ALMEMO® 4390-2

ALMEMO® precision measuring instrument in fitted panel design with data logger function. Comprehensive range of functions for all application areas Increased measuring accuracy, fast measuring rate, 1 measuring input, 2 limit value relays, integrated. Option with double analog output.

Technical data and functions

- Increased measuring accuracy and stability
- Fast measuring rate, up to 50 measuring operations per second With SD memory card, up to 100 mops, optional for 1 channel up to 400 mops
- 1 ALMEMO® input socket, suitable for all ALMEMO® sensors or 6-contact clamp connector socket, also for 26 V and 20 mA
- More than 65 standard measuring ranges
- Support for ALMEMO® plugs with multi-point adjustment, special linearization, and special measuring ranges
- Higher measuring quality thanks to electrical isolation between measuring inputs and device power supply (device ground)
- Data logger with internal EEPROM, sufficient for 16,000 measured values, configurable as linear or ring memory
- Memory connector with micro SD (accessory)
- As standard 2 limit value relays can also be driven via interface
- Option with double analog output can also be driven via interface
- 2 ALMEMO® output sockets, suitable for digital interfaces, analog output, trigger input, alarm contacts, memory card
- 8-character alphanumeric 14-segment display
- Programming functions displayed in normal text (3 languages)
- 5 programming menus Measuring function, memory, sensor, device, output
- Measuring functions : Measured value, dual display, smoothing, zero-setting, setpoint adjustment, maximum / minimum / average values, temperature compensation, atmospheric pressure compensation
- Sensor programming: Measuring range, measured value correction, scaling, units, limit value monitoring, graduated locking of functions, scaling of analog output
- Device programming: Conversion rate, real-time clock with date, output cycle, baud rate, choice of languages

Technical data

Precision class	AA (see page 01.04)
Measuring rate	(100), 50, 10 and 2.5 mops
Measuring inputs	1 ALMEMO® input socket, suitable for all ALMEMO® sensors or 6-contact screw connector with input for 26 V (integrated divider) or 20 mA (integrated shunt)
Accuracy	Divider / shunt ±0.1 % of measured value
Channels	4 channels for double sensors and function channels
Electrical isolation for analog sensors	between measuring input and power supply (device ground)
Sensor power supply	12 V / 0.1 A; 9 V / 0.15 A; 6 V / 0.2 A
Outputs	2 ALMEMO® sockets, suitable for all output modules (analog / data / trigger / relay cables, memory, etc.)
2 limit value relays	Mechanical changeover, 230 V, 2 A

Option with double analog output	10 V or 20 mA (programmable)
	16-bit DAC, electrically isolated
0.0 to 10.0 V	0.5 mV / digit, load >100 kilohms
0.0 to 20.0 mA	0.1 mA / digit, load <500 ohms
Accuracy	±0.1 % of measured value
	±0.1 % of final value
Temperature drift	10 ppm / K
Time constant	100 µs
Standard equipment	
Display	8-character 14-segment LED display
Keypad	5 membrane keys
Date and time-of-day	Real-time clock, buffered with battery
Memory, internal EEPROM	sufficient for 16,000 measured values
Power supply	
Mains operation	90 to 250 VAC, 50 / 60 Hz
Option U	10 to 30 V, 0.5 A, electrically isolated
Housing	Standard plastic housing
	96 x 48 x 132 mm (WxHxD)
Panel opening	90 x 42.5 mm

Accessories

	Order no.
Memory connector with micro SD, including USB card reader (see chapter „Output modules“)	**ZA1904SD**

Options

	Order no.
Measuring rate 400 mops (SD card required)	**SA0000Q4**
Power supply 10 to 30 VDC, electrically isolated	**OA4390U**
2 analog outputs (common ground), electrically isolated 10 V or 20 mA (programmable)	**OA4390R02**
Temperature ranges for 8 refrigerants	**SB0000R2**

Standard delivery

	Order no.
Operating instructions, manufacturer‘s test certificate, **Precision measuring instrument ALMEMO® 4390-2**	**MA43902**

DAkkS or works calibration KE90xx, electrical, for measuring instrument (see chapter „Calibration certificates“).
DAkkS calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.