Universal ALMEMO® transmitter 2490 with analog output

- **1 or 2 measuring inputs.**
- **Built-in analog output 2 x 10 V or 20 mA (programmable)**
- **Display and keypad.**

Technical features

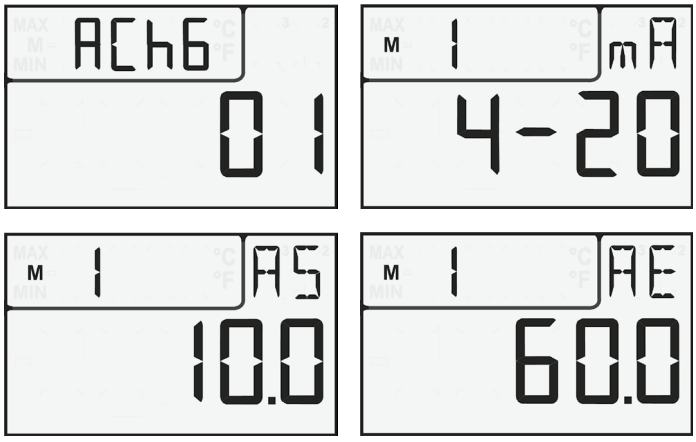
- Analog transmitter with built-in double analog output.
- Analog output range and measuring channel assignment programmable via keyboard.
- Basic measuring instrument with over 65 standard measuring ranges.
- Good measuring accuracy, measuring rate up to 10 measurements/s.
- Support of ALMEMO® connectors with multipoint adjustment, special linearization and special ranges.
- Measuring functions: Measured value, zeroing, sensor calibration, max. and min. value storage.
- Full sensor and instrument programming via interface

Technical data

Precision class:	B, see page 16
Measuring rate	10 and 2.5 mops
Measuring ranges:	over 65 measuring ranges, inter alia thermocouples, Pt100, Pt1000, NTC temperature / humidity, (capacitive or psychrometric)
Measuring inputs: 2490-1R02U 2490-2R02U	via ALMEMO® connector 1 ALMEMO® socket 2 ALMEMO® sockets, electrically isolated with semiconductor relay (50 V).
Additional channels:	4 function channels internal to the device
Sensor supply:	9 V, max. 80 mA for power supply operation
Analog outputs:	via ALMEMO® socket P0: 2 x 10 V or 20 mA (programmable), both outputs with common ground.
0.0 to 10.0 V 0.0 / 4.0 to 20.0 mA	16 bit DAC, electrically isolated. 0,5 mV/digit, load > 100 kOhm. 1 µA/digit, load < 500 Ohm. Accuracy: 0.1% of meas. v. +0.1% of final v Temperature drift: 10 ppm/K. Time constant: 100 µs.
Digital outputs:	via ALMEMO® sockets A1 and A2 for PC cable USB or RS232 and relay cable
Power supply:	via ALMEMO® socket DC 10 … 30 V DC, electrically isolated to analog outputs and measuring input
Standard equipment	LCD screen, keypad
Housing:	ABS, L127 x W83 x H42 mm

Environmental conditions and general technical data
see page 16 onwards

Programming the analog output (Example)



Analog start

Analog end

ALMEMO® 2490-1R02U

Analog transmitter, 1 measuring input
Double analog output

ALMEMO® 2490-2R02U

Analog transmitter, 2 Measuring inputs
Double analog output

Accessories

	Order no.
Power supply: (via ALMEMO® socket DC)	
100 to 240 V AC via mains unit 12 V, 1.5 A, with ALMEMO® connector	**ZA1312NA12**
10 to 30 VDC, maximum 80 mA, electrically isolated, via ALMEMO® clamp connector ZA1000FSV	included in delivery
Digital interface: (via ALMEMO® socket A1)	
USB interface via ALMEMO® USB cable	**ZA1919DKU**
RS232 interface via ALMEMO® RS232 cable	**ZA1909DK5**
Limit value contact: (via ALMEMO® socket A2)	
(see chapter „Output modules“)	
(Programming via digital interface, see above)	
2 normally open contacts, 50 VDC / 500 mA (can also be programmed as inverted)	
via ALMEMO® relay cable, V6, clamped connection	**ZA1006EKG**
ALMEMO® limit value cable with banana plugs (for electrical socket adapter)	**ZA1006GK**
Electrical safety socket adapter, 250 V / 6 A (for ALMEMO® limit value cable)	**ZB2280RA**
Installation :	
DIN rail:	**ZB2490HS**
Magnet	**ZB2490MH**

Standard delivery

	Order no.
Analogue transmitter, measuring input via ALMEMO® plug.	
Double analogue output incl. ZA1000KS clamping plug.	
Electrically isolated power supply incl. ZA1000FSV terminal plug.	
Operating instructions, manufacturer‘s test certificate.	
Analog transmitter ALMEMO® 2490-1R02U, 1 measuring input	**MA24901R02U**
Analog transmitter ALMEMO® 2490-2R02U, 2 measuring inputs	**MA24902R02U**

DAkkS or factory calibration KE90xx, electrical, for measuring instruments, see chapter „Calibration certificates“.
The DAkkS calibration meets the requirements of DIN EN ISO/IEC 17025 for test equipment.