

## R7-A2x

8-pin, **miniature standard relay**, 2-pole, plug-in

Relay approval: EN 60077-1-2/99 - EN 61373/99 **for Railway application**

|             |                                                                                           |  |  |
|-------------|-------------------------------------------------------------------------------------------|--|--|
| <b>Type</b> | <b>R7-A2x/DC ... V</b><br><b>Railway application</b><br>Sensitive, 2 change-over contacts |  |  |
|-------------|-------------------------------------------------------------------------------------------|--|--|

|                                         |                                                       |                    |
|-----------------------------------------|-------------------------------------------------------|--------------------|
| <b>Maximum contact load:</b>            | <b>10 A/250 V AC1</b>                                 | <b>10A/30V DC1</b> |
| <b>Recommended minimum contact load</b> | <b>10 mA/10 V Code 0, 4</b><br><b>5 mA/5 V Code 8</b> |                    |

### Contacts

|                                |            |        |                |
|--------------------------------|------------|--------|----------------|
| Material                       | Standard   | Code 0 | AgNi           |
|                                | Optional   | Code 4 | AgNi + 0,2µ Au |
|                                | Optional   | Code 8 | AgNi + 10µ Au  |
| Rated current                  | 10 A       |        |                |
| Switch-on current max. (20 ms) | 30 A       |        |                |
| Switching voltage max.         | 250 V      |        |                |
| AC load                        | see fig. 1 |        |                |
| DC load                        | see fig. 2 |        |                |

### Coil

|                 |                                            |
|-----------------|--------------------------------------------|
| Coil resistance | see table; tolerance ± 10 %                |
| Pick-up voltage | 0,7 U <sub>N</sub> ... 1,25 U <sub>N</sub> |
| Release voltage | ≥ 0,1 x U <sub>N</sub>                     |
| Nominal power   | 1,07 W                                     |

### Coil table

| Voltage | Ω ± 10% | mA |
|---------|---------|----|
| 24      | 535     | 45 |
| 48      | 2004    | 24 |
| 72      | 4750    | 15 |
| 110     | 11337   | 10 |

|                                                        |                 |
|--------------------------------------------------------|-----------------|
| <b>Insulation</b>                                      | Volt rms, 1 min |
| Pollution grade                                        | PD3             |
| Pulse (1,2 / 50µs) Dielectric strenght (1Minute/V rms) |                 |
| Contact/coil                                           | 4KV / 2200V     |
| Between different poles                                | 4KV / 2200V     |
| Between contact and the same pole                      | 1550 / 850V     |

### Specifications

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| Ambient temperature operation/storage | -25 (no ice)....70 °C / -40 ... 80 °C |
| Number of mechanical operations       | >20millions                           |
| Thermic class                         | B (130° C)                            |
| Vibration : category / class          | 1 / B Body mounted                    |
| Vibration                             | 5-150Hz (3 axes)                      |
| Shock                                 | 5g (3 axes)                           |
| Operation (UN) / release time         | 10 ms/ 15 ms                          |
| Weight                                | 35 g                                  |
| Weight avg. Relay + Socket (S7-M)     | 75g                                   |
| Protection class                      | IP40                                  |

### Standard types

|                                  |                          |                          |                          |
|----------------------------------|--------------------------|--------------------------|--------------------------|
| <b>VDC 24, 48, 72, 110</b>       | <b>R7-A20/DC ... V</b>   | <b>R7-A24/DC ... V</b>   | <b>R7-A28/DC ... V</b>   |
| <b>LED</b>                       | <b>R7-A20X/DC ... V</b>  | <b>R7-A24X/DC ... V</b>  | <b>R7-A28X/DC ... V</b>  |
| <b>Free wheeling diode</b>       | <b>R7-A20D/DC ... V</b>  | <b>R7-A24D/DC ... V</b>  | <b>R7-A28D/DC ... V</b>  |
| <b>LED + free wheeling diode</b> | <b>R7-A20DX/DC ... V</b> | <b>R7-A24DX/DC ... V</b> | <b>R7-A28DX/DC ... V</b> |

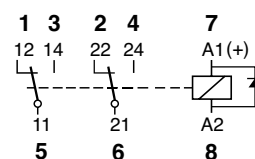
"..." Enter the voltage for full type designation

### Accessories

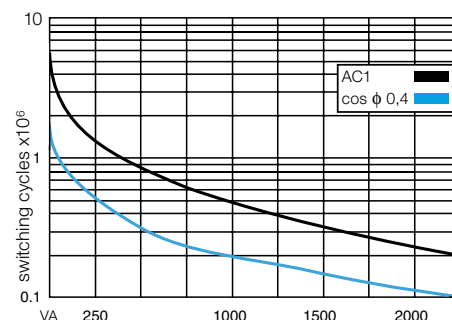
Socket: **S7-M, S7-I/O, S7-L, S7-P, S7-P0**



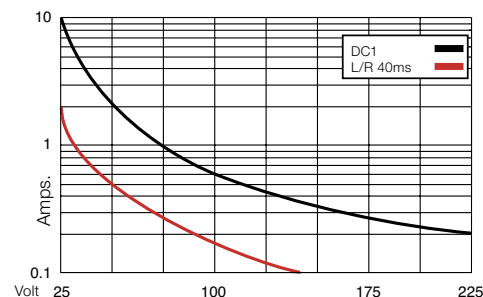
### Connection diagram



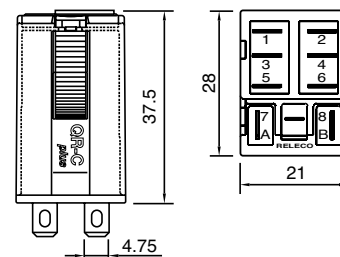
**Fig. 1 AC voltage endurance**



**Fig. 2 DC load limit curve**



### Dimensions [mm]



### Technical approvals, conformities



EN 60077-1-2/99; EN 61373/99