

**UNIVERSAL DISPLAY
 UD-720**

DESCRIPTION

The UD-720 is a programmable digital panel display used for the measurement of standard sensor and analog signals applied in automation. It is ideally suited for use with our range of instrumentation such as pressure transmitters, temperature probes and TDS controllers.

MAIN FEATURES

- Measuring inputs for resistance thermometer (RTD), thermocouples (TC), 0/4 to 20 mA, 0 to 10 V, 0 to 60 mV and resistance (Ω).
- 2 NO relay alarm outputs (standard) plus 2 change-over relay alarms (optional).
- 6 types of alarm functions.
- 24 V DC loop power supply output.
- 0/4 to 20 mA and 0 to 10 V outputs for retransmission of any of the measured inputs (optional).
- Three color display (14 mm high) with programmable color settings based on the measured value.
- 21-point individual characteristic function for input rescaling and conversion.
- Galvanically isolated inputs and outputs.
- Password protection.
- Fully programmable from the front panel.
- RS-485 Modbus RTU communication (optional).
- IP rating IP 65.



TECHNICAL DATA

GENERAL	
Supply Voltage	85 to 253 V AC/DC or 20 to 40 V AC, 20 to 60 V DC
Temperature	Ambient: - 25 to 55 °C; Storage: - 30 to 70 °C
Humidity	< 85% without condensation
Operating position	Any
External magnetic field	0 to 400 A/m

INPUT *		
TYPE	RANGE	CLASS
PT100	-200 to 850 °C	0.1
PT500	-200 to 850 °C	0.1
PT1000	-200 to 850 °C	0.1
Fe-CuNi (J)	-100 to 1200 °C	0.1
NiCr-NiAl (K)	-100 to 1372 °C	0.1
PtRh10-Pt (S)	0 to 1767 °C	0.1
PtRh13-Pt (R)	0 to 1767 °C	0.1
NiCr-CuNi (E)	-100 to 1000 °C	0.1
NiCrSi-NiSi (N)	-100 to 1300 °C	0.1
Current input (I)	-20 to 20 mA	0.1
Voltage input (U)	-10 to 10 V	0.1
mV input (mV)	0 to 60 mV	0.1

* Additional errors:

Due to automatic compensation of the reference junction temperature: $\leq 1^\circ\text{C}$.

Due to automatic compensation of the cable resistance for RTDs: $\leq 0.5^\circ\text{C}$.

Due to automatic compensation of the cables for resistance measurement: $\leq 0.2 \Omega$.

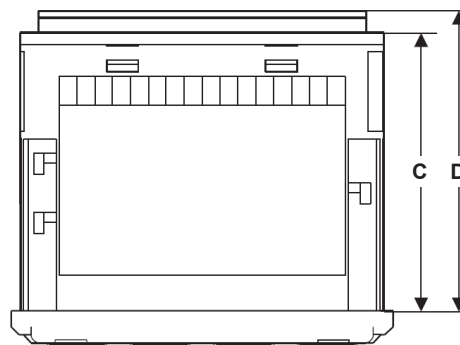
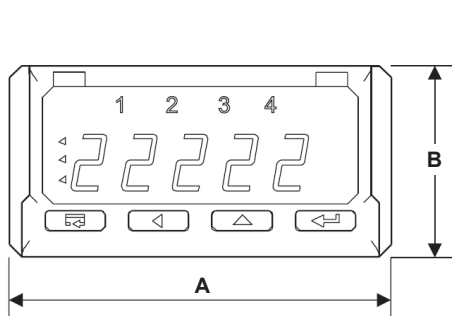
From temperature changes: 100% of the class / 10 K.

EXTERNAL FEATURES	
Readout field	5 digit display; Digit height: 14 mm; Colors: red, green and orange
IP rating	From frontal side: IP 65; From rear side: IP 10

OUTPUT		
TYPE	PROPERTIES	LOAD CAPACITY
Relay (voltageless)	NO contacts	0.5 A / 230 V AC
	Change-over contacts	0.5 A / 230 V AC
OC open-collector	Passive NPN	Max. 30 V DC, 30 mA
Continuous voltage	0 to 10 V	Rload $\geq 500 \Omega$
Continuous current	0/4 to 20 mA	Rload $\leq 500 \Omega$
Transducer supply	24 V DC	Max. 30 mA

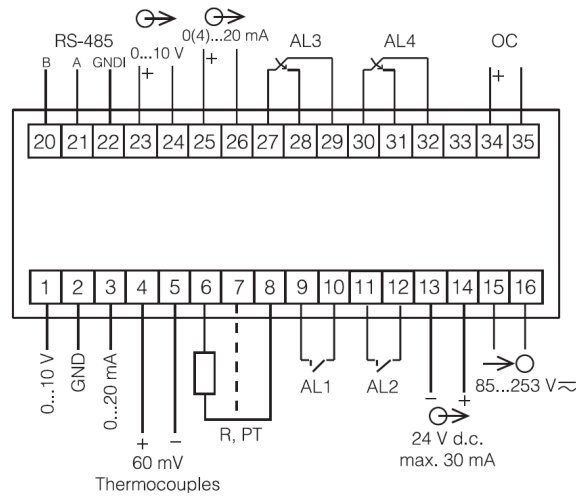
DIGITAL INTERFACE	
Interface type	RS-485
Protocol	Modbus RTU 8N2, 8E1, 8O1, 8N1
Baud rate	4.8, 9.6, 19.2, 38.4, 57.6, 115.2 kbit/s

SAFETY AND COMPATIBILITY REQUIREMENTS	
Electromagnetic Compatibility	Noise immunity acc. to EN 61000-6-2
	Noise emissions acc. to EN 61000-6-4
Pollution level	Level 2 acc. to EN 61010-1
Installation category	Cat. III acc. to EN 61010-1
Maximal phase-to-earth operating voltage	Supply circuit: 300 V; Remaining circuits: 50 V acc. to EN 61010-1
Altitude above sea level	< 2000 m acc. to EN 61010-1



DIMENSIONS (mm)					
MODEL	A	B	C	D	WEIGHT (kg)
UD-720	96	48	67	93 (Max.)	< 0.2 kg

TERMINALS



ORDERING CODES UD-720

Group designation	UD720	.1	.0
UD-720 universal display	UD720		
Power Supply			
85 to 253 V AC/DC		.1	
20 to 40 V AC, 20 to 60 V DC		.2	
Additional Outputs			
No additional outputs			.0
OC open-collector output, RS-485 and analog outputs			.1
OC open-collector output, RS-485, analog outputs and 2 change-over relay outputs			.2