

**QRC series**  
**C7-A1x**  
**8-pin, miniature relay, 1-pole, faston**

|             |                                                                 |
|-------------|-----------------------------------------------------------------|
| <b>Type</b> | <b>C7-A1x/ ... V</b><br>Standard relay<br>1 change-over contact |
|-------------|-----------------------------------------------------------------|

|                             |                       |                        |
|-----------------------------|-----------------------|------------------------|
| <b>Maximum contact load</b> | <b>16 A/250 V AC1</b> | <b>0,5 A/110 V DC1</b> |
|                             | <b>16 A/30 V DC1</b>  | <b>0,2 A/220 V DC1</b> |

|                                    |          |        |            |
|------------------------------------|----------|--------|------------|
| <b>Contacts</b>                    |          |        |            |
| Material                           | Standard | Code 0 | AgNi       |
| Rated current                      |          |        | 16 A       |
| Switch-on current max. (20 ms)     |          |        | 40 A       |
| Switching voltage max.             |          |        | 250 V      |
| AC load                            |          |        | 4 kVA      |
| DC load                            |          |        | see Fig. 2 |
| Relay compatible with socket S7-16 |          |        |            |

|                 |                                 |
|-----------------|---------------------------------|
| <b>Coil</b>     |                                 |
| Coil resistance | see table; tolerance $\pm 10\%$ |
| Pick-up voltage | $\geq 0,8 \times U_N$           |
| Release voltage | $\geq 0,1 \times U_N$           |
| Nominal power   | 1,2 VA (AC)/1,3 W (DC)          |

| <b>Coil table</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |          |          |     |          |    |    |     |    |    |     |     |    |     |    |    |     |    |     |     |      |    |     |    |     |      |     |     |     |    |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|----------|-----|----------|----|----|-----|----|----|-----|-----|----|-----|----|----|-----|----|-----|-----|------|----|-----|----|-----|------|-----|-----|-----|----|
|                   | <table border="1"> <thead> <tr> <th>VAC</th> <th><math>\Omega</math></th> <th>mA</th> <th>VDC</th> <th><math>\Omega</math></th> <th>mA</th> </tr> </thead> <tbody> <tr> <td>24</td> <td>174</td> <td>50</td> <td>12</td> <td>111</td> <td>108</td> </tr> <tr> <td>48</td> <td>686</td> <td>25</td> <td>24</td> <td>432</td> <td>55</td> </tr> <tr> <td>115</td> <td>4K3</td> <td>10,4</td> <td>48</td> <td>1K7</td> <td>28</td> </tr> <tr> <td>230</td> <td>18K6</td> <td>5,2</td> <td>110</td> <td>9K2</td> <td>12</td> </tr> </tbody> </table> | VAC  | $\Omega$ | mA       | VDC | $\Omega$ | mA | 24 | 174 | 50 | 12 | 111 | 108 | 48 | 686 | 25 | 24 | 432 | 55 | 115 | 4K3 | 10,4 | 48 | 1K7 | 28 | 230 | 18K6 | 5,2 | 110 | 9K2 | 12 |
| VAC               | $\Omega$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | mA   | VDC      | $\Omega$ | mA  |          |    |    |     |    |    |     |     |    |     |    |    |     |    |     |     |      |    |     |    |     |      |     |     |     |    |
| 24                | 174                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 50   | 12       | 111      | 108 |          |    |    |     |    |    |     |     |    |     |    |    |     |    |     |     |      |    |     |    |     |      |     |     |     |    |
| 48                | 686                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 25   | 24       | 432      | 55  |          |    |    |     |    |    |     |     |    |     |    |    |     |    |     |     |      |    |     |    |     |      |     |     |     |    |
| 115               | 4K3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 10,4 | 48       | 1K7      | 28  |          |    |    |     |    |    |     |     |    |     |    |    |     |    |     |     |      |    |     |    |     |      |     |     |     |    |
| 230               | 18K6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5,2  | 110      | 9K2      | 12  |          |    |    |     |    |    |     |     |    |     |    |    |     |    |     |     |      |    |     |    |     |      |     |     |     |    |

|                                |                          |
|--------------------------------|--------------------------|
| <b>Insulation</b>              | Volt rms, 1 min          |
| Contact open                   | 1000 V                   |
| Contact/contact                | 2,5 kV                   |
| Contact/coil                   | 2,5 kV                   |
| Insulation resistance at 500 V | $\geq 1 \text{ G}\Omega$ |
| Insulation, IEC 61810-5        | 2,5 kV/3                 |

|                                       |                                            |
|---------------------------------------|--------------------------------------------|
| <b>Specifications</b>                 |                                            |
| Ambient temperature operation/storage | -40 (no ice)...60 °C / -40 ... 80 °C       |
| Pick-up time/bounce time              | 16 ms/ $\leq 3$ ms                         |
| Release time/bounce time              | 8 ms/ $\leq 1$ ms                          |
| Mechanical life                       | AC: 10 Mill./DC: 20 Mill. switching cycles |
| AC voltage endurance at rated load    | $\geq 100000$ switching cycles             |
| Switching frequency at rated load     | $\leq 1200$ /h                             |
| Protection class                      | IP40                                       |
| Weight                                | 43 g                                       |

**Standard types**  
**AC 50 Hz/60 Hz: 24, 48, 115, (120), 230, (240)**  
**LED**

**C7-A10/AC ... V**  
**C7-A10X/AC ... V**

**DC 24, 48, 110**  
**LED**

**C7-A10/DC ... V**  
**C7-A10X/DC ... V**

**Free wheeling diode**  
**Polarity and free wheeling diode**

**C7-A10DX/DC ... V**  
**C7-A10FX/DC ... V**

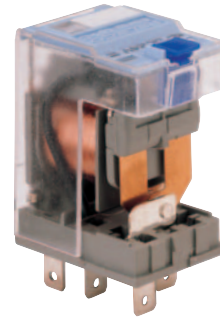
**AC/DC bridge rectifier 24 V, 48 V, 60 V**

**C7-A10BX/UC ... V**

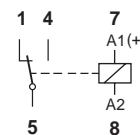
"..." Enter the voltage for full type designation

**Accessories**

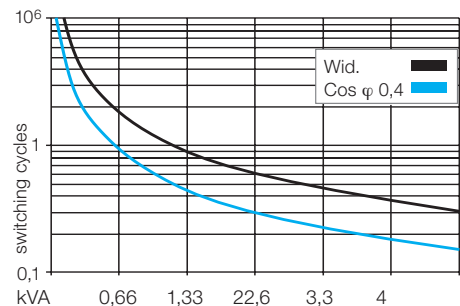
Socket: **S7-16**



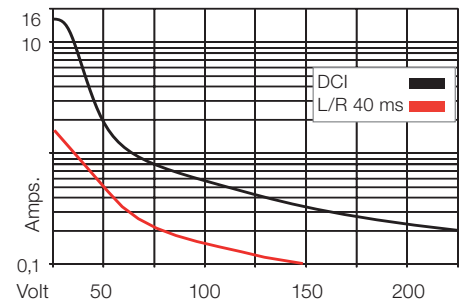
**Connection diagram**



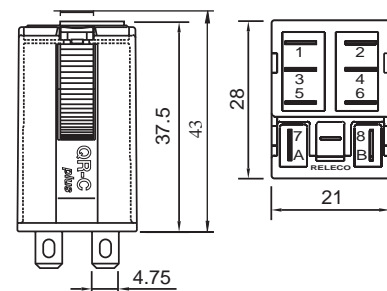
**Fig. 1 AC voltage endurance**



**Fig. 2 DC load limit curve**



**Dimensions [mm]**



**Technical approvals, conformities**



IEC 61810; EN 60947



**Kühn Controls AG**

**Notes:**

You want more information about this product, please call us: tel: +49 (0)7082-940000 or send us a fax: +49 (0)7082-940001, or email: [sales@kuehn-controls.de](mailto:sales@kuehn-controls.de) or visit our Website: [www.kuehn-controls.de](http://www.kuehn-controls.de)