

SIMATIC S7-400, SM 432 ANALOG OUTPUT MODULE OPTIC.  
ISOLATED, 8 AO, 13 BIT RESOLUTION, U/I



### Supply voltage

#### Load voltage L+

- |                               |      |
|-------------------------------|------|
| • Rated value (DC)            | 24 V |
| • Reverse polarity protection | Yes  |

### Input current

- |                                 |        |
|---------------------------------|--------|
| from supply voltage L+, max.    | 400 mA |
| from backplane bus 5 V DC, max. | 150 mA |

### Power loss

- |                  |     |
|------------------|-----|
| Power loss, typ. | 9 W |
|------------------|-----|

### Analog outputs

- |   |       |
|---|-------|
| Number of analog outputs                    | 8     |
| Voltage output, short-circuit protection    | Yes   |
| Voltage output, short-circuit current, max. | 30 mA |
| Current output, no-load voltage, max.       | 19 V  |

#### Output ranges, voltage

- |              |     |
|--------------|-----|
| • 0 to 10 V  | Yes |
| • 1 V to 5 V | Yes |

• -10 V to +10 V	Yes
<b>Output ranges, current</b>	
• 0 to 20 mA	Yes
• -20 mA to +20 mA	Yes
• 4 mA to 20 mA	Yes
<b>Load impedance (in rated range of output)</b>	
• with voltage outputs, min.	1 k $\Omega$
• with voltage outputs, capacitive load, max.	1 $\mu$ F
• with current outputs, max.	500 $\Omega$ ; 600 ohms if common-mode-voltage reduced to <1 V
<b>Cable length</b>	
• shielded, max.	200 m
<b>Analog value generation for the outputs</b>	
<b>Integration and conversion time/resolution per channel</b>	
• Resolution with overrange (bit including sign), max.	13 bit
• Conversion time (per channel)	420 $\mu$ s; 420 $\mu$ s in the ranges 1 to 5 V and 4 to 20 mA; 300 $\mu$ s in all ranges
<b>Settling time</b>	
• for resistive load	0.1 ms
• for capacitive load	3.5 ms
• for inductive load	0.5 ms
<b>Errors/accuracies</b>	
<b>Operational error limit in overall temperature range</b>	
• Voltage, relative to output range, (+/-)	0.5 %; +/-10 V, 0 to 10 V, 1 to 5 V
• Current, relative to output range, (+/-)	1 %; +/-20 mA, 4 to 20 mV
<b>Basic error limit (operational limit at 25 °C)</b>	
• Voltage, relative to output range, (+/-)	0.5 %; +/-10 V, 0 to 10 V, 1 to 5 V
• Current, relative to output range, (+/-)	0.5 %; +/-20 mA, 0 to 20 mA
<b>Potential separation</b>	
<b>Potential separation analog outputs</b>	
• between the channels and backplane bus	Yes
<b>Isolation</b>	
Isolation tested with	2 120 V DC between bus and L+/M; 2 120 V DC between bus and analog section; 500 V DC between bus and local ground; 500 V DC between analog section and L+/M; 2 120 V DC between analog section and local ground; 2 120 V DC between L+/M and local ground
<b>Dimensions</b>	
Width	25 mm
Height	290 mm
Depth	210 mm

## Weights

Weight, approx.

650 g

**last modified:**

03/24/2017