEMENT SYMBOLS

- Used for practice on pneumatic and hydraulic diagrams
- Magnetic pneumatic and hydraulic element symbols are attached. On the iron board to serve lectures or to assemble into complete pneumatic and hydraulic diagrams.

E6 ELECTRICAL, HYDRAULIC AND PNEUMATIC DESIGN AND SIMULATION SOFTWARE



- All-in-one mechatronics teaching and learning software solution. From basic concepts to multi-technology systems
- Complete library: Hydraulics, pneumatics, digital electronics, electricity, HMI...

TU0425BU-20 PNEUMATIC TUBE

- Material: Flexible Polyerthane, good bending and abrasion resistance
- Diameter: 4mm
- Roll length: 20m

MODULE

KQ2T04-00A SET OF 10 T-CONNECTORS

- Quantity: 10 Pieces per set
- Connector: 4mm

SET OF 10 4MM CAPS KQ2P-01

- Quantity: 10 Pieces per set
- Diameter: 4mm
- Output current: 200 mA
- Equipment holder made of 304 stainless steel

TK-3 TUBE CUTTING TOOL

- Can cut 3 pipe sizes at the same time: 4mm, 6mm and 8mm
- Quantity: 1 Piece/set

TUBE REMOVAL TOOL TG-1

- Can simultaneously remove 2 pipe sizes: 4mm and 6mm
- Quantity: 1 Piece/set

TPAD.T1401 PRACTICE DOCUMENTS

- 01 Manual for use and maintenance of equipment
- 01 Textbook for practical instructions and detailed study of practical lessons

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