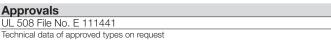


FP2 Relay

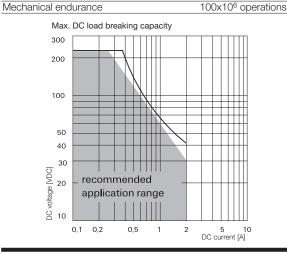
- Telecom/signal relay (dry circuit, test access, ringing)
- Slim line 14x9mm (.551x.354")
- Switching current 2A
- 2 form C bifurcated contacts (2 CO)
- High sensitivity results in low nominal power consumption, 80mW for high sensitive, 140mW for sensitive version
- High mechanical shock resistance, up to 300g functional, up to 1500g survival

Typical applications

Communications equipment, linecard application - analog, ISDN, xDSL, PABX, voice over IP, office and business equipment, measurement and control equipment, consumer electronics, set top boxes, HiFi, medical equipment



Contact Data	
Contact arrangement	2 form C (CO)
Max. switching voltage	220VDC, 250VAC
Rated current	2A
Limiting continuous current	2A
Switching power	60W, 62.5VA
Contact material	PdRu, Au covered
Contact style	twin contacts
Min. recommended contact load	100μV/1μΑ
Initial contact resistance	<50mΩ
Thermoelectric potential	<10µV
Operate time	typ. 3ms, max. 4ms
Release time,	
without diode in parallel	typ. 1ms, max. 3ms
with diode in parallel	typ. 3ms, max. 4ms
Set/reset time min.	20ms
Bounce time max.	typ. 1ms, max. 5ms
Electrical endurance	
contact application 0 (≤30mV/≤10mA)	min. 2.5x10 ⁶ operations
cable load open end	min. 2.0x10 ⁶ operations
resistive, 24V / 1.25A - 30W	min. 5x10 ⁵ operations
resistive, 30VDC / 2A - 60W	min. 5x10 ⁵ operations
resistive, 125VDC / 0.24A - 30W	min. 5x10 ⁵ operations
Contact ratings, UL contact rating	220VDC, 0.24A, 60W
	125VDC, 0.24A, 30W
	250VAC, 0.25A, 62.5VA
	125VAC, 0.5A, 62.5VA
	30VDC, 2A, 60W



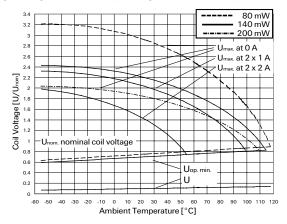




Coil Data	
Magnetic system	polarized, monostable,
	bistable 1 coil, bistable 2 coils
Coil voltage range	3 to 48VDC
Max. coil temperature	125°C.
Thermal resistance	<150K/W

Coil ver	sions, mor	nostable						
Coil	Rated	Operate	Limiting	Release	Coil	Rated coil		
code	voltage	voltage	voltage	voltage	resistance	power		
	VDC	VDC	VDC	VDC	Ω±10%	mW		
Standa	Standard version, monostable							
06	3	2.10	6.60	0.30	64	140		
04	4.5	3.15	9.90	0.45	145	140		
09	5	3.50	11.00	0.50	178	140		
05	6	4.20	13.20	0.60	257	140		
10	9	6.30	19.80	0.90	574	140		
02	12	8.40	26.40	1.20	1028	140		
12	24	16.80	44.30	2.40	2880	200		
13	48	33.60	72.30	4.80	7680	300		
High se	High sensitive version, monostable							
21	3	2.10	8.70	0.30	113	80		
22	4.5	3.15	13.10	0.45	353	80		
23	5	3.50	14.60	0.50	313	80		
24	6	4.20	17.50	0.60	450	80		
25	9	6.30	24.20	0.90	1013	80		
26	12	8.40	35.00	1.20	1800	80		
27	24	16.80	52.80	2.40	4114	140		
28	48	36.00	77.60	4.80	8882	260		

All figures are given for coil without pre-energization, at ambient temperature +23°C.



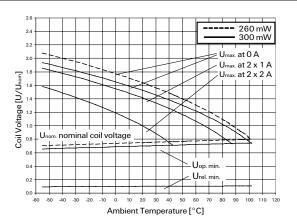


AXICOM



FP2 Relay (Continued)

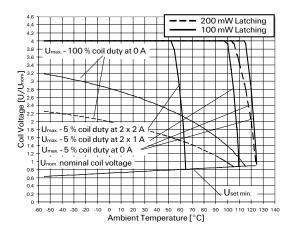
Coil Data (continued)



Coil versions, bistable

OOII VCI	310113, 5131	abic					
Coil	Rated	Set	Max. set	Reset	Coil	Rated coil	
code	voltage	voltage	voltage	voltage	resistance	power	
	VDC	VDC	VDC	VDC	Ω±10%	mW	
Standa	rd, bistable	1 coil					
41	3	2.25	7.80	-2.25	90	100	
42	4.5	3.38	11.70	-3.38	203	100	
43	5	3.75	13.00	-3.75	250	100	
44	6	4.50	15.60	-4.50	360	100	
45	9	6.75	23.50	-6.75	810	100	
46	12	9.00	31.30	-9.00	1440	100	
47	24	18.00	47.50	-18.00	3840	150	
Standard, bistable 2 coils							
61	3	2.10	5.50	-2.10	45	200	
62	4.5	3.15	8.30	-3.15	101	200	
63	5	3.20	7.20	-3.20	125	200	
64	6	4.20	11.10	-4.20	180	200	
65	9	6.30	16.80	-6.30	405	200	
66	12	8.40	28.10	-8.40	720	200	
67	24	16.80	44.30	-16.80	1920	300	

All figures are given for coil without pre-energization, at ambient temperature +23°C.



 U_{max} $\;$ upper limit of the operative range of the coil voltage (limiting voltage) when coils are continuously energized

U_{op min} lower limit of the operative range of the coil voltage (reliable operate voltage) U_{rel min} lower limit of the operative range of the coil voltage (reliable release voltage)

Insulation	
Initial dielectric strength	
between open contacts	$750V_{rms}$
between contact and coil	1000V _{rms}
between adjacent contacts	1000V _{rms}
Initial surge withstand voltage	
between open contacts	1100V
between contact and coil	1500V
between adjacent contacts	1500V
Initial insulation resistance	
between insulated elements	>10 ⁹ Ω
Capacitance	
between open contacts	max. 4pF
between contact and coil	max. 1pF
between adjacent contacts	max. 1pF
Cross talk at 100MHz/900MHz	-40.2dB/-22.3dB
Insertion loss at 100MHz/900MHz	-0.03dB/-0.25dB
Voltage standing wave ratio (VSWR)	
at 100MHz/900MHz	1.01/1.07

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content

refer	refer to the Product Compliance Support Center at			
<u>ww</u>	www.te.com/customersupport/rohssupportcente			
Ambient temperature	-40°C to +85°C			
Thermal resistance	<150K/W			
Category of environmental pro	tection			
IEC 61810	RT III - immersion cleanable			
Degree of protection, IEC 605	29 IP 67, immersion cleanable			
Vibration resistance (functiona	l) 20g, 10 to 500Hz			
Shock resistance (functional),	half sinus 11ms 50g			
Shock resistance (destructive)	, half sinus 0.5ms 1500g			
Terminal type	PCB-THT			
Weight	max. 2g			
Resistance to soldering heat	THT			
IEC 60068-2-20	265°C/10s			
Ultrasonic cleaning	not recommended			
Packaging unit	tube/50 pcs., box/1000 pcs.			



AXICOM

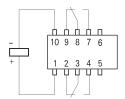


FP2 Relay (Continued)

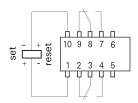
Terminal assignment

TOP view on component side of PCB

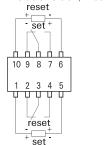
Monostable version



Bistable version, 1-coil



Bistable version, 2-coils

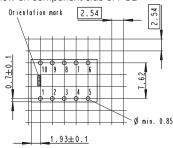


Contacts are shown in reset condition. Both coils can be used as either set or reset coils.

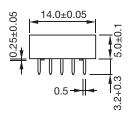
Contact position might change during transportation and must be reset before

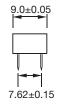
PCB layout

TOP view on component side of PCB



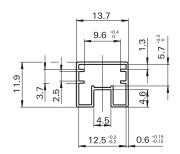
Dimensions

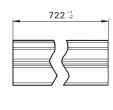




Packing

Tube for THT version 50 relays per tube, 1000 relays per box











FP2 Relay (Continued)

Product code structure Typical product code D30 02

Type

D30 Signal Relays FP2 2 form C, 2 CO

Coil

Coil code: please refer to coil versions table

Performance and coil type

0x,1x Standard version, monostable

2x High sensitive version, monostable

4x Standard version, bistable 1 coil

6x Standard version, bistable 2 coils

Product code	Arrangement	Perf. type	Coil type	Coil	Part number
D3006	2 form C (2 CO)	Standard	Monostable	3VDC	1-1462033-3
D3004				4.5VDC	1462033-9
D3009				5VDC	1-1462033-4
D3005				6VDC	1-1462033-1
D3010				9VDC	2-1462033-1
D3002				12VDC	1462033-5
D3012				24VDC	2-1462033-2
D3013				48VDC	2-1462033-6
D3021	2 form C (2 CO)	High sensitive	Monostable	3VDC	3-1462033-2
D3022	` '	9		4.5VDC	3-1462033-3
D3023				5VDC	3-1462033-4
D3024				6VDC	3-1462033-5
D3025				9VDC	3-1462033-6
D3026				12VDC	3-1462033-7
D3027				24VDC	3-1462033-8
D3028				48VDC	3-1462033-9
D3041	2 form C (2 CO)	Standard	Bistable 1 coil	3VDC	4-1462033-0
D3042	` '			4.5VDC	4-1462033-1
D3043				5VDC	4-1462033-2
D3044				6VDC	4-1462033-3
D3045				9VDC	4-1462033-4
D3046				12VDC	4-1462033-5
D3047				48VDC	4-1462033-6
D3061	2 form C (2 CO)	Standard	Bistable 2 coils	3VDC	4-1462033-7
D3062				4.5VDC	4-1462033-8
D3063				5VDC	4-1462033-9
D3064				6VDC	5-1462033-0
D3065				9VDC	5-1462033-1
D3066				12VDC	5-1462033-4
D3067				48VDC	5-1462033-6