Digital indicator for panel mounting
Model DI25

Applications

- Plant construction
- Machine tools
- Plastics technology and processing
- Ventilation and air-conditioning
- General industrial applications

Special features

- Multi-function input for current and voltage signals, and thermocouples and resistance thermometers
- Ingress protection IP 66 (front panel)
- Two or three freely programmable alarm outputs as standard (depending on the instrument version)
- 4 ... 20 mA analogue signal output as standard
- HOLD function

Digital indicator model DI25

Description

The DI25 digital indicator is a multi-function, competitively-priced instrument for a wide variety of measuring tasks.

The multi-function input has 18 different input configurations, which can be selected via the rear connections and also by selection of the appropriate input signal within the instrument configuration.
In this way it is possible to connect transmitters with current or voltage signals, and both resistance thermometers or thermocouples to the same instrument.

The measured value can be retransmitted for further processing via an analogue 4 ... 20 mA output (standard) or via an RS-485 serial interface (optional). Other analogue output signals are also available as options.

The basic version of the DI25 indicator features three alarm outputs. Instruments with the optional DC 24 V transmitter power supply have two alarm outputs available.

With the high ingress protection of the fascia (IP 66), the DI25 digital indicator can also be used under extreme operating conditions.

All configuration and programming can be carried out through the front-panel keys.

Specifications
Digital indicator model DI25

Digital indicator

Display	
Principle	7-segment LED
Process value display (PV display)	4-digit, red, character size 16 mm
Set value display (SV display)	4-digit, green, character size 10 mm
Indication range	-1999 ... 9999
Input	
Number and type	1 multi-function input
Input configuration	Selectable via terminal connections and menu-driven programming
Measuring time	250 ms
Analogue output	
Output signal	4 ... 20 mA, load ≤ 500 Ω (standard) or {0 ... 20 mA, load ≤ 500 Ω or} {DC 0 ... 1 V, load ≥ 100 kΩ or} {DC 0 ... 5 V, load ≥ 500 kΩ or} {DC 1 ... 5 V, load ≥ 500 kΩ or} {DC 0 ... 10 V, load ≥ 1MΩ }
Accuracy	± 0.3 % of the output span
{Transmitter power supply} 1)	DC 24 V ± 3V, max 30 mA
{Interface} 2)	RS-485
Alarm outputs	
Number and type	2 or 3 switch contacts (relays) 1)
Alarm types output 1 and 2	High alarm, high alarm with standby, low alarm, low alarm with standby
Alarm types alarm outputs 3	High alarm, high alarm with standby, low alarm, low alarm with standby, high low alarm
Switch behaviour	Normally closed or normally open, can be set via keyboard
Load	AC 230 V, 3 A (resistive load)
HOLD function 2)	Selectable: Instantaneous, minimum or maximum value Activation of the HOLD function via connection terminals
Voltage supply	
Power supply	AC 100 ... 240 V (permissible voltage: AC 85 ... 264 V), 50/60 Hz or AC/DC 24 V (permissible voltage: AC/DC 20 ... 28 V), 50/60 Hz
Power consumption	aprrox. 10 VA
Electrical connection	screw terminals

{ } Items in curved brackets are optional extras for an additional price.
1) Instruments with integrated transmitter supply do not feature the alarm output 2.
2) Instruments with RS-485 serial interface do not feature the HOLD function.

Case

Material	Polycarbonate
Colour	black
Ingress protection	Front: IP 66; Rear: IP 00 (per IEC 60529 / EN 60529)
Dimensions	96 x 48 x 110 mm
Weight	approx. 300 g
Mounting	Screw type mounting brackets for wall thicknesses from 1 to 15 mm

Permissible ambient conditions

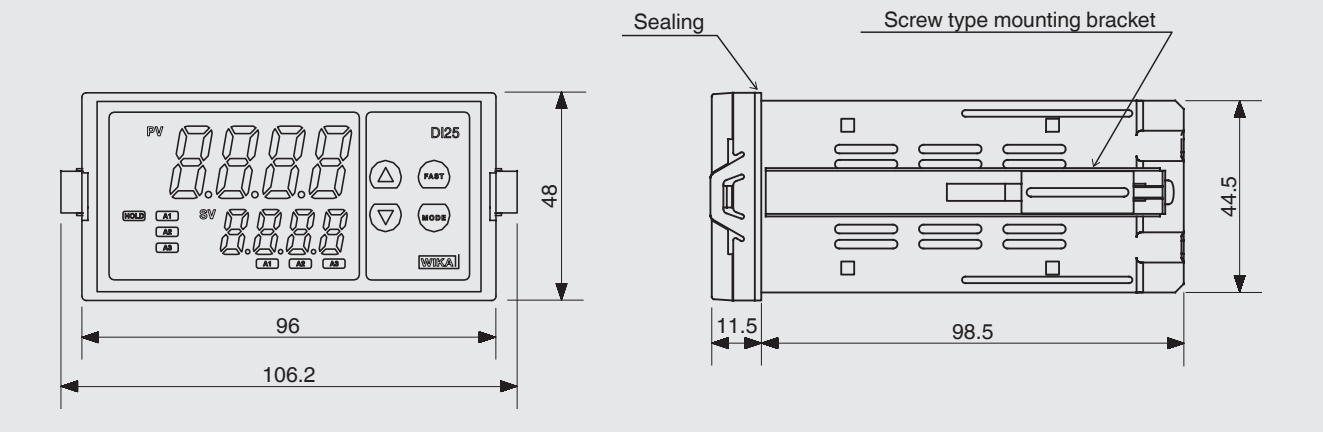
Operating temperature	0 ... 50 °C
Storage temperature	-20 ... +50 °C
Relative humidity	35 ... 85 % r.h. mean annual relative humidity, non-condensing

CE conformity

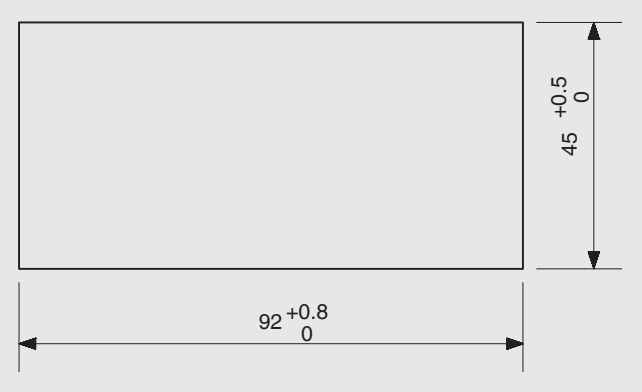
EMC directive	2004/108/EC, EN 61326 emission (group 1, class A) and interference immunity (industrial application)
Low voltage directive	2006/95/EC, EN 61010-1

Input signals	Measuring span		Measuring error in % of the span	
			Standard	Exception
Current signals				
0 ... 20 mA	-1999 ... +9999		± 0.2 % ± 1 digit	-
4 ... 20 mA	-1999 ... +9999		± 0.2 % ± 1 digit	-
Voltage signals				
0 ... 1 V	-1999 ... +9999		± 0.2 % ± 1 digit	-
0 ... 5 V	-1999 ... +9999		± 0.2 % ± 1 digit	-
1 ... 5 V	-1999 ... +9999		± 0.2 % ± 1 digit	-
0 ... 10 V	-1999 ... +9999		± 0.2 % ± 1 digit	-
Thermocouples				
Typ K, NiCr-Ni	-200 ... +1370 °C	-320 ... +2500 °F	± 0.2 % ± 1 digit	≤ 0 °C: ± 0.4 % ± 1 digit
	-199.9 ... +400.0 °C	-199.9 ... +750.0 °F	± 2 K	≤ 0 °C: ± 0.4 % ± 1 digit
Type J, Fe-CuNi	-200 ... +1000 °C	-320 ... +1800 °F	± 0.2 % ± 1 digit	≤ 0 °C: ± 0.4 % ± 1 digit
Type R, PtRh-Pt	0 ... 1760 °C	0 ... 3200 °F	± 0.2 % ± 1 digit	≤ 200 °C: ± 6 K
Type S, PtRh-Pt	0 ... 1760 °C	0 ... 3200 °F	± 0.2 % ± 1 digit	≤ 200 °C: ± 6 K
Type B, PtRh-PtRh	0 ... 1820 °C	0 ... 3300 °F	± 0.2 % ± 1 digit	≤ 300 °C: without details
Type E, NiCr-CuNi	-200 ... +800 °C	-320 ... +1500 °F	± 0.2 % ± 1 digit	≤ 0 °C: ± 0.4 % ± 1 digit
Type T, Cu-CuNi	-199.9 ... +400.0 °C	-199.9 ... +750.0 °F	± 2 K	≤ 0 °C: ± 0.4 % ± 1 digit
Type N, NiCrSi-NiSI	-200 ... +1300 °C	-320 ... +2300 °F	± 0.2 % ± 1 digit	≤ 0 °C: ± 0.4 % ± 1 digit
Type PL-II	0 ... 1390 °C	0 ... 2500 °F	± 0.2 % ± 1 digit	-
Type C (W/Re5-26)	0 ... 2315 °C	0 ... 4200 °F	± 0.2 % ± 1 digit	-
Resistance thermometer				
Pt 100 (3-wire)	-200 ... +850 °C	-300 ... +1500 °F	± 0.1 % ± 1 digit	-
	-199.9 ... +850.0 °C	-199.9 ... +999.9 °F	± 0.1 % ± 1 digit	-
JPT 100 (3-wire)	-200 ... +500 °C	-300 ... +900 °F	± 0.1 % ± 1 digit	-
	-199.9 ... +500.0 °C	-199.9 ... +900.0 °F	± 1 K	-

Dimensions in mm

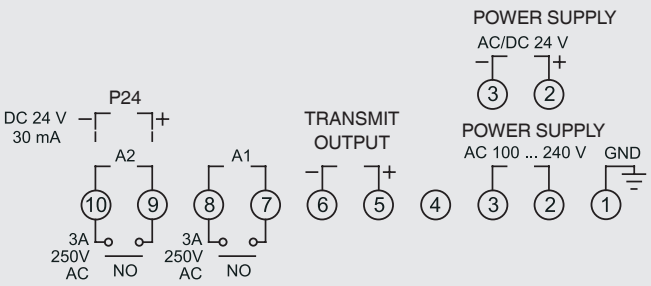


Panel cutout in mm

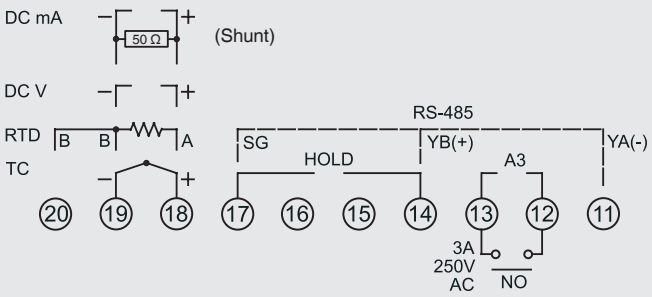


Terminal configuration

Upper terminal block



Lower terminal block



Terminal	Case labelling	Description
1	GND	Ground
2	AC 100 ... 240 V	Power supply
	AC/DC 24 V (+)	
3	AC 100 ... 240 V	
	AC/DC 24 V (-)	
4		Not connected
5	TRANSMIT OUTPUT +	Analogue output signal
6	TRANSMIT OUTPUT -	
7	A1	Alarm output 1; AC 250 V, 3A
8	A1	
9	A2	Alarm output 2; AC 250 V, 3A
	P24 (+)	{Transmitter power supply DC 24 V, 30 mA}
10	A2	Alarm output 2; AC 250 V, 3A
	P24 (-)	{Dimensions of the transmitter power supply, DC 24 V, 30 mA}

Terminal	Case labelling	Description
11	YA (-)	{RS-485 Interface}
12	A3	Alarm output 3; AC 250 V, 3A
13	A3	
14	HOLD	HOLD function
	YB (+)	{RS-485 Interface}
15		Not connected
16		Not connected
17	HOLD	HOLD function
	SG	{RS-485 Interface}
18	+	Input signal TC, DC V and DC mA (with Shunt)
	A	Input signal RTD
19	-	Input signal TC, DC V and DC mA (with Shunt)
	B	Input signal RTD
20	B	Input signal RTD

{ } Items in curved brackets are optional extras for an additional price.

RTD	Resistance thermometer
TC	Thermocouples
DC mA	Current signals
DC V	Voltage signals

Order no.

Power supply	Transmitter power supply	Order no.
AC 100 … 240 V	-	7148465
	DC 24 V	7148482
AC/DC 24 V	-	7394245
	DC 24 V	7394270

Scope of delivery

- Digital indicator model DI25
- Precision measurement shunt resistor (50 Ω)
- Sealing
- Mounting screws
- Operating instructions

Ordering information

To order, the order number is sufficient. Other options require additional specification.

12/2011 GB

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