

## Servo Unit Micro

### FEATURES

- 2 individual servo channels
- Analog inputs: Position transducer 0–10 V and pressure/force transducer  $\pm 25$  mV
- Analog outputs:  $\pm 10$  V,  $\pm 100$ ,  $\pm 50$  or 20 mA
- Updating frequency: 200 Hz
- Modbus communication by RS-485
- Power supply: 24 VDC
- Compact installation on DIN rail
- CE marking, meets EMC and LVD

### DESCRIPTION

MicroPOS 4 is a digital servo unit, suitable for very accurate positioning of two separate electrohydraulic actuators with position transducers.

Together with load cells or pressure transducers, microPOS 4 forms a strong unit for accurate regulation to set force values or pressure values.

MicroPOS 4 utilises bus communication via MODBUS-RTU, resulting in rapid and safe data transmission, and the possibility to have several servo units connected to a master control system by a common cable.

A separate communication port is used for setting of servo parameters by a computer with terminal program.

MicroPOS 4 handles two servo channels in position, force or pressure control. Set values for the servos are transmitted from the master control system and



compared to feedback values, measured by position transducers or load cells. Parameters in the servo unit are used to control maximum speed, acceleration, and working range for the servo channels.

Inputs and outputs of the servo unit can be programmed for different functions like: commanded stop, service, "In position", alarm from the internal function check.

MicroPOS 4 will save all set parameter values in an internal memory, even after a power failure.

MicroPOS 4 is a compact unit, designed for installation on a DIN rail. Connection via plug-in screw terminals.

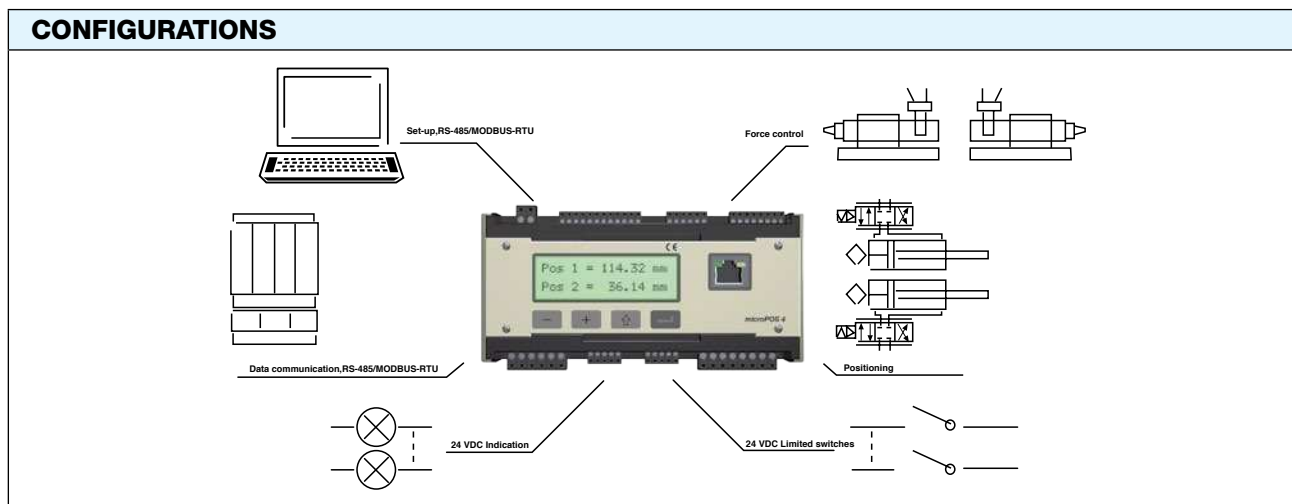
### APPLICATIONS

Terminalfenster		
ONLINE QUICK SET-UP		
PARAMETER NAME	SERVO 1	SERVO 2
Cylinder length	200 mm	200 mm
Cylinder value	8.208	8.208
Zero offset fine	0.00 mm	0.00 mm
Proportional gain	1.30	1.30
Integration factor	2.0000 /s	2.0000 /s
Knee value	300.00 mm	300.00 mm
Positive velocity	200 mm/s	200 mm/s
Negative velocity	200 mm/s	200 mm/s
Acceleration control	On	On

F8=Return

*Presentation of control parameters via servo TERM.*

Servo Unit Micro



PARAMETER		VALUE	PARAMETER		VALUE
<b>TECHNICAL DATA</b>					
Analog inputs, 2 channels					
Input Range	Position Transducer	0–10 V			
Load Cell or Pressure Transducer		±25 mV			
Input Filter		100 Hz			
Resolution		16 bits (65536)			
Nonlinearity		<0.01% of range			
Inaccuracy		<0.01% at 25°C			
<b>ANALOG REFERENCE VOLTAGE OUTPUT</b>					
Output Voltage		+10 V			
Load		50 mA/output			
Output Deviation		<35 ppm/°C			
<b>ANALOG OUTPUTS, 2 CHANNELS</b>					
Output Range, Current		±100, 50, 20 mA			
Load		max 100 ohm for 110 mA max 200 ohm for 55 mA max 500 ohm for 22 mA			
Output Range, Voltage		±10 V			
Resolution		12 bits			
Nonlinearity		<0.1% of range			
<b>COMMUNICATION, 2 PORTS FOR TERMINAL AND MASTER CONTROL UNIT RESPECTIVELY</b>					
Transmission		RS-485, MODBUS-RTU 2-wire or 4-wire			
Baud Rate		2400–115200 baud			
Isolation		500 VDC			
Cable Length		<1000 m			
<b>DIGITAL INPUTS</b>					
Number of Inputs		5 with common return connector			
Low Level		–30 V to +8 V			
High Level		+18 V to +30 V			
Type of Input		Opto-isolated			
Isolation		500 VDC			
<b>DIGITAL OUTPUTS</b>					
Number of Outputs		5 with common return connector			
Type of Output		Relay, normally open			
Contact Data		<1 A at 30 VDC			
Isolation		500 VDC			
<b>POWER SUPPLY</b>					
Rated Voltage		24 VDC			
Voltage Range		19–29 VDC			
Start Current		<2 A			
Consumption		<0.5 A			
<b>ENVIRONMENT</b>					
Temperature Range		0 to +50°C at operation –20 to +70°C at storage			
Sealed to		IP20			
<b>MECHANICAL DATA</b>					
Width, height, depth		150×90×110 mm			

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