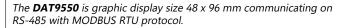




Digital indicators for panel mounting DAT9550, DAT8050 and "DAT700 SERIES"

The series is composed of devices dedicated to process and temperature measurement.



The **DAT8050** is a programmable digital indicator for current loop size 48x96 mm with 4 digit LED visualization.

The **DAT700** series is composed of devices size 36x72 mm (DAT701, DAT702, DAT733. DAT734, DAT735).







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DAT 702

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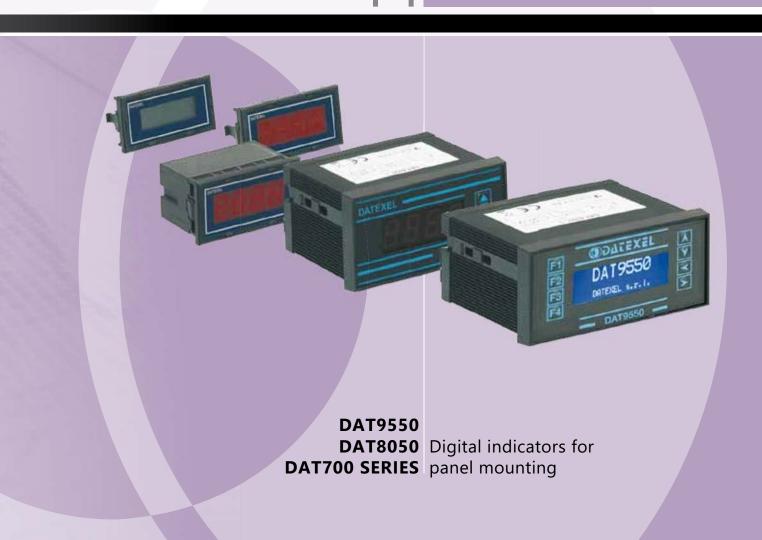
3.5 digit LCD digital indicator

DAT 734

3.5 digit LCD or LED display digital thermometer for Pt100

3.5 digit LCD or LED display digital thermometer for Thermocouple

11





The device DAT 9550 is a graphic display designed for panel mounting and communicating with Modbus RTU protocol on RS-485 and RS-232 serial Slave port. Moreover on the device there is a RS-485 Master port by means of which it is possible to communicate with the eventual Modbus Slave devices connected. It can be used as Slave peripheral for the visualization of the data coming from the Intelligent Units of the DAT9000 series or from a PC, PLC or panel operator.

FEATURES

- Graphic display 132x32 pixels
- RS-485/RS-232 Modbus-RTU Slave Interface
- RS-485 Modbus-RTU Master Interface
- Remotely programmable
- Connection by removable screw-terminals (power

supply & RS-485) and RJ45 (RS-232)

- Compact enclosure dimensions (DIN 48 x 96 mm)
- Galvanic Isolation on all the ways
- EMC compliance CE mark

REMOTE GRAPHIC DISPLAY ON RS-485 WITH MODBUS RTU PROTOCOL

Suitable for panel mounting in compliance with DIN-43700





Application areas











POWER SUPPLY	
Power supply voltage	10 ÷ 30 Vdc
Current consumption	45 mA typ. @ 24Vdc (standby,max. brightness)
	80 mA max

ISOLATIONS

Power supply/ RS485 1500 Vac, 50 Hz, 1 min.

TEMPERATURE & HUMIDITY

-20°C .. +60°C Operative temperature -30°C .. +80°C Storage temperature Humidity (not condensing) 0 .. 90 %

EMC (for industrial environments)

DIRECTIVE 2004/108/EC

Immunity	EN 61000-6-2
Emission	EN 61000-6-4

CONNECTIONS

RS-232D RS-485/Supply Removable screw terminal blocks

HOUSING

Material Noryl self-extinguishing plastic (UL94-V0) Mounting Panel mounting W x L x T: 96 x 48 x 74 Dim. (mm) about 160 g. Weight

In compliance with IEE 802.3 EIA RS-485 and RS-232	
Baud-rate	up to 38.4 Kbps
Max. distance (1)	1.2 Km @ 38.4 Kbps
Internal termination resistance	120 Ohm (optional)
Display	
Graphic Area	132x32 pixel 13.2 * 48.1 mm

(1) = The maximum distance depends of: number of devices connected, type of cabling, noises, etc...

LOOP POWERED 4 DIGIT LED PROGRAMMABLE DIGITAL INDICATOR

DAT 8050

GENERAL DESCRIPTION

The digital panel indicator DAT 8050 accept on the input a 4 - 20 mA current loop signal.

The input current signal is used to supply the device introducing a 5 Vdc voltage drop-out on the current loop, so is not required any external supply source. The user can program the visualisation of the measure in the range from -1999 up to 9999 points in order to set the values of the physical or electrical parameter transmitted on the current loop in the desired format. The programming of the visualization is made by the buttons "SET" and "ENTER" located on the front side of the instrument.

FEATURES

- 4÷20 mA loop powered
- Voltage Drop-out < 5V
- High accuracy and linearity
- 0.52" LED display

- Visualization configurable on the front side
- Connections on removable screw terminals
- Compact case size (DIN 48 x 96 mm)
- EMC compliance CE mark





Application areas











TEMPERATURE & HUMIDITY

Operative temperature -20°C .. +60°C Storage temperature -40°C .. +85°C 0..90% Humidity (not condensing)

EMC (for industrial environments)

DIRECTIVE 2004/108/EC

Immunity EN 61000-6-2 Emission EN 61000-6-4

HOUSING

Materia Noryl self-extinguishing plastic (UL94-V0) Dim. (mm) W x H x T : 48 x 96 x 74 Weight about 150 g.

INPUT Input signal 4 ÷ 20 mA Voltage drop-out < 5 V Limitation current < 50 mA

DISPLAY	
Type of visualization	4 digits LED
Digit height	0.52"
Range of visualization (*)	Programmable on the front side, from "-1999" up to "9999", with High: 1(on left side). Low: -1(on left side)
Minimum measurable current	3.8 mA (visualization "Lo" in case of lower measure)
Maximum measurable current	20.2 mA (visualization "Hi" in case of higher measure)

CHARACTERISTICS AND PERFORMANCES	
Reading accuracy	the better than \pm 0.05 % of f.s. or \pm 1 digit.
Resolution	4 uA
Response time	< 0.5 sec.
Thermal drift	± 0.01 % of f.s. / °C

(*)= default visualization : 4.00 ÷ 20.00

3.5 DIGIT LED DIGITAL INDICATOR



GENERAL DESCRIPTION

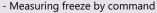
The DAT 701 is a 3.5 digit LED digital indicator with high accuracy and reliability able to measure the normalised current or voltage signal applied to its input.

In function of the parameters requested in phase of order, the following versions of the device are available:

- DAT 701 V A: measure of voltage signal with amplitude from \pm 200 mV up to \pm 20 V;
- DAT 701 V B: measure of voltage signal with amplitude from ± 2 V up to ± 200 V;
- DAT 701 I A: measure of current signal with amplitude from \pm 200 mA up to \pm 2 mA;
- DAT 701 I B: measure of current signal with amplitude from \pm 2 mA up to \pm 200 mA.

FEATURES

- Voltage or current inputs
- Programmable decimal point and Attenuation
- High accuracy and linearity
- Auto-zero



- Options for low consumption or high brightness
- EMC compliant CE mark
- Low profile (15 mm) DIN 36 x 72 mm housing
- Mounting on panel in according to DIN-43700 standard







Application areas



VISUALISATION









TEMPERATURE & HUMIDITY	
Operative temperature	-10°C +60°C
Storage temperature	-40°C +85°C
Humidity (not condensing)	0 90 %
EMC (for industrial environments)	
DIRECTIVE 2004/108/EC	

	,,	
Immunity	EN 61000-6-2	
Emission	EN 61000-6-4	
HOUSING		
Material	Self-extinguishing plastic	
Mounting	Panel mounting	
Dim. (mm)	W x H x T : 72 x 36 x 15	
Weight	about 50 g.	

INPUT	
Configuration	Bipolar, true diffe- rential
Input impedance	
Voltage	basic scale: 10 M Ω
voitage	attenuated scale: 1 $M\Omega$
Current	From 1 Ω up to 1K Ω
Maximum input signal	2.5 full scale
Common mode voltage	± 2 V referred to the power supply ground
Common mode rejection ratio	86 dB
Normal mode rejection ratio	50 dB @ 50 Hz
Decimal point programming	From front side, on three decades

	Scale of visualisation	2000 points (from 0 up to 1999 or from -1999 up to 0)
	Out of range visualisation	High = 1; Low = -1
	Type of visualization Display LED	3.5 digit standard LED display (version S)
1		3.5 digit high efficiency LED display (version H)
1	Digit height	0.52 "
i		•
ł	CHARACTERISTICS AND PERFORMANCES	
١	Reading accuracy	± 0.1 % of f.s.

Digit neight	J.52
CHARACTERISTICS A	ND PERFORMANCES
Reading accuracy	± 0.1 % of f.s.
Thermal drift	0.005 % of f.s./°C
Reading rate	3 read/second
Power supply voltage	5 Vdc ± 5 %
Current consumption Version S: 90 mA Version H: 180 mA	Version S: 90 mA
	Version H: 180 mA

3.5 DIGIT LCD DIGITAL INDICATOR



GENERAL DESCRIPTION

The DAT 702 is a 3.5 digit LCD digital indicator with high accuracy and reliability able to measure the normalised current or voltage signal applied to its input.

In function of the parameters requested in phase of order, the following versions of the device are available:

- DAT 702 V A: measure of voltage signal with amplitude from \pm 200 mV up to \pm 20 V;
- DAT 702 V B: measure of voltage signal with amplitude from ± 2 V up to ± 200 V;
- DAT 702 I A: measure of current signal with amplitude from \pm 200 μ A up to \pm 2 mA;
- DAT 702 I B: measure of current signal with amplitude from ± 2 mA up to ± 200 mA.

- Voltage or current inputs
- Programmable decimal point and Attenuation
- High accuracy and linearity
- Auto-zero

- Measuring freeze by command
- Single power supply voltage (5 Vdc or 9 Vdc)
- EMC compliant CE mark
- Low profile (15 mm) DIN 36 x 72 mm housing
- Mounting on panel in according to DIN-43700 standard





Application areas











TEMPERATURE & HUMIDITY

Operative temperature	-10°C +60°C
Storage temperature	-40°C +85°C
Humidity (not condensing)	0 90 %
Humidity (not condensing)	0 90 %

EMC (for industrial environments) DIDECTIVE 2007/109/EC

DIRECTIVE 2004/ 100/ EC		
Immunity	EN 61000-6-2	
Emission	EN 61000-6-4	
HOUSING		
Material	Self-extinguishing plastic	
Mounting	Panel mounting	
Dim. (mm)	W x H x T : 72 x 36 x 15	

about 50 q.

Weight

INPUT		
Configuration	Bipolar, true differential	
Input impedance		
Voltage	basic scale: 10 M Ω	
	attenuated scale: 1 $M\Omega$	
Current	From 1 Ω up to 1K Ω	
Maximum input signal	2.5 full scale	
Common mode voltage	± 2 V referred to the power supply ground	
Common mode rejection ratio	86 dB	
Normal mode rejection ratio	50 dB @ 50 Hz	
Decimal point programming	From rear side, on three decades	

VISUALISATION	
Type of visualization	Static polarised Liquid Cristal Display for wide angle of visualization
Digit height	0.35"

CHARACTERISTICS AND PERFORMANCES		
Reading accuracy	± 0.1 % of f.s.	
Thermal drift	0.005 % of f.s./°C	
Reading rate	3 read/second	
Power supply voltage	Version 5 : 5 Vdc ± 5 %	
	Version 9 : 9 Vdc ± 10 %	
Current consumption	Version 5 : 3 mA	
	Version 9 : 0.5 mA	



GENERAL DESCRIPTION

The DAT 733 is a current loop, 3.5 digit LCD digital indicator with high accuracy and reliability.

By dip-switches and potentiometers, it is possible to set the visualisation of the input measure in engineering units in a range included between 100 and 2000 points, to set the zero point between -1999 and 1999 and the position of the decimal point.

FEATURES

- 4 ÷ 20 mA current loop self-powered
- Visualisation configurable in engineering units
- High accuracy and linearity
- Measure freezing by command

- EMC compliant CE mark
- DIN 36 x 72 mm housing
- Mounting on panel in according to DIN 43700 standard





Application areas











TEMPERATURE & HUMIDITY

Operative temperature	-10°C +60°C
Storage temperature	-40°C +80°C
Humidity (not condensing)	0 90 %

EMC (for industrial environments)

DIRECTIVE 2004/108/EC

mmunity	EN 61000-6-2
mission	EN 61000-6-4

HOUSING

Material	Self-extinguishing plastic
Mounting	Panel mounting
Dim. (mm)	W x H x T : 72 x 36 x 39
Weight	About 100 g.

INPUI	
Signal type	4÷20 mA from current loop
Voltage drop	2.5 V
Maximum input signal	50 mA
Visualisation settings	By dip switch and regulation by potentiometers
Zero value visualisation range	From -1999 up to 1999
Scales of visualisation	Scale 1 from 100 up to 700 points Scale 2 from 700 up to 1400 points Scale 3 from 1400 up to 2000 points
-	

VISUALISATION	
Type of visualization	Static polarised Liquid Crystal Display for wide angle of visualisation
Digit height	0.35"

CHARACTERISTICS AND PERFORMANCES		
Reading accuracy	±0.1 % del f.s.	
Thermal drift	0.005 % of f.s./°C	
Reading rate	3 read/second	
Power supply	Self-powered from the input signal	

Decimal point setting

From rear side, on three decades by dip-switch

Out of scale visualisation

High: 1(on left side). Low: -1(on left side)

3.5 DIGIT LCD OR LED DISPLAY DIGITAL THERMOMETER FOR PT100

DAT

GENERAL DESCRIPTION

The DAT 734 is a 3.5 digit LCD or LED display, digital thermometer for Pt100 2 or 3 wires sensor with high accuracy and reliability. The range of measure must be chosen in phase of order between the two options : -50 ÷ 200 °C or 0 ÷ 600 °C.

FEATURES

- Input for Pt100 2 or 3 wires sensors
- Visualisation on LCD or LED display
- High accuracy
- Measure freezing by command

- Low current consumption
- EMC compliant CE mark
- DIN 36 x 72 mm housing
- Mounting on panel in according to DIN 43700 standard





Application areas











TEMPERATURE & HUMIDITY

Operative temperature	-10 C +00 C
Storage temperature	-40°C +80°C
Relative Humidity (not condensing)	0 90 %

EMC (for industrial environments)

DIRECTIVE 2004/108/EC

Immunity	EN 61000-6-2
Emission	EN 61000-6-4

HOUSING

110051110	
Material	Self-extinguishing plastic
Mounting	Panel mounting
Dim. (mm)	W x H x T : 72 x 36 x 39
Weight	About 100 g.

INPUT Signal type 2 or 3 wires Pt100 sensor Input range -50 ÷ 200 °C / 0 ÷ 600 °C Out of scale visualisation High: 1 (on left side). Low: -1 (on left side)

VISUALISATION		
Type of visualization (LCD - Version C)	Static polarised Liquid Cristal Display for wide angle of visualization	
Digit height	0.35"	
Type of visualization (LED - Version D)	High efficiency LED display or standard LED display	
Digit height	0.52"	

CHARACTERISTICS AND PERFORMANCES		
Reading accuracy	± 0.25 % of f.s.	
Response time	800 ms	
Power supply voltage	5 Vdc ± 5 %	
Thermal drift	0.02 % of f.s./°C	
Current consumption		
Version D	180 mA (high efficiency), 90 mA (standard)	
Version C	10 mA	

3.5 DIGIT LCD OR LED DISPLAY DIGITAL THERMOMETER FOR THERMOCOUPLE



GENERAL DESCRIPTION

The DAT 735 is a 3.5 digit LCD or LED display, digital thermometer for Thermocouple sensor type E, K, J, N, S and T with high accuracy and reliability.

FEATURES

- Input for Thermocouple sensors type E, K, J, N, S and T Visualisation on LCD or LED display
- High accuracy
- Measure freezing by command

- Low current consumption
- EMC compliant CE mark
- DIN 36 x 72 mm housing
- Mounting on panel in according to DIN-43700 standard







Application areas











TEMPERATURE & HUMIDITY				
Operative temperature				
Storage temperature				
Humidity (not condensing)				
EMC (for industrial environments)				
DIRECTIVE 2004/108/EC				
EN 61000-6-2				
EN 61000-6-4				
HOUSING				
Self-extinguishing plastic				
Panel mounting				
W x H x T : 72 x 36 x 39				
	mperature perature t condensing) dustrial enviror 2004/108/EC EN 61000-6-2 EN 61000-6-4 Self-extinguish Panel mounting			

About 100 g.

Weight

INPUT			
Signal type	Thermocouple type E, K, J, N, S and T		
Ranges of measure			
Thermocouple type E	0 ÷ 900 °C		
Thermocouple type K	0 ÷ 1200 °C		
Thermocouple type J	0 ÷ 600 °C		
Thermocouple type N	0 ÷ 1200 °C		
Thermocouple type S	0 ÷ 1600 °C		
Thermocouple type T	0 ÷ 300 °C		
Out of scale visualisation	High: 1 (On the left side); Low -1 (On the left side)		

VISUALISATION		
Type of visualization (LCD - Version C)	Static polarised Liquid Cristal Display for wide angle of visualization	
Digit height	0.35"	
Type of visualization (LED - Version D)	High efficiency LED display or stan- dard LED display	
Digit height	0.52"	

CHARACTERISTICS AND PERFORMANCES		
Reading accuracy	±0.25 % of f.s.	
Cold Junction Compensation	±0.5 °C	
Thermal drift	0.02 % of f.s./°C	
Response time	800 ms	
Power supply voltage	5 Vdc ± 5 %	
Current consumption	Version D: 180 mA (high efficiency), 90 mA (standard)	

