DISAI
Automatic Systems

Do It Yourself

USB ETHERNET ModBus

CHANNEL 8
8 Channel Scanner

PIDQuadro
4 Zone PID Controller

Confreez
Chiller Controller

turnstile
Spooling Machine Controller

Application-specific industrial PLC with build-in operator panel

- We do the PLC programming for you,
- PLC + HMI in one unit,
- Data logging by USB memory and PC software,
- Network communication by Ethernet,
- Serial communication by RS-232 or RS-485,
- Standard ModBus RTU communication protocol,
- Networking between multiple devices with Master/Slave option,
- Custom design front panel overlay, buttons and screen views,
- 96x96 mm panel mounting type,
- Easy adaptation to different applications by selectable I/O modules,
- 6 input and 7 output modules to select for customizing the device,
- Remote programming via Ethernet,
- Communicates with external HMI panels,
- Customizing for different applications,

EMKO

Unlimited Applications for Machinery Manufacturers

EPLC-96 series Application-specific industrial PLC with build-in operator panel can be applied to all kinds of processes. Just specify your application, we customize your device for you...

Examples of some applications;

CHANNEL 8
8 Channel Scanner

8 Channel Scanner,
8 x Pt-100 inputs, different SET values for each channel, Relay or Transistor Alarm outputs for each channel, Low, High and Range alarms for each channel, Data logging by USB memory, Networking between multiple devices by RS-485 serial communication.

Applications:
Visualising temperature for 8 different zones, Data logging applications, HVAC, Heating/Cooling, Cold and Drying room automations.

PIDQuadro
4 Zone PID Controller

4 Zone PID Controller ,
4 x Universal thermocouple input, SET value for each zones, 2 x Relay or Transistor output for each zone, low, high alarms for each zones, optional analogue output for each zones, data logging by USB memory, network between multiple devices by RS-485 serial communication

Appications:
Tunneloven with convertor, Packing machines, Extruder, Textile RAM machine, Sterilization and Pasteurization applications, Steam control by Motorized valve.

OEM Controllers

Chiller Controller ,
4 x Pt-100 inputs, Control up to 4 Compressor, Compressor synchronization, Low/High pressure, Oil pressure measurement and failure detection, emergency alarm output, Logging last 20 events, Working hour for compressor, Turkish, English, Russian language selections.

Confree4
Chiller Controller

Spooling Machine Controller ,
Rotary encoder input, Start, Stop/Reset, Pause inputs and buttons, Motor control output, 50 different transformer specification receipts can be defined, 18 steps for each program, RS-232 and CanBus communication, ModBus RTU serial communication.

turnstile
Spooling Machine Controller

&&&, Your machine's controller,
Just specify your application and describe your system needs, EMKO Elektronik with 25 year experience, will customize a special control unit for your system.

Technical Specifications

T type Output Module ,
- 11 x Insulated PNP (source) transistor outputs
- 2 x PWM Outputs

U type Output Module,
- 11 x Insulated PNP (source) transistor outputs
- 2 x PWM Outputs
- 1 x 0-10Vdc or 0-20mAdc Analogue Output

V type Output Module,
- 11 x Insulated PNP (source) transistor outputs
- 2 x PWM outputs
- 2 x 0-10Vdc or 0-20mAdc Analogue Outputs

W type Output Module,
- 2x5 NO Relay Outputs (Common connection)

X type Output Module,
- 2x5 NO Relay Outputs (Common connection)
- 1 x 0-10Vdc or 0-20mAdc Analogue Output

Y type Output Module,
- 6 x NO Relay Outputs

Z type Output Module,
- 5 x NO Relay Outputs
- 1 x 0-10Vdc or 0-20mAdc Analogue Output

A type Input Module ,
- 12 x Insulated NPN/PNP selectable Digital Inputs
- 2 x Fast Counter Inputs

B type Input Module,
- 9 x Insulated NPN/PNP selectable Digital Inputs
- 2 x Fast Counter Inputs
- 1 x Universal Analogue Input

C type Input Module,
- 4 x Insulated NPN/PNP selectable Digital Inputs
- 1 x Fast Counter Input
- 4 x Insulated Thermocouple Inputs

E type Input Module,
- 4 x Insulated NPN/PNP selectable Digital Inputs
- 1 x Fast Counter Input
- 4 x Analogue Inputs selected by dip-switch

G type Input Module,
- 3 x Insulated NPN/PNP selectable Digital Inputs
- 1 x Fast Counter Input
- 8 x 2wire Pt-100 Inputs

H type Input Module,
- 3 x Insulated NPN/PNP selectable Digital Inputs
- 1 x Fast Counter Input
- 8 x Analogue Inputs selected by dip-switch

Specifications

Dimensions	: 96 x 96 x 87,5mm 1/4 DIN 43700 panel montage type, 92 x92mm panel cut-out
Protection class	: NEMA 4X (front IP65, rear IP20)
Weight	: 400g.
Working temperature	: Between 0 to +50°C
Storing temperature	: Between -20°C to +70°C
Relative Humidity cond.	: max. 90% (non condensing)
Power consumptions	
for Input modules	: 5W (24Vdc, +/-%15)
for Output modules	: 2W (12 or 24Vdc), Additional 24W power consumption for each transistor output type
Analogue Inputs	: TC, RTD, Voltage/Current
Thermocouple Inputs	: L (DIN43710), J,K,R,S (IEC584.1, ITS90), C (ITS90) Pt-100 (IEC751, ITS90)
Vdc Voltage Inputs	: 0...50mVdc, 0...10Vdc
mAdc Current Inputs	: 0...20mAdc
Accuracy	: +/-0,25% of full scale for Thermocouple, Thermoresistance and Voltage measurement 0,70% of full scale for Current measurement
Cold junction compen.	: +/- 0,1°C/1°C automatic
Line compensation	: Max. 10 Ohms
Sensor break protec.	: Up to scale
Reading period	: 30ms (for each channel)
Reading period for Fast Counting input	: 30kHz single channel counter 20kHz double, encoder 30kHz frequency reading
Digital outputs	: Insulated transistor and relay outputs
Transistor outputs	: 500V insulated PNP, max. 1A@24Vdc
Relay outputs	: 3A@250Vac resistive at load (W & X type outputs) 5A@250Vac resistive at load (Y & Z type outputs)
Analogue outputs	: 0...20mAdc and/or 0...10Vdc (max. 10mA)
Communication ports	: 500V Insulated RS-485 (ModBus RTU) 1500V Insulated Ethernet (ModBus RTU)
Display	: 128x64 pixel graphic LCD
Approval Standards	: CE PG

EPLC-96
(96x96 DIN Size)

A	BC	D	E	/	FG	HI	/	U	V	W	Z
0	00	0		/			/	0	0	0	0

E	Optional Communications
0	None
1	USB
2	RS485
3	Ethernet
4	Ethernet + USB
5	RS-485 + USB
FG	**Input Module**
A0	A type Input Module
B0	B type Input Module
C0	C type Input Module
E0	E type Input Module
G0	G type Input Module
H0	H type Input Module
HI	**Output Module**
T0	T type Output Module
U1	U type Output Module, (0-10Vdc)
U2	U type Output Module, (0-20mAdc)
V1	V type Output Module, (0-10Vdc)
V2	V type Output Module, (0-20mAdc)
V3	V type Output Module, (0-10Vdc + 0-20mAdc)
W0	W type Output Module
X1	X type Output Module, (0-10Vdc)
X2	X type Output Module, (0-20mAdc)
Y0	Y type Output Module
Z1	Z type Output Module, (0-10Vdc)
Z2	Z type Output Module, (0-20mAdc)

Unlimited Communication

USB

Data logging by USB 2.0,
Logging selected process values,
Logging in determined sample periods.

ETHERNET

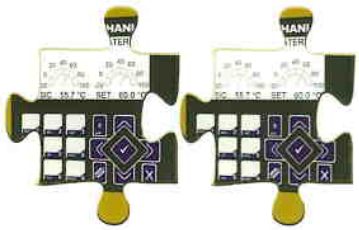
Remote Management via Ethernet,
ModBus Over TCP-IP protocol,
Static and Dynamic IP,
Remote management via Internet, Intranet or Local Network,
Can be integrated to different SCADA softwares.

ModBus

RS-232 standard ModBus RTU serial communication,
Visualizing and programming from PC software.

ModBus

RS-485 serial network,
Networking between multiple devices by RS-485 serial communication.



CANBus

Expandable via CanBus,
Additional I/O expansion modules can be connected to the device in order to increase the number of the I/O 's on the device.

What is your application?

Process Controllers

Heating & Cooling Controllers

Temperature Controllers

Counters and Timers

Temperature Sensors

EMKO

25th year

Custom application Solutions

Poultry House Automation Controllers

GenSet Protection & Controllers

Data Logging Softwares

Remote Monitoring GenSet Controllers