

M23 • RC Series Cable Glands / Shield Adapters IP67

The cables are fed through the cable and cable connecting housings to some extent using cable glands. These differ according to the application (shielded or unshielded).

In the case of shielded connectors, cable clamp type cages and shielded adapters are required. They can be used to configure a multitude of plug connection combinations for different cable types with cable diameters from 3.5 mm to 10.5 mm.

The shield adapter used depends on the diameter of the core bundle under braided screen **d** and is pushed immediately under the braided screen when the connector is assembled. The shield adapter serves as a connection element between the cable shield and the connector housing (inner sleeve and adapter cover).

The cable clamp type cage with the gasket guarantees sealing to IP67 protection and assumes the cable strain relief function. The specific type for each cable depends on external cable diameter **D**.

We recommend that you try out borderline types for transition points between two cable gland sizes.

Ordering example

Shielded cable connection:

A 6-core, shielded cable is to be adapted with cable connector housing RC-00000080FZ.

– External cable diameter **D** = 6.0 mm.

– Diameter of core bundle **d** = 4.7 mm.

The appropriate cable gland can be found in the category **D** = 5.5 mm to 6.5 mm and in line **d** ≈ 4.9 mm, i.e. RC-Z2438.

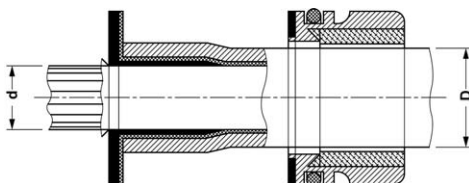


Diagram of conductor bundle diameter **d** and external cable diameter **D**



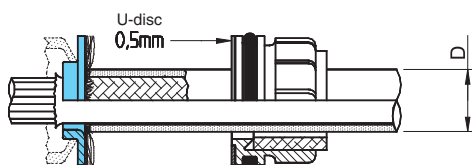
Cable clamp type cage with shield adapter

RC-Z....

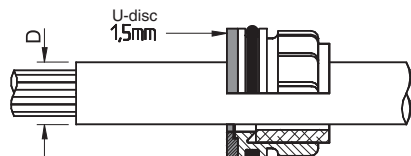
Description	Conductor bundle-Ø d [mm]	Type	Order No.	Pcs. Pkt.	
Cable clamp type cage and shield adapter					
External cable dia.	≈ 2.5	RC-Z2425	16 04 49 1	10	
D = 3.5 mm – 4.5 mm	≈ 3.2	RC-Z2426	16 04 49 5		
Cable clamp type cage and shield adapter					
External cable dia.	≈ 2.5	RC-Z2225	16 04 36 8	10	
D = 4.5 mm – 5.5 mm	≈ 3.2	RC-Z2427	16 04 49 7		
	≈ 3.6	RC-Z2428	16 07 02 1		
	≈ 3.8	RC-Z2429	16 04 50 0		
	≈ 4.1	RC-Z2430	16 04 50 3		
	≈ 4.3	RC-Z2431	16 04 50 5		
	≈ 4.6	RC-Z2432	16 04 50 6		
Cable clamp type cage and shield adapter					
External cable dia.	≈ 3.2	RC-Z2433	16 07 02 2	10	
D = 5.5 mm – 6.5 mm	≈ 3.6	RC-Z2434	16 04 50 9		
	≈ 3.8	RC-Z2435	16 04 51 1		
	≈ 4.1	RC-Z2222	16 04 36 4		
	≈ 4.3	RC-Z2436	16 04 51 3		
	≈ 4.6	RC-Z2437	16 04 51 6		
	≈ 4.9	RC-Z2438	16 04 51 7		
	≈ 5.2	RC-Z2439	16 04 51 9		
	≈ 5.5	RC-Z2440	16 04 52 0		
	≈ 5.8	RC-Z2441	16 04 52 2		
Cable clamp type cage and shield adapter					
External cable dia.	≈ 3.6	RC-Z2442	16 04 52 4	10	
D = 6.5 mm – 7.5 mm	≈ 3.8	RC-Z2443	16 04 52 6		
	≈ 4.1	RC-Z2227	16 04 37 0		
	≈ 4.3	RC-Z2403	16 04 47 2		
	≈ 4.6	RC-Z2228	16 04 37 3		
	≈ 4.9	RC-Z2395	16 04 45 8		
	≈ 5.2	RC-Z2392	16 04 45 2		
	≈ 5.5	RC-Z2444	16 04 52 9		
	≈ 5.8	RC-Z2445	16 04 53 2		
	≈ 6.2	RC-Z2396	16 04 46 0		
	≈ 6.6	RC-Z2446	16 04 53 4		
Cable clamp type cage and shield adapter					
External cable dia.	≈ 3.8	RC-Z2447	16 07 02 3		10
D = 7.5 mm – 9.5 mm	≈ 4.1	RC-Z2448	16 04 53 6		
	≈ 4.3	RC-Z2449	16 07 02 4		
	≈ 4.6	RC-Z2229	16 04 37 5		
	≈ 4.9	RC-Z2391	16 04 44 9		
	≈ 5.2	RC-Z2398	16 04 46 2		
	≈ 5.5	RC-Z2450	16 04 53 9		
	≈ 5.8	RC-Z2451	16 04 54 1		
	≈ 6.2	RC-Z2221	16 04 36 2		
	≈ 6.6	RC-Z2393	16 04 45 4		
	≈ 7.0	RC-Z2394	16 04 45 6		
	≈ 7.4	RC-Z2401	16 04 46 8		
	≈ 7.7	RC-Z2402	16 04 47 0		
Cable clamp type cage and shield adapter					
External cable dia.	≈ 5.8	RC-Z2404	16 04 47 4	10	
D = 9.5 mm – 10.5 mm	≈ 6.2	RC-Z2452	16 07 02 5		
	≈ 6.6	RC-Z2453	16 04 54 5		
	≈ 7.0	RC-Z2454	16 04 54 7		
	≈ 7.4	RC-Z2455	16 04 54 9		
	≈ 7.7	RC-Z2399	16 04 46 5		

M23 • RC Series Cable Glands Shielded / Unshielded

Universal cable glands are available as alternatives to the shielded cable glands to IP67 for applications with less stringent requirements regarding shield attenuation. Irrespective of the diameter of the cable or braided core screen, shielded and unshielded cables with an external diameter from 2 to 10.5 mm can be assembled for universal use with only one cable gland. This facilitates warehousing.



Universal cable clamp type cage **with shielding function**, D = external cable diameter



Universal cable clamp type cage, cable feed-through **without shielding function**, D = external cable diameter



Universal cable clamp type cage with/without shielding function
RC-Z....

Description	Cable-Ø D [mm]	Type	Order No.	Pcs. Pkt.
Universal cable clamp type cage with shielding function				10
Cable clamp type cage, shield disc and universal gasket	2 – 10.5	RC-Z2462	16 04 55 8	
Universal cable clamp type cage, cable feed-through without shielding function				10
Cable clamp type cage and universal gasket	2 – 10.5	RC-Z2463	16 04 56 1	


Various cable glands can be supplied with Pg and metric threads for unshielded connectors. These are screwed into the adapter cover from the outside. Suitable variants are available for external cable diameters from 3 mm to 14 mm.

Ordering example Unshielded cable gland:

A 9-core, unshielded cable is to be adapted with cable connector receptacle housing RC-0000007100.

– External cable diameter D = 8 mm.

If a Pg cable gland in acc. with DIN 46 320 is to be selected, type RC-Z2091 corresponding to PG 9 for external cable diameters from 6 mm to 10 mm optimally fulfills the requirements.

 The cable entry of the cable connectors and cable connecting receptacles must correspond to the cable glands.



Cable glands with Pg/metric threads
RC-Z....

Description	Cable entry	Cable-Ø D [mm]	Type	Order No.	Pcs. Pkt.
Cable gland for unshielded applications in acc. to DIN 46 320, IP 65	Pg 9	6 – 10	RC-Z2091	16 04 24 2	20
	Pg 11	8 – 12	RC-Z2092	16 04 24 5	
	Pg 13.5	10 – 14	RC-Z2093	16 04 24 7	
	M16x1.5	3 – 10	RC-Z2406	16 07 01 5	
	M20x1.5	4 – 14	RC-Z2409	16 04 47 9	
Cable gland with double bracket cable strain relief, for unshielded applications, IP 65	Pg 9	6 – 10	RC-Z2051	16 04 21 3	20
	Pg 11	8 – 12	RC-Z2052	16 04 21 6	
	Pg 13.5	10 – 14	RC-Z2053	16 04 21 8	
	M16x1.5	3 – 10	RC-Z2407	16 07 01 6	
	M20x1.5	4 – 14	RC-Z2410	16 04 48 1	
IP 68 cable gland for unshielded applications with PVC gasket sleeve	Pg 9	6.5 – 9	RC-Z2191	16 04 33 4	20
	Pg 11	7 – 10.5	RC-Z2196	16 04 33 8	
	Pg 13.5	9 – 13	RC-Z2202	16 04 34 5	
	M16x1.5	6.5 – 9	RC-Z2414	16 07 01 8	
	M20x1.5	9 – 13	RC-Z2417	16 07 01 9	

Signal Connectors Crimping Tools

Crimping pliers RC-Z2130 and RC-Z2504 are used for rolled or machined crimp contacts.

Crimping tool RC-Z2504 with 4-arbor pressing is suitable for crimping machined contacts. As an alternative, there are crimping pliers with digital display (RC-Z2514). Detailed operating instructions are included in the packaging.



Crimping tools for
rolled / machined contacts

RC-Z2130, RC-Z2504, RC-Z2514



Contact insertion
and removal tools

RC-Z2274, RC-Z2490, RC-Z2494

Description	Type	Order No.	Pcs. Pkt.	Type	Order No.	Pcs. Pkt.
Crimping pliers for rolled RC crimp contacts Ø 1 mm connection cross section 0.08 mm ² to 0.56 mm ²	RC-Z2130	16 04 26 7	1			
Crimping pliers for machined RC crimp contacts Ø 1 mm / Ø 1.5 mm / Ø 2 mm connection cross section 0.14 mm ² to 2.5 mm ²	RC-Z2504	16 13 82 2	1			
Crimping pliers with digital display for machined RC crimp contacts Ø 1 mm / Ø 1.5 mm / Ø 2 mm connection cross section 0.14 mm ² to 2.5 mm ²	RC-Z2514	16 14 59 0	1			
Contact insert and removal tool for RC crimp contacts male / female Ø 1 mm				RC-Z2494	16 14 12 3	1
Contact insert and removal tool for RC crimp contacts male / female Ø 1.5 mm				RC-Z2274	16 04 40 9	1
Contact insert and removal tool for RC crimp contacts male / female Ø 2 mm				RC-Z2490	16 11 80 3	1

Signal Connectors Accessories

A range of protective caps is available to protect the contact elements in the case of a separate connection.

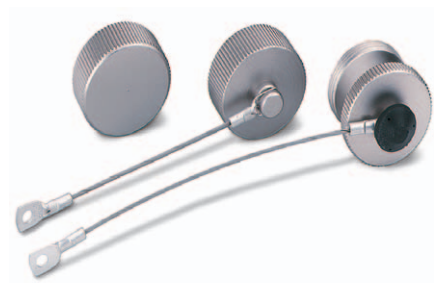
This prevents the ingress of dust and moisture.

The steel wire is fixed to the housing panel and prevents the protective cap from being lost.



Plastic protection cap

RC-Z....., TU-Z....



Metal protection cap

RC-Z....., TU-Z....

Description	Degree of protection in locked state	Type	Order No.	Pcs. Pkt.	Type	Order No.	Pcs. Pkt.
Plastic dust protection cap for signal connectors with M23 knurled nut	IP40	RC-Z2058	16 04 22 3	25			
Antistatic plastic dust protection cap (black) for signal connectors with M23 knurled nut	IP40	RC-Z2468	16 11 79 6	25			
Plastic dust protection cap for signal connectors with M23 external thread	IP40	RC-Z2059	16 04 22 5	25			
Plastic dust protection cap for bayonet cable connectors TU series	IP40	TU-Z2003	16 06 02 3	25			
Plastic dust protection cap for bayonet cable connecting receptacles and panel mounting connectors TU series	IP40	TU-Z2002	16 07 77 8	25			
Metal dust protection cap with steel wire for signal connectors with M23 knurled nut	IP67				RC-Z2062	16 04 22 8	10
Metal dust protection cap for signal connectors with M23 external thread	IP67				RC-Z2104	16 04 26 0	10
Metal dust protection cap with steel wire for signal connectors with M23 external thread	IP67				RC-Z2068	16 04 23 6	10
Metal dust protection cap with steel wire for bayonet cable connecting receptacles and panel mounting connectors TU series	IP 67				TU-Z2317	16 06 02 5	10

Signal Connectors Tools/Accessories

The pipe spanner is used together with a wrench to screw the internal sleeve to the adapter cap.



Pipe spanner for cable connectors and cable connecting receptacles

RC-Z2096, RC-Z2099

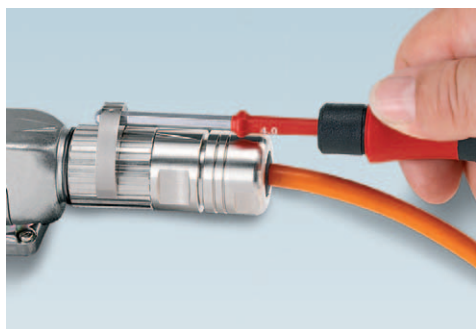


Removal tool for latching rings in panel mounting connectors

RC-Z....., RC-E....

Description	Type	Order No.	Pcs. Pkt.	Type	Order No.	Pcs. Pkt.
Special pipe spanner for cable connectors for cable connecting receptacles	RC-Z2099 RC-Z2096	16 04 25 5 16 04 24 9	10			
Removal tool for latching rings in panel mounting connectors				RC-Z2290	16 04 41 7	1
Replacement latching ring, plastic for panel mounting connectors				RC-Z2382	16 04 44 2	10
Spacer sleeve for cable connectors and cable connecting receptacles used with 19-pos. (16+2+PE) crimp contact insert				RC-E0146	16 03 96 1	50

M23 Connectors Accessories



Torque screwdriver for M23 connectors with knurled nut

SF-Z0028



Replacement sickle spanner for torque screwdrivers

SF-Z0027

Description	Type	Order No.	Pcs. Pkt.	Type	Order No.	Pcs. Pkt.
Torque screwdriver incl. sickle spanner for M23 connectors with knurled nut	SF-Z0028	16 07 45 6	1			
Replacement sickle spanner for torque screwdrivers				SF-Z0027	16 07 45 5	1

This tool is specially adapted to the Coninvers M23 circular connectors and makes it easier to securely screw in and release the knurled nut even in confined situations.

The tool consists of a sickle spanner and a torque screwdriver with a permanently set torque of 2.5 Nm.

M23 • UC Series Cable Gaskets

Permanent sealing rings are also available for the cable connectors and cable connecting receptacle housings in the M23 UC series in addition to the universal notched sealing rings which are included in the scope of supply. These can be obtained to suit the given cable diameter.

Housings with an additional thread can be equipped with a second cable strain relief for increased loads.



Notched sealing rings,
permanent sealing rings

UC-Z....



Double bracket strain relief for
housings with an additional thread

UC-Z....., RC-Z....

Description	Cable dia. [mm]	Type	Order No.	Pcs. Pkt.	Type	Order No.	Pcs. Pkt.
Notched sealing rings	2-14,5	UC-Z2351	16 06 84 6	20			
Permanent sealing rings	7,0-8,5 8,0-9,5 9,5-11,5 11,5-13,5 13,5-14,5	UC-Z2343 UC-Z2344 UC-Z2346 UC-Z2348 UC-Z2349	16 12 99 3 16 06 83 7 16 06 83 9 16 06 84 1 16 06 84 3	20			
Double bracket strain relief	Cable entry Pg 13.5 Pg 16				RC-Z2036 UC-Z2039	16 04 20 6 16 06 83 4	20