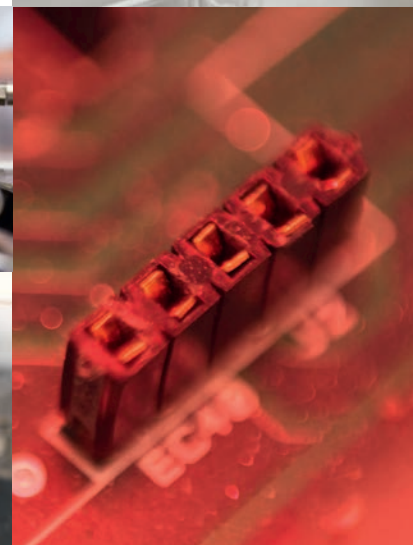
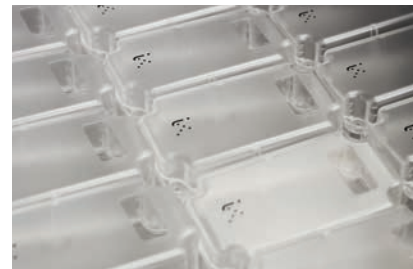


2 Electronic thermostats



DIGITAL CONTROLLERS, 4 STAGES WITH RELAY

Temperature and humidity control in heating, cooling, humidification and dehumidification systems.



DB-I4D/02/001

Technical data

Supply voltage	230 V AC +/- 10%, 50-60 Hz
Input	- NTC 10K sensor and/or humidity-current transmitter 4...20 mA- remote setpoint controller DB-CDP-N1 (optional)
Output	4 or 8 SPDT relays 10 A 230 V AC
Ambient temperature	-10...+50 °C
Ambient humidity	10...90 % RH (non-condensing)
Storage temperature	-20...+70 °C
Storage humidity	< 95 % RH
Delay	0...9.5 min
Display	2 lines with 3 digits (7 segments display)
Configuration	4 push/buttons keyboard on the front
Casing	Makrolon
Weight	920 g
Dimensions	200 x 120 x 75 mm (DB-I4D/02/004: 2 casings 200 x 120 x 75 mm)
Protection class	IP65
Isolation class	II

Article	Power consumption	Number of modules	Steps	Range	Hysteresis	Input
DB-I4D/02/001	< 3 W	1	4	-50...+110 °C	0...10 K	NTC 10K
DB-I4D/02/002	< 3 W	1	4	0...100 % RH	0...100 % RH	4...20 mA
DB-I4D/02/003	< 3 W	1	4	-50...+110 °C / 0...100 % RH	0...10 K / 0...10 % RH	NTC 10K / 4...20 mA
DB-I4D/02/004	< 6 W	2	8	-50...+110 °C	0...10 K	NTC 10K

DIGITAL THERMOSTAT ONE STAGE

Indication and controlling of temperature with NTC sensors in industrial heating and cooling applications.



DTR11N7

Technical data	
Supply voltage	230 V AC, 50/60 Hz
Input	1 NTC sensor
Output	1 SPDT relay 10 A, 230 V AC resistive load
Sensor	NTC10-02
Power consumption	1,8 W / 2,5 VA
Setpoint	-40...+105 °C
Ambient temperature	0...55 °C
Ambient humidity	10...90% RH (non-condensing)
Storage temperature	-20...+70 °C
Storage humidity	< 95 % RH
Hysteresis	0,1...99 K
Resolution	0,1 °C / 1 °C / 0,1 °F
Casing	Fire-proof
Connection	Screw terminal blocks
Installation	Panel mounting, with click brackets
Dimensions	75 x 33 x 65 mm - mounting hole 71 x 29 mm
Protection class	IP65 (frontal)

Article	Setpoint	Hysteresis
DTR11N7	-40...+105 °C	0,1...99 K

DIGITAL CONTROLLERS WITH RELAYS

Control of 1 or 2 independent physical quantities with:

- 2 relay outputs;
- 1 output for power supply of active transducer (17 V DC, max. 44 mA);
- 3 digit display;
- red LED, output state indicator;
- push buttons for parameters setting;
- optical alarms;
- password and two access levels.



DB-R/1

Technical data DB-R/1

Outputs	2 SPDT relays 8 A 230 V AC
Power consumption	< 3 W
Ambient temperature	0...45 °C
Ambient humidity	10...90 % RH (non-condensing)
Storage temperature	-20...+70 °C
Storage humidity	< 95 % RH
Connection	Screw terminal block for cables up to 2.5 mm ²
Casing	ABS fireproof plastic according to UL94 V-0
Weight	400 g
Dimensions	96 x 48 x 122 mm - mounting hole: 92 x 45 mm
Protection class	IP52 (front)
Isolation class	II

DB-R/1

Part number selection DB-R	Input 1			Input 2			X	1
	X	X	XX	X	X	XX		
INPUT 1								
NTC10-02	1	1	07 ⁽¹⁾					
PT1000	2	1	08 ⁽¹⁾					
PTC 2K	3	1	09 ⁽¹⁾					
NI1000-02	4	1	10 ⁽¹⁾					
0...1000 Ohm	5	2	06 ⁽¹⁾					
0...1 Vcc (**)	6							
0...10 Vcc (**)	7							
0...20 mA (**) (Rin = 100 Ohm)	8							
4...20 mA (**) (Rin = 100 Ohm)	9							
UNIT 1								
°C		1						
% u.r.		2						
bar		3						
mbar		4						
Pa		5						
m/s		6						
ppm		7						
without unit								
RANGE 1								
0...+50°C			01					
-30...+50°C			02					
-10...+40°C			03					
0...+100°C			04					
-20...+80°C			05					
0...+100% u.r.			06					
-50...+110°C			07					
-60...+600°C			08					
-50...+150°C			09					
-60...+200°C			10					
Range on request (*)			99					
INPUT 2								
None				0	0	00		
NTC10-02				1	1	07 ⁽¹⁾		
PT1000				2	1	08 ⁽¹⁾		
PTC 2K				3	1	09 ⁽¹⁾		
NI1000-02				4	1	10 ⁽¹⁾		
0...1000 Ohm				5	2	06 ⁽¹⁾		
0...1 Vcc (**)				6				
0...10 Vcc (**)				7				
0...20 mA (**) (Rin = 100 Ohm)				8				
4...20 mA (**) (Rin = 100 Ohm)				9				
UNIT 2								
None					0			
°C					1			
% u.r.					2			
bar					3			
mbar					4			
Pa					5			
m/s					6			
ppm					7			
without unit								
RANGE 2								
None						00		
0...+50°C						01		
-30...+50°C						02		
-10...+40°C						03		
0...+100°C						04		
-20...+80°C						05		
0...+100% u.r.						06		
-50...+110°C						07		
-60...+600°C						08		
-50...+150°C						09		
-60...+200°C						10		
range on request (*)						99		
POWER SUPPLY								
230 Vca ±10% 50/60 Hz							1	
12 Vca ±10% 50/60 Hz							2	
OUTPUT								
2 relè SPDT 230Vca 8A								

(*) specify on order
 (1) compulsory ranges
 (**) the choice of the setting range is only permitted for models with voltage inputs (VDC) or current (mA)



DIGITAL CONTROLLERS 2 OUTPUTS 0...10 V

Regulation of 1 or 2 independent physical quantities with:

- 2 proportional outputs 0...10 V DC;
- 1 output for power supply of active transducer (17 V DC, Max. 44 mA);
- 3 digit display;
- red led, output state indicator;
- push buttons for parameters setting;
- optical alarms;
- password and two access levels.



DB-R/2

Technical data DB-R/2

Outputs	2 0-10 V ($R_L > 10 \text{ KOhm}$)
Power consumption	< 3 W
Ambient temperature	0...45 °C
Ambient humidity	10...90 % RH (non-condensing)
Storage temperature	-20...+70 °C
Storage humidity	< 95 % RH
Connection	Screw terminal block for cables up to 2.5 mm ²
Casing	ABS fireproof plastic according to UL94 V-0
Weight	400 g
Dimensions	96 x 48 x 122 mm - mounting hole: 92 x 45 mm
Protection class	IP52 (front)
Isolation class	II

DB-R/2

Part number selection		Input 1		Input 2				
DB-R		X	X	XX	X	XX	X	2
INPUT 1								
NTC10-02		1	1	07 ⁽¹⁾				
0...10 Vcc (**)		7						
4...20 mA (**) (Rin = 100 Ohm)		9						
UNIT 1								
°C			1					
% u.r.			2					
bar			3					
mbar			4					
Pa			5					
m/s			6					
ppm			7					
without unit								
RANGE 1								
0...+50°C				01				
-30...+50°C				02				
-10...+40°C				03				
0...+100°C				04				
-20...+80°C				05				
0...+100% u.r.				06				
-50...+110°C				07				
-60...+600°C				08				
-50...+150°C				09				
-60...+200°C				10				
range on request (*)				99				
INPUT 2								
None					0	0	00	
NTC10-02					1	1	07 ⁽¹⁾	
0...10 Vcc (**) (Rin = 100 Ohm)					7			
4...20 mA (**) (Rin = 100 Ohm)					9			
UNIT 2								
None						0		
°C						1		
% u.r.						2		
bar						3		
mbar						4		
Pa						5		
m/s						6		
ppm						7		
without unit								
RANGE 2								
None							00	
0...+50°C							01	
-30...+50°C							02	
-10...+40°C							03	
0...+100°C							04	
-20...+80°C							05	
0...+100% u.r.							06	
-50...+110°C							07	
-60...+600°C							08	
-50...+150°C							09	
-60...+200°C							10	
range on request (*)							99	
POWER SUPPLY								
230 Vca ±10% 50/60 Hz								1
12 Vca ±10% 50/60 Hz								2
OUTPUT								
2.0-10 V								

(*) specify on order
 (1) compulsory ranges
 (**) the choice of the setting range is only permitted for models with voltage inputs (VDC) or current (mA)



DIGITAL CONTROLLERS WITH 1 OUTPUT 0...10 V AND 1 RELAY OUTPUT

Regulation of 1 or 2 independent physical quantities with:

- 1 proportional output 0...10 V DC;
- 1 relay output;
- 1 output for power supply of active transducer (17 V DC, Max. 44 mA)
- 3 digit display;
- red led, output state indicator;
- push buttons for parameters setting;
- optical alarms;
- password and two access levels.



DB-R/3

Technical data DB-R/3

Outputs	1 proportional 0...10 V DC ($R_L > 10 \text{ k}\Omega$) / 1 SPDT relay 8 A 230 V AC
Power consumption	< 3 W
Ambient temperature	0...45 °C
Ambient humidity	10...90 % RH (non-condensing)
Storage temperature	-20...+70 °C
Storage humidity	< 95 % RH
Connection	Screw terminal block for cables up to 2.5 mm ²
Casing	ABS fireproof plastic according to UL94 V-0
Weight	400 g
Dimensions	96 x 48 x 122 mm - mounting hole: 92 x 45 mm
Protection class	IP52 (front)
Isolation class	II

DB-R/3

Part number selection	Input 1		Input 2				1
DB-R	X	X	XX	X	X	XX	X
INPUT 1							
NTC10-02	1	1	07 ⁽¹⁾				
0...10 Vcc (**)	7						
4...20 mA (**) (Rin = 100 Ohm)	9						
UNIT 1							
°C		1					
% u.r.		2					
bar		3					
mbar		4					
Pa		5					
m/s		6					
ppm		7					
without unit							
RANGE 1							
0...+50°C			01				
-30...+50°C			02				
-10...+40°C			03				
0...+100°C			04				
-20...+80°C			05				
0...+100% u.r.			06				
-50...+110°C			07				
-60...+600°C			08				
-50...+150°C			09				
-60...+200°C			10				
range on request (*)			99				
INPUT 2							
None				0	0	00	
NTC10-02				1	1	07 ⁽¹⁾	
PT1000				2	1	08 ⁽¹⁾	
PTC 2K				3	1	09 ⁽¹⁾	
NI1000-02				4	1	10 ⁽¹⁾	
0...1000 Ohm				5	2	06 ⁽¹⁾	
0...1 Vcc (**)				6			
0...10 Vcc (***)				7			
0...20 mA (**)				8			
4...20 mA (**)				9			
UNIT 2							
None					0		
°C					1		
% u.r.					2		
bar					3		
mbar					4		
Pa					5		
m/s					6		
ppm					7		
without unit							
RANGE 2							
None						00	
0...+50°C						01	
-30...+50°C						02	
-10...+40°C						03	
0...+100°C						04	
-20...+80°C						05	
0...+100% u.r.						06	
-50...+110°C						07	
-60...+600°C						08	
-50...+150°C						09	
-60...+200°C						10	
range on request (*)						99	
POWER SUPPLY							
230 Vca ±10% 50/60 Hz							1
12 Vca ±10% 50/60 Hz							2
OUTPUT							
1 0-10 V e 1 relè SPDT 230 Vca 8 A							