

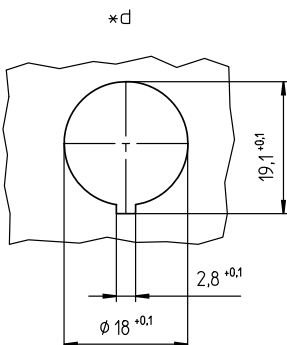
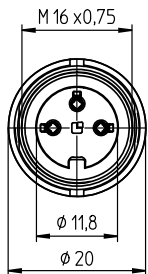
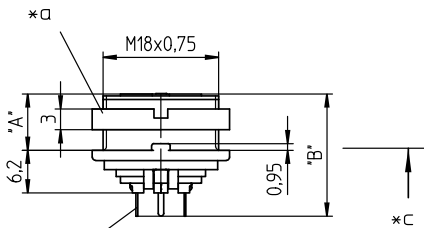
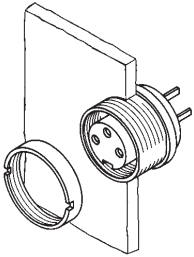
03 KGR

Circular connectors with threaded joint M16 acc. to IEC 61076-2-106, IP40/IP68



Chassis socket acc. to IEC 61076-2-106, IP40, with threaded joint, for printed circuit boards, for back side mounting

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**Environmental conditions**

Temperature range -40 °C/+85 °C

**Materials**

Insulating body PA GF, V-0 according to UL94  
 Contact bush CuZn, silver-plated and flash gold-plated, tin-plated in solder area (3-8 poles)  
 CuZn, pre-nickel and gold-plated, tin-plated in solder area (12 poles)  
 Housing Zn diecast, pre-copper and nickel-plated  
 Ring screw CuZn, nickel-plated

**Mechanical data**

Insertion force/contact  $\leq 5.0 \text{ N}^1$   
 Withdrawal force/contact  $\geq 1.2 \text{ N}$  (3-8 poles)  
 $\geq 0.9 \text{ N}$  (12 poles)<sup>1</sup>  
 Tightening torque connector 1-3 Nm  
 Tightening torque nut 1-3 Nm  
 Protection class IP40<sup>2</sup>

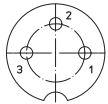
<sup>1</sup> measured with a polished steel pin, nominal thickness 1.5 mm (1.0 mm with 12 poles)  
<sup>2</sup> according to IEC DIN EN 60529, only in locked condition with an appropriate counterpart

**Electrical data (at T<sub>amb</sub> 20 °C)**

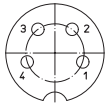
Contact resistance  $\leq 5 \text{ m}\Omega$   
 Rated current 5 A (T<sub>amb</sub> 40 °C, 3-8 poles)  
 3 A (T<sub>amb</sub> 40 °C, 12 poles)  
 Rated voltage with pollution degree 1:  
 300 V (versions 30, 40, 50/6, 60, 70)  
 100 V (versions 50, 71, 80, 81)  
 160 V (Polbild 120)  
 with pollution degree 2:  
 250 V (versions 30, 40)  
 32 V (versions 50, 71, 80, 81)  
 160 V (versions 50/6, 60, 70, 120)  
 Rated impulse voltage 1500 V (versions 30, 40, 50/6, 60, 70, 120)  
 500 V (versions 50, 71, 80, 81)  
 Material group II (IEC)/I (UL) (400  $\leq$  CTI < 600)  
 Overvoltage category I  
 Insulation resistance > 100 M $\Omega$

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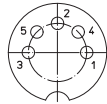
**Pin configurations, solder side view**



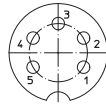
**03-a**  
**KGR 30**



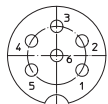
**04-a**  
**KGR 40**



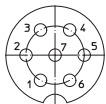
**05-b**  
**KGR 50**



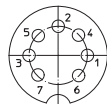
**05-a**  
**KGR 50/6**



**06-a**  
**KGR 60**



**07-a**  
**KGR 70**



**07-b**  
**KGR 71**



**KGR 80**



**08-a**  
**KGR 81**



**12-a**  
**KGR 120**

**Associated products**

**Counterparts**

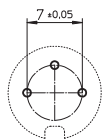
- |                            |                          |                           |
|----------------------------|--------------------------|---------------------------|
| <a href="#">SV</a>         | <a href="#">SV ... C</a> | <a href="#">SV ...-8</a>  |
| <a href="#">SV ...-8 C</a> | <a href="#">WSV</a>      | <a href="#">WSV ... C</a> |

**Accessories**

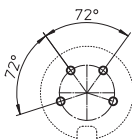
- |                      |                        |                      |
|----------------------|------------------------|----------------------|
| <a href="#">0381</a> | <a href="#">038199</a> | <a href="#">0384</a> |
| <a href="#">0385</a> | <a href="#">038799</a> |                      |

**03 KGR**

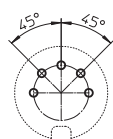
Printed circuit board layout, solder side view



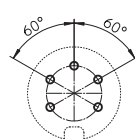
03-a  
KGR 30



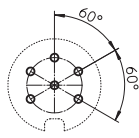
04-a  
KGR 40



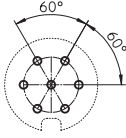
05-b  
KGR 50



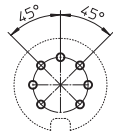
05-a  
KGR 50/6



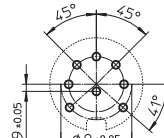
06-a  
KGR 60



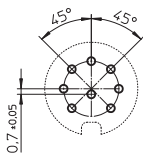
07-a  
KGR 70



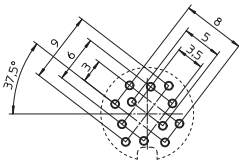
07-b  
KGR 71



KGR 80



08-a  
KGR 81



12-a  
KGR 120

- \*a nut enclosed separately
- \*b for bore hole of printed circuit board  
Ø 1.0 mm (KGR 30–81)  
Ø 0.7 mm (KGR 120)
- \*c mounting direction
- \*d 12 pole version Ø 1.0 mm
- \*e port in mounting plate

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Designation	Pole Number	PU (Pieces)	MDQ (Pieces)	Dimensions	
				A (mm)	B (mm)
KGR 30	3	50	100	8.2	17.8
KGR 40	4	50	100	8.2	17.8
KGR 50	5	50	100	8.2	17.8
KGR 50/6	5	50	100	8.2	17.8
KGR 60	6	50	100	8.2	17.8
KGR 70	7	50	100	8.2	17.8
KGR 71	7	50	100	8.2	17.8
KGR 80	8	50	100	8.2	17.8
KGR 81	8	50	100	8.2	17.8
KGR 120	12	50	100	7.9	17.1

**Packaging:**  
in a cardboard box