

met | Didactic

Knowledge | Technology | Process



PNEUMATIC & ELECTROPNEUMATIC TRAINING KIT

www.metdidactic.com.tr

PNEUMATIC & ELECTROPNEUMATIC TRAINING KIT



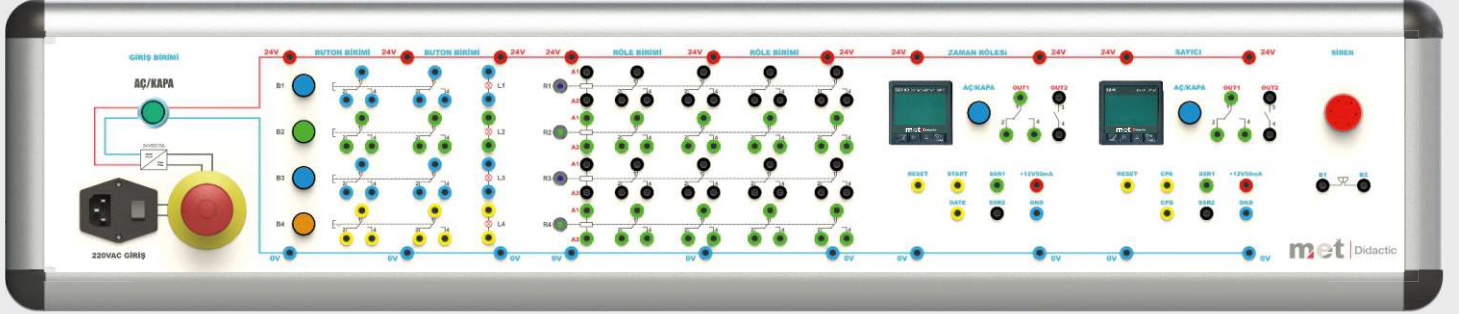
www.metdidactic.com.tr





TROLLEY OF THE TRAINING KIT

- 1210mm (L), 800mm (W), 1850mm (H)
- The dimension of the main column is 90x90mm
Modular anodized aluminium
- Impact-resistant laminate table
- Lockable swivel caster
- Portable and stationary use
- Can be used as one-sided or double-sided
- Lockable and relocatable metallic drawer
- All equipments including the trolley and
- control panel have CE certificate.



CONTROL AND MONITORING PANEL

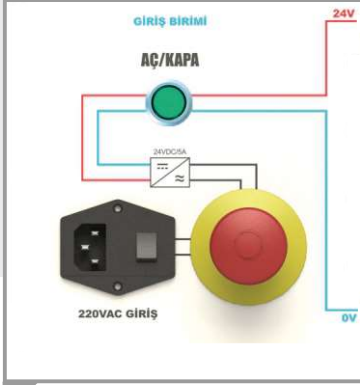
MDL-ADO 004

- 1- Input unit
- 2- Button and lamp unit
- 3- Relay unit
- 4- Digital timing relay unit
- 5- Digital counter unit
- 6- Buzzer with light unit
- 7- PLC unit
- 8- HMI unit
- 9- DC motor, step motor, encoder unit

The panel consists of 9 different units. The set can include all the listed units or the units can be added or removed according to user's needs. The control elements on the units are assembled on an insulated 3mm-thick metal panel. The control panel can be disassembled within seconds from the trolley with the help of its assembly. 3 sides of the panel are surrounded by an insulated material to avoid dust formation. 4mm dimensioned binding posts are used on the panel. Thus, all the electrical bondings can be made easily with the help of 4mm dimensioned banana cables. Insulated sockets or cables can be used due to user's choices.

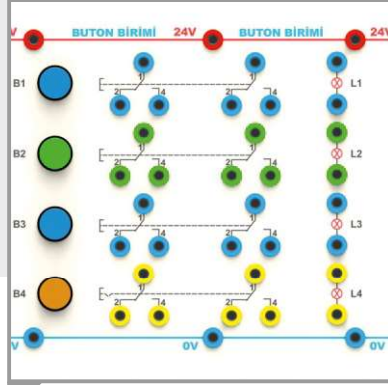


MDL-ADO 001



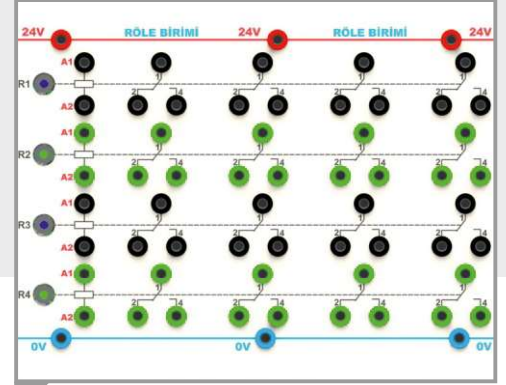
1. INPUT UNIT

230 VAC input and 24 VDC output, short circuit protected power supply. The input unit consists of an on / o switch, emergency stop button and signal lamp.



2. BUTTON AND LAMP UNIT

It consists of 4 buttons (3 of the buttons are variable and 1 of them is permanent). On each button, there are 2 contacts that can be used as normally open and normally closed. Besides, all the buttons are designed to be used as lamps. Sockets ,which are located on the right side of the button unit, are used for lamp's inputs and outputs.



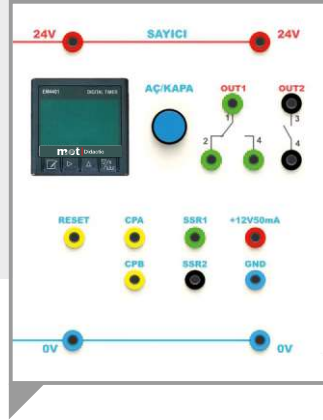
3 RELAY UNIT

It consists of 4 relays. On each relay, there are 3 contacts that can be used as normally open and normally closed. It can be seen if the relay coil is powered or not with the help of 8mm diametered stainless metal bodied lamps.



4. DIGITAL TIMING RELAY UNIT

48x48 dimensioned digital timer has features such as ; 2x4 digit indicator, 9 step time interval, PNP or NPN typed sensor input, working with or without memory, display count up/down. The time setting and programming can be made easily with the help of buttons on the screen. The time unit and the reset value can be seen on the lower display. Front panel has IP60 protection class while back panel has IP20.



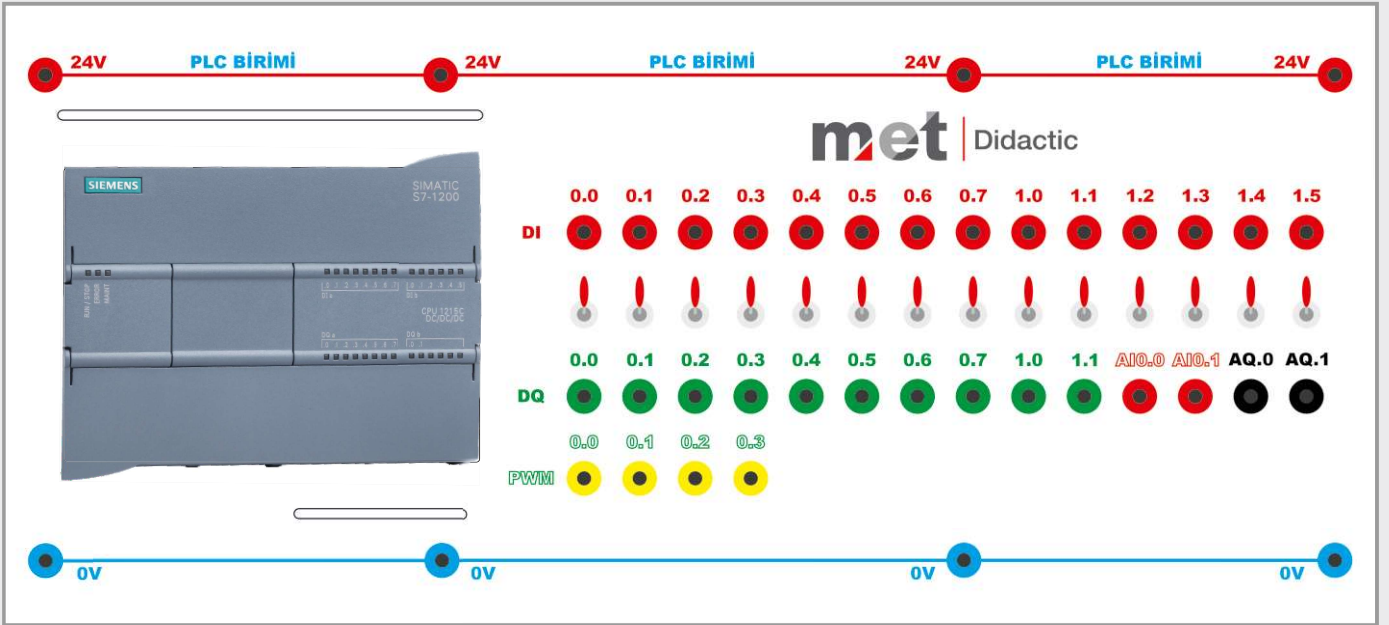
5. DIGITAL COUNTER UNIT

The unit is digital displayed, 48x48 dimensioned and 2x4 digit. there are 2 inputs for counting (max 9999Hz, 5V-30V pulse). Counting frequency can be chosen in between 25-9999hz. NO, NC relays for output. Front panel has IP65 protecting class while back panel has IP20. Setting and programming can be made easily with the buttons located on the front panel. Sensor input type can be PNP-NPN or encoders. Counting can be made UP/DOWN.



6. BUZZER WITH LIGHT UNIT

The unit is 24V DC asher light-ed-up buzzer.



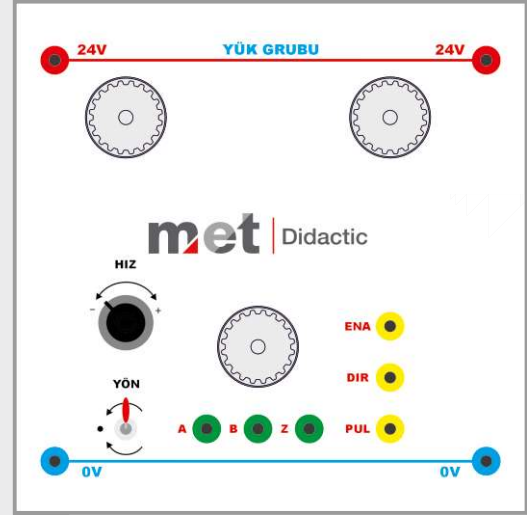
7. PLC BİRİMİ

Siemens S7-1200, (CPU 1215C) PLC. 14 input simulators, 14 toggle momentaries, fast output/normal output selection possibility, input signals can be given with the help of toggle switches without the need for another device. Whether the signal is given or not is controlled by the signal lamps on the PLC. The PLC unit normally has 2 analog inputs and 2 analog outputs. All digital outputs are protected by relay. PWM application opportunity is also provided with fast outputs.



8. HMI-OPERATOR PANEL

65536 color TFT DISPLAY touch panel. 7" size, with profinet interface, both programming from the computer and communication with PLC from the same interface. 8 programming menu keys on the panel.



9. DC MOTOR, STEP MOTOR, ENCODER UNIT

An encoder has also been added to this unit, which is designed for stepper motor and DC motor applications. With the help of timing belts and gears, the movement of the motors is transmitted to the encoder. Signal is sent to the motors and the rotation rate of the motors can be controlled as a result of the signal sent.



SILENT COMPRESSOR

Our silent and dry piston compressor is environment friendly. The compressor can be used in catering rms, dental clinics, education and health centers and also in science experiments.

MDL-ADO 005

THE ADVANTAGES OF THE COMPRESSOR

The compressor's motor is productive, resistant, performer and energy saving.

We use newly developed environment friendly materials for piston ring to avoid any harm to the environment.

The cylinder surface is produced with the hardening method which prolongs the compressor's life and decreases the maintenance needs.

Air valves are made in Sweden and made of a special steel. The compressor on the valves guarantees life-time stable performance.

Air-suction method, silent electrical motor, special bedding materials guarantee us a silent working area compared to other technologies.

The overload protection helps the compressor to work extended and ordinate.

| TECHNICAL SPECIFICATION | XLBM12L | XLBM24L |
|--------------------------------------|-----------------------|-----------------------|
| Nominal voltage | 220V / 50 Hz | 220V / 50 Hz |
| Dimensions (WxDxH) | 48x23x56 cm | 56x24x60 cm |
| Weight | 17 kg. | 19 kg. |
| Air capacity-FAD (free air delivery) | 165 lt/min | 165 lt/min |
| Operating pressure | 8 bar | 8 bar |
| Thermal protection (C) | 135 C | 135 C |
| Noise level | ~ 58 dB | ~ 58 dB |
| Environment temperature (C) | (-5)-40 C | (-5)-40 C |
| Power | 750 Watt (1Hp) | 750 Watt (1Hp) |
| R-speed (R/min) | 1680/1480 | 1680/1480 |
| Coil material | Bakır tel/Copper wire | Bakır tel/Copper wire |
| Tank capacity | 12 lt. | 24 lt. |
| Tank condensate | Manuel | Manuel |
| Outlet hose diameter | Obtional | Obtional |



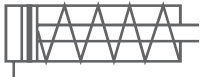
MDL-ADO 002

- 1060X750mm sized
- Modular, demountable and portable
- Can be used as one-sided or double-sided
- Stainless, impact-resistant anodized aluminum
- T slots for mounting the hydraulic equipments
- Solid-bodied to avoid vibration
- To avoid any kind of job accident, the edges are surrounded by special prole
- Special caps are used to hide the connection bolt and also increase the exibility
- Can be used separately or mounted on the trolley



Single acting cylinder

20x50 mm, magnetic. There is a cam on the piston rod to detect the cylinder's movement.



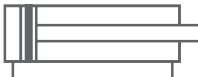
Made in Italy

MDL-ADO 013



Double acting cylinder

20x100 mm, magnetic. There is a cam on the piston rod to detect the cylinder's movement.



Made in Italy

MDL-ADO 014



Transparent cylinder (single acting)

Transparent, 20x50 mm, magnetic. There is a cam on the piston rod to detect the cylinder's movement.



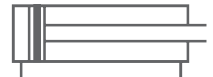
Made in Türkiye

MDL-ADO 033



Transparent cylinder (double acting)

Transparent, 20x100 mm, magnetic. There is a cam on the piston rod to detect the cylinder's movement.



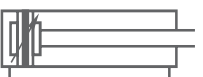
Made in Türkiye

MDL-ADO 034



Short stroke cylinder

12x50 mm, double acting, short stroke cylinder. It is magnetic for sensors to detect the piston's movement



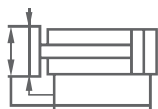
Made in Italy

MDL-ADO 016



Gripper

It has variety of 16,20,32 mm diameters. It is used to hold and transport. Torque is 15-70 Nm.



Made in Japan

MDL-ADO 022



Pneumatic motor

Aluminum bodied pneumatic motor. Rotation (idle) 2200 RPM, 300W, 1,23 kg (weight). Possibility of connecting 1-10mm drill.



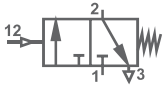
Made in Japan

MDL-ADO 020



3/2 single pilot operated DCV

Normally closed, single pilot operated directional control valve. It can be assembled or disassembled easily on the training panel with the help of hardened and plated aluminum material.



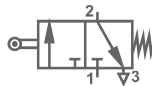
MDL-ADO 079

Made in Italy



3/2 roller lever operated DCV

Normally close, roller lever operated. It can be assembled or disassembled easily on the training panel with the help of hardened and plated aluminum material.



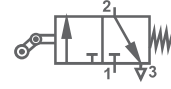
MDL-ADO 077

Made in Italy



3/2 one way roller lever DCV

Normally close, one way roller lever. It can be assembled or disassembled easily on the training panel with the help of hardened and plated aluminum material.



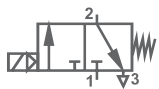
MDL-ADO 078

Made in Italy



3/2 single solenoid operated DCV

Normally close, single solenoid. It can be assembled or disassembled easily on the training panel with the help of hardened and plated aluminum material.



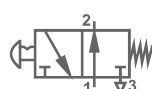
MDL-ADO 110

Made in Italy



3/2 DCV with emergency stop, mushroom head push button

3/2 normally open, emergency stop valve. It can be assembled or disassembled easily on the training panel with the help of hardened and plated aluminum material.



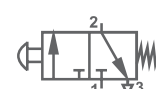
MDL-ADO 047

Made in Italy



3/2 DCV with push button

3/2 normally close. It can be assembled or disassembled easily on the training panel with the help of hardened and plated aluminum material.



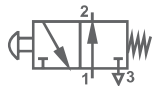
MDL-ADO 045

Made in Italy



3/2 DCV with push button

3/2 normally open. It can be assembled or disassembled easily on the training panel with the help of hardened and plated aluminum material.



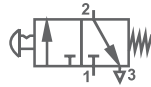
Made in Italy

MDL-ADO 046



3/2 DCV with lever button

3/2 lever button. It can be assembled or disassembled easily on the training panel with the help of hardened and plated aluminum material.



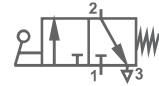
Made in Italy

MDL-ADO 048



3/2 DCV with manual lever operated

3/2 normally close. It can be assembled or disassembled easily on the training panel with the help of hardened and plated aluminum material.



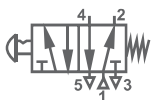
Made in Italy

MDL-ADO 050



5/2 DCV with lever button

5/2 lever button. It can be assembled or disassembled easily on the training panel with the help of hardened and plated aluminum material.



Made in Italy

MDL-ADO 052



5/2 single pilot operated DCV

5/2 single pilot. It can be assembled or disassembled easily on the training panel with the help of hardened and plated aluminum material.



Made in Italy

MDL-ADO 080



5/2 double pilot operated DCV

5/2 double pilot. It can be assembled or disassembled easily on the training panel with the help of hardened and plated aluminum material.



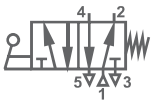
Made in Italy

MDL-ADO 081



5/2 manual lever operated DCV

5/2 spring return. It can be assembled or disassembled easily on the training panel with the help of hardened and plated aluminum material.



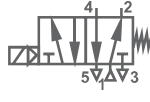
Made in Italy

MDL-ADO 053



5/2 single solenoid operated DCV

5/2 single solenoid. 24VDC. The location can be changed manually without giving energy to the solenoid.



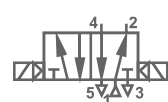
Made in Italy

MDL-ADO 111



5/2 double solenoid operated DCV

5/2 double solenoid. 24 VDC. The location can be changed manually without giving energy to the solenoid



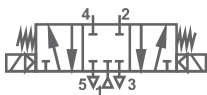
Made in Italy

MDL-ADO 112



5/3 double solenoid operated DCV

5/3 double solenoid. Mid-position closed. 24 VDC. The location can be changed manually without giving energy to the solenoid



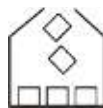
Made in Italy

MDL-ADO 113



Organizer

It is designed to organize the pneumatic equipments. 600x400x330mm. Made of resistant plastic.



Made in Türkiye

MDL-ADO 180



Limit switch

Normally open / normally closed. It can be assembled or disassembled easily on the panel.



Made in Türkiye

MDL-ADO 090



Check valve

Metal bodied, it allows the air to pass one way. The direction of flow is indicated on the valve with an arrow.



Made in Türkiye

MDL-ADO 148



Flow control valve with check valve

It can be assembled or disassembled easily on the panel. It is used to control both input and output of the air. The flow can be adjusted with the help of regulating screw.



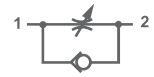
Made in Türkiye

MDL-ADO 144



Line type flow control valve with check valve

It can be used to control both input and output of the air. The flow can be adjusted.



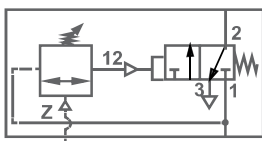
Made in Italy

MDL-ADO 145



Pneumatic pressure switch

The pneumatic gives signal when the air pressure reaches to a point. Pressure value can be adjusted easily



Made in Italy

MDL-ADO 124



Manometer

0-12 bar, Ø40mm diameter.



Made in Italy

MDL-ADO 011



Hose cutter

It is used to cut plastic hose. Fast and safe.



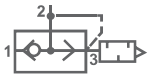
Made in Türkiye

MDL-ADO 168



Quick exhaust valve

It deactivates the directional control valve and helps the exhaust air to take out. It is used to increase the speed of cylinders and receivers.



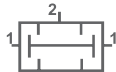
Made in Italy

MDL-ADO 143



AND valve

It is used in situations where 2 buttons should be worked for safety or where there is need for "AND" logic.



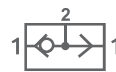
Made in Italy

MDL-ADO 137



OR valve

It is used in pneumatic circuit applications where there is need for "OR" logic



Made in Italy

MDL-ADO 138



Pressure regulator

The pressure controller is lockable. The outlet pressure can be seen through manometer.



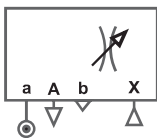
Made in Italy

MDL-ADO 118



Pneumatic time relay

It can be used normally open or normally closed. Easy to use



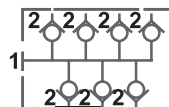
Made in Italy

MDL-ADO 136



Air distributor

The distributor has 1 input (6mm) and 7 outputs (4mm). The air is not allowed until a hose is connected. It can be assembled or disassembled easily on the panel.



Made in Türkiye

MDL-ADO 010



On/o valve

Sliding valve. It stops the air flow and also exhaust the air.



Made in Italy

MDL-ADO 009



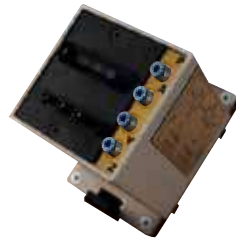
Proportional Regulator

24VDC. It is designed specially for the sensor. It can be used normally open or normally closed. Banana jacks are used to hide cable connections.



Made in France

MDL-ADO 177



Pneumatic counter

4 connections, special design, can be assembled or disassembled easily on the panel.



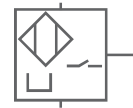
Made in Germany

MDL-ADO 178



Sensor + clamps

VDC, 2 or 3 cabled, 1,5m cable length, male banana jacks, with clamps.



Made in Italy

MDL-ADO 160



Pressure switch

Easy pressure value setting. 24VDC. It is designed specially for the sensor. It can be used normally open or normally closed. Banana jacks are used to hide cable connections.



Made in Italy

MDL-ADO 157



Pressure sensor

Digital display, 24VDC, banana jacks are used to hide cable connections.



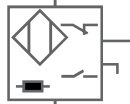
Made in Japan

MDL-ADO 159



Inductive sensor

24VDC, can be used as normally open or normally closed. Banana jacks are used to hide cable connections.



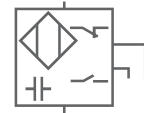
Made in France

MDL-ADO 161



Capacitive sensor

24VDC, can be used as normally open or normally closed. Banana jacks are used to hide cable connections.



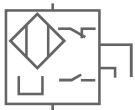
Made in France

MDL-ADO 162



Magnetic sensor

24VDC, can be used as normally open or normally closed. Banana jacks are used to hide cable



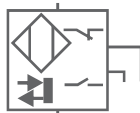
Made in France

MDL-ADO 177



Optic sensor with material

24VDC, can be used as normally open or normally closed. Banana jacks are used to hide cable connections.



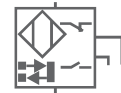
Made in France

MDL-ADO 163



Optic sensor (with reector)

24VDC. It is used with a reector. There is a special material for reector to be mounted on the panel.



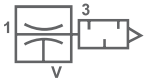
Made in France

MDL-ADO 164



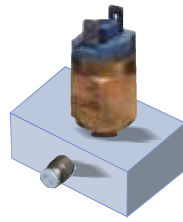
Vacuum generator

It obtains vacuum by using the pressured air. The vacuum can be adjusted with a button.



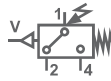
Made in Italy

MDL-ADO 150



Vacuum switch

It informs that the holding force is ready in holding and transporting applications



Made in Italy

MDL-ADO 152



Vacuum suction cup

20mm diametered, polyurethane



Made in Italy

MDL-ADO 151K



Vacuum suction cup and a stick

Polyurethane. Consists of a 20 mm diametered suction cup and a stick with spring.



Made in Italy

MDL-ADO 151U



Eğitim Bilgi Didactic Ortantı Tasarruf
Endüstri 4.0 Dijital sektör de
Hareket Mesleki sanayi Ders Ke
Yöntem Sistem Arıza Teknoloji Holografik
Uzman Kontrol
Teknik Uygulama
Makina Verimlilik ölçü Aktarım Dinamik
Enerji Üretim Lojik Sürec Optimum Rulman
Süreç operatör çalışma Tecrübe Proje
Hidrolik Montaj Dişli mesleki Üretim Mekanizma
Endüstriyel İleri Seviye Kestirimci Bakım Sanal Fabrika Operatör
Sertifika Basınc Valf Elektronik İleri Mekanik Öğrenim Sanayi Tecrübe PROSES Makina Seviye
Ölçme Rulman Öngörü Personel Akademik Sistem uygulama Optimum Sanayi Dijital Dinamik Zaman Enerji farkındalık Deneyim
Bağlantı Fabrika Eğitim fikir Set Zaman DERS Tecrübe Öğrenim Arıza Parkur okul YÖNTEM
VERİM pnömatik Deneme Beceri teknoloji Mesleki Silindir Sistem Aktarım yöntem Yorum
Panel Teknoloji Yağ Servo Takım Deneyim Proje Aksam Temel Seviye Rulman Tasarruf Otomasyon Sema
DERS Sürücü Verimlilik Teknik araç PRATİK Holografik Bilgi Basınc Yol ENÜSTRIYEL Fikir Güç
Gerçeklik Bağlantı Makina Tasarruf Simülasyon Kurumsal Süreç Uzman Hidrolik Online Kılavuz
Teknik Temel seviye MÜHENDİS Süreç Mekanik Valf kavram makina Teknoloji UZMANLIK Bakım
Elektro pnömatik okul Çuç Servis Bilgi Uygulama kavram makina Teknoloji UZMANLIK Bakım
Modüler Uzman ÇÖZÜM Deneyim Servo Yağ akademi Tecrübe Holografik Vizyon pnömatik Hidrolik



Modül Modern Eğitim Teknolojileri A.Ş

+90 236 304 45 75
+90 236 304 45 75
info@metdidactic.com.tr

Muradiye Mah.
8. Sk. No:21 / I
Yunusemre / Manisa / Türkiye