

PCB Accessories Industrial Power Relays RZ, RT, RP and SR2M

Sockets for PCB mount

RT78601, Socket with PCB terminals, pinning 3.5 mm

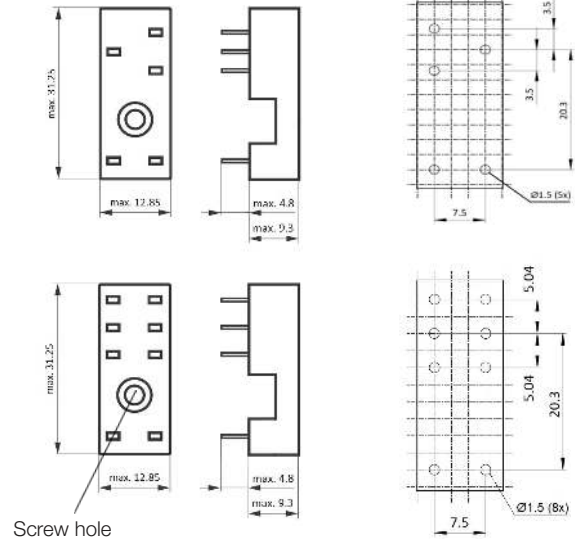


RT78602, Socket with PCB terminals, pinning 5 mm



PCB layout

Bottom view on solder pins



Screw hole

Approvals

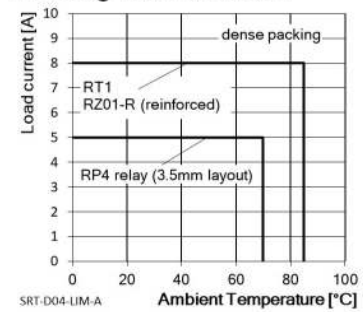
cULus E135149, VDE: 4007571 (in combination with RT), 40023970 (in combination with RZ), 40025448 (in combination with RP), 116064 (in combination with SR2M)

Technical data

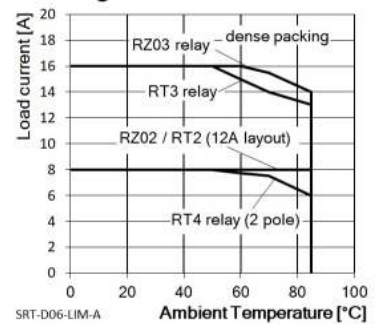
RT78601/RT78602

Rated voltage	250VAC
Rated current	see following table
Limiting continuous current	see derating curves beside

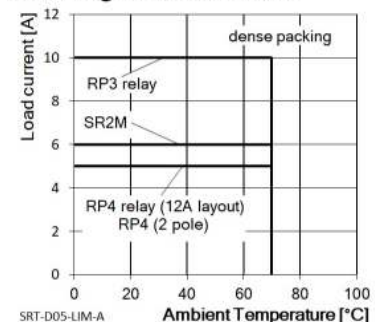
Derating curve RT78601



Derating curve RT78602



Derating curve RT78602



RATED CURRENT	1860990-1 / RT78601 Single Pinning (bottom view on solder pins)	1860991-1 / RT78602 Double Pinning (bottom view on solder pins)
	16A	
10A		<ul style="list-style-type: none"> RP 1pole version (RP3)
8A	<ul style="list-style-type: none"> RZ01-...-R (reinforced flux proof version) RT 1pole version (RT1) 	<ul style="list-style-type: none"> RZ02-...-R (reinforced flux proof version) RT 1pole version (RT2)
2 x 8A		<ul style="list-style-type: none"> RT 2pole version (RT4)
2 x 6A		<ul style="list-style-type: none"> SR2M Plug-In (P1 version)
5A	<ul style="list-style-type: none"> RP 1pole version (RP4) 	<ul style="list-style-type: none"> RP 1pole version (RP4)
2 x 5A		<ul style="list-style-type: none"> RP 2pole version (RP4)

PCB Accessories Industrial Power Relays RZ, RT, RP and SR2M (continued)

Technical data (continued)		RT78601/RT78602
Initial dielectric strength		
coil-contact circuit		4000 V _{ms}
open contact circuit		1000 V _{ms}
adjacent contact circuits		2500 V _{ms}
Clearance / creepage		
coil-contact circuit		≥ 8/8mm
coil-contact circuit without mounting screw		≥ 10/10mm
Material group of insulation parts		
		IIIa
Insulation to IEC 60664-1		
Type of insulation		
coil-contact circuit		reinforced
open contact circuit		functional
adjacent contact circuits		functional
Rated Insulation voltage		250 V
Pollution degree		2
Overvoltage category		III
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customersupport/rohssupportcenter		
Ambient temperature range		-40...+85°C (relay dependent)
Terminals		PCB
Insertion cycles		A (10)
Max. Insertion Force total		100 N
Mounting distance		≥ 0, dense packing
Resistance to soldering heat		270°C / 10 s
Weight		3 g
Packaging unit		100 pcs

1) for 1 pole relays with load current greater than 8A the relay terminals 11-21, 12-22 and 14-24 have to be bridged on the PCB

Combination of relay and socket, insulation requirements and thermal characteristics

The relay standard IEC 61810-1 has an important impact on the combination of a relay and the respective socket. The relay sockets have to comply with the requirements of IEC 61984 and the insulation requirements of the IEC 61810-1. Even if the socket alone fulfills or exceeds the insulation requirements as clearance/creepage for the relay, the combination of a relay with a socket may reduce the creepage and lead to a lower rated insulation voltage. Hence restrictions for the combination relay-socket may be the consequence, e.g. a reduction of the voltage range or of the pollution degree. Especially for miniature multi-pole relay and respective sockets with small distance between the contact circuits, these restrictions have a big impact.

Apart from the insulation properties, the thermal characteristics of the combination relay and socket are of utmost importance (see > 'Derating curves'). Especially the operations conditions like multiple heat up and cool down cycles could have significant impact on the long-term stability of the contact resistance of the combination contact tulip and terminal, and may thereby cause risk of overheating and fire hazard. It is strongly recommended that such conditions are considered in the design and usage of the device and that the devices are thoroughly tested under real conditions.

As sockets from different sources are not directly comparable, the compliance with the technical specification can only be informed for an approved combination relay-socket. As design details and characteristics for non TE products are beyond our control, confirmations for technical parameters and characteristics regarding such combinations is not possible. Risks as reduced dielectric strength, fire hazard, etc. due to use based on unclear or omitted data, limitations or restrictions must not be underestimated.

NOTE: We only confirm the characteristics and parameters for the approved combinations of relays and sockets as indicated in the catalog and datasheets.

Sockets with PCB terminals		
Type		Part Number
RT78601	Socket with PCB terminals, pinning 3.5 mm	1860990-1
RT78602	Socket with PCB terminals, pinning 5 mm	1860991-1

Accessories for RT78601, RT78602		
Type		Part Number
RT16C01	Plastic retaining clip, relay height 15.7 mm	1860995-1
RT28516	Metal retaining clip RT, relay height 15.7 mm	1419108-7
RP16C01	Plastic retaining clip, relay height 25.5 mm	1860996-1
RP28500	Metal retaining clip, relay height 25.5 mm	1-1393161-9

Recommended mounting screw: M3 cylinder-head screw with internal hexagon according DIN 912