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### Important Note

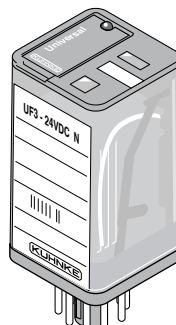
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## Relay Universal UF2/UF3

- Standard type **UL** / **UL**
- Twin contacts for high contact making reliability
- With LED and protection diode on request



## Order Code

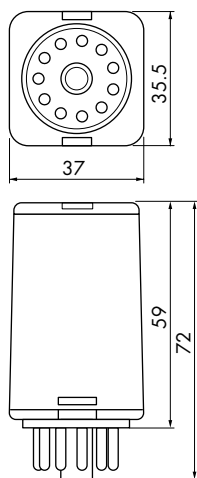
Order code	U	F	3	-	24 V	DC	N
Type of relay	U						
Model							
F Plug in type for socket, international 8-pole socket or 11 pole socket resp.		F					
Contact arrangement							
2 C/O			2				
3 C/O			3				
Contact material, type of contact							
- Single contact AgNi (no code letter)				-			
B Single contact AgNi gold-plated				B			
F Twin contacts AgNi				F			
G Twin contacts AgNi gold-plated				G			
Nominal operation coil voltage (see coil data)							
24 V					24 V		
Coil current type							
DC Direct current						DC	
AC Alternating current 50 / 60 Hz						AC	
Version							
N With position indicator, with manual override, without override lever							N
1 With position indicator, with manual override, with override lever							1
Extensions							
- None (no code letter)							-
F Protection diode (on request)							F
L Luminous indicator (on request)							L



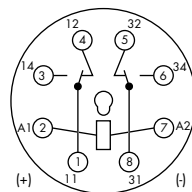
## Contact Data

	UF2 / UF3			
Contact arrangement	2 or 3 C/O			
Type of contact	Single contact		Twin contact	
Contact material	AgNi	AgNi gold-plated	AgNi	AgNi gold-plated
Nominal contact current	10 A		4 A	
Inrush current	≤ 20 A		≤ 10 A	
Nominal contact voltage	250 VAC / DC		250 VAC	
Max. switching capacity (resistive)	3000 VA		1000 VA	
Min. switching capacity	50 mA / 20 VDC	1 mA / 100 mVDC	20 mA / 10 VDC	1 mA / 100 mVDC

## Dimensions, Connection Diagram(s)

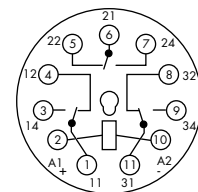


UF2 / UF3



Viewed on connector pins

UF2



Viewed on connector pins

UF3

## General Data

	UF2 / UF3		
Pull-in-time	approx. 12 ms		
Drop-out time	approx. 10 ms		
Bounce time	approx. 5 ms		
Mechanical service life	> 20 x 10 <sup>6</sup> switching cycles		
Test voltage			
Coil - contact	2500 VAC		
(C/O) - (C/O)	2500 VAC		
Contact - contact	1500 VAC		
Insulation group VDE 0110b/2.79	C250, B380		
Ambient temperature	-25 °C to +60 °C DC -25 °C to +40 °C AC		
Vibration resistance (30 - 100 Hz)	> 4 g		
Weight	approx. 90 g		
Operating range	DC Class 1 (0.8 - 1.1 U <sub>N</sub> )	AC 50 Hz Class 1 (0.8 - 1.1 U <sub>N</sub> )	AC 60 Hz Class 2 (0.85 - 1.1 U <sub>N</sub> )
Pull-in after coil excitation with U <sub>N</sub> at T <sub>U</sub>	20 °C	20 °C	20 °C
Drop-out	> 0.05 U <sub>N</sub>	> 0.15 U <sub>N</sub>	> 0.15 U <sub>N</sub>



## Coil Data

Coil voltage DC	UF2 / UF3 Nom. operation coil power approx. 1.2 W Inrush current approx. 0.6 W		Coil voltage AC	UF2/UF3 Nom. operation coil power approx. 2.2 / 2.0 VA Inrush current approx. 1.5 x Nominal current		
Nominal voltage (V)	Nominal resistance (Ω)	Nominal current (mA)	Nominal voltage (V)	Nominal resistance (Ω)	Nominal current 50 Hz (mA)	Nominal current 60 Hz (mA)
12	96	125	24	74	107	91
24	384	63	60	474	43	36
60	2400	25	115	1710	23	19
110	7660	14	230	7500	17	10
220	30630	7.2				

## Electrical Service Life

### Electrical Service Life AC

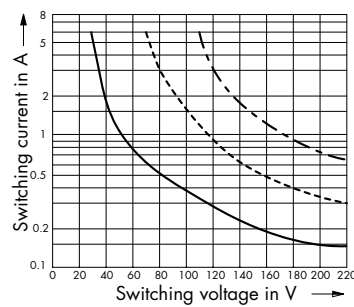
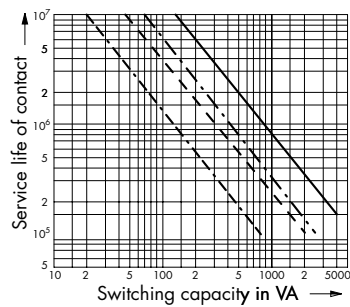
90 % operating

- resistive load Single contacts
  - · · · · inductive load Single contacts
  - - - resistive load Twin contacts
  - - - inductive load Twin contacts
- cos φ = 0.4 ... 0.7

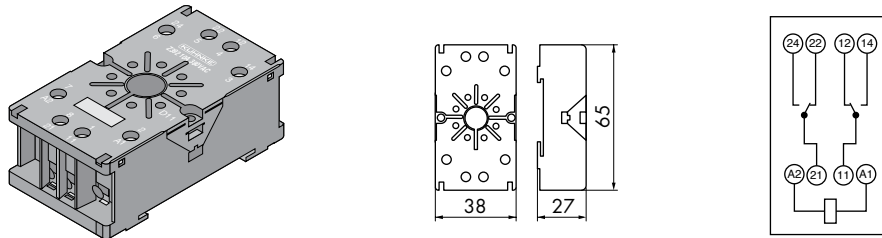
### Switching capacity DC

Below limiting characteristic: service life of contacts

- 1 x 10<sup>6</sup> switching cycles (90 % operating) resistive load
- 1 contact
- · · · · 2 contacts in series
- - - 3 contacts in series

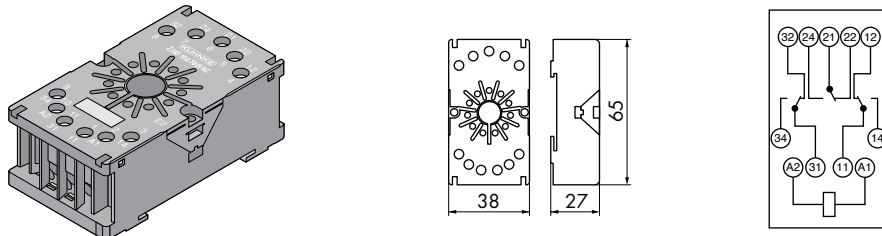


## Socket Z392



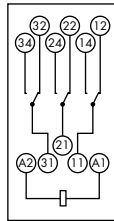
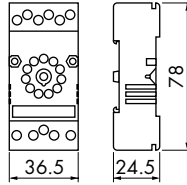
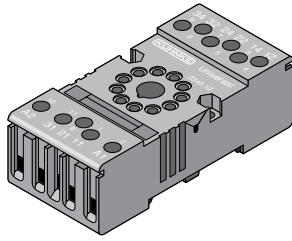
Socket	Z392
Socket design	logical, additional modules not supported
Terminal capacity	
solid conductor	2 x 2.5 mm <sup>2</sup>
flexible conductor with ferrule	2 x 2.5 mm <sup>2</sup>
Terminal designation	in accordance with EN50005 and IEC67
Mounting	Rail EN50022-35 x 7.5/15 Screw mounting 2 x M3 or central M4
Screw terminals	Head screws metric M3
Torque in accordance with DIN EN 60999	0.5 Nm
Nominal current	10 A
Insulation group VDE 0110b/2.79	C250, B380
Electrical shock protection	in accordance with VBG4 (professional association), VDE 0106 part 100
Weight	63 g
Retaining clip	Z434

## Socket Z393

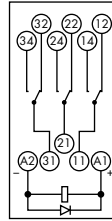


Socket	Z393
Socket design	additional modules not supported
Terminal capacity	
solid conductor	2 x 2.5 mm <sup>2</sup>
flexible conductor with ferrule	2 x 2.5 mm <sup>2</sup>
Terminal designation	in accordance with EN50005 and IEC67
Mounting	Rail EN50022-35 x 7.5/15 Screw mounting 2 x M3 or central M4
Screw terminals	Head screws metric M3
Torque in accordance with DIN EN 60999	0.5 Nm
Nominal current	10 A
Insulation group VDE 0110b/2.79	C250, B380
Electrical shock protection	in accordance with VBG4 (professional association), VDE 0106 part 100
Weight	63 g
Retaining clip	Z434

## Socket Z345

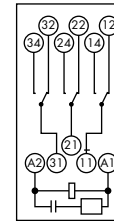


Z345



Z345.12

Protection diode up to 220 VDC

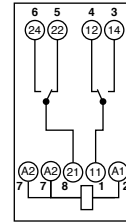
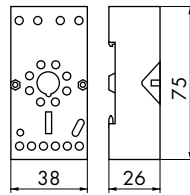
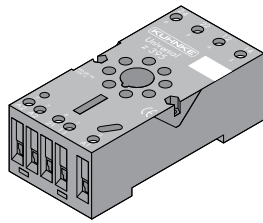


Z345.32

RC-protection unit 110 / 230 VAC

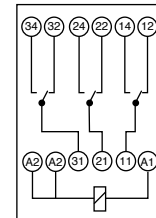
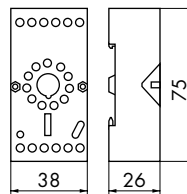
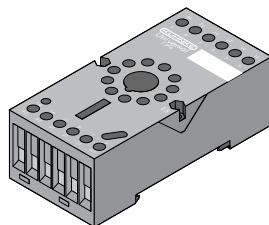
Socket	Z345
Socket design	logical, additional modules not supported
Terminal capacity	
solid conductor	2 x 2.5 mm <sup>2</sup>
flexible conductor with ferrule	2 x 2.5 mm <sup>2</sup>
Terminal designation	in accordance with EN50005 and IEC67
Mounting	Rail EN50022-35 x 7.5/15 Screw mounting 2 x M3 or central M4
Screw terminals	Head screws metric M2.6
Torque in accordance with DIN EN 60999	0.5 Nm
Nominal current	10 A
Insulation group VDE 0110b/2.79	C250, B380
Electrical shock protection	in accordance with VBG4 (professional association), VDE 0106 part 100
Weight	50 g
Retaining clip	Z441

## Socket Z395



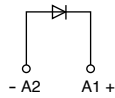
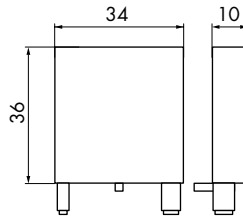
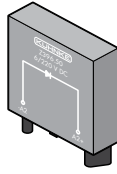
Socket	Z395
Socket design	logical, additional modules supported
Terminal capacity	
solid conductor	2 x 2.5 mm <sup>2</sup>
flexible conductor with ferrule	2 x 1.5 mm <sup>2</sup>
Terminal designation	in accordance with EN50005 and IEC67
Mounting	Rail EN50022-35 x 7.5/15 Screw mounting 2 x M3 or central M4
Screw terminals	Head screws metric M3
Torque in accordance with DIN EN 60999	0.5 Nm
Nominal current	10 A
Insulation group VDE 0110b/2.79	C250, B380
Electrical shock protection	in accordance with VBG4 (professional association), VDE 0106 part 100
Weight	68 g

## Socket Z396

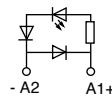


Socket	Z396
Socket design	logical, additional modules supported
Terminal capacity	
solid conductor	2 x 2.5 mm <sup>2</sup>
flexible conductor with ferrule	2 x 1.5 mm <sup>2</sup>
Terminal designation	in accordance with EN50005 and IEC67
Mounting	Rail EN50022-35 x 7.5/15 Screw mounting 2 x M3 or central M4
Screw terminals	Head screws metric M3
Torque in accordance with DIN EN 60999	0.5 Nm
Nominal current	10 A
Insulation group VDE 0110b/2.79	C250, B380
Electrical shock protection	in accordance with VBG4 (professional association), VDE 0106 part 100
Weight	68 g

## Modules for Socket Z395/Z396



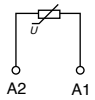
**Z396.50**  
Protection diode



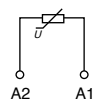
**Z396.52**  
Protection / luminous diode  
for 24 VDC



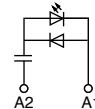
**Z396.53**  
RC-protection unit  
for 110 - 240 VAC



**Z396.54**  
Varistor for 24 VAC



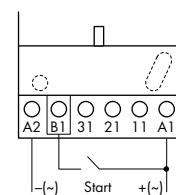
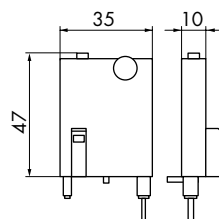
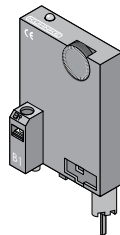
**Z396.55**  
Varistor for 230 VAC



**Z396.58**  
Luminous diode for 230 VAC

## Universal Timer Module Z396.64 for Socket Z396

- Timer module for relay universal series
- Multi voltage of 24 - 240 VDC/AC
- Multi-functional with 8 functions
- Multi time range from 50 ms - 240 h



Technical data see pages 17 - 18.



# Accessories for Relay Universal

## Contact Data

When using relay UF3 and socket Z396

3 change-over contacts (C/O)				
Contact arrangement	3 change-over contacts (C/O)			
Type of contact	Single contact		Twin contact	
Contact material	AgNi	AgNi gold-plated	AgNi	AgNi gold-plated
Nominal contact current	10 A		4 A	
Inrush current	≤ 20 A		≤ 10 A	
Nominal contact voltage	250 VAC		250 VAC	
Max. switching capacity (resistive)	3000 VA		1000 VA	
Min. switching capacity	50 mA / 20 VDC	1 mA / 100 mVDC	20 mA / 10 VDC	1 mA / 100 mVDC

## General Data

Voltage range supply	24 V to 240 VAC, 24 V to 250 VDC -15 % to +10 % in relation to $U_N$
Voltage range control contact	at 24 V min. 80 % of supply voltage at 230 V min. 95 % of supply voltage
Duty cycle	100 %
Frequency	48 Hz to 63 Hz
Power failure bridging time	max. 10 ms
Recovery time	max. 100 ms at 25 °C, max. 150 ms at 55 °C
Adjustments	Time ranges and functions selectable via DIP switch Time setting via potentiometer
Temperature range	-25 °C to +55 °C
Indicators	Green "Power on" LED Green LED flashes during delay time
Supply voltage terminal	plug-in to socket Z396
Control voltage terminal	Terminal B1

## Time Ranges

Time ranges, time range limit	Adjustment range
1 s	0.05 - 1 s
10 s	0.5 - 10 s
1 min	3 s - 60 s
10 min	30 s - 600 s
1 h	3 min - 60 min
10 h	30 min - 600 min
1 day/24 h	1.2 h - 24 h
10 day/240 h	12 h - 240 h