PERFORMANCE MADE SMARTER



Valve controller

2224

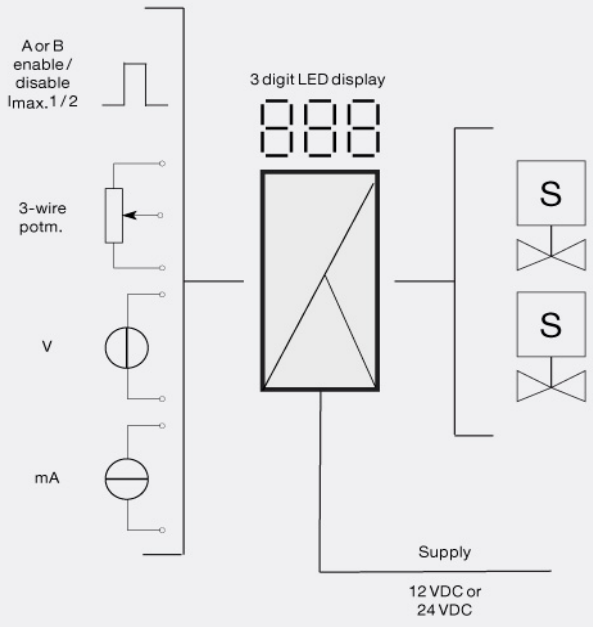
- Front-programmable
- mA, V, and Ω programmable input
- Ramp times, jump values, reversal, chopper frequency, and deadband
- 3-digit LED display shows I-valve % value
- 1 or 2 channels

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.

Applications



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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

Operating temperature..... -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

Supply

Supply voltage (nom. 12 V / 24 V)..... 9.6...28.8 VDC
Internal power dissipation..... 2 W / 24 V
Internal power dissipation..... 1,8 W / 12 V
Programming..... Front-programmable
Updating time..... 30 ms
Temperature coefficient..... 0.01%/°C
Accuracy..... Better than 0.2% of selected range
Linearity error..... 0.2%
EMC immunity influence..... < 2% of span

Input specifications

Current input

Measurement range..... 0...20 mA
Measurement range..... 4...20 mA
Input resistance..... 50 Ω + PTC (54 Ω)

Voltage input

Measurement range..... 0/0.2...1 V and 0/2...10 V
Input resistance..... 10 MΩ

Potentiometer input

Potentiometer min....max..... 0...10 V or ±10 V / 10 kΩ
Operation / shutdown..... PNP / 2.2 kΩ, 12 / 24 V
Imax.1 & Imax.2..... 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 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

Observed authority requirements

EMC..... 2014/30/EU
RoHS..... 2011/65/EU
EAC..... TR-CU 020/2011