

## Valve controller

### 2224



- Front-programmable
- mA, V, and  $\Omega$  programmable input
- Ramp times, jump values, reversal, chopper frequency, and deadband
- 3-digit LED display shows I-valve % value
- 1 or 2 channels



#### Advanced features

- Multifunction user interface consisting of three pushbuttons and a 3-digit LED display.
- All parameters are protected against unauthorized changes with a password.

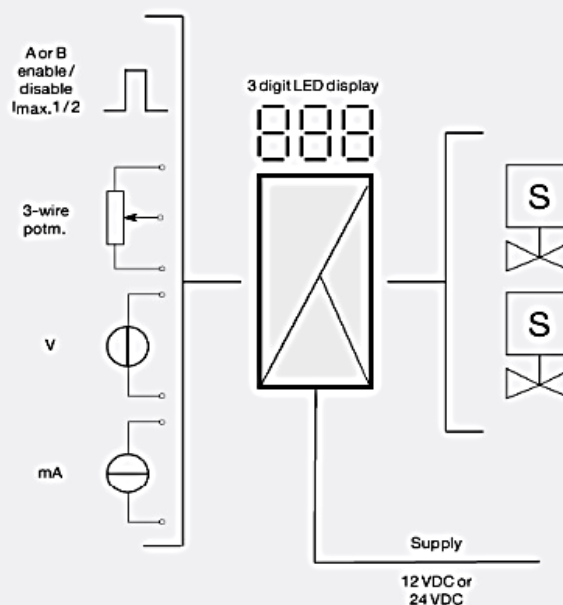
#### Application

- Control and regulation of single- or double-coil hydraulic and pneumatic proportional valves used for accurate oil flow regulation, linear soft acceleration and deceleration, modulated output signal, and programmable deadband.
- Is highly suitable for joystick regulation of A/B movements.
- Where changes to A and B need to be selected directly or according to the value of an input signal.

#### Technical characteristics

- During operation the display shows the present output signal as a % of the I valve.
- Programmable current or voltage input for standard signals acc. to order schedule, joystick / potentiometer or a special non-programmable input.
- Digital inputs for external control functions.
- A pulsating current output prevents the connected valve from sticking.
- Optional programming of the modulation frequency (PWM) between 8 and 400 Hz.
- Multiple adjustable parameters such as output currents, ramp times, jump values, chopper frequency, reversal, deadband, and ON/OFF functions.
- Mounting for a standard 11-pole socket which can be adapted for DIN rail or plate use with PR's 7023 adaptor and 7024 mounting keying.

#### Connections



**Order:**

Type	Input	Supply	Option
2224	0...20 mA : A	12 V : 1	Single valve (A) : A
	4...20 mA : B	24 V : 2	Double valve (A/B) : B
	0...1 V : C		
	0.2...1 V : D		
	0...10 V : E		
	2...10 V : F		
	±10 V potentiometer : G		
	0...10 V potentiometer : H		

**Environmental Conditions**

Specifications range.....	-20°C to +60°C
Relative humidity.....	< 95% RH (non-cond.)
Protection degree.....	IP50

**Mechanical specifications**

Dimensions (HxWxD).....	80.5 x 35.5 x 84.5 mm (D is without pins)
Weight approx.....	130 g

**Common specifications**

<b>Supply</b>	
Supply voltage.....	9.6...14.4 or 19.2...28.8 VDC
Internal consumption.....	2 W / 24 V
Internal consumption.....	1,8 W / 12 V
Communication.....	Front-programmable
Updating time.....	30 ms
Temperature coefficient.....	0.01%/°C
Linearity error.....	0.2%
EMC immunity influence.....	< 2% of span

**Input specifications**

<b>Current input</b>	
Measurement range.....	0...20 mA
Measurement range.....	4...20 mA
Input resistance.....	50 Ω + PTC (54 Ω)
<b>Voltage input</b>	
Measurement range.....	0/0.2...1 V and 0/2...10 V
Input resistance.....	10 MΩ
<b>Potentiometer input</b>	
Potentiometer min... max.....	0...10 V or ±10 V / 10 kΩ
Operation / shutdown.....	PNP / 2.2 kΩ, 12 / 24 V
I <sub>max.1</sub> & I <sub>max.2</sub> .....	PNP / 2.2 kΩ, 12 / 24 V
A / B channel.....	PNP / 2.2 kΩ, 12 / 24 V
Deadband.....	0...99.9% of input span

**Output specifications**

Output voltage.....	Supply voltage-0.5 V (max.)
Output power.....	36 W (max.)
Output current.....	3000 mA mean
Current peak.....	7 A
Reference voltage.....	10 VDC (A valve)
Reference voltage.....	±10 VDC (A & B valve)
Ramp up & down.....	Time 0...10.0 s
PWM frequency.....	8...400 Hz in steps of 1 Hz
*of span.....	= of the presently selected range

**Approvals**

<b>General approvals</b>	
EMC.....	EN 61326-1
EAC TR-CU 020/2011.....	EN 61326-1