

## Digital Module ADN 403



### Outline description: ADN 403

The **ADN 403** controller is a member of a modular-structure family of digital devices, which currently consists of eleven modules and is being continuously expanded. The **ADN 403** is a high-speed cascade controller which permits implementation of up to three control loops. The controller has no output stage and can actuate valves equipped with on-board electronics. Analog input signals can be matched to the particular sensor by means of interchangeable sensor modules.

The following modules are currently available:  
+/- 10V, 12mA +/- 8mA, 0-10V, 4-20mA

The 4-20mA and 12mA +/- 8mA output and the input sensors are monitored, and the devices are disabled and an alarm issued in case of wire breakage or absence of load. In addition, the controller also features a +/- 10V 13bit output.

A maximum of four input sensors can be connected, one setpoint sensor and three actual-value sensors being possible; these are in-

stalled at the manufacturer's works, depending on the particular application. In addition to the analog inputs and outputs, the **ADN 403** also features a CAN bus. The P, I and DT1 component of each controller can be set using a PC or laptop computer. As already mentioned, the controller has a modular structure, with the result that the sensor system can be expanded with an SSI or incremental interface simply by plugging in a further module. In addition, expansion with a field-bus module enables the device to function with Profibus DP.

The **ADN 403** is parametered using the **ADN configurator**. The controller is connected to the PC or laptop by means of an **RS232** interface (or to a USB interface using a standard USB-to-RS232 adapter). The values entered for P, I and DT1 are transferred in real time, resulting in immediate reaction to value changes.

After input of the required controller parameters, the actuator can be operated by means of a built-in internal function generator. A sinusoidal, triangular and square-wave generator, the frequency and amplitude of which can be entered, is provided for this purpose.

Static operation with selectable offset is also possible.

Further information:

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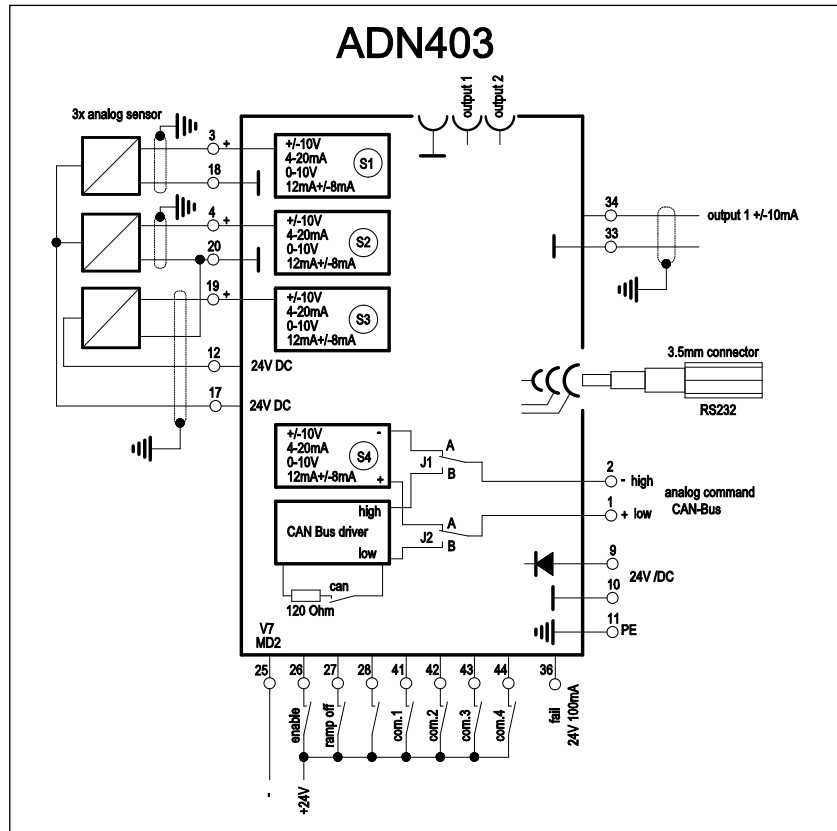
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# PEES

## COMPONENTS

### Digital Module ADN 403



#### Technical data:

Microprocessor	16 bit signal processor, 30 MIPS
Output signal (voltage)	+/- 10V 13 bit
Output signal (current)	4-20 mA 12 bit or 12 mA +/- 8 mA 12 bit
Supply voltage	24V DC, nominal (reverse-polarity-proof) 20-28V DC
Power consumption, 24V DC	approx. 70-80 mA
Power loss	approx. 2 Watt
Inputs (opto-decoupled)	three or seven, depending on variant
Reference voltage for sensor feed	24V DC (fused) or +/- 15V 40 mA (short-circuit-proof)
Sensor modules	+/- 10V 4-20 mA 12 mA +/- 8 mA 7.5V +/- 4V
Interface	RS 232 with 3.5mm TRS connector ("jack plug")
Parametering	Parameters are entered on the <b>ADN configurator</b> . This input software is available via the Internet.

An USB-to-RS232 adapter is required for use with laptops with a USB interface.