

UNIVERSAL DISPLAY UD-720

DESCRIPTION

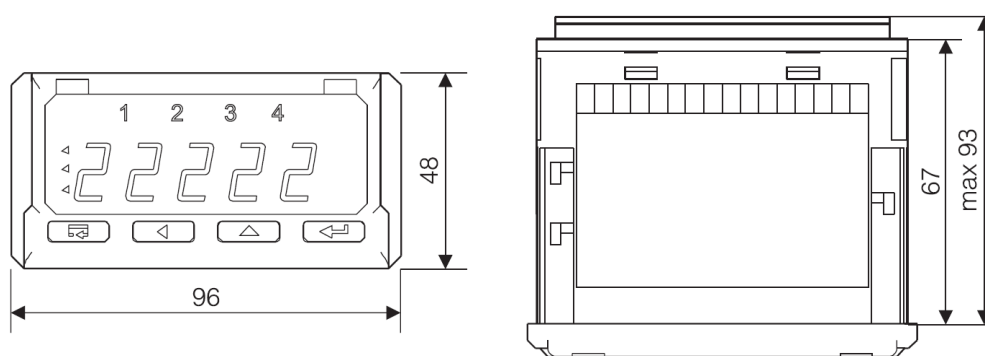
The UD-720 is a programmable digital panel display used for the measurement of standard sensor and analog signals applied in automation. It is ideally suited for use with our range of instrumentation such as pressure transmitters, temperature probes and TDS controllers.



MAIN FEATURES

- Measuring inputs for resistance thermometer (RTD), thermocouples (TC), 0/4...20 mA, 0...10 V, 0...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...20 mA and 0...10 V outputs for retransmission of any of the measured inputs (optional).
- Three color display (14mm 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).
- Degree of protection IP65.

DIMENSIONS (mm)



TECHNICAL DATA	
RATED OPERATING CONDITIONS	
Supply Voltage	85...253 V ac/dc or 20...40 V ac, 20...60 V dc
Temperature	Ambient: -25...23...55 °C; Storage: -30...70 °C
Humidity	< 85% without condensation
Operating Position	Any
External magnetic field	0...400 A/m

**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

INPUT ¹⁾

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

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...10 V	$R_{load} \geq 500 \Omega$
Continuous current	0/4...20 mA	$R_{load} \leq 500 \Omega$
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

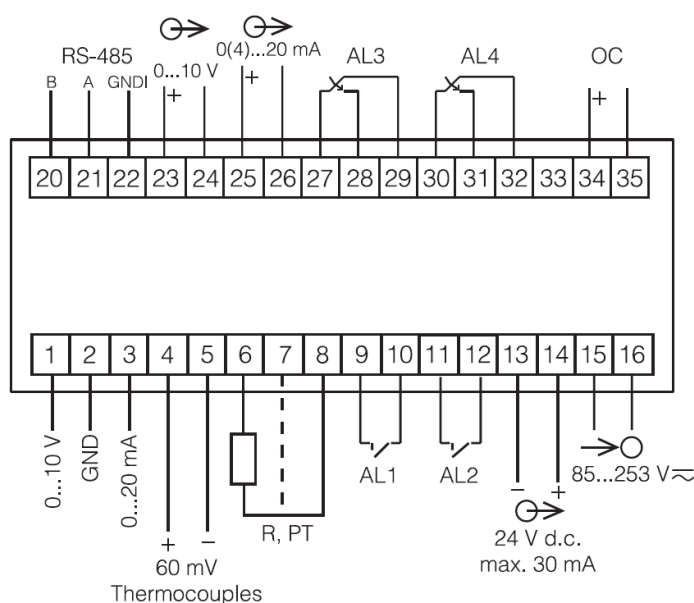
EXTERNAL FEATURES

Readout field	5 digit display; Digit height: 14 mm; Colors: red, green and orange
Overall dimensions	96 x 48 x 93 mm
Weight	< 0.2 kg
Protection grade	From frontal side: IP65; From rear side: IP10

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.

WIRING DIAGRAM
TERMINAL STRIP

ORDERING CODES UD-720

Group Designation	UD720	.1	.0
Universal display	UD720		
Power Supply			
85...253 V ac/dc		.1	
20...40 V ac, 20...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