

KR7/M7/IX7/RD7

- 7 SPEED SERIES
- TEMPERATURE CONTROLLERS/ PROGRAMMERS WITH CONVEYOR SPEED FEEDBACK CONTROL



FEATURES

DISPLAY	KR7	KM7	IX7	KRD7
Main display: Dual LED 3 dynamic colours: red, green and amber or 1 fix colour (programmable)	4 digit h 10.9 mm	4 digit h 15.5 mm	4 digit h 15.5 mm	--
Secondary display:	4 green digit h 6 mm	4 green digit h 7.6 mm	4 green digit h 10 mm	--
Bargraph	--	--	21 segments Bargraph	--
INPUTS				
Universal (in 2 different configurations)	Thermocouples: J (-50... +1000°C/-58... 1832°F), K (-50... +1370°C/-58... 2498°F), S/R (-50... +1760°C/-58...3200°F), T (-70... +400°C/-94... 752°F) Infrared sensors: J or K Thermoresistances: 3 wires Pt 100 and 2 wires Pt 1000 (-200... 850°C/-328... 1562°F) Linear signals: 0/12... 60mV, 0/4... 20mA, 0/1... 5V, 0/2...10V			
Accuracy	Thermocouples: J (-50... +1000°C/-58... 1832°F), K (-50... +1370°C/-58... 2498°F), S/R (-50... +1760°C/-58...3200°F), T (-70... +400°C/-94... 752°F) Infrared sensors: J or K Thermistors: PTC KTY81-121 (-55... +150°C/-67... 302°F), NTC 103 AT2 (-50... +110°C/-58... 230°F) Linear signals: 0/12... 60mV, 0/4... 20mA, 0/1... 5V, 0/2...10V ± 0.5% span ±1 digit, (±1% span ±1 digit for T/C S type)			
Digital inputs	1 free voltage contact + 1 (available when I/O 4 = DI2) programmable as tension (24 Vdc) or as free voltage contact			
OUTPUTS				
1 PWM output + 3 control output	OUT PWM: with feedback control for motor speed. 24 VDC max 4 A. OUT1 and Out2: Relay SPST-NO 2 A/240 VAC ; voltage output for SSR driving SSR 13 V max. @ 1 mA, 10.5 V min. @ 15 mA ±10% or relay SPST-NO 2 A/ 240 VAC (for servomotor control) OUT3 programmable: Voltage output for SSR driving SSR 13 V max. @ 1 mA, 10.5 V min. @ 22 mA ±10% or transmitter power supply or 2nd Digital Input 12 Vdc/20 mA max.			
Auxiliary supply	12 Vdc/20 mA max.			
FUNCTIONAL				
Control	PID single or double action, On/Off, On/Off with Neutral Zone			
Alarms	3 alarms configurable as absolute, deviation, band			
PID functions	PID control with overshoot control. Autotune, Selftune and evoTune			
Multi Set point and Programmer (optional)	4 Set Points selectable + 4 speed selectable individually or as a recipe Up to 8 segments with "guaranteed soak"			
Timer (optional)	Independent with 5 operating modes			
Working hours counters	With 2 simultaneous functions: cumulative non-erasable and resettable with alarm			
Evogreen	Time based Display switch-off, selectable			
Serial communication	RS485 with ModBus-RTU (JBUS) protocol	TTL ModBus		RS485 with ModBus-RTU (JBUS) protocol
Baud rate	1200... 38400 baud, programmable	--		1200... 38400 baud, programmable
GENERAL				
Power supply	24 Vac/Vdc, 100... 240 Vac/Vdc ±10% (50/60 Hz)			
Power consumption	7 VA approx.			
Dimensions / Weight	78 x 35 mm - depth 64 mm or 78.5 mm with extractable terminals / 180 g approx.		78 x 35 mm - depth 64 mm / 180 g approx.	
Keyboard	Mechanical			
Mounting	Flush in panel in 71 x 29 mm hole			On OMEGA DIN rail
Connections	Extractable terminals (optional) or fix with screws 2 x 1 mm ²			Extractable terminals with screws 2 x 1 mm ²
Front protection degree	IP 65, mounted on 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 LT 2006/95/CE (EN 61010-1)			

HOW TO ORDER

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

KR7 / KM7 / KX7 / KRD7	CODE
VERSION	
Controller	-
Controller + Timer	T
Controller + Timer + Programmer	P
POWER SUPPLY	
24 Vac/Vdc	L
100... 240 Vac	H
INPUT	
TC, IR sensors, PT100, PT1000, mA, V, mV + DI1	C
TC, IR sensors, PTC, NTC, mA, V, mV + DI1	E
PWM OUT	
PWM output with feedback control for motor speed 24 VDC max 4 A	S
OUT 1	
Relay SPST-NO 2A for Servomotor driving	M
Relay SPST NO 2A AC1	R
Vdc x SSR	O
OUT 2	
Relay SPST-NO 2A for Servomotor driving	M
Relay SPST-NO 5A-AC1	R
Vdc x SSR	O
Not available	-
OUT 3/ DIGITAL INPUT	
Vdc x SSR/ Transmitter supply/ Digital input DI2	D
SERIAL COMMUNICATION	
RS485 + TTL Modbus (KR7 and KRD7 only)	S
TTL ModBus	-
CONNECTION	
Plug-in screw type	E
Plug-in screw type, fix part only	N
Clamp type	M
Fix screw type (standard)	-

DIMENSIONS

See KUBE series: pages 49, 53 and 59.

CONNECTIONS

KR7/ KRD7

Out Speed: 24 Vdc/ 4 A max.
Relay Out 1, 2: 2 (1) A/250 Vac: SPST NO (*)
SSR Out 1, 2: 10 Vdc/15 mA
SSR Out 3: 12 Vdc/20 mA
 * Servodrives models: both Out 1 and Out 2 are to be selected as "M" in Configuration code; Out 1: open, Out 2: close

KM7

Out Speed: 24 Vdc/ 4 A max.
Relay Out 1, 2: 2 (1) A/250 VAC (*)
SSR Out 1, 2: 10 Vdc/15 mA
SSR Out 3: 12 Vdc/20 mA
 * Servodrives models: both Out 1 and Out 2 are to be selected as "M" in Configuration code; Out 1: open, Out 2: close

KX7

Relay Out Speed: 24 Vdc/ 4A max.
Relay Out 1, 2: 2 (1) A/250 VAC (*)
SSR Out 1, 2: 10 VDC/15 mA
SSR Out 3: 12 VDC/20 mA
 * Servodrives models: both Out 1 and Out 2 are to be selected as "M" in Configuration code; Out 1: open, Out 2: close

The dimensions are expressed in mm

- INDUSTRIAL CONTROLLERS
- ADVANCED PROGRAMMER CONTROLLERS
- DIN RAIL MOUNTING CONTROLLERS
- THERMOSTATS ANALOGUE CONTROLLERS
- SPECIAL CONTROLLERS AND "CUSTOM"
- PAC SYSTEMS
- PRE-PROGRAMMED SYSTEMS
- PLC AND OPERATOR PANELS
- TIMERS COUNTERS POWER LIMITERS
- INDICATORS
- I/O MODULES
- SUPERVISION
- COMBUSTION CONTROL
- ACCESSORIES