

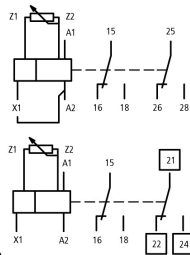


Timing relay, 2W, 0.05s-100h, multi-function, 24-240VAC/DC, potentiometer connection

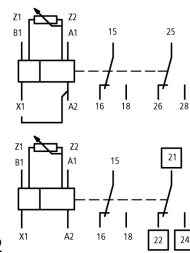
Part no. ETR4-70-A
Article no. 031888
Catalog No. XTTR6A100H70B

Delivery programme

Product range				ETR4 timing relays
Basic function				Timer relays
Function				Multi-functional On-delayed Off-delayed Fleeting contact on energization Fleeting contact on de-energization Flashing, pulse initiating On- and Off-delayed Pulse forming Pulse generating
				with connection for potentiometer Changeover contact can be converted to 2 timed contacts or 1 non-delayed contact and 1 timed contact
Number of changeover contacts				2
Time range				0.05 s - 100 h
Time range				0.05 - 1 s 0.15 - 3 s 0.5 - 10 s 1.5 - 30 s 5 - 100 s 15 - 300 s 1.5 - 30 min 15 - 300 min 1.5 - 30 h 5 - 100 h
Rated operational current				
AC-11				
300 V	I_e	A		3
AC-15				
220 V 230 V 240 V	I_e	A		3
300 V	I_e	A		3
Voltage range	U_{LN}	V		24 - 240 V AC, 50/60 Hz 24 - 240 V DC
Width		mm		22.5



Terminal marking according to EN 50042



Terminal marking according to EN 50042

Technical data

General			
Standards			Standard IEC/EN 61812 VDE 0435

Lifespan, mechanical			
AC operated	Operations	$\times 10^6$	30
DC operated	Operations	$\times 10^6$	30
Climatic proofing			
			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
		°C	
Ambient temperature, storage		°C	- 45 - + 60
Open		°C	- 25 - + 60
Enclosed		°C	- 25 - + 45
Mounting position			
			As required
Mechanical shock resistance (IEC/EN 60068-2-27)			
Half-sinusoidal shock, 20 ms		g	
Make contact		g	4
Degree of protection			
Terminals			IP20
Weight			
		kg	0.1
Terminal capacities			
		mm ²	
Solid		mm ²	1 x (0.75 - 2.5) 2 x (0.75 - 1.5)
Flexible with ferrule		mm ²	1 x (0.75 - 2.5) 2 x (0.75 - 1.5)
Solid or stranded		AWG	1 x (20 - 14)

Contacts

Rated impulse withstand voltage	U_{imp}	V AC	4000
Overvoltage category/pollution degree			III/2
Rated insulation voltage	U_i	V AC	400
Rated operational voltage	U_e	V AC	300
Safe isolation to EN 61140			
between coil and auxiliary contacts		V AC	250
between the auxiliary contacts		V AC	250
Making capacity			
AC-14 $\cos \varphi = 0.3$ 400 V		A	48
AC-15 $\cos \varphi = 0.3$ 220 V		A	50
DC-11 L/R - 40 ms		$\times I_e$	1.1
Breaking capacity			
AC-14 $\cos \varphi = 0.3$ 440 V		A	3
AC-15 $\cos \varphi = 0.3$ 220 V		A	3
DC-11 L/R - 40 ms		$\times I_e$	1.1
Rated operational current			
AC--14		I_e	A
440 V		I_e	A 3
AC-15		I_e	A
220 V 230 V 240 V		I_e	A 3
DC-11			
Note			Making and breaking conditions to DC13, time constant as stated
L/R max. 15 ms		A	
24 V		I_e	A 1.5
L/R max. 50 ms		A	1.2
Conv. thermal current			
		I_{th}	A 6
Short-circuit rating without welding			
Note			When supplied directly from mains or transformer > 1000 VA
Max. fuse, make contacts		A gG/gL	6
Max. fuse, break contacts		A gG/gL	6
Max. overcurrent protective device, 220/230 V		Type	FAZ-B4/1-HI

Magnet systems

Voltage tolerance	$\times U_c$
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Pick-up voltage		$x U_g$	
Min. pick-up voltage, AC operated		$x U_c$	0.85
Pick-up voltage AC operated, max.		$x U_c$	1.1
Pick-up voltage DC operated, min.		$x U_c$	0.7
Max. pick-up voltage, DC operated		$x U_c$	1.1
Power consumption			
Pick-up AC		VA	2
Sealing AC		VA	2
Pick-up DC		W	1.8
Sealing DC		W	1.8
Duty factor		% DF	100
Maximum operating frequency		Ops/h	4000
Minimum command time			
AC		ms	50
DC		ms	30
Repetition accuracy (deviation)		%	± 0.5
Recovery time (after 100% time delay)		ms	70
Contact changeover time	t_u	ms	4

Data for design verification according to IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	6
Heat dissipation per pole, current-dependent	P_{vid}	W	1.4
Equipment heat dissipation, current-dependent	P_{vid}	W	0
Static heat dissipation, non-current-dependent	P_{vs}	W	1.8
Heat dissipation capacity	P_{diss}	W	0
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			
10.2.3.1 Verification of thermal stability of enclosures			
10.2.3.2 Verification of resistance of insulating materials to normal heat			
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			
10.2.4 Resistance to ultra-violet (UV) radiation			
10.2.5 Lifting			
10.2.6 Mechanical impact			
10.2.7 Inscriptions			
10.3 Degree of protection of ASSEMBLIES			
10.4 Clearances and creepage distances			
10.5 Protection against electric shock			
10.6 Incorporation of switching devices and components			
10.7 Internal electrical circuits and connections			
10.8 Connections for external conductors			
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			
10.9.3 Impulse withstand voltage			
10.9.4 Testing of enclosures made of insulating material			
10.10 Temperature rise			
10.11 Short-circuit rating			
10.12 Electromagnetic compatibility			
10.13 Mechanical function			

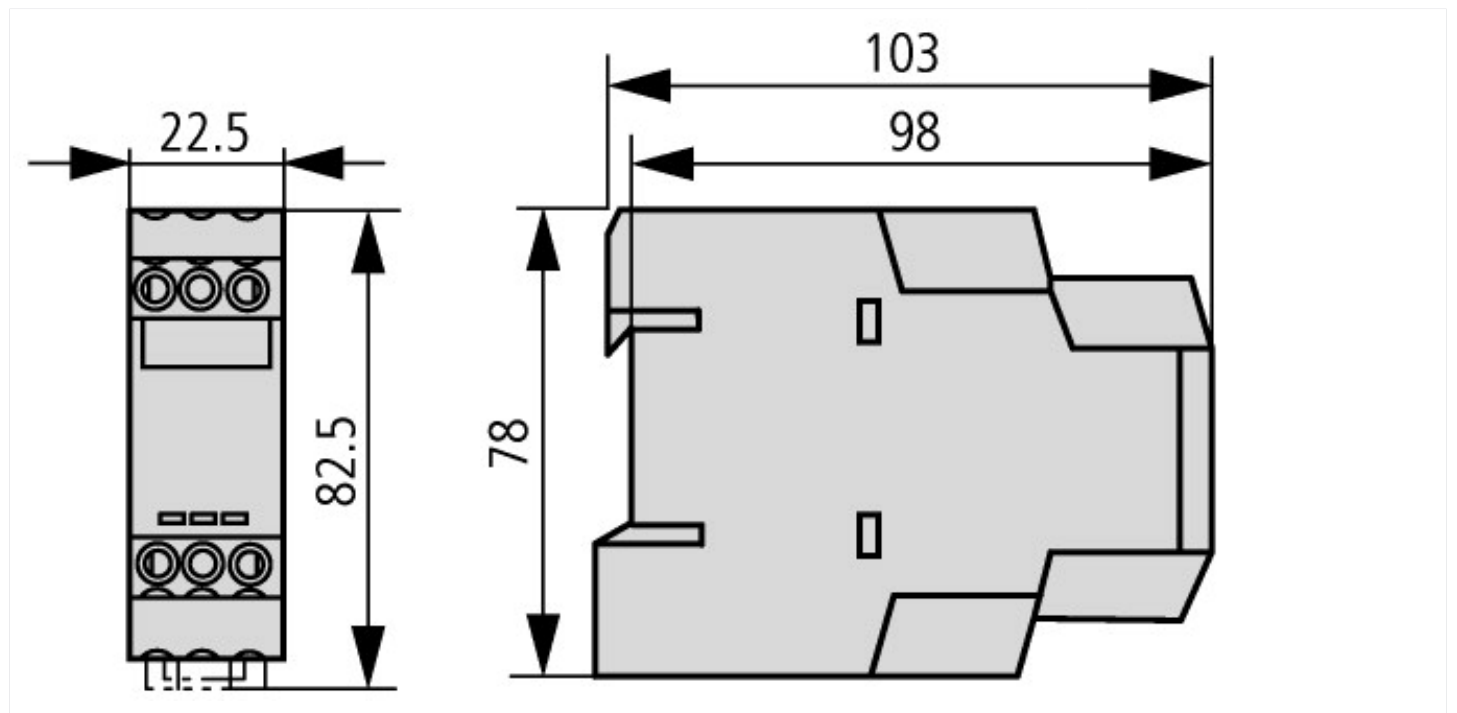
Technical data ETIM 5.0

Relays (EG000019) / Timer relay (EC001439)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Relay and socket / Timed relay (ecl@ss8-27-37-16-05 [AKF092009])		
Type of electric connection		Screw connection
Function delay-on energization		Yes
Function delay on de-energization		Yes
Function floating contact on energization		Yes
Function floating contact on de-energization		Yes
Function star-delta		No
Function pulse shaping		Yes
Function flashing, starting with pause, fixed time		Yes
Function flashing, starting with pulse, fixed time		Yes
Clock function, starting with pause, variable		Yes
Clock function, starting with pulse, variable		Yes
With plug-in socket		No
Remote operation possible		Yes
Suitable only for remote control		No
Pluggable on auxiliary contact block		No
Rated control supply voltage Us at AC 50HZ	V	24 - 240
Rated control supply voltage Us at AC 60HZ	V	24 - 240
Rated control supply voltage Us at DC	V	24 - 240
Voltage type for actuating		AC/DC
Time range	s	0.05 - 360000
Number of outputs, undelayed, normally closed contact		0
Number of outputs, undelayed, normally open contact		0
Number of outputs, undelayed, change-over contact		2
Number of outputs, delayed, normally closed contact		0
Number of outputs, delayed, normally open contact		0
Number of outputs, delayed, change-over contact		2
Outputs, reversible delayed/undelayed		Yes
With semiconductor output		No
Width	mm	23
Height	mm	83
Depth	mm	103

Approvals

Product Standards		IEC/EN 60947-...; UL 508; CSA-22.2 No. 14-05; CE marking
UL File No.		E29184
UL Category Control No.		NKCR
CSA File No.		12528
CSA Class No.		3211-03
North America Certification		UL listed, CSA certified
Degree of Protection		IEC: IP20, UL/CSA Type: -
shipping classification		GL
		 Germanischer Lloyd

Dimensions



Additional product information (links)

IL04910002Z (AWA2527-1493) Multi-function relay

IL04910002Z (AWA2527-1493) Multi-function relay ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL04910002Z2015_02.pdf