

S-DIAS Current Output Module CO 041



with 4 current controlled/pulse signal outputs
4 digital inputs +5 V

The S-DIAS CO 041 current output module is used for the simultaneous operation of four valves on supply voltages from 18-55 volts, a maximum holding current of 1 A and maximum output current of 3.5 A. To ensure the good, dynamic performance of the valve, the inrush current and secondary current (continuous) can be set. The four output stages are short-circuit protected. The module can also operate without a CPU (stand-alone). The module provides the option to reconfigure the current-controlled outputs as pulse signal outputs for operating micro-dosing valve control devices.

Current Controlled PWM Output Specifications

Number	4
Configuration	plus-switching (current controlled)
Short-circuit proof	yes
Maximum inrush current/channel	3.5 A (corresponds to reset inrush current 100 %)
Maximum inrush current/channel	0.30 A (corresponds to reset inrush current 8.5 %)
Maximum holding current/channel (peak value)	1.35 A (corresponds to reset inrush current 100 %)
Minimum holding current/channel (peak value)	0.115 A (corresponds to reset inrush current 8.5 %)
Maximum holding current/channel (average value)	1.0 A
Maximum total current per supply group (+UV1/+UV2)	7.0 A peak current (peak value) 2.0 A holding current (average value)
Default resolution value inrush current	8 Bit (0-255, 255 corresponds to 100 %)
Max. inrush current duration	100 ms
Holding current preset resolution value	8 Bit (0-255, 255 corresponds to 100 %)
Min. period in holding current phase	50 µs (corresponds to a maximum PWM frequency of 20.0 kHz)

Max. period in holding current phase	32.77 ms (corresponds to a minimum PWM frequency of 30.5 Hz)
Turn-on delay	adjustable via software in 1 µs increments from 0-32767
Turn-off delay	adjustable via software in 1 µs increments from 0-32767
Status display	4x LED (yellow)
Safety functions	short-circuit/over temperature cut-off

Digital Input Specifications

	Number	4	
	Input voltage	typically +5 V	maximum +7 V
	Signal level	low: < +0.8 V	high: > +2.0 V
	Switching threshold	typically +1.4 V	
	Input current	1.5 mA at +5 V	
	Input delay	typically 100 µs	
	Status display	4x LED (green)	

Electrical Requirements

	Valve supply voltages +UV/1-2	18-55 V	
	Current consumption of the valve supply +UV/1-2	corresponds to the load on valve outputs	
	Voltage supply from S-DIAS bus	+24 V	
	Current consumption on the S-DIAS bus (+24 V supply) operating all valves	typically 35 mA	maximum 50 mA

Article Number and Miscellaneous

Article number	20-018-221
Dimensions	217.4 x 187.7 x 72 mm (W x H x D)
Standard	UL 508 (E247993)
Approvals	CE

Environmental Conditions

	Storage temperature	-20 ... +85 °C	
	ambient temperature	0 ... +55 °C	
	Humidity	0-95 %, non-condensing	
	Operating conditions	pollution degree 2 altitude up to 2000 m	
	EMC resistance	in accordance with EN 61000-6-2 (industrial area)	
	EMC noise generation	in accordance with EN 61000-6-4 (industrial area)	
	Vibration resistance	EN 60068-2-6	3.5 mm from 5-8.4 Hz 1 g from 8.4-150 Hz
	Shock resistance	EN 60068-2-27	15 g
	Protection type	EN 60529	IP20



SPECIAL FUNCTIONS