

DIFFERENTIAL CONTROLLERS

- UP TO 3 INPUTS AND 4 OUTPUTS
- RS485 OR TTL SERIAL COMMUNICATION



FEATURES

DISPLAY	K31D	Y39D
Single	4 red digit, h 12 mm + 3 LEDs bargraph	3 red or blue digit, h 15.5 mm
INPUTS		
Two	2x Thermistors PTC KTY 81-121 (990Ω at 25°C): -55... +150°C/-67... +302 °F or 2x Thermistors NTC 103AT-2 (10kΩ at 25°C): -50... +110°C/-58... +230°F 2x Pt1000 (1000Ω @ 0°C): -50... +350°C/-58.0... +662°F	2x Thermistors PTC KTY 81-121 (990Ω at 25°C): -50... +150°C/-58... +302 °F or 2x Thermistors NTC 103AT-2 (10kΩ at 25°C): -50... +109°C/-58... +228 °F or 2x Thermoresistances Pt1000 (1000Ω at 0°C): -99.9... +500°C/-148... +932°F
Digital inputs	2 digital inputs for free voltage contacts	1 digital input for free voltage contacts as alternative to inputs Pr3
Accuracy	± 0.5 % fs + 1 digit; tc S ± 1% fs + 1 digit	± 0.5 % fs + 1 digit
OUTPUTS		
Up to 4 (K31D) or Up to 3 (Y39D)	OUT1 and OUT2: Relay SPDT (8A-AC1, 3A-AC3/250 Vac) or 12V ± 20% 20 mA max. for SSR driving OUT3 and OUT4: Relay SPST-NO (5A-AC1, 3A-AC3/250 Vac) or 12V ± 20% 20 mA max. for SSR driving	OUT1: Relay SPST-NO (16A-AC1, 6AAC3 250 Vac, 1 HP 250 Vac, 1/2 HP 125 Vac) OUT2: Relay SPDT (8A-AC1, 3A-AC3 250 Vac, 1/2 HP 250 Vac, 1/3 HP 125 Vac) OUT3: Relay SPST-NO (5A-AC1, 2A-AC3 250 Vac, 1/8 HP 250-125 Vac). 16 A max. for common relay (term. 1), 12 A max for plug-in version
FUNCTIONAL		
Control	ON/OFF, Neutral zone, PID single and dual action, programmable	ON/OFF
Real Time Clock	--	Internal clock to manage defrosting at programmed times
Serial communication	RS485 with Modbus RTU protocol	TTL ModBus
Baud rate	1200... 38400 baud, programmable	--
GENERAL		
Power supply	12 Vac/Vdc, 24 Vac/Vdc, 100... 240 Vac/Vdc ± 10% (50/60 Hz)	
Power consumption	4 VA approx.	
Dimensions	78 x 35 mm - depth 64 mm or 75.5 mm with plug-in terminals	
Weight	150 g approx.	130 g approx.
Keyboard	Mechanical	Mechanical or "Sensitive Touch"
Connections	Screw terminal block 2.5 mm² or plu-in connector with screw terminals 2.5 mm²	
Mounting	Flush in panel in 71 x 29 mm hole	
Front protection degree	IP65, mounted in panel with gasket	
Operating / storage temperature	0... 50°C (32... 122°F) / -30... 70°C (-22... 158°F)	
Operating humidity	20... 85 RH% without condensation	
Conformity	Directive EMC 2004/108/CE (EN 61326-1), Directive BT 2006/95/CE (EN 61010-1)	

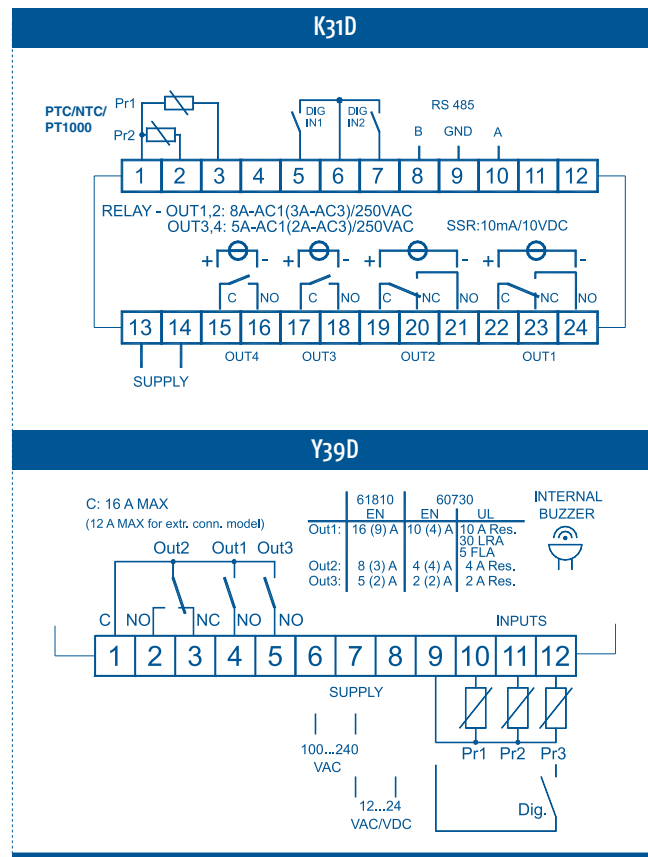
HOW TO ORDER

To compose the part number, pls. choose one of the option for each variable

K31D	CODE
POWER SUPPLY	
12 Vac/Vdc	F
24 Vac/Vdc	L
100... 240 Vac/Vdc	H
INPUT	
2 inputs for PTC/NTC/PT1000 sensors	2
OUT 1	
Relay SPDT 8A-AC1	R
Vdc for SSR driving	0
OUT 2	
Relay SPDT 8A-AC1	R
Vdc for SSR driving	0
Not available	-
OUT 3	
Relay SPST-NO 5A-AC1	R
Vdc for SSR driving	0
Not available	-
OUT 4	
Relay SPST-NO 5A-AC1	R
Vdc for SSR driving	0
Not available	-
SERIAL COMMUNICATION	
RS485	S
TTL Modbus	-

Y39	CODE
KEYBOARD	
Sensitive Touch (*)	SD
Mechanical	D
POWER SUPPLY	
12 V AC/DC	F
12... 24 V AC/DC	G
100... 240 V AC	H
OUT 1	
Relay SPST-NO-16A-AC1	R
OUT 2	
Relay SPDT 5A-AC1	R
Not available	-
OUT 3	
Relay SPDT 5A-AC1	R
Not available	-
BUZZER (INTERNAL)	
Available	B
Not available	-
CONNECTIONS	
Plug-in screw type	E
Fix screw type (standard)	-
DISPLAY	
Blue	B
Red (standard)	-
REAL TIME CLOCK	
Available	C
Not available	-

CONNECTIONS



DIMENSIONS

