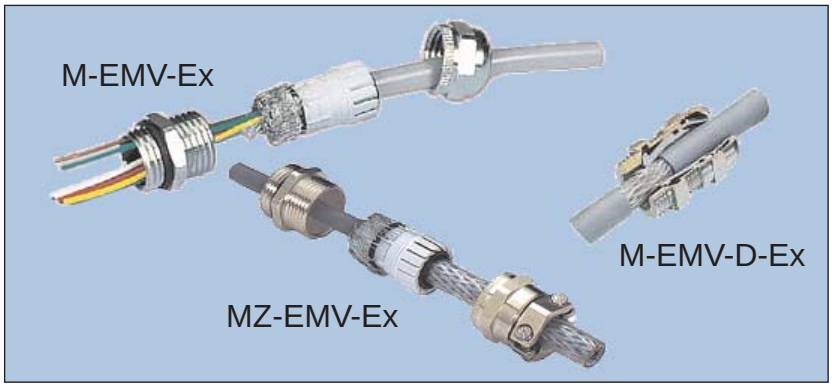
HSK-EMV-Ex
Standard

Strain relief fittings in all popular thread types and sizes for a reliable low-ohm shield used for electrical equipment in hazardous locations with protection „e" according to EN 50014 and EN 50019:



- Machine, apparatus and plant equipment.
- Measuring, control and feedback systems
- Control panels
- Railroad cars and vehicles
- Power plants (hydro, gas, coal or wind)

Also used in all areas where besides a reliable seal, high pull-out resistance and anti-rotation provisions, a dependable contact with the cable shield is required.

HSK-M-EMV-Ex	EMI compatible standard strain relief fittings for hazardous locations
HSK-M-EMV-PVDF-Ex	... used in chemical and high temperature applications
HSK-M-EMV-D-Ex	... with feed-through suitable for cables with braided and foil shield
HSK-MZ-EMV-Ex	... with additional cable clamp for flex protection
HSK-MZ-EMV-PVDF-Ex	EMI compatible standard strain relief fittings for chemical & high temperature applications with additional cable clamp for flex protection

Assembly Instructions

HSK-M-EMV

Step 1

+ Strip cable
+ Expose braided shield

Step 2

+ Feed cable through dome nut and clamping insert
+ Fold braided shield over clamping insert
+ Make sure that braided shield overlaps the O-Ring by 3/32" (2 mm)

Step 3

+ Push clamping insert into body and tighten dome nut
+ Assemble into housing
+ Finished!

Assembly Instructions

HSK-M-EMV-D

Option 1

Feed-through of cable and shield (braided or foil)

+ Expose shield approximately 7/16" (10 mm)
+ Insert cable into fitting until the shield reaches the contact position
+ Tighten dome nut

Option 2

Feed-through of shield (braided or foil)

+ Remove cable jacket to expose the shield as required
+ Insert cable into fitting until the shield reaches the contact position
+ Tighten dome nut

Option 3

Termination of the braided shield in the fitting

+ Strip cable jacket and braided shield to different lengths
+ For small diameter cables fold the braided shield back over the cable jacket
+ Insert cable into fitting until the shield reaches the contact position
+ Tighten dome nut

B-I-A Vertriebs GmbH / Germany
Email: info@BiaGmbH.com
www.BiaGmbH.com
www.BiaOnline.com

Further items on request. Dimensions mm.
Subject to change without notice.

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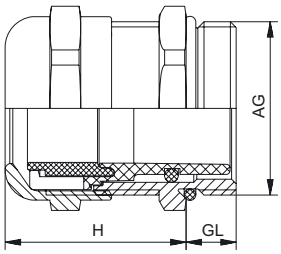
L1730

HSK-M-EMV / -PVDF-Ex

HSK-M-EMV-Ex (Metric / NPT)
EMI compatible standard strain relief fittings for hazardous locations

HSK-M-EMV-PVDF-Ex (Metric / NPT)
EMI compatible standard strain relief fittings for hazardous locations used in chemical and high temperature applications



ATEX

II 2G 1D
II 2G D

Material	Nickel plated brass
Clamping insert	PA (Nylon) / PVDF
Seal	Buna-N / FPM
O-Ring	Buna-N / FPM
Protection	IP 68 – 10 bar within the specified clamping range

EN 50262

RoHS

Elongated thread available
For approvals see end of this section

AG	⌀K mm	Ex-Generation	GL mm	H mm	mm	HSK-M-EMV-Ex -20 °C – 95 °C (-4 °F – 203°F)	HSK-M-EMV-Ex -60 °C – 105 °C (-76 °F – 221°F)	HSK-M-EMV-PVDF-Ex -20 °C – 130 °C (-4 °F – 266°F)
M 12 x 1,5	3 - 6,5	ATEX	6,5	19	14	1.616.1200.50	1.646.1200.50	
M 12 x 1,5	2 - 5	ATEX	6,5	19	14	1.616.1200.51	1.646.1200.51	
M 16 x 1,5	6 - 10	ATEX	6	22	20	1.616.1600.50	1.646.1600.50	
M 16 x 1,5	3 - 7	ATEX	6	22	20	1.616.1600.51	1.646.1600.51	
M 20 x 1,5	10 - 14	ATEX	6	23	24	1.616.2000.50	1.646.2000.50	
M 20 x 1,5	7 - 12	ATEX	6	23	24	1.616.2000.51	1.646.2000.51	
M 25 x 1,5	14 - 18	ATEX	7	24	30	1.616.2500.50	1.646.2500.50	
M 25 x 1,5	10 - 16	ATEX	7	24	30	1.616.2500.51	1.646.2500.51	
M 32 x 1,5	20 - 25	ATEX	8	31	40	1.616.3200.50	1.646.3200.50	
M 32 x 1,5	13 - 20	ATEX	8	31	40	1.616.3200.51	1.646.3200.51	
M 40 x 1,5	22 - 32	ATEX	8	37	50	1.616.4000.50	1.646.4000.50	
M 40 x 1,5	20 - 26	ATEX	8	37	50	1.616.4000.51	1.646.4000.51	
M 50 x 1,5	32 - 38	ATEX	9	37	57	1.616.5000.50	1.646.5000.50	
M 50 x 1,5	25 - 31	ATEX	9	37	57	1.616.5000.51	1.646.5000.51	
M 63 x 1,5	37 - 44	ATEX	10	38	64 / 68	1.616.6300.50	1.646.6300.50	
M 63 x 1,5	29 - 35	ATEX	10	38	64 / 68	1.616.6300.51	1.646.6300.51	
3/8" NPT	4 - 8	ATEX	15	21	17 / 19	1.616.3800.70	1.646.3800.70	1.666.3800.70
3/8" NPT	2 - 6	ATEX	15	21	17 / 19	1.616.3800.71	1.646.3800.71	1.666.3800.71
1/2" NPT	6 - 12	ATEX	13	24	22 / 24	1.616.1200.70	1.646.1200.70	1.666.1200.70
1/2" NPT	5 - 9	ATEX	13	24	22 / 24	1.616.1200.71	1.646.1200.71	1.666.1200.71
3/4" NPT	14 - 18	ATEX	13	25	30	1.616.3400.70	1.646.3400.70	1.666.3400.70
3/4" NPT	10 - 16	ATEX	13	25	30	1.616.3400.71	1.646.3400.71	1.666.3400.71

To learn more about B-I-A please visit us at our WEB site: www.BiaGmbH.com

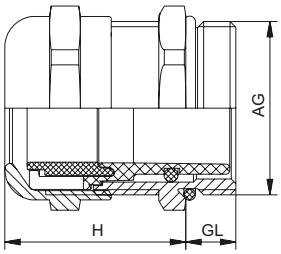
HSK-M-EMV / -PVDF-Ex

HSK-M-EMV-Ex (PG)

EMI compatible standard strain relief fittings for hazardous locations

HSK-M-EMV-PVDF-Ex (PG)

EMI compatible standard strain relief fittings for hazardous locations used in chemical and high temperature applications



ATEX

II 2G 1D
II 2G D

Material	Nickel plated brass
Clamping insert	PA (Nylon) / PVDF
Seal	Buna-N / FPM
O-Ring	Buna-N / FPM
Protection	IP 68 – 10 bar within the specified clamping range
Operating Temperature	-20 °C – 95 °C (-4 °F – 203 °F)

RoHS

Elongated thread available
For approvals see end of this section

AG	⌀ mm	Ex-Generation	GL mm	H mm	mm	HSK-M-EMV-Ex -20 °C – 95 °C (-4 °F – 203°F)	HSK-M-EMV-Ex -60 °C – 105 °C (-76 °F – 221°F)	HSK-M-EMV-PVDF-Ex -20 °C – 130 °C (-4 °F – 266°F)
PG 7	3 - 6,5	ATEX	5	19	14	1.616.0700.01	1.646.0700.01	1.666.7000.01
PG 7	2 - 5	ATEX	5	19	14	1.616.0700.15	1.646.0700.15	1.666.0700.15
PG 9	4 - 8	ATEX	6	21	17	1.616.0900.01	1.646.0900.01	1.666.0900.01
PG 9	2 - 6	ATEX	6	21	17	1.616.0900.15	1.646.0900.15	1.666.0900.15
PG 11	6 - 10	ATEX	6	22	20	1.616.1100.01	1.646.1100.01	1.666.1100.01
PG 11	3 - 7	ATEX	6	22	20	1.616.1100.15	1.646.1100.15	1.666.1100.15
PG 13,5	6 - 12	ATEX	6,5	24	22	1.616.1300.01	1.646.1300.01	1.666.1300.01
PG 13,5	5 - 9	ATEX	6,5	24	22	1.616.1300.15	1.646.1300.15	1.666.1300.15
PG 16	10 - 14	ATEX	6,5	23	24	1.616.1600.01	1.646.1600.01	1.666.1600.01
PG 16	7 - 12	ATEX	6,5	23	24	1.616.1600.15	1.646.1600.15	1.666.1600.15
PG 21	14 - 18	ATEX	7	24	30	1.616.2100.01	1.646.2100.01	1.666.2100.01
PG 21	10 - 16	ATEX	7	24	30	1.616.2100.15	1.646.2100.15	1.666.2100.15
PG 29	20 - 25	ATEX	8	29	40	1.616.2900.01	1.646.2900.01	1.666.2900.01
PG 29	13 - 20	ATEX	8	29	40	1.616.2900.15	1.646.2900.15	1.666.2900.15
PG 36	22 - 32	ATEX	8	35	50	1.616.3600.01	1.646.3600.01	1.666.3600.01
PG 36	20 - 26	ATEX	8	35	50	1.616.3600.15	1.646.3600.15	1.666.3600.15
PG 42	32 - 38	ATEX	9	37	57	1.616.4200.01	1.646.4200.01	1.666.4200.01
PG 42	25 - 31	ATEX	9	37	57	1.616.4200.15	1.646.4200.15	1.666.4200.15
PG 48	37 - 44	ATEX	10	38	64	1.616.4800.01	1.646.4800.01	1.666.4800.01
PG 48	29 - 35	ATEX	10	38	64	1.616.4800.15	1.646.4800.15	1.666.4800.15

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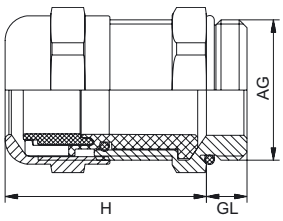
HSK-M-EMV-D-Ex

HSK-M-EMV-D-Ex (Metric)

EMI compatible standard strain relief fittings for hazardous locations with feed-through suitable for cables with braided and foil shield



ATEX

II 2G 1D
II 2G D

Material	Nickel plated brass
Clamping insert	PA (Nylon)
Seal	Buna-N
O-Ring	Buna-N
Protection	IP 68 – 10 bar (NEMA 6 – 150 PSIG) within the specified clamping range

EN 50262

RoHS

For approvals see end of this section

AG	⌀ mm	Ex-Generation	GL mm	H mm	mm	Number -20 °C – 95 °C (-4 °F – 203 °F)	Number -60 °C – 105 °C (-76 °F – 221 °F)
M 16 x 1,5	5 - 10	ATEX	6	29	20	1.636.1600.50	1.637.1600.50
M 20 x 1,5	10 - 14	ATEX	6	31	24	1.636.2000.50	1.637.2000.50
M 25 x 1,5	13 - 18	ATEX	7	38	30	1.636.2500.50	1.637.2500.50
M 32 x 1,5	18 - 25	ATEX	8	43	40	1.636.3200.50	1.637.3200.50
M 40 x 1,5	24 - 32	ATEX	8	51	50	1.636.4000.50	1.637.4000.50
Elongated thread							
M 16 x 1,5	5 - 10	ATEX	10	29	20	1.636.1600.30	1.637.1600.30
M 20 x 1,5	10 - 14	ATEX	10	31	24	1.636.2000.30	1.637.2000.30
M 25 x 1,5	13 - 18	ATEX	12	38	30	1.636.2500.30	1.637.2500.30
M 32 x 1,5	18 - 25	ATEX	12	43	40	1.636.3200.30	1.637.3200.30
M 40 x 1,5	24 - 32	ATEX	15	51	50	1.636.4000.30	1.637.4000.30

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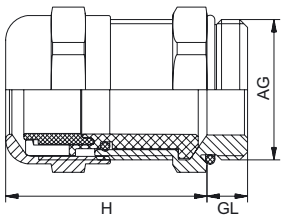
HSK-M-EMV-D-Ex

HSK-M-EMV-D-Ex (PG)

EMI compatible standard strain relief fittings for hazardous locations with feed-through suitable for cables with braided and foil shield



ATEX

II 2G 1D
II 2G D

Material	Nickel plated brass
Clamping insert	PA (Nylon)
Seal	Buna-N
O-Ring	Buna-N
Protection	IP 68 – 10 bar (NEMA 6 – 150 PSIG) within the specified clamping range

RoHS

For approvals see end of this section
Elongated thread available on request

AG	⌀ mm	Ex-Generation	GL mm	H mm	mm	Number -20 °C – 95 °C (-4 °F – 203 °F)	Number -60 °C – 105 °C (-76 °F – 221 °F)
PG 11	5 - 10	ATEX	6	29	20	1.636.1100.01	1.637.1100.01
PG 13,5	6 - 12	ATEX	6,5	31	22	1.636.1300.01	1.637.1300.01
PG 16	10 - 14	ATEX	6,5	32	24	1.636.1600.01	1.637.1600.01
PG 21	13 - 18	ATEX	7	38	30	1.636.2100.01	1.637.2100.01
PG 29	18 - 25	ATEX	8	43	40	1.636.2900.01	1.637.2900.01
PG 36	22 - 32	ATEX	8	48	50	1.636.3600.01	1.637.3600.01

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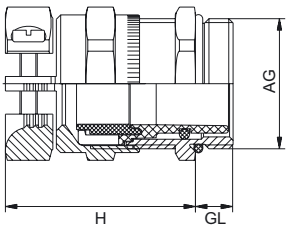
HSK-MZ-EMV / -PVDF-Ex

HSK-MZ-EMV-Ex (Metric / PG / NPT)
EMI compatible standard strain relief fittings for hazardous locations with additional cable clamp for flex protection

HSK-MZ-EMV-PVDF-Ex (Metric / PG / NPT)
EMI compatible standard strain relief fittings for chemical and high temperature applications with additional cable clamp for flex protection



ATEX

II 2G 1D
II 2G D

Material	Nickel plated brass
Clamping insert	PA (Nylon) / PVDF
Seal	Buna-N / FPM
O-Ring	Buna-N / FPM
Protection	IP 68 – 10 bar (NEMA 6 – 150 PSIG) within the specified clamping range

EN 50262

RoHS

For approvals see end of this section
Elongated thread available

AG	⌀ mm	Ex-Generation	GL mm	H mm	mm	HSK-MZ-EMV-Ex -20 °C – 95 °C (-4 °F – 203°F)	HSK-MZ-EMV-Ex -60 °C – 105 °C (-76 °F – 221°F)	HSK-MZ-EMV-PVDF-Ex -20 °C – 130 °C (-4 °F – 266°F)
M 12 x 1,5	3 - 6,5	ATEX	6,5	26	14	1.617.1200.50	1.647.1200.50	
M 16 x 1,5	6 - 10	ATEX	6	29	20	1.617.1600.50	1.647.1600.50	
M 20 x 1,5	10 - 14	ATEX	6	32	24	1.617.2000.50	1.647.2000.50	
M 25 x 1,5	14 - 18	ATEX	7	35	30	1.617.2500.50	1.647.2500.50	
M 32 x 1,5	20 - 25	ATEX	8	41	40	1.617.3200.50	1.647.3200.50	
M 40 x 1,5	24 - 32	ATEX	8	48	50	1.617.4000.50	1.647.4000.50	
M 50 x 1,5	32 - 38	ATEX	9	51	57	1.617.5000.50	1.647.5000.50	
M 50 x 1,5	28 - 31	ATEX	9	51	57	1.617.5000.51	1.647.5000.51	
M 63 x 1,5	37 - 44	ATEX	10	52	68	1.617.6300.50	1.647.6300.50	
M 63 x 1,5	32 - 35	ATEX	10	52	68	1.617.6300.51	1.647.6300.51	
PG 7	3 - 6,5	ATEX	5	26	14	1.617.0700.01	1.647.0700.01	1.667.0700.01
PG 9	4 - 8	ATEX	6	28	17	1.617.0900.01	1.647.0900.01	1.667.0900.01
PG 11	6 - 10	ATEX	6	29	20	1.617.1100.01	1.647.1100.01	1.667.1100.01
PG 13,5	7 - 12	ATEX	6,5	33	22	1.617.1300.01	1.647.1300.01	1.667.1300.01
PG 16	10 - 14	ATEX	6,5	32	24	1.617.1600.01	1.647.1600.01	1.667.1600.01
PG 21	13 - 18	ATEX	7	35	30	1.617.2100.01	1.647.2100.01	1.667.2100.01
PG 29	20 - 25	ATEX	8	41	40	1.617.2900.01	1.647.2900.01	1.667.2900.01
PG 36	24 - 32	ATEX	8	48	50	1.617.3600.01	1.647.3600.01	1.667.3600.01
PG 42	32 - 38	ATEX	9	51	57	1.617.4200.01	1.647.4200.01	1.667.4200.01
PG 42	28 - 31	ATEX	9	51	57	1.617.4200.15	1.647.4200.15	1.667.4200.15
PG 48	37 - 44	ATEX	10	51	64	1.617.4800.01	1.647.4800.01	1.667.4800.01
PG 48	32 - 35	ATEX	10	51	64	1.617.4800.15	1.647.4800.15	1.667.4800.15
3/8" NPT	4 - 8	ATEX	15	27	17 / 19	1.617.3800.70	1.647.3800.70	1.667.3800.70
1/2" NPT	7 - 12	ATEX	13	31	22 / 24	1.617.1200.70	1.647.1200.70	1.667.1200.70
3/4" NPT	13 - 18	ATEX	13	36	30	1.617.3400.70	1.647.3400.70	1.667.3400.70

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Technical Information

Other International Ex-Certifications

Hungary
BKI 03 ATEX 001 X
BKI 03 ATEX 002 X

Russia
ROSS DE.GB05.B00

China
CQST CNEx01.207
CQST CNEx01.211

Brazil

INMETRO MC AEX-4665-X
INMETRO MC AEX-5233-X
INMETRO MC AEX-5234-X
INMETRO MC AEX-5235
INMETRO MC AEX-6203-X
INMETRO MC AEX-6410-X
INMETRO MC AEX-6411-X
INMETRO MC AEX-6412-X

Installation Instructions

Multi hole inserts: Cable diameter should not be less than 20% of hole diameter and the difference between cable diameter and hole should never exceed 1 mm (.04").

Flat cable inserts: Actual dimensions of cables and wires must be verified with the respective cable supplier.

Product Material Abbreviations

CR	Chloroprene rubber
FPM	Fluorelastomer
Ms	Nickel plated brass
NBR	Buna-N
PA	Nylon
PE	Polyethylene
PP	Polypropylene
PVC	Polyvinylchloride
PVDF	Polyvinylidenfluoride
SB	Styrene Butadiene
VMQ	Silicone

Approvals for HSK Strain Relief Fittings / Licence Number G0010850

Page	Article	Number	Temperature Range	Approval G (Gas)	Approval D (Dust)	EC-Type Examination Certificate
108	RSD-Ms-Ex	1.078.*	-20 °C – 95 °C	x	x	DMT 03 ATEX E 049
108	RSD-Ms-Ex	1.079.*	-60 °C – 180 °C	x	x	DMT 03 ATEX E 049
110	RSD-INOX-Ex	1.098.*	-20 °C – 180 °C	x	x	DMT 03 ATEX E 049
110	RSD-INOX-Ex	1.099.*	-60 °C – 180 °C	x	x	DMT 03 ATEX E 049
109	V-INOX-Ex	1.192.*	-20 °C – 95 °C	x	x	DMT 03 ATEX E 049
109	V-INOX-FPM-Ex	1.193.*	-20 °C – 180 °C	x	x	DMT 03 ATEX E 049
109	V-INOX-VMQ-Ex	1.194.*	-60 °C – 180 °C	x	x	DMT 03 ATEX E 049
107	V-Ms-Ex	1.197.*	-20 °C – 95 °C	x	x	DMT 03 ATEX E 049
107	V-Ms-FPM-Ex	1.198.*	-20 °C – 180 °C	x	x	DMT 03 ATEX E 049
107	V-Ms-VMQ-Ex	1.199.*	-60 °C – 180 °C	x	x	DMT 03 ATEX E 049
92	HSK-K-MZ-Ex	1.215.*	-20 °C – 70 °C	x	x	KEMA 99 ATEX 6971 X
74, 76, 78, 80, 82	HSK-K-Ex	1.291.*	-20 °C – 95 °C	x	x	DMT 02 ATEX E 047 X
74, 76	HSK-K-Ex	1.295.*	-20 °C – 95 °C	x	x	DMT 02 ATEX E 047 X
104	HSK-V-Ex	1.296.*	-20 °C – 95 °C	x	x	BVS 03 ATEX E 298
105	V-Ex	1.297.*	-20 °C – 90 °C	x	x	DMT 03 ATEX E 049
84	HSK-K-Multi-Ex	1.599.*	-20 °C – 95 °C	x	x	DMT 02 ATEX E 047 X
75, 77, 79, 81, 83 / 68, 69	HSK-M/EMV-Ex	1.610.* / 1.616.*	-20 °C – 95 °C	x	x	DMT 03 ATEX E 051 X
93, 94 / 72	HSK-MZ/EMV-Ex	1.611.* / 1.617.*	-20 °C – 95 °C	x	x	DMT 03 ATEX E 051 X
89, 91	HSK-INOX-Ex	1.612.*	-20 °C – 95 °C	x	x	DMT 03 ATEX E 051 X
96, 97	HSK-M-Ex-D	1.622.*	-60 °C – 105 °C	x	x	KEMA 99 ATEX 6968 X
96, 97	HSK-MZ-Ex-D	1.628.*	-60 °C – 105 °C	x	x	KEMA 99 ATEX 6968 X
99	HSK-M-Ex-DUAL	1.630.*	-20 °C – 130 °C	x	x	KEMA 99 ATEX 6968 X
98	HSK-INOX-Ex-D	1.632.*	-60 °C – 105 °C	x	x	KEMA 99 ATEX 6968 X
98	HSK-INOX-Ex-D	1.633.*	-20 °C – 130 °C	x	x	KEMA 99 ATEX 6968 X
96, 97	HSK-M-PVDF-Ex-d	1.634.*	-20 °C – 130 °C	x	x	KEMA 99 ATEX 6968 X
70, 71	HSK-M-EMV-D-Ex	1.636.*	-20 °C – 95 °C	x	x	DMT 03 ATEX E 051 X
70, 71	HSK-M-EMV-D-Ex	1.637.*	-60 °C – 105 °C	x	x	KEMA 99 ATEX 6971 X
75, 77, 79, 81, 83 / 68, 69	HSK-M/EMV-Ex	1.640.* / 1.646.*	-60 °C – 105 °C	x	x	KEMA 99 ATEX 6971 X
93, 94 / 72	HSK-MZ/EMV-Ex	1.641.* / 1.647.*	-60 °C – 105 °C	x	x	KEMA 99 ATEX 6971 X
89, 91	HSK-INOX–Ex	1.642.*	-60 °C – 105 °C	x	x	KEMA 99 ATEX 6971 X
75, 77, 79, 81, 83	HSK-M-PVDF-Ex	1.660.*	-20 °C – 130 °C	x	x	KEMA 99 ATEX 6971 X
93, 94	HSK-MZ-PVDF-Ex	1.661.*	-20 °C – 130 °C	x	x	KEMA 99 ATEX 6971 X
89, 91	HSK-INOX–PVDF-Ex	1.662.*	-20 °C – 130 °C	x	x	KEMA 99 ATEX 6971 X
68, 69	HSK-M-EMV-PVDF-Ex	1.666.*	-20 °C – 130 °C	x	x	KEMA 99 ATEX 6971 X
72	HSK-MZ-EMV-PVDF-Ex	1.667.*	-20 °C – 130 °C	x	x	KEMA 99 ATEX 6971 X
85	HSK-M-Multi-Ex	1.687.*	-20 °C – 95 °C	x	x	DMT 03 ATEX E 051 X
100	V-Ms-/INOX-Ex-d	1.875.*/1.895.*	-20 °C – 95 °C	x	x	KEMA 06 ATEX 0024
100	V-Ms-/INOX-FPM-Ex-d	1.876.*/1.896.*	-20 °C – 180 °C	x	x	KEMA 06 ATEX 0024
100	V-Ms-/INOX-VMQ-Ex-d	1.877.*/1.897.*	-60 °C – 180 °C	x	x	KEMA 06 ATEX 0024
101	RSD-Ms-/INOX-Ex-d	1.878.*/1.898.*	-20 °C – 95 °C	x	x	KEMA 06 ATEX 0024
101	RSD-Ms-/INOX-Ex-d	1.879.*/1.899.*	-60 °C – 180 °C	x	x	KEMA 06 ATEX 0024

Other temperature ranges pending.