

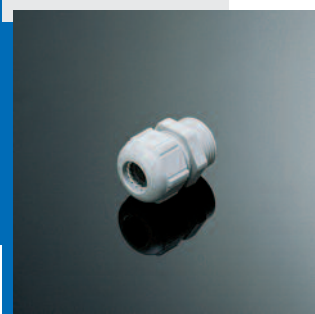


# CABLE GLANDS

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## Cable glands of the COMPLEX-SN series with integrated anchorage

Material: polyamide 6.6  
 Temperature resistance: -30°C to +100°C  
 Sealing ring: neoprene, protection type: IP 68 - 5 bar  
 VDE - test mark, UL and CSA test mark  
 RAL 7035 = light grey; RAL 7001 = silver grey; RAL 9005 = black



### COMPLEX-SN – Metric thread

AG	Clamp range	GL	H	SW	Pack/pcs.	RAL 7035 Art. No.	RAL 7001 Art. No.	RAL 9005 Art. No.
M								
12x1,5	3 - 6,5	8	31	15	100	16.500	16.508	16.516
16x1,5	4,5 - 10	8	35,5	20	100	16.501	16.509	16.517
20x1,5	6 - 12	8	36	24	100	16.502	16.510	16.518
20x1,5	10 - 14	8	40,5	27	100	16.502.1	16.510.1	16.518.1
25x1,5	9 - 17	8	43	29	100	16.503	16.511	16.519
32x1,5	11 - 21	10	50	36	25	16.504	16.512	16.520
40x1,5	19 - 28	10	51	46	10	16.505	16.513	16.521
50x1,5	27 - 35	12	61,5	55	10	16.506	16.514	16.522
63x1,5	24 - 45	12	65,5	68	5	16.507	16.515	16.523

### COMPLEX-SN – PG - thread

AG	Clamp range	GL	H	SW	Pack/pcs.	RAL 7035 Art. No.	RAL 7001 Art. No.	RAL 9005 Art. No.
PG								
7	3 - 6,5	8	30,5	15	100	16.200	16.430	16.210
9	4 - 8	8	34	19	100	16.201	16.431	16.211
11	5 - 10	8	37	22	100	16.202	16.432	16.212
13,5	6 - 12	9	39	24	100	16.203	16.433	16.213
16	10 - 14	10	42,5	27	50	16.204	16.434	16.214
21	13 - 18	11	47,5	33	50	16.205	16.435	16.215
29	18 - 25	11	53	42	25	16.206	16.436	16.216
36	22 - 32	13	61	53	10	16.207	16.437	16.217
42	30 - 38	13	65	60	5	16.208	16.438	16.218
48	34 - 44	14	67	65	5	16.209	16.439	16.219

## COMPLEX-SN-L – metric thread „long“

AG	Clamp range	GL	H	SW	Pack/pcs.	RAL 7035 Art. No.	RAL 7001 Art. No.	RAL 9005 Art. No.
M								
12x1,5	3 - 6	15	38	15	100	16.700	16.708	16.716
16x1,5	5 - 10	15	42,5	20	100	16.701	16.709	16.717
20x1,5	8 - 13	15	43	24	100	16.702	16.710	16.718
25x1,5	11 - 17	15	50	29	50	16.703	16.711	16.719
32x1,5	15 - 21	15	55	36	25	16.704	16.712	16.720
40x1,5	19 - 28	18	59	46	10	16.705	16.713	16.721
50x1,5	27 - 35	18	67,5	55	5	16.706	16.714	16.722
63x1,5	32 - 42	18	71,5	68	5	16.707	16.715	16.723

## COMPLEX-SN-L PG - thread „long“

AG	Clamp range	GL	H	SW	Pack/pcs.	RAL 7035 Art. No.	RAL 7001 Art. No.	RAL 9005 Art. No.
PG								
7	3 - 6,5	15	37,5	15	100	16.342	16.349	16.352
9	4 - 8	15	41	19	100	16.343	16.350	16.357
11	5 - 10	15	44	22	100	16.344	16.351	16.358
13,5	6 - 12	15	45	24	100	16.353	16.354	16.359
16	10 - 14	15	47,5	27	50	16.340	16.341	16.360
21	13 - 18	15	51,5	33	50	16.355	16.345	16.361
29	18 - 25	15	57	42	25	16.356	16.346	16.362
36	22 - 32	18	66	53	10	16.348	16.347	16.363



## CABLE GLANDS

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### COMPLEX-SN-BL with installed blind plate of hard PVC metric thread

AG	Clamp range	GL	H	SW	Pack/pcs.	<b>RAL 7035</b> <b>Art. No.</b>	<b>RAL 7001</b> <b>Art. No.</b>	<b>RAL 9005</b> <b>Art. No.</b>
M								
12x1,5	3 - 6	8	31	15	100	16.560	16.568	16.576
16x1,5	5 - 10	8	35,5	20	100	16.561	16.569	16.577
20x1,5	8 - 13	8	36	24	100	16.562	16.570	16.578
20x1,5	10 - 14	8	40,5	27	50	16.562.1	16.570.1	16.578.1
25x1,5	11 - 17	8	43	29	50	16.563	16.571	16.579
32x1,5	15 - 21	10	50	36	25	16.564	16.572	16.580
40x1,5	19 - 28	10	51	46	10	16.565	16.573	16.581
50x1,5	27 - 35	12	61,5	55	5	16.566	16.574	16.582
63x1,5	32 - 42	12	65,5	68	5	16.567	16.575	16.583

### COMPLEX-SN-BL with installed blind plate of hard PVC PG - thread

AG	Clamp range	GL	H	SW	Pack/pcs.	<b>RAL 7035</b> <b>Art. No.</b>	<b>RAL 7001</b> <b>Art. No.</b>	<b>RAL 9005</b> <b>Art. No.</b>
PG								
7	3 - 6,5	8	30,5	15	100	16.440	16.450	16.480
9	4 - 8	8	34	19	100	16.441	16.451	16.481
11	5 - 10	8	37	22	100	16.442	16.452	16.482
13,5	6 - 12	9	39	24	100	16.443	16.453	16.483
16	10 - 14	10	42,5	27	50	16.444	16.454	16.484
21	13 - 18	11	47,5	33	50	16.445	16.455	16.485
29	18 - 25	11	53	42	25	16.446	16.456	16.486
36	22 - 32	13	61	53	10	16.447	16.457	16.487
42	30 - 38	13	65	60	5	16.448	16.458	16.488
48	34 - 44	14	67	65	5	16.449	16.459	16.489

## Cable glands UNI-DICHT TROGAMID METRIC

Material: special polyamide, ductile hard thermoplastic

Temperature resistance: -20°C to +100°C

Colour: grey RAL 7032

Sealing insert: PVC -20°C to +105°C

Full insulation and protection type IP 68 - 10 bar

Art. No.	AG/M	For cable Ø	Colour of insert	Pack/pcs..
16.630	12x1,5	4 - 6,5	yellow	50
16.631	16x1,5	4 - 6,5	yellow	50
16.632	16x1,5	5 - 8	grey	50
16.633	16x1,5	6,5 - 9,5	black	50
16.634	20x1,5	4 - 6,5	yellow	50
16.635	20x1,5	5 - 8	grey	50
16.636	20x1,5	6,5 - 9,5	black	50
16.637	20x1,5	7 - 10,5	green	50
16.638	20x1,5	9 - 13	red	50
16.639	25x1,5	4 - 6,5	yellow	50
16.640	25x1,5	5 - 8	grey	50
16.641	25x1,5	6,5 - 9,5	black	50
16.642	25x1,5	7 - 10,5	green	50
16.643	25x1,5	9 - 13	red	50
16.644	25x1,5	11,5 - 15,5	white	50
16.645	32x1,5	7 - 10,5	green	25
16.646	32x1,5	9 - 13	red	25
16.647	32x1,5	11,5 - 15,5	white	25
16.648	32x1,5	14 - 18	blue	25
16.649	32x1,5	17 - 20,5	brown	25
16.650	40x1,5	11,5 - 15,5	white	10
16.651	40x1,5	14 - 18	blue	10
16.652	40x1,5	17 - 20,5	brown	10
16.653	40x1,5	20 - 25	orange	10
16.654	40x1,5	24 - 28	light yellow	10
16.655	50x1,5	27 - 32	anthracite	5
16.656	50x1,5	29 - 34	light blue	5
16.657	50x1,5	32 - 36	pink	5
16.658	50x1,5	36 - 40	white	5
16.659	63x1,5	39 - 44	white	5





## CABLE GLANDS

### Cable glands UNI-DICHT TROGAMID

Material: spezial polyamide, ductile hard thermoplastic

Temperature resistance: -20°C to +100°C

Colour: grey RAL 7032

Sealing insert: PVC -20°C to +105°C

Full insulation and protection type IP 68 - 10 bar



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Art. No.	AG/PG	For cable Ø	Colour of insert	Pack/pcs.
15.999	7	4 - 6,5	yellow	50
16.000	9	4 - 6,5	yellow	50
16.001	9	5 - 8	grey	50
16.002	9	6,5 - 9,5	black	50
16.003	11	4 - 6,5	yellow	50
16.004	11	5 - 8	grey	50
16.005	11	6,5 - 9,5	black	50
16.006	11	7 - 10,5	green	50
16.007	13,5	4 - 6,5	yellow	50
16.008	13,5	5 - 8	grey	50
16.009	13,5	6,5 - 9,5	black	50
16.010	13,5	7 - 10,5	green	50
16.011	13,5	9 - 13	red	50
16.012	16	4 - 6,5	yellow	50
16.013	16	5 - 8	grey	50
16.014	16	6,5 - 9,5	black	50
16.015	16	7 - 10,5	green	50
16.016	16	9 - 13	red	50
16.017	16	11,5 - 15,5	white	50
16.018	21	7 - 10,5	green	25
16.019	21	9 - 13	red	25
16.020	21	11,5 - 15,5	white	25
16.021	21	14 - 18	blue	25
16.022	21	17 - 20,5	brown	25
16.023	29	9 - 13	red	10
16.024	29	11,5 - 15,5	white	10
16.025	29	14 - 18	blue	10
16.026	29	17 - 20	brown	10
16.027	29	20 - 25	orange	10
16.028	29	24 - 28	light yellow	10
16.029	36	27 - 32	anthracite	5
16.030	36	29 - 34	light blue	5
16.031	36	32 - 36	pink	5
16.032	42	36 - 40	white	5
16.033	48	39 - 44	white	5

### Cable glands UNI-DICHT TROGAMID METRIC MULTIPLE

Material: spezial polyamide, ductile hard thermoplastic  
 Temperature resistance: -20°C to +100°C  
 Colour: grey RAL 7032  
 Sealing insert: PVC -20°C to +105°C  
 Protection Type: IP 65

Art. No.	AG/M	Quantity x cable Ø	Pack/pcs.
16.250	16x1,5	2 x 3	50
16.251	16x1,5	2 x 4	50
16.252	16x1,5	4 x 3	50
16.253	20x1,5	2 x 3	50
16.254	20x1,5	2 x 5	50
16.255	20x1,5	2 x 6	50
16.256	20x1,5	3 x 2	50
16.257	20x1,5	3 x 3	50
16.258	20x1,5	3 x 4	50
16.259	20x1,5	3 x 5,3 blind hole	50
16.260	20x1,5	4 x 3	50
16.261	20x1,5	6 x 3,5	50
16.262	20x1,5	10 x 2	50
16.263	25x1,5	2 x 4	50
16.264	25x1,5	2 x 6	50
16.265	25x1,5	2 x 8	50
16.266	25x1,5	3 x 3	50
16.267	25x1,5	3 x 7	50
16.268	25x1,5	4 x 4	50
16.269	25x1,5	4 x 6	50
16.270	25x1,5	6 x 4	50
16.271	25x1,5	7 x 2	50
16.272	32x1,5	2 x 4,5	25
16.273	32x1,5	2 x 8	25
16.274	32x1,5	2 x 9	25
16.275	32x1,5	3 x 7	25
16.276	32x1,5	3 x 9	25
16.277	32x1,5	4 x 5	25
16.278	32x1,5	4 x 6	25
16.279	32x1,5	4 x 6,5	25
16.280	32x1,5	4 x 8	25
16.281	32x1,5	6 x 4	25
16.282	32x1,5	6 x 6,5	25
16.283	32x1,5	8 x 3	25
16.284	32x1,5	8 x 4	25

Continued on P. 44





## CABLE GLANDS

(Continuation)

### Cable glands UNI-DICHT TROGAMID METRIC MULTIPLE

Material: spezial polyamide, ductile hard thermoplastic

Temperature resistance: -20°C to +100°C

Colour: grey RAL 7032

Sealing insert: PVC -20°C to +105°C

Protection Type: IP 65

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Art. No.	AG/M	Quantity x cable Ø	Pack/pcs.
16.285	40x1,5	2 x 11	10
16.286	40x1,5	2 x 13	10
16.287	40x1,5	4 x 9	10
16.288	40x1,5	4 x 10	10
16.289	40x1,5	5 x 9	10
16.290	40x1,5	5 x 10	10
16.291	40x1,5	6 x 6	10
16.292	40x1,5	6 x 8	10
16.293	40x1,5	7 x 7	10
16.294	40x1,5	10 x 6	10
16.295	40x1,5	12 x 5,3	10
16.296	50x1,5	2 x 15	5
16.297	50x1,5	4 x 11,5	5
16.298	50x1,5	4 x 13	5
16.299	50x1,5	7 x 9	5
16.300	50x1,5	15 x 5	5
16.301	63x1,5	3 x 18	1
16.302	63x1,5	8 x 10	1
16.303	63x1,5	8 x 12	1

## Cable glands UNI-DICHT TROGAMID MULTIPLE

Material: spezial polyamide, ductile hard thermoplastic  
 Temperature resistance: -20°C to +100°C  
 Colour: grey RAL 7032  
 Sealing insert: PVC -20°C to +105°C  
 Protection Type: IP 65

Art. No.	AG/PG	Quantity x cable Ø	Pack/pcs.
16.034	9	2 x 3	50
16.035	9	2 x 4	50
16.037	9	4 x 3	50
16.043	11	2 x 4	50
16.044	11	2 x 5	50
16.045	11	2 x 6	50
16.046	11	3 x 3	50
16.047	11	3 x 4	50
16.049	11	5 x 3,5	50
16.050	11	6 x 2	50
16.051	11	6 x 2,5	50
16.054	13,5	2 x 3	50
16.055	13,5	2 x 5	50
16.056	13,5	2 x 6	50
16.057	13,5	3 x 2	50
16.058	13,5	3 x 3	50
16.059	13,5	3 x 4	50
16.060	13,5	3 x 5,3 blind hole	50
16.061	13,5	4 x 3	50
16.063	13,5	6 x 3,5	50
16.064	13,5	10 x 2	50
16.068	16	2 x 4	50
16.069	16	2 x 6	50
16.070	16	2 x 8	50
16.071	16	3 x 3	50
16.072	16	3 x 7	50
16.073	16	4 x 4	50
16.074	16	4 x 6	50
16.075	16	6 x 4	50
16.076	16	7 x 2	50
16.077	21	2 x 4,5	25
16.078	21	2 x 8	25
16.079	21	2 x 9	25
16.080	21	3 x 7	25
16.081	21	3 x 9	25
16.082	21	4 x 5	25

Continued on P. 46

Technical changes are reserved. Dimensions in mm.





## CABLE GLANDS

(Continuation)

### Cable glands UNI-DICHT TROGAMID MULTIPLE

Material: spezial polyamide, ductile hard thermoplastic

Temperature resistance: -20°C to +100°C

Colour: grey RAL 7032

Sealing insert: PVC -20°C to +105°C

Protection Type: IP 65

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Art. No.	AG/PG	Quantity x cable Ø	Pack/pcs.
16.083	21	4 x 6	25
16.084	21	4 x 6,5	25
16.085	21	4 x 8	25
16.086	21	6 x 4	25
16.088	21	6 x 6,5	25
16.089	21	8 x 3	25
16.090	21	8 x 4	25
16.124	29	2 x 11	10
16.091	29	2 x 13	10
16.092	29	4 x 9	10
16.093	29	4 x 10	10
16.094	29	5 x 9	10
16.095	29	5 x 10	10
16.096	29	6 x 6	10
16.120	29	6 x 8,0	10
16.123	29	7 x 7	10
16.122	29	10 x 6	10
16.097	29	12 x 5,3	10
16.098	36	2 x 15	5
16.099	36	4 x 11,5	5
16.100	36	4 x 13	5
16.121	36	7 x 9,0	5
16.101	36	15 x 5,0	5

## Cable gland body UNI-DICHT TROGAMID

Material: spezial polyamide, ductile hard thermoplastic  
 Temperature resistance: -20°C to +100°C  
 Colour: grey RAL 7032

### Metric thread

Art. No.	AG/M	Suitable sealing inserts	Pack/pcs.
16.130	12x1,5	PG 7	50
16.131	16x1,5	PG 9	50
16.132	20x1,5	PG 11	50
16.133	20x1,5	PG 13,5	50
16.134	25x1,5	PG 16	50
16.135	32x1,5	PG 21	25
16.136	40x1,5	PG 29	10
16.137	50x1,5	PG 36	5
16.138	50x1,5	PG 42	5
16.139	63x1,5	PG 48	5

### PG - thread

Art. No.	AG/PG	Pack/pcs.
16.115	9	50
16.116	11	50
16.117	13,5	50
16.118	16	50
16.119	21	25
16.126	29	10
16.127	36	5

Suitable seal inserts see P. 74–76





## CABLE GLANDS

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### Cable glands SN-PA

Material: polyamide 6  
Sealing ring: soft rubber  
Temperature resistance: -30°C to +80°C  
Protection type: IP 55

#### Metric thread

Art. No.	AG/M	Clamp range	GL	Pack/pcs
16.171	12x1,5	6 - 8	8	50
16.172	16x1,5	6 - 8	8	50
16.173	20x1,5	8 - 10	9	50
16.174	20x1,5	10 - 12	9	50
16.175	20x1,5	12 - 14	9	50
16.176	25x1,5	12 - 14	11	50
16.177	25x1,5	15 - 17	11	50
16.178	32x1,5	15 - 17	11	25
16.179	32x1,5	24 - 26	11	10
16.180	40x1,5	24 - 26	11	10
16.181	50x1,5	31 - 33	13	10
16.182	50x1,5	38 - 40	13	10
16.183	63x1,5	43 - 44	14	10

### Cable gland SN-PS similar to DIN 46320

Material: impact-resistant plastic, polystyrol  
Sealing ring: soft rubber  
Temperature resistance: -20°C to +50°C  
Protection type: IP 55

#### PG - thread

Art. No.	AG/PG	Clamp range	GL	Pack/pcs.
16.150	7	5 - 7	8	50
16.151	9	6 - 8	8	50
16.152	11	8 - 10	8	50
16.153	13,5	10 - 12	9	50
16.154	16	12 - 14	10	50
16.155	21	15 - 17	11	50
16.156	29	24 - 26	11	25
16.157	36	31 - 33	13	10
16.158	42	39 - 41	13	10
16.159	48	45	15	10

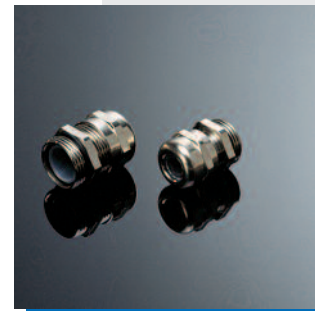
## Cable glands **COMPLEX-MESSING** with integrated anchorage

Material: nickel-plated brass  
 Sealing ring: neoprene  
 O-ring: perbunan  
 Protection type: IP 68 - 5 bar  
 Temperature resistance: -30°C to +100°C

### Metric thread

**Standard clamping ranges are printed in bold.**

Art. No.	AG/M	Clamp range	GL	SW	Pack/pcs.
11.510.1	12x1,5	2 - 5	5	14	100
<b>11.510</b>	<b>12x1,5</b>	<b>3 - 6</b>	<b>5</b>	<b>14</b>	<b>100</b>
11.511.1	16x1,5	3 - 9	5	17	100
<b>11.511</b>	<b>16x1,5</b>	<b>5 - 9</b>	<b>5</b>	<b>17</b>	<b>100</b>
11.512.1	20x1,5	5 - 13	6	22	100
<b>11.512</b>	<b>20x1,5</b>	<b>9 - 13</b>	<b>6</b>	<b>22</b>	<b>100</b>
11.513.1	25x1,5	8 - 16	7	27	50
<b>11.513</b>	<b>25x1,5</b>	<b>11 - 16</b>	<b>7</b>	<b>27</b>	<b>50</b>
11.514.1	32x1,5	12 - 21	8	34	25
<b>11.514</b>	<b>32x1,5</b>	<b>14 - 21</b>	<b>8</b>	<b>34</b>	<b>25</b>
11.515.2	40x1,5	16 - 27	8	43	10
<b>11.515</b>	<b>40x1,5</b>	<b>19 - 27</b>	<b>8</b>	<b>43</b>	<b>10</b>
11.516.2	50x1,5	21 - 35	9	55	5
<b>11.516</b>	<b>50x1,5</b>	<b>24 - 35</b>	<b>9</b>	<b>55</b>	<b>5</b>
11.517.1	63x1,5	27 - 48	10	65	5
<b>11.517</b>	<b>63x1,5</b>	<b>38 - 48</b>	<b>10</b>	<b>65</b>	<b>5</b>



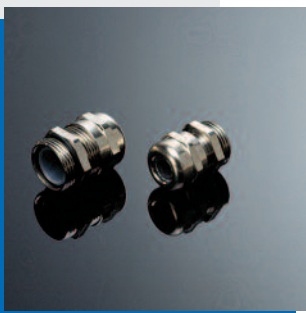
## CABLE GLANDS

### Cable glands COMPLEX-MESSING with integrated anchorage

Material: nickel-plated brass  
Sealing ring: neoprene  
O-ring: perbunan  
Protection type: IP 68 - 5 bar  
Temperature resistance: -30°C to +100°C

#### PG - thread

Standard clamping ranges are printed in bold.



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Art. No.	AG/PG	Clamp range	GL	SW	Pack/pcs.
11.500.1	7	2 - 5	5	14	100
<b>11.500</b>	<b>7</b>	<b>3 - 6,5</b>	<b>5</b>	<b>14</b>	<b>100</b>
<b>11.501</b>	<b>9</b>	<b>4 - 8</b>	<b>6</b>	<b>17</b>	<b>100</b>
11.501.1	9	5 - 10	6	20	50
11.502.1	11	3 - 7	6	20	50
<b>11.502</b>	<b>11</b>	<b>5 - 10</b>	<b>6</b>	<b>20</b>	<b>50</b>
<b>11.503</b>	<b>13,5</b>	<b>6 - 12</b>	<b>6,5</b>	<b>22</b>	<b>50</b>
11.504.1	16	7 - 12	6,5	24	50
<b>11.504</b>	<b>16</b>	<b>10 - 14</b>	<b>6,5</b>	<b>24</b>	<b>50</b>
11.505.1	21	9 - 16	7	30	50
<b>11.505</b>	<b>21</b>	<b>13 - 18</b>	<b>7</b>	<b>30</b>	<b>50</b>
11.506.1	29	12 - 20	8	40	25
<b>11.506</b>	<b>29</b>	<b>18 - 25</b>	<b>8</b>	<b>40</b>	<b>25</b>
11.507.1	36	20 - 26	9	50	10
<b>11.507</b>	<b>36</b>	<b>24 - 32</b>	<b>9</b>	<b>50</b>	<b>10</b>
<b>11.508</b>	<b>42</b>	<b>30 - 38</b>	<b>10</b>	<b>57</b>	<b>5</b>
<b>11.509</b>	<b>48</b>	<b>34 - 44</b>	<b>10</b>	<b>64</b>	<b>5</b>

## Cable Glands COMPLEX-MS-EMV for cables with shielding Fundamentals, installation process p. 52

Material: nickel-plated brass  
Sealing ring: neoprene  
O-ring: perbunan  
Protection type: IP 68 - 5 bar; Temperature resistance: -20°C to +100°C

### Metric thread

Art. No.	AG/M	Clamp range	GL	SW	Pack/pcs.
11.368	12x1,5	3 - 6	5	14	100
11.369	16x1,5	5 - 9	5	17	100
11.370	20x1,5	9 - 13	6	22	100
11.371	25x1,5	11 - 16	7	27	50
11.372	32x1,5	14 - 21	8	34	25
11.373	40x1,5	19 - 27	8	43	10
11.374	50x1,5	24 - 35	9	55	5
11.375	63x1,5	32 - 42	10	65	5

### PG - thread

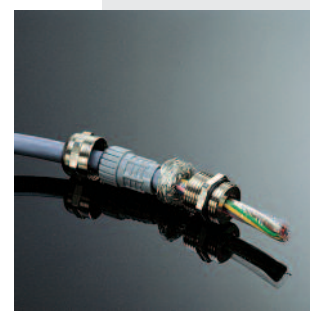
Art. No.	AG/PG	Clamp range	GL	SW	Pack/pcs.
11.350	7	3 - 6,5	5	14	100
11.351	9	4 - 8	6	17	100
11.352	11	5 - 10	6	20	100
11.353	13,5	6 - 12	6,5	22	50
11.354	16	10 - 14	6,5	24	50
11.355	21	13 - 18	7	30	25
11.356	29	18 - 25	8	40	25
11.357	36	24 - 32	9	50	10

## Cable glands COMPLEX-EMV-KF with contact spring for cables with shielding Fundamentals, installation process p. 53

Material: nickel-plated brass  
Sealing ring: neoprene  
O-ring: perbunan  
Protection type: IP 68 - 5 bar; Temperature resistance: -20°C to +100°C

### Metric thread

Art. No.	AG/M	Clamp range	GL	H	SW	Pack/pcs.
11.611	16x1,5	5 - 9	5	30	17	100
11.612	20x1,5	9 - 13	6	33,5	22	100
11.613	25x1,5	11 - 16	7	36,5	27	50
11.614	32x1,5	14 - 21	8	38	34	25
11.615	40x1,5	19 - 27	8	41	43	10



## CABLE GLANDS

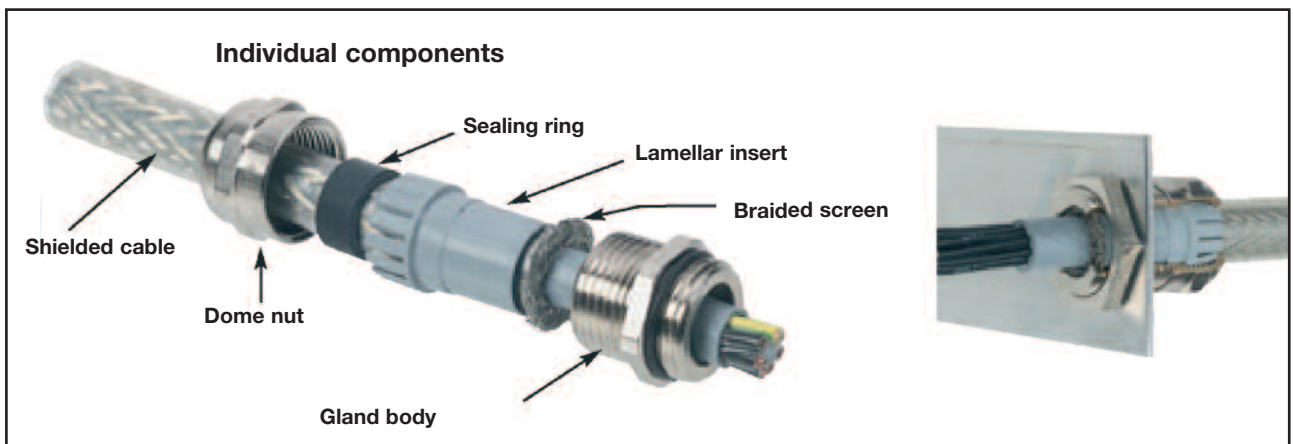
### COMPLEX-MS-EMV – fundamentals, installation process

Our COMPLEX-MS-EMV ensures continuous contacting without gaps. The dome nut and the lamellar insert are simply pushed onto the lead. The exposed cable shield is folded around the lamellar insert, and the gland body is then pushed on.

The screw-fitting of the dome nut ensures that the cable shield is pressed over a large surface between the torsion-protected lamellar insert and the gland body.

The result is a very good metal contact area of the cable shield via the gland body to the housing protected from external environmental influences.

5



### Assembly instruction

1. Cut off cable sheath and expose braided screen over a length of approx. 10–15 mm, depending on the cable diameter.
2. Push dome nut and lamellar insert with sealing ring on to the cable.
3. Bend braided screen outwards at a right angle (90°).
4. Fold braided screen towards outer sheath, i. e. by another 180°.
5. Push gland body up to braided screen and turn briefly around both sides of the cable axis.
6. Push lamellar insert with sealing ring into gland body and snap anti-rotation element into place.
7. Firmly screw on dome nut.

### EMV test report

Our COMPLEX-MS-EMV have been tested and certified by the VDE according to the VG standard Part 40 for transfer impedance and shield attenuation. On request, we will be pleased to provide you with a copy of the complete test report.

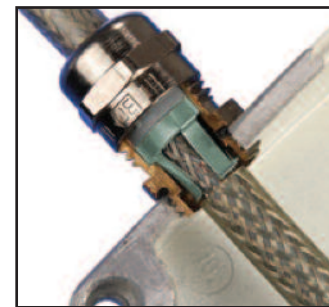
## COMPLEX-EMV-KF – fundamentals, assembly instruction

One important quality characteristics of electrical and electronic products is their electromagnetic compatibility (EMC). To ensure trouble-free operation of electrical appliances, systems and plants, the basic EMC requirements must be met, i.e. electrical devices must be protected from interference and must not themselves interfere with other appliances and equipment.

In the field of plant engineering arise special problems due to enormous cable lengths for energy supply and data transmission. Cables and leads from a certain size on have a similar behaviour like an antenna and are therefore a considerable coupling source for interference. Due to the antenna-like action electromagnetic interference is received and heterodynes the wanted signal. The result may be a malfunction of the appliance up to a total breakdown of the machines or production lines.

An effective protection in such cases is the use of cables and leads with shielding, that consists of a dense wire gauze or a thin metal foil. The function of the shielding is to trap and cushion interferences.

Cable glands play an important part in safeguarding EMC requirements where cables and leads enter into a shielding system. They have to ensure a permanent connection with very low ohmic or inductive resistance between the cable shield and the housing potential.



Our **COMPLEX-EMV-KF** meets these requirements in an outstanding way.

The **assembly** of cable gland type COMPLEX-EMV-KF is quick and easy:

1. Partially expose the braided screen by removing the outer sheath of the cable at a length of approx. 10 mm
2. Insert the cable through the dome nut and the gland body until the contact spring is pressed against the braided screen.
3. Firmly screw on dome nut - finished!

Due to this principle it is possible to conduct the braided screen of the EMC cable through the entire gland body up to the clamping area of the inner wires.

The equipotential bonding and the vibration protection can be improved further by using our hexagonal locknut with cutting edges

[See P. 67](#)





## CABLE GLANDS

### Cable glands UNI-DICHT MESSING METRIC

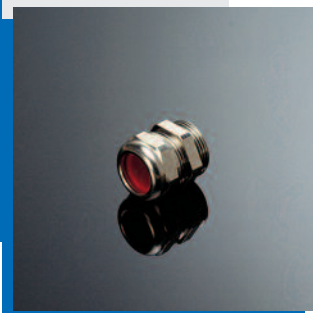
Material: nickel-plated brass

Sealing ring: PVC

Temperature resistance: -20°C to +105°C

O-Ring: perbunan

Full insulation and protection type IP 68 - 10 bar



5

Art. No.	AG/M	For cable Ø	Colour of insert	Pack/pcs..
11.035	12x1,5	4 - 6,5	yellow	50
11.036	16x1,5	4 - 6,5	yellow	50
11.037	16x1,5	5 - 8	grey	50
11.038	16x1,5	6,5 - 9,5	black	50
11.039	20x1,5	4 - 6,5	yellow	50
11.040	20x1,5	5 - 8	grey	50
11.041	20x1,5	6,5 - 9,5	black	50
11.042	20x1,5	7 - 10,5	green	50
11.043	20x1,5	9 - 13	red	50
11.044	25x1,5	4 - 6,5	yellow	50
11.045	25x1,5	5 - 8	grey	50
11.046	25x1,5	6,5 - 9,5	black	50
11.047	25x1,5	7 - 10,5	green	50
11.048	25x1,5	9 - 13	red	50
11.049	25x1,5	11,5 - 15,5	white	50
11.050	32x1,5	7 - 10,5	green	25
11.051	32x1,5	9 - 13	red	25
11.052	32x1,5	11,5 - 15,5	white	25
11.053	32x1,5	14 - 18	blue	25
11.054	32x1,5	17 - 20,5	brown	25
11.055	40x1,5	11,5 - 15,5	white	10
11.056	40x1,5	14 - 18	blue	10
11.057	40x1,5	17 - 20,5	brown	10
11.058	40x1,5	20 - 25	orange	10
11.059	40x1,5	24 - 28	light yellow	10
11.060	50x1,5	27 - 32	anthracite	5
11.061	50x1,5	29 - 34	light blue	5
11.062	50x1,5	32 - 36	pink	5
11.063	50x1,5	36 - 40	white	5
11.064	63x1,5	39 - 44	white	5

## Cable Glands UNI-DICHT MESSING

Material: nickel-plated brass

Sealing ring: PVC

Temperature resistance: -20°C to +105°C

O-Ring: perbunan

Full insulation and protection type IP 68 - 10 bar

Art. No.	AG/PG	For cable Ø	Colour of insert	Pack/pcs.
11.001	7	4 - 6,5	yellow	50
11.002	9	4 - 6,5	yellow	50
11.003	9	5 - 8	grey	50
11.004	9	6,5 - 9,5	black	50
11.005	11	4 - 6,5	yellow	50
11.006	11	5 - 8	grey	50
11.007	11	6,5 - 9,5	black	50
11.008	11	7 - 10,5	green	50
11.009	13,5	4 - 6,5	yellow	50
11.010	13,5	5 - 8	grey	50
11.011	13,5	6,5 - 9,5	black	50
11.012	13,5	7 - 10,5	green	50
11.013	13,5	9 - 13	red	50
11.014	16	4 - 6,5	yellow	50
11.015	16	5 - 8	grey	50
11.016	16	6,5 - 9,5	black	50
11.017	16	7 - 10,5	green	50
11.018	16	9 - 13	red	50
11.019	16	11,5 - 15,5	white	50
11.020	21	7 - 10,5	green	25
11.021	21	9 - 13	red	25
11.022	21	11,5 - 15,5	white	25
11.023	21	14 - 18	blue	25
11.024	21	17 - 20,5	brown	25
11.025	29	11,5 - 15,5	white	10
11.026	29	14 - 18	blue	10
11.027	29	17 - 20,5	brown	10
11.028	29	20 - 25	orange	10
11.029	29	24 - 28	light yellow	10
11.030	36	27 - 32	anthracite	10
11.031	36	29 - 34	light blue	10
11.034	36	32 - 36	pink	10
11.032	42	36 - 40	white	5
11.033	48	39 - 44	white	5

## CABLE GLANDS

### Cable glands UNI-DICHT MESSING METRIC MULTIPLE

Material: nickel-plated brass  
 Sealing ring: PVC  
 Temperature resistance: -20°C to +105°C  
 O-Ring: perbunan  
 Protection type: IP 65



5

Art. No.	AG/M	Quantity x cable Ø	Pack/pcs.
11.184	16x1,5	2 x 3	50
11.185	16x1,5	2 x 4	50
11.186	16x1,5	4 x 3	50
11.187	20x1,5	2 x 3	50
11.188	20x1,5	2 x 4	50
11.189	20x1,5	2 x 5	50
11.190	20x1,5	2 x 6	50
11.191	20x1,5	3 x 2	50
11.192	20x1,5	3 x 3	50
11.193	20x1,5	3 x 4	50
11.194	20x1,5	4 x 1,5	50
11.195	20x1,5	4 x 3	50
11.196	20x1,5	4 x 4	50
11.197	20x1,5	5 x 3,5	50
11.198	20x1,5	6 x 3,5	50
11.199	20x1,5	6 x 2,5	50
11.200	20x1,5	7 x 1,5	50
11.201	20x1,5	9 x 1,5	50
11.202	25x1,5	2 x 4	50
11.203	25x1,5	2 x 6	50
11.204	25x1,5	2 x 8	50
11.205	25x1,5	3 x 7	50
11.206	25x1,5	4 x 4	50
11.207	25x1,5	4 x 6	50
11.208	25x1,5	6 x 4	50
11.209	25x1,5	7 x 2	50
11.210	32x1,5	2 x 4,5	25
11.211	32x1,5	2 x 8	25
11.212	32x1,5	2 x 9	25
11.213	32x1,5	3 x 7	25
11.214	32x1,5	3 x 9	25
11.215	32x1,5	4 x 5	25
11.216	32x1,5	4 x 6	25
11.217	32x1,5	4 x 6,5	25
11.218	32x1,5	4 x 8	25
11.219	32x1,5	6 x 4	25

## CABLE GLANDS

Art. No.	AG/M	Quantity x cable Ø	Pack/pcs.
11.220	32x1,5	6 x 6,5	25
11.221	32x1,5	8 x 3	25
11.222	32x1,5	8 x 4	25
11.223	40x1,5	2 x 11	10
11.224	40x1,5	2 x 13	10
11.225	40x1,5	4 x 9	10
11.226	40x1,5	4 x 10	10
11.227	40x1,5	5 x 9	10
11.228	40x1,5	5 x 10	10
11.229	40x1,5	6 x 6	10
11.250	40x1,5	6 x 8	10
11.251	40x1,5	7 x 7	10
11.252	40x1,5	10 x 6	10
11.253	40x1,5	12 x 5,3	10
11.254	50x1,5	2 x 15	5
11.255	50x1,5	4 x 11,5	5
11.256	50x1,5	4 x 13	5
11.257	50x1,5	7 x 9	5
11.258	50x1,5	15 x 5	5
11.259	63x1,5	3 x 18	1
11.260	63x1,5	8 x 10	1
11.261	63x1,5	8 x 12	1

## CABLE GLANDS

### Cable glands UNI-DICHT MESSING MULTIPLE

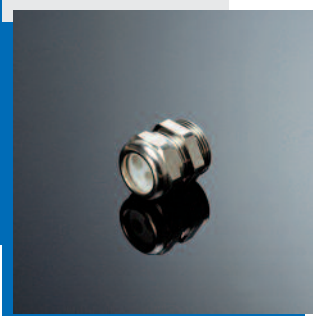
Material: nickel-plated brass

Sealing ring: PVC

Temperature resistance: -20°C to +105°C

O-Ring: perbunan

Protection type: IP 65



5

Art. No.	AG/PG	Quantity x cable Ø	Pack/pcs.
11.097	9	2 x 3	50
11.098	9	2 x 4	50
11.100	9	4 x 3	50
11.105	11	2 x 3	50
11.106	11	2 x 4	50
11.107	11	2 x 5	50
11.108	11	2 x 6	50
11.109	11	3 x 3	50
11.110	11	3 x 4	50
11.111	11	4 x 1,5	50
11.113	11	4 x 4	50
11.112	11	5 x 3,5	50
11.114	11	6 x 2,5	50
11.115	11	7 x 1,5	50
11.116	11	9 x 1,5	50
11.117	13,5	2 x 3	50
11.118	13,5	2 x 5	50
11.119	13,5	2 x 6	50
11.120	13,5	3 x 2	50
11.121	13,5	3 x 3	50
11.122	13,5	3 x 4	50
11.123	13,5	3 x 5,3 blind hole	50
11.124	13,5	4 x 3	50
11.126	13,5	6 x 3,5	50
11.131	16	2 x 4	50
11.132	16	2 x 6	50
11.133	16	2 x 8	50
11.135	16	3 x 7	50
11.136	16	4 x 4	50
11.137	16	4 x 6	50
11.138	16	6 x 4	50
11.139	16	7 x 2	50
11.140	21	2 x 4,5	25
11.141	21	2 x 8	25
11.142	21	2 x 9	25
11.143	21	3 x 7	25
11.144	21	3 x 9	25

## CABLE GLANDS

Art. No.	AG/PG	Quantity x cable Ø	Pack/pcs.
11.145	21	4 x 5	25
11.146	21	4 x 6	25
11.147	21	4 x 6,5	25
11.148	21	4 x 8	25
11.149	21	6 x 4	25
11.151	21	6 x 6,5	25
11.152	21	8 x 3	25
11.153	21	8 x 4	25
11.154	29	2 x 11	10
11.155	29	2 x 13	10
11.158	29	4 x 9	10
11.159	29	4 x 10	10
11.156	29	5 x 9	10
11.160	29	5 x 10	10
11.157	29	6 x 6	10
11.161	29	6 x 8	10
11.162	29	7 x 7	10
11.163	29	10 x 6	10
11.166	29	12 x 5,3	10
11.167	36	2 x 15	5
11.168	36	4 x 11,5	5
11.169	36	4 x 13	5
11.170	36	7 x 9	5
11.173	36	15 x 5	5
11.176	48	3 x 18	1
11.180	48	8 x 10	1
11.181	48	8 x 12	1



# CABLE GLANDS

## Cable gland body UNI-DICHT MESSING

Material: nickel-plated brass  
 Temperature resistance: -20°C to +105°C  
 O-Ring: perbunan

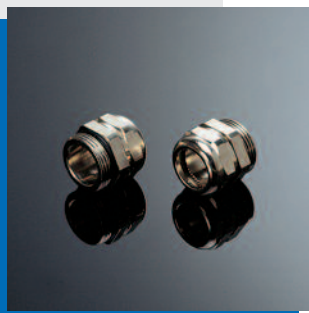
### Metric thread

Art. No.	AG/M	Sealing ring cuts	Pack/pcs.
11.240	12x1,5	PG 7	50
11.241	16x1,5	PG 9	50
11.242	20x1,5	PG 11	50
11.243	20x1,5	PG 13,5	50
11.244	25x1,5	PG 16	50
11.245	32x1,5	PG 21	50
11.246	40x1,5	PG 29	25
11.247	50x1,5	PG 36	10
11.248	50x1,5	PG 42	5
11.249	63x1,5	PG 48	5

### PG - thread

Art. No.	AG/PG	Pack/pcs.
11.230	7	50
11.231	9	50
11.232	11	50
11.233	13,5	50
11.234	16	50
11.235	21	50
11.236	29	25
11.237	36	10
11.238	42	5
11.239	48	5

Suitable seal inserts see pages 74–76



## Cable glands SNS-E to DIN 40430 with hexagon gland body and sealing ring with multiple perforation of Perbunan

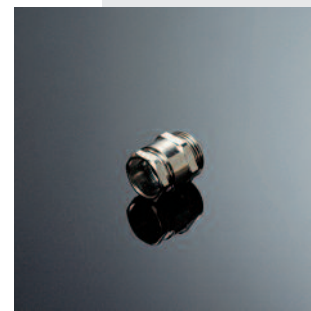
Material: nickel-plated brass  
Protection type: IP 55

### Metric thread

Art. No.	AG/M	For cable Ø	Sealing ring cuts	Pack/pcs.
11.410	16x1,5	4 - 11	5x7,5x10	100
11.411	20x1,5	6 - 12	7,5x10x12,5	50
11.412	20x1,5	6 - 13	7,5x10x12,5	50
11.413	20x1,5	6 - 16	7,5x10x12,5x15	50
11.414	25x1,5	9 - 20	10x13x16x19	50
11.415	32x1,5	17 - 28	18x21x24x27	25
11.416	40x1,5	23 - 34	24x27x30x33	10
11.417	50x1,5	29 - 40	30x33x36x39	5
11.418	63x1,5	35 - 46	36x39x42x45	5

### PG - thread

Art. No.	AG/PG	For cable Ø	Sealing ring cuts	Pack/pcs.
11.330	9	4 - 11	5x7,5x10	100
11.331	11	6 - 12	7,5x10x12,5	50
11.332	13,5	6 - 13	7,5x10x12,5	50
11.333	16	6 - 16	7,5x10x12,5x15	50
11.334	21	9 - 20	10x13x16x19	50
11.335	29	17 - 28	18x21x24x27	25
11.336	36	23 - 34	24x27x30x33	10
11.337	42	29 - 40	30x33x36x39	5
11.338	48	35 - 46	36x39x42x45	5





## CABLE GLANDS

### Cable glands SNS to DIN 40430 with hexagon gland body and simple sealing ring of soft rubber

Material: nickel-plated brass

Protection type: IP 54

#### Metric thread

Art. No.	AG/M	For cable Ø	Sealing ring	Pack/pcs.
11.400	12x1,5	5 - 7	6	100
11.401	16x1,5	6 - 8	7	100
11.402	20x1,5	8 - 10	9	50
11.403	20x1,5	10 - 12	11	50
11.404	20x1,5	12 - 14	13	50
11.405	25x1,5	15 - 17	16	50
11.406	32x1,5	24 - 26	25	25
11.407	40x1,5	33 - 35	34	20
11.408	50x1,5	41 - 43	42	10
11.409	63x1,5	45 - 47	46	10

#### PG - thread

Art. No.	AG/PG	For cable Ø	Sealing ring	Pack/pcs.
11.320	7	5 - 7	6	100
11.321	9	6 - 8	7	100
11.322	11	8 - 10	9	50
11.323	13,5	10 - 12	11	50
11.324	16	12 - 14	13	50
11.325	21	15 - 17	16	50
11.326	29	24 - 26	25	25
11.327	36	33 - 35	34	20
11.328	42	41 - 43	42	10
11.329	48	45 - 47	46	10