Data logger ALMEMO® 4390-2



ALMEMO® data logger Precision measuring instrument in fitted panel design. 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 general technical specifications)
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 kilo ohms
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
Environmental conditions	see general technical data

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

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