



PTO CONTROL PANEL
KOZMAKSAN CO

KNOWLEDGE BASED - USER FRIENDLY - BEST QUALITY

KOZMAKSAN CO PTO CONTROL PANELS

F-E-TS-Series

N-E-TS-Series

N-E-Series

TS-SM-BA-Series



F-E-TS-Series

**PTO & Transmission Full
Electronic Transmission Safety
Control Panel**



N-E-TS-Series

**PTO & Transmission Normal Electronic
Transmission Safety Control Panel**



N-E-Series

**PTO & Transmission Normal
Electronic Control Panel**



TS-SM-BA-Series

**PTO & Transmission Safety &
Smart with Backlight Technology
Control Panel**



KOZMAKSAN Co

F-E-TS-SERIES

PTO & TRANSMISSION FULL ELECTRONIC TRANSMISSION SAFETY CONTROL PANEL

Applications:

Ability to starting up and control all kinds of Split shaft PTO.



Product Specifications:

- 4-inch graphical LCD display to monitor Input RPM of PTO, Shifting Process, Alarms & etc.
- RPM sensor with aluminum box protector
- Start/Stop Button
- F1 ~ F4 Buttons to select the shifting states according to customer request. Such as (Natural, Differential, Pump and Roll & Pump)
- Pneumatic valves control the shifting Process.
- Water and dust resistance
- Connector for ease of installing
- Alarm system on LCD and Buzzer
- Working voltage 12 volt or 24
- Able to checking Pneumatic Valves wiring
- Able to checking RPM Sensor wiring

F-E-TS-SERIES

PTO & TRANSMISSION FULL ELECTRONIC TRANSMISSION SAFETY CONTROL PANEL

Advantages:

- Increase of life time for split shaft PTO.
- Increase of life time for split shaft clutch friction plates.
- Safety system automatically changes the state of Split shaft PTO to Differential if the vehicle turned off.
- Safety system never lets operator to engage or dis-engage the Split shaft PTO when the vehicle is not stopped.
- The system never lets operator to engage or dis-engage the Split shaft PTO side outputs when the input RPM is more than 800 RPM.

Components:

One set Pneumatic valve box:

2 Pcs pneumatic valve-200 Series Double Solenoid Valve 1/4NPT.
N4V220-08-24VDC or 12 VDC

&

One set RPM sensor with aluminum box protector

Other features:

- The housing of pneumatic valves and RPM sensor box are made of aluminum with electrostatic paint coating.
- All of electrical and electronic parts are placed inside the plastic box to protect against water and dust.
- Weight: 1.5 kg
- Dimensions in mm: 270*70*190 (L*W*H)



N-E-TS-SERIES

PTO & TRANSMISSION NORMAL ELECTRONIC TRANSMISSION SAFETY CONTROL PANEL

Applications:

Ability to starting up and control all kinds of clutch type PTO.



Product Specifications:

- Start/Stop Button
- Engage/Disengage Button
- Automatically Engage/Disengage Clutch.
- Programmable shifting time
- Shifting process is able to trace by LEDs on panel.
- Pneumatic valves control the shifting Process.
- Water and dust resistance
- Connector for ease of installing
- Alarm system Buzzer
- Able to checking Pneumatic Valves wiring
- Safety system automatically disengages the clutch PTO if the vehicle turned off.
- Working voltage 12 volt or 24

N-E-TS-SERIES

PTO & TRANSMISSION NORMAL ELECTRONIC TRANSMISSION SAFETY CONTROL PANEL

Advantages:

- Increase of life time for clutch type PTO.
- Increase of life time for clutch friction plates.
- Safety system automatically disengages the clutch PTO if the vehicle turned off.

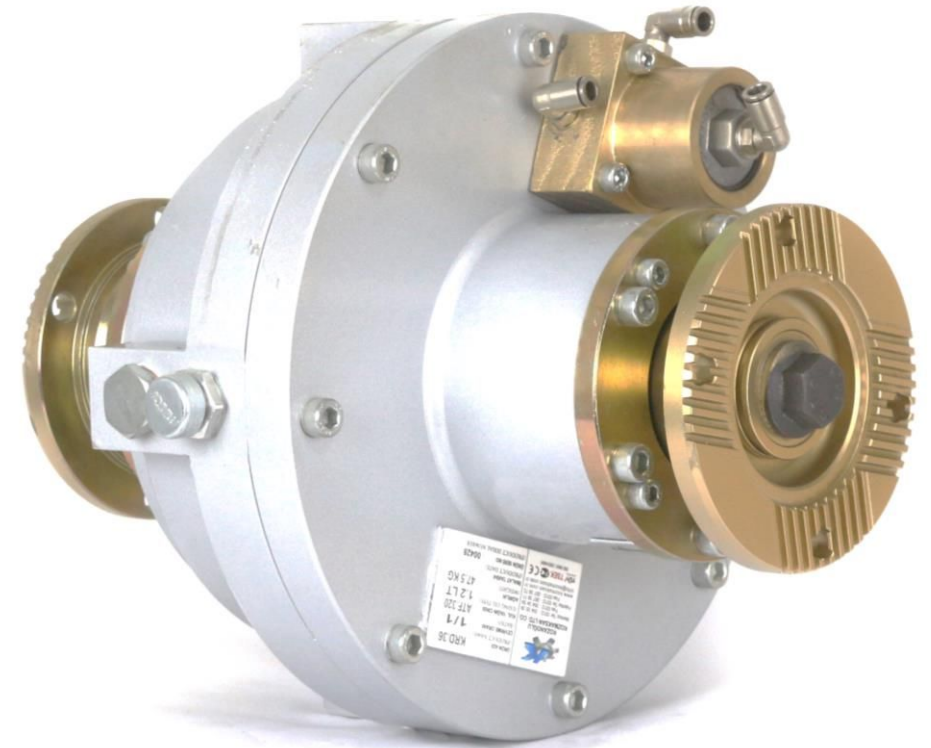
Other features:

- The housing of pneumatic valves is made of aluminum with electrostatic paint coating.
- All of electrical and electronic parts are placed inside the plastic box to protect against water and dust.
- Weight: 1.5 kg
- Dimensions in mm: 270*70*190 (L*W*H)

Components:

One set valve box:

2 Pcs pneumatic valve-200 Series Double Solenoid Valve 1/4NPT.
N4V220-08-24VDC or 12 VDC

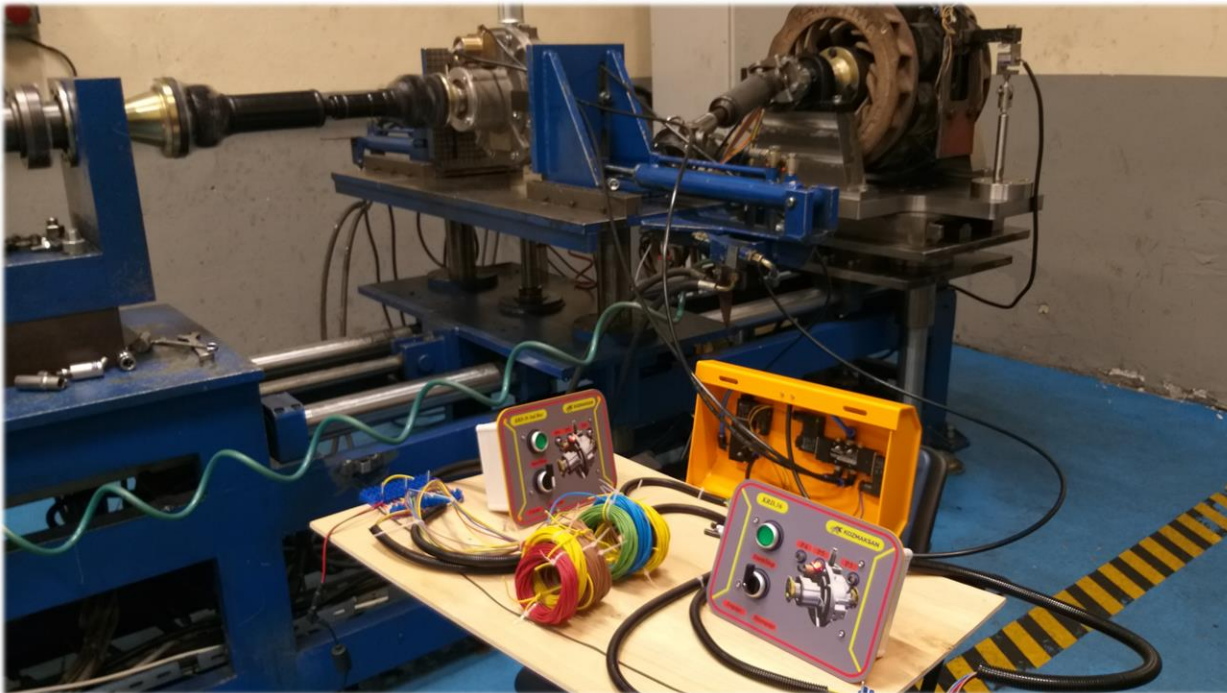


N-E-SERIES

PTO & TRANSMISSION NORMAL ELECTRONIC CONTROL PANEL

Applications:

Ability to starting up and control all kinds of clutch type PTO.



Product Specifications:

- Start/Stop Button
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- Automatically Engage/Disengage Clutch.
- Programmable shifting time
- Shifting process is able to trace by LEDs on panel.
- Pneumatic valves control the shifting Process.
- Water and dust resistance
- Connector for ease of installing
- Working voltage 12 volt or 24



N-E-SERIES

PTO & TRANSMISSION NORMAL ELECTRONIC CONTROL PANEL

Advantages:

- Increase of life time for clutch type PTO.
- Increase of life time for clutch friction plates.

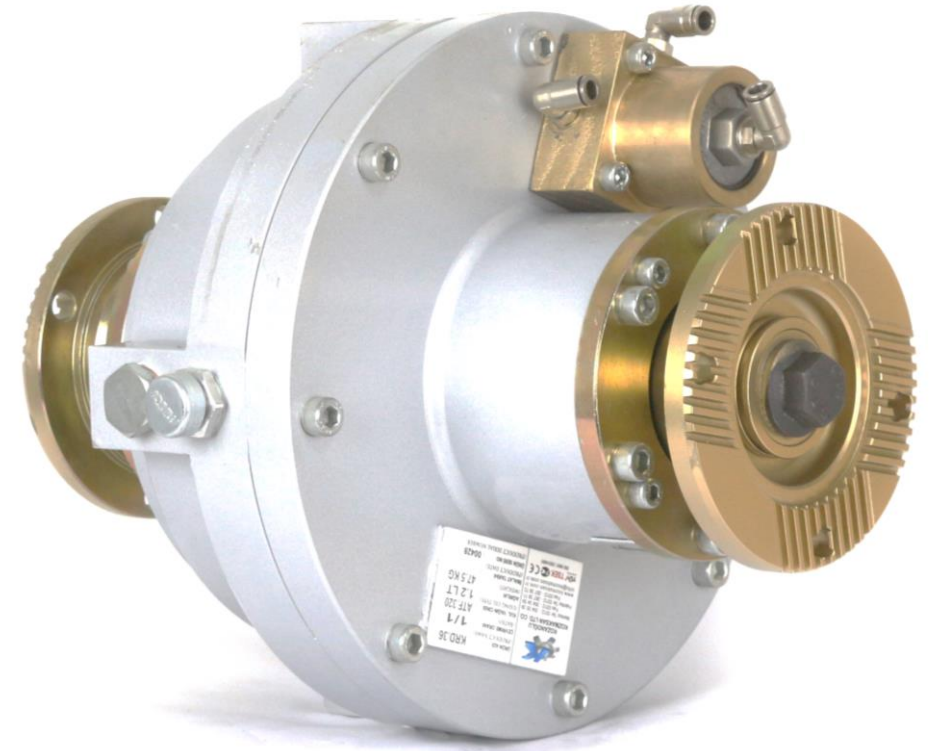
Other features:

- The housing of pneumatic valves is made of aluminum with electrostatic paint coating.
- All of electrical and electronic parts are placed inside the plastic box to protect against water and dust.
- Weight: 1 kg
- Dimensions in mm: 225*70*170 (L*W*H)

Components:

One set valve box:

2 Pcs pneumatic valve-200 Series Double Solenoid Valve
1/4NPT. N4V220-08-24VDC or 12 VDC



TS-SM-BA-SERIES

PTO & TRANSMISSION SAFETY & SMART WITH BACKLIGHT TECHNOLOGY CONTROL PANEL

Applications:

Ability to starting up and control all kinds of Split Shaft PTO, Sandwich PTO, Clutch System, Transfer Case & Increaser/ Reducer transmission



Product Specifications:

- Operating voltage 12, 24 volts.
- Up to 11 coil drivers (Such as pneumatic valves bobbin, Fans, Lights, etc.)
- Up to 3 digital RPM sensor inputs
- Up to 5 universal analog input in range [0 – 12 volts or 0-20 mA] such as transmission oil-level, Engine-temperature, transmission-temperature sensors and etc.
- F4-Series ARM based VL Noise, high reliability processor
- 4 inch full-color graphic LCD
- Capability to add new algorithm to control new devices up to 100 Type different transmission such as: **Split Shaft PTO, Sandwich PTO, Clutch System, Transfer Case & Increaser/ Reducer transmission.**
- User friendly setup for selecting device, defining active function buttons (F1-F6), gear ratio, high RPM alert value, RPM sensor setup, ...

TS-SM-BA-SERIES

PTO & TRANSMISSION SAFETY & SMART WITH BACKLIGHT TECHNOLOGY CONTROL PANEL

Product Specifications:

- Available states for F1-F6 are:
 - ❖ Differential Mode
 - ❖ Natural Mode
 - ❖ Pump 1 Mode
 - ❖ Pump 2 Mode
 - ❖ Pump 1 - Pump 2 mode
 - ❖ Differential - Pump 1 mode
 - ❖ Differential - Pump 2 mode
 - ❖ Differential - Pump 1 - Pump 2 mode
 - ❖ Lights (Undefined buttons on transmission shifting process can be select for lights)
- Intelligent algorithm to avoid of dangerous operation (high RPM alert, oil level check, oil high temperature alert, automatically oil cooling system, all of sensors wiring check system, ...)
- Using of 3 independent switching regulators (Back Light, Coil Drivers & Sensors Power Supply, Processor Power Supply) to achieve maximum in-out isolation and maximum power gain



TS-SM-BA-SERIES

PTO & TRANSMISSION SAFETY & SMART WITH BACKLIGHT TECHNOLOGY CONTROL PANEL

Other features:

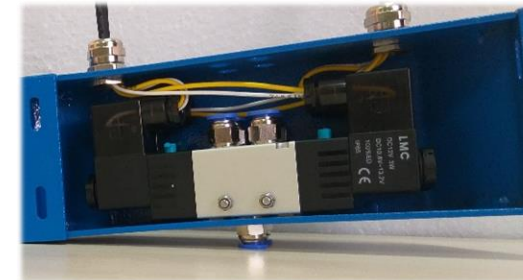
- Membrane Switch with backlight and LED indicator keyboard
- Membrane Switch keyboard material is Autotex/Grade F200/UL FILE No: E339035, that has a UL94 VTM-2 classification under the revised UL rules. (MacDermid-Autotype)
- Plastic Box properties and material Material Ultramid injection-molding grades with flame retardants (PA66) The most important properties of Ultramid High strength and rigidity - Very good impact strength - Outstanding resistance to chemicals - Low tendency to creep - Dimensional Stability - Simple processing.

This panel could successfully, passed EMC-ESD & LVD tests

Components:

One set valve box

2 Pcs pneumatic valve-200 Series Double Solenoid Valve
1/4NPT. N4V220-08-24VDC or 12 VDC



One set RPM box
(1 Pcs RPM Sensor)

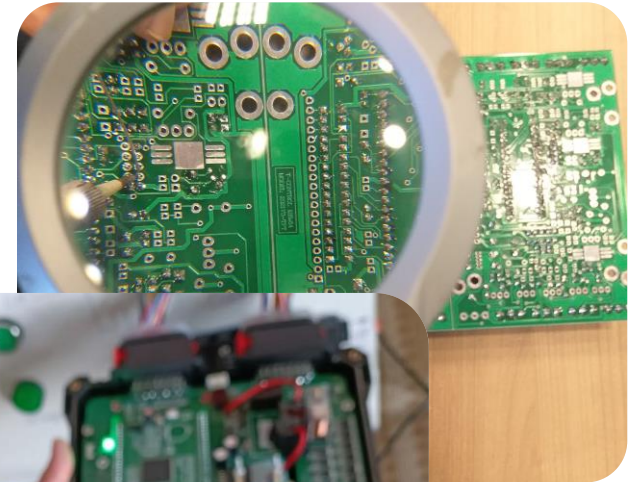
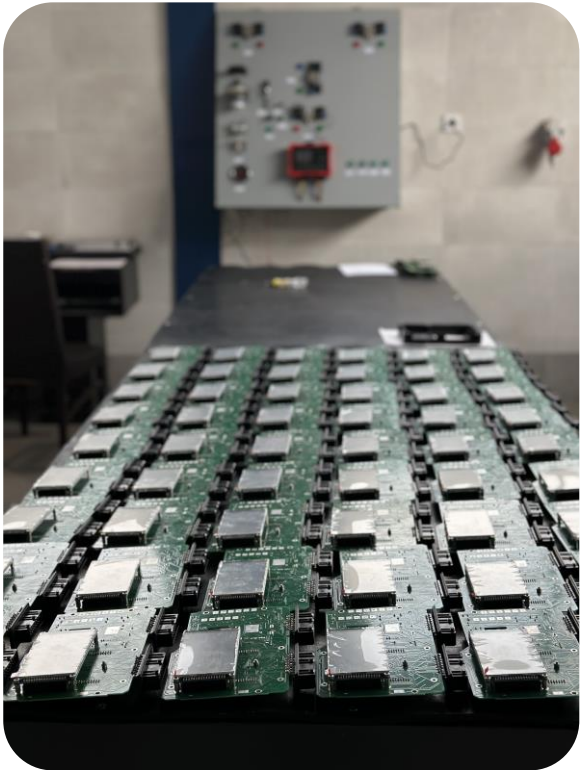


2 Pcs, 15 Pin Connectors



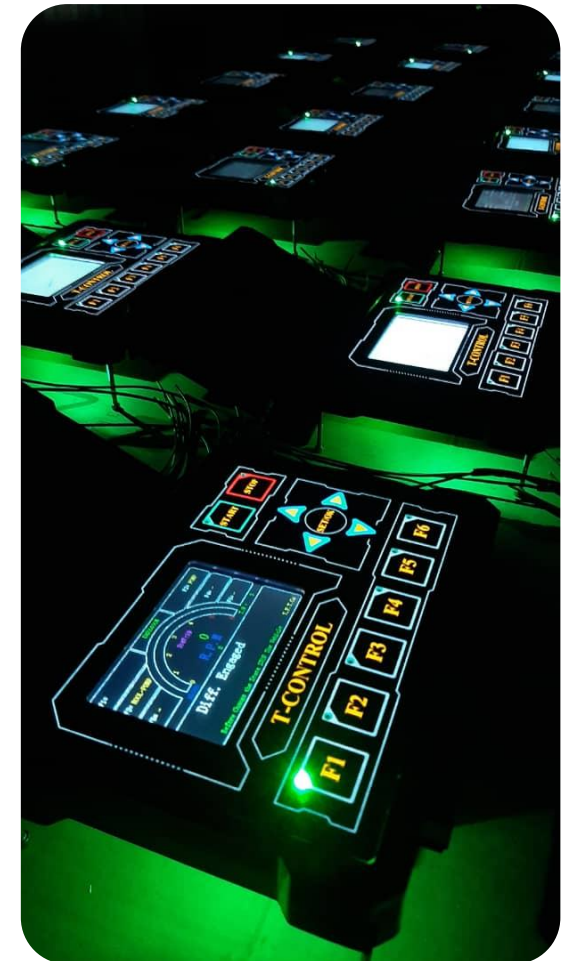
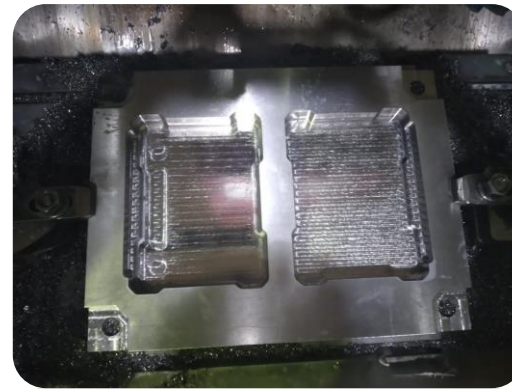
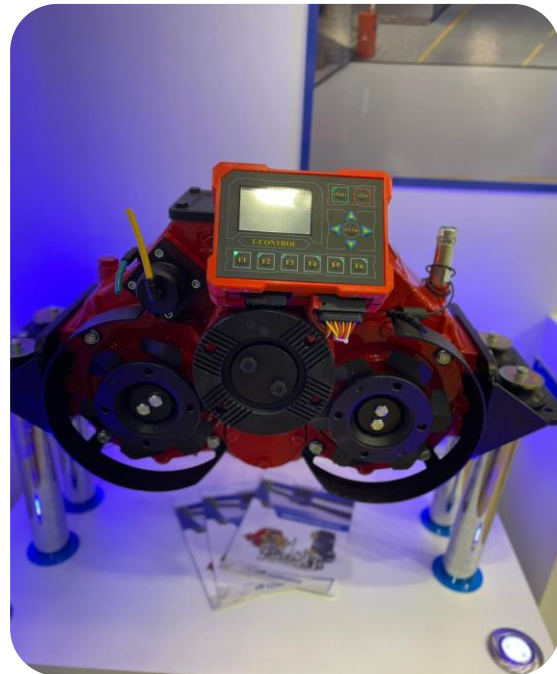
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PTO & TRANSMISSION SAFETY & SMART WITH BACKLIGHT TECHNOLOGY CONTROL PANEL



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THANK YOU

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