



## Cable Glands, Metal, for shielded EMC Cables

### CG.EM.\*.\*.\*

- For shielded EMC cables without armor
- Brass nickel-plated or stainless steel
- Metric and NPT versions available
- Ex db, Ex eb and Ex tb certified
- Suitable for operation in Zone 1, Zone 2, Zone 21 and Zone 22
- Suitable for operation in Class I, Zone 1/2/22
- Suitable for operation in Class I, Division 2 when installed in accordance with NEC501.10(B)(2)
- Degree of protection IP66 / IP68, UL Type 4X



### Function

The metal cable glands type CG.EM can be used indoor and outdoor in Zone 1, Zone 2, Zone 21 and Zone 22 hazardous areas. They are intended to be used with shielded cables where the shield will be connected to the inner shielding ring of the gland in order to provide the necessary EMC protection.

### Technical Data

Mechanical specifications	
Cable type	non-armored shielded EMC cables
Clamping range (D)	see data table
Thread type	metric ISO pitch 1.5 mm or NPT ANSI ASME B1.20.1
Thread size (TD)	see data table
Degree of protection	IP66 / IP68 , UL Type 4X
Material	
Finish	inherent color silver
Cable gland	brass nickel-plated or AISI 316 (1.4401) stainless steel
Washer gasket	aramid fibers bonded with NBR
O-Ring	chloroprene / neoprene or silicone
Seal insert	chloroprene / neoprene or silicone
Mass	see data table
Dimensions	see data table
Ambient conditions	
Ambient temperature	Ex eb and Ex tb versions: chloroprene seal: -40 ... 80 °C (-40 ... 176 °F) silicone seal: -60 ... 140 °C (-76 ... 284 °F) washer gasket: -50 ... 80 °C (-58 ... 176 °F) sealing plugs: -60 ... 70 °C (-76 ... 158 °F) Ex db versions: chloroprene seal: -40 ... 80 °C (-40 ... 176 °F) silicone seal: -60 ... 80 °C (-76 ... 176 °F) washer gasket: -50 ... 80 °C (-58 ... 176 °F) Service temperature might be limited by the use of sealing plugs or washer gaskets.
Data for application in connection with hazardous areas	
EU-type examination certificate	IMQ 14 ATEX 012X
Marking	Ⓜ II 2 GD Ex db IIC Gb Ex eb IIC Gb Ex tb IIIC Db
International approvals	
UL approval	

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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**PF** PEPPERL+FUCHS

**Technical Data**

cULus	E490962 tested to UL 2225 < CSA 60079-7 , CSA 60079-31
IECEX approval	IECEX IMQ 14.0004X
UKCA approval	CML 21 UKEX 11380X
INMETRO approval	DNV 20.0029 X
CCC approval	2021312313000344
<b>Conformity</b>	
Degree of protection	EN 60529
CE marking	0102
<b>General information</b>	
Scope of delivery	K01 - metric variants, individual component: Cable gland , washer gasket , locknut , Earth tag , shroud PVC , Brief instructions K01 - NPT variants, individual component: Cable gland , shroud PVC , Brief instructions Knn - packing unit with multiple components: Cable glands , Brief instructions (1 copy)
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.
<b>Accessories</b>	
Sealing plugs	see data table

**Type Code**

<b>1</b>		<b>2</b>		<b>3</b>		<b>4</b>		<b>5</b>		<b>6</b>		<b>7</b>
CG	.	EM	.	***	.	**	.	*	.	**	.	K**
CG	.	EM	.	M20	.	BN	.	C	.	18	.	K01

Example: CG.EM.M20.BN.C.18.K01  
 Cable gland metal, for shielded EMC cables, thread size M20, body brass nickel-plated, chloroprene seals for -40 °C ... 80 °C, installation thread length 18 mm, one piece

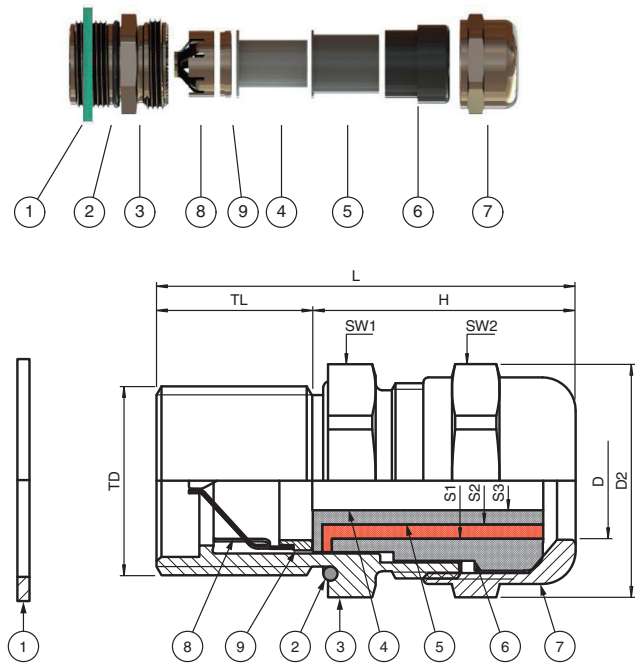
<b>1</b>	<b>Series</b>
CG	cable glands
<b>2</b>	<b>Type</b>
EM	metal, for shielded EMC cables
<b>3</b>	<b>Thread, type and size</b>
M*	metric ISO pitch 1.5; sizes see dimensions data table
NPT*	NPT ANSI ASME B1.20.1; sizes see dimensions data table
<b>4</b>	<b>Material</b>
BN	brass nickel-plated
SS	stainless steel
<b>5</b>	<b>Material seals / O-Ring</b>
C	chloroprene / neoprene
S	silicone
<b>6</b>	<b>Thread length for installation in enclosure</b>
**	length in mm
<b>7</b>	<b>Packaging unit</b>
	units not packaged, for use in Pepperl+Fuchs Solution Engineering Centers
K**	units quantity per package

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

**Dimensions**

Legend	
1	Washer gasket (accessory)
2	O-Ring
3	Gland body basis
4	Seal insert S3
5	Seal insert S2
6	Seal insert S1
7	Cap nut
8	EMC spring insert
9	Pressure ring
D	Clamping range, cable sheath diameter
D2	Width across corners
H	Length outside enclosure
L	Total length
S*	Clamping range, seal insert combinations
SW*	Width across flats
TD	Thread size
TL	Thread length



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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

## Dimensions Metric - Brass Nickel-plated

Type	Thread size	Clamping range [mm] seal insert combinations				Dimensions [mm]						UL
	TD	D	S1+S2+S3	S1+S2	S1	H	L	TL	D2	SW1	SW2	
CG.EM.M16.BN.C.16.*	M16	4 ... 8	-	4 ... 6	6 ... 8	30.5	46.5	16	22	20	20	-
CG.EM.M20.BN.C.18.*	M20	4 ... 12	4 ... 6	6 ... 9	9 ... 12	28.5	46.5	18	26.5	24	20	X
CG.EM.M25.BN.C.16.*	M25	10 ... 18	10 ... 12	12 ... 14.5	14.5 ... 18	32	48	16	31	28	28	X
CG.EM.M32.BN.C.19.*	M32	14 ... 24	14 ... 17	17 ... 20	20 ... 24	35	54	19	39	35	35	X
CG.EM.M40.BN.C.20.*	M40	22 ... 32	22 ... 24	24 ... 27	27 ... 32	42.5	62.5	20	49.5	45	45	X
CG.EM.M50.BN.C.20.*	M50	26 ... 35	26 ... 28	28 ... 31	31 ... 35	48.5	68.5	20	61	55	50	X

UL: X = UL approved

## Details and Accessories Metric - Brass Nickel-plated

Type	Thread size	Mass approx.		Diameter thru-hole [mm]	Nut torques [Nm] seal insert combinations				Sealing plugs	Delivery quantity
	TD	Component	Packaging unit	DT	SW1	SW2 S1+S2+S3	SW2 S1+S2	SW2 S1		
CG.EM.M16.BN.C.16.K01	M16	58 g	87 g	16 ... 16.2	4	-	25	18	BP.NA.M16-M20S.PA	1
CG.EM.M16.BN.C.16.K50	M16	58 g	3.19 kg	16 ... 16.2	4	-	25	18	BP.NA.M16-M20S.PA	50
CG.EM.M20.BN.C.18.K01	M20	56 g	85 g	20 ... 20.2	5.5	20	18	15	BP.NA.M16-M20S.PA	1
CG.EM.M20.BN.C.18.K50	M20	56 g	3.08 kg	20 ... 20.2	5.5	20	18	15	BP.NA.M16-M20S.PA	50
CG.EM.M25.BN.C.16.K01	M25	61 g	92 g	25 ... 25.2	6	25	22	18	BP.NA.M20-M25S.PA	1
CG.EM.M25.BN.C.16.K25	M25	61 g	1.68 kg	25 ... 25.2	6	25	22	18	BP.NA.M20-M25S.PA	25
CG.EM.M32.BN.C.19.K01	M32	116 g	174 g	32 ... 32.3	6	28	20	18	BP.NA.M25-M32S.PA	1
CG.EM.M32.BN.C.19.K15	M32	116 g	1.91 kg	32 ... 32.3	6	28	20	18	BP.NA.M25-M32S.PA	15
CG.EM.M40.BN.C.20.K01	M40	197 g	296 g	40 ... 40.3	15	56	50	45	BP.NA.M32-M40S.PA	1
CG.EM.M40.BN.C.20.K05	M40	197 g	1.08 kg	40 ... 40.3	15	56	50	45	BP.NA.M32-M40S.PA	5
CG.EM.M50.BN.C.20.K01	M50	332 g	498 g	50 ... 50.3	18	57	55	52	BP.NA.M40-M50S.PA	1
CG.EM.M50.BN.C.20.K05	M50	332 g	1.83 kg	50 ... 50.3	18	57	55	52	BP.NA.M40-M50S.PA	5

\*Knn: scope of delivery see table technical data

## Dimensions Metric - Stainless Steel

Type	Thread size	Clamping range [mm] seal insert combinations				Dimensions [mm]						UL
	TD	D	S1+S2+S3	S1+S2	S1	H	L	TL	D2	SW1	SW2	
CG.EM.M16.SS.C.16.*	M16	4 ... 8	-	4 ... 6	6 ... 8	30.5	46.5	16	22	20	20	-
CG.EM.M20.SS.C.18.*	M20	4 ... 12	4 ... 6	6 ... 9	9 ... 12	28.5	46.5	18	26.5	24	20	X
CG.EM.M25.SS.C.16.*	M25	10 ... 18	10 ... 12	12 ... 14.5	14.5 ... 18	32	48	16	31	28	28	X
CG.EM.M32.SS.C.19.*	M32	14 ... 24	14 ... 17	17 ... 20	20 ... 24	35	54	19	39	35	35	X
CG.EM.M40.SS.C.20.*	M40	22 ... 32	22 ... 24	24 ... 27	27 ... 32	42.5	62.5	20	49.5	45	45	X
CG.EM.M50.SS.C.20.*	M50	26 ... 35	26 ... 28	28 ... 31	31 ... 35	48.5	68.5	20	61	55	50	X

UL: X = UL approved

## Details and Accessories Metric - Stainless Steel

Type	Thread size	Mass approx.		Diameter thru-hole [mm]	Nut torques [Nm] seal insert combinations				Sealing plugs	Delivery quantity
	TD	Component	Packaging unit	DT	SW1	SW2 S1+S2+S3	SW2 S1+S2	SW2 S1		
CG.EM.M16.SS.C.16.K01	M16	55 g	83 g	16 ... 16.2	4	-	25	18	BP.NA.M16-M20S.PA	1
CG.EM.M16.SS.C.16.K50	M16	55 g	3.03 kg	16 ... 16.2	4	-	25	18	BP.NA.M16-M20S.PA	50
CG.EM.M20.SS.C.18.K01	M20	55 g	85 g	20 ... 20.2	5.5	20	18	15	BP.NA.M16-M20S.PA	1
CG.EM.M20.SS.C.18.K50	M20	55 g	3.03 kg	20 ... 20.2	5.5	20	18	15	BP.NA.M16-M20S.PA	50
CG.EM.M25.SS.C.16.K01	M25	0.64 g	96 g	25 ... 25.2	6	25	22	18	BP.NA.M20-M25S.PA	1
CG.EM.M25.SS.C.16.K25	M25	0.64 g	1.76 kg	25 ... 25.2	6	25	22	18	BP.NA.M20-M25S.PA	25
CG.EM.M32.SS.C.19.K01	M32	126 g	189 g	32 ... 32.3	6	28	20	18	BP.NA.M25-M32S.PA	1
CG.EM.M32.SS.C.19.K15	M32	126 g	2.08 kg	32 ... 32.3	6	28	20	18	BP.NA.M25-M32S.PA	15
CG.EM.M40.SS.C.20.K01	M40	224 g	336 g	40 ... 40.3	15	56	50	45	BP.NA.M32-M40S.PA	1
CG.EM.M40.SS.C.20.K05	M40	224 g	1.23 kg	40 ... 40.3	15	56	50	45	BP.NA.M32-M40S.PA	5
CG.EM.M50.SS.C.20.K01	M50	330 g	495 g	50 ... 50.3	18	57	55	52	BP.NA.M40-M50S.PA	1
CG.EM.M50.SS.C.20.K05	M50	330 g	1.82 kg	50 ... 50.3	18	57	55	52	BP.NA.M40-M50S.PA	5

\*Knn: scope of delivery see table technical data

## Dimensions NPT - Brass Nickel-plated

Type	Thread size	Clamping range [mm] seal insert combinations				Dimensions [mm]						UL
	TD	D	S1+S2+S3	S1+S2	S1	H	L	TL	D2	SW1	SW2	
CG.EM.NPT3/8.BN.C.16.*	NPT 3/8"	4 ... 8	-	4 ... 6	6 ... 8	30.5	46.5	16	24.5	22	22	-
CG.EM.NPT1/2.BN.C.18.*	NPT 1/2"	4 ... 12	4 ... 6	6 ... 9	9 ... 12	28.5	46.5	18	26.5	24	22	X
CG.EM.NPT3/4.BN.C.16.*	NPT 3/4"	10 ... 18	10 ... 12	12 ... 14.5	14.5 ... 18	32.5	48.5	16	31	28	28	X
CG.EM.NPT1.BN.C.20.*	NPT 1"	14 ... 24	14 ... 17	17 ... 20	20 ... 24	35	55	20	39	35	35	X
CG.EM.NPT1-1/4.BN.C.20.*	NPT 1-1/4"	22 ... 32	22 ... 24	24 ... 27	27 ... 32	42.5	62.5	20	49.5	45	45	X
CG.EM.NPT1-1/2.BN.C.20.*	NPT 1-1/2"	26 ... 35	26 ... 28	28 ... 31	31 ... 35	45	65	20	61	55	50	X

UL: X = UL approved

## Details and Accessories NPT - Brass Nickel-plated

Type	Thread size	Mass approx.		Diameter thru-hole [mm]	Nut torques [Nm] seal insert combinations				Sealing plugs	Delivery quantity
	TD	Component	Packaging unit	DT	SW1	SW2 S1+S2+S3	SW2 S1+S2	SW2 S1		
CG.EM.NPT3/8.BN.C.16.K01	NPT 3/8"	63 g	82 g	17.2 ... 17.4	4	-	25	18	BP.NA.M16-M20S.PA	1
CG.EM.NPT3/8.BN.C.16.K50	NPT 3/8"	63 g	3.47 kg	17.2 ... 17.4	4	-	25	18	BP.NA.M16-M20S.PA	50
CG.EM.NPT1/2.BN.C.18.K01	NPT 1/2"	55 g	70 g	21.4 ... 21.6	8	20	18	15	BP.NA.M16-M20S.PA	1
CG.EM.NPT1/2.BN.C.18.K50	NPT 1/2"	55 g	3.03 kg	21.4 ... 21.6	8	20	18	15	BP.NA.M16-M20S.PA	50
CG.EM.NPT3/4.BN.C.16.K01	NPT 3/4"	81 g	105 g	26.7 ... 26.9	10	25	22	18	BP.NA.M20-M25S.PA	1
CG.EM.NPT3/4.BN.C.16.K25	NPT 3/4"	81 g	2.23 kg	26.7 ... 26.9	10	25	22	18	BP.NA.M20-M25S.PA	25
CG.EM.NPT1.BN.C.20.K01	NPT 1"	135 g	176 g	33.5 ... 33.7	10	28	20	18	BP.NA.M25-M32S.PA	1
CG.EM.NPT1.BN.C.20.K15	NPT 1"	135 g	2.23 kg	33.5 ... 33.7	10	28	20	18	BP.NA.M25-M32S.PA	15
CG.EM.NPT1-1/4.BN.C.20.K01	NPT 1-1/4"	226 g	294 g	42.2 ... 42.4	10	56	50	45	BP.NA.M32-M40S.PA	1
CG.EM.NPT1-1/4.BN.C.20.K05	NPT 1-1/4"	226 g	1.24 kg	42.2 ... 42.4	10	56	50	45	BP.NA.M32-M40S.PA	5
CG.EM.NPT1-1/2.BN.C.20.K01	NPT 1-1/2"	311 g	404 g	48.3 ... 48.5	12	57	55	52	BP.NA.M40-M50S.PA	1
CG.EM.NPT1-1/2.BN.C.20.K05	NPT 1-1/2"	311 g	1.71 kg	48.3 ... 48.5	12	57	55	52	BP.NA.M40-M50S.PA	5

\*Knn: scope of delivery see table technical data

## Dimensions NPT - Stainless Steel

Type	Thread size	Clamping range [mm] seal insert combinations				Dimensions [mm]						UL
	TD	D	S1+S2+S3	S1+S2	S1	H	L	TL	D2	SW1	SW2	
CG.EM.NPT3/8.SS.C.16.*	NPT 3/8"	4 ... 8	-	4 ... 6	6 ... 8	30.5	46.5	16	24.5	22	22	-
CG.EM.NPT1/2.SS.C.18.*	NPT 1/2"	4 ... 12	4 ... 6	6 ... 9	9 ... 12	28.5	46.5	18	26.5	24	22	X
CG.EM.NPT3/4.SS.C.16.*	NPT 3/4"	10 ... 18	10 ... 12	12 ... 14.5	14.5 ... 18	32.5	48.5	16	31	28	28	X
CG.EM.NPT1.SS.C.20.*	NPT 1"	14 ... 24	14 ... 17	17 ... 20	20 ... 24	35	55	20	39	35	35	X
CG.EM.NPT1-1/4.SS.C.20.*	NPT 1-1/4"	22 ... 32	22 ... 24	24 ... 27	27 ... 32	42.5	62.5	20	49.5	45	45	X
CG.EM.NPT1-1/2.SS.C.20.*	NPT 1-1/2"	26 ... 35	26 ... 28	28 ... 31	31 ... 35	45	65	20	61	55	50	X

UL: X = UL approved

## Details and Accessories NPT - Stainless Steel

Type	Thread size	Mass approx.		Diameter thru-hole [mm]	Nut torques [Nm] seal insert combinations				Sealing plugs	Delivery quantity
	TD	Component	Packaging unit	DT	SW1	SW2 S1+S2+S3	SW2 S1+S2	SW2 S1		
CG.EM.NPT3/8.SS.C.16.K01	NPT 3/8"	32 g	42 g	17.2 ... 17.4	4	-	25	18	BP.NA.M16-M20S.PA	1
CG.EM.NPT3/8.SS.C.16.K50	NPT 3/8"	32 g	1.76 g	17.2 ... 17.4	4	-	25	18	BP.NA.M16-M20S.PA	50
CG.EM.NPT1/2.SS.C.18.K01	NPT 1/2"	39 g	51 g	21.4 ... 21.6	8	20	18	15	BP.NA.M16-M20S.PA	1
CG.EM.NPT1/2.SS.C.18.K50	NPT 1/2"	39 g	2.15 kg	21.4 ... 21.6	8	20	18	15	BP.NA.M16-M20S.PA	50
CG.EM.NPT3/4.SS.C.16.K01	NPT 3/4"	43 g	56 g	26.7 ... 26.9	10	25	22	18	BP.NA.M20-M25S.PA	1
CG.EM.NPT3/4.SS.C.16.K25	NPT 3/4"	43 g	1.18 kg	26.7 ... 26.9	10	25	22	18	BP.NA.M20-M25S.PA	25
CG.EM.NPT1.SS.C.20.K01	NPT 1"	88 g	114 g	33.5 ... 33.7	10	28	20	18	BP.NA.M25-M32S.PA	1
CG.EM.NPT1.SS.C.20.K15	NPT 1"	88 g	1.45 kg	33.5 ... 33.7	10	28	20	18	BP.NA.M25-M32S.PA	15
CG.EM.NPT1-1/4.SS.C.20.K01	NPT 1-1/4"	113 g	147 g	42.2 ... 42.4	10	56	50	45	BP.NA.M32-M40S.PA	1
CG.EM.NPT1-1/4.SS.C.20.K05	NPT 1-1/4"	113 g	620 g	42.2 ... 42.4	10	56	50	45	BP.NA.M32-M40S.PA	5
CG.EM.NPT3/8.SS.C.16.K01	NPT 3/8"	32 g	42 g	17.2 ... 17.4	4	-	25	18	BP.NA.M16-M20S.PA	1
CG.EM.NPT3/8.SS.C.16.K50	NPT 3/8"	32 g	1.76 g	17.2 ... 17.4	4	-	25	18	BP.NA.M16-M20S.PA	50

\*Knn: scope of delivery see table technical data