



TSM-4DA16

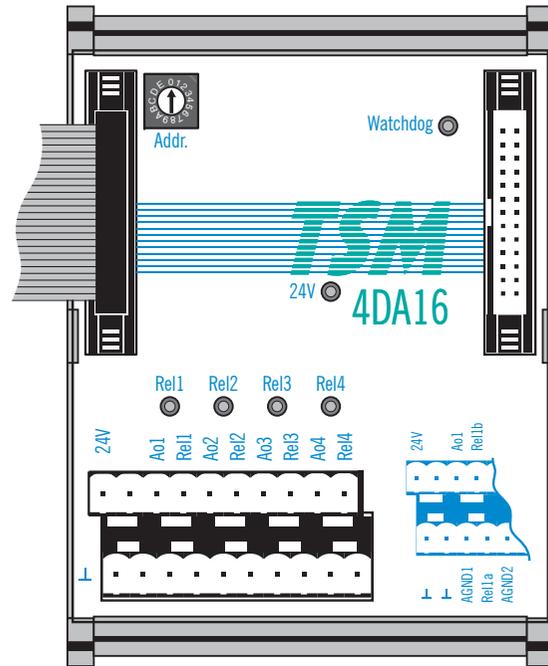
analog output module



Output range setting:

-10..+10V
close BR2 A
open BR3
open BR7

0..+10V
close BR2 B
close BR3
close BR7



TSM-4DA16 generates four highly accurate analog output voltages in selectable ranges of 0..10V or -10..+10V.

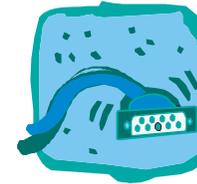
Each analog output is supported by an adjacent relay digital output switch that signals to the external unit (like motor driver) whether the analog output value is valid. The relay drops off after reset and if the watchdog circuit has not been retriggered for more than 50ms. While the relay is off, the analog output gets grounded, too.

Technical data:

Output channels: 4 @ 16 bit resolution
Output voltage: 0..10V ; -10..+10V
Resolution: 152.6 μ V; 305.2 μ V (bip)
Load resistance: 2 kOhms min.
Load capacity: 5000pF max.
Speed: <15 μ s full step (@100pF)
Monotonicity: >= 14 Bits
Linearity error: <= 4 LSB
Offset error: <0.05% FSR (0.01% typ.)
Gain error: <0.15% FSR (0.1% typ.)

Ambient temperature: -20..+50°C
Relative humidity: 5..90% not condensing
Dimensions: 127x93x70h mm (incl. connectors)
Weight: Less than 400g

Power requirements:
Voltage: 24V DC nominal (18..31V)
Current: 0.6A / 3W max. Fuse at <= 12A !

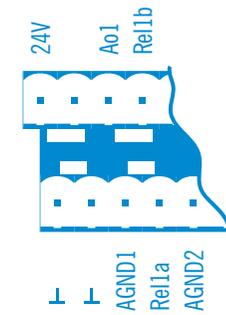


Power and I/O connections

All i/o connections are through the 2x 10 pin terminal connector on the lower left.

Apply 24V supply to the outer left pair (24V top, ground bottom).

There's one set of four terminal pins for each output, the left pair is the analog output (top) and analog ground (bottom), the right are the two (normally open) relay contacts.



Use a shielded cable to connect the analog signal to the external device.

Safety advice: Wire relay outputs such that external actuators don't move when relays are off !



Software Setup

The device needs no software setup.

To access TSM-4DA16 from mCAT or *node*Access please refer to the manuals of the respective products.