

# TYPE APPROVAL CERTIFICATE

**This is to certify:****That the Cable Gland**

with type designation(s)

**SYNTEC, SYNTEC MS, PROGRESS MS, MS L, MS FKN, MS FK, MS MULTI, MS T, MS W90, MS Adapter, MS Kombi, MS HT, GFK, GFK Multi, MS KB, MS T+KB, S2, S2 HT, S4 HT, MS EMV, MS EMV Rapid, MS EMV FKN, MS Adapter EMV, MS Kombi EMV, EMV Serie 85, Serie 51/52, SYNTEC mit Knickschutz, PROGRESS EMV easyConnect**

Issued to

**Agro AG**  
**Hunzenschwil, Switzerland**

is found to comply with

**Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards**  
**EN 50262, Amendment A1 and A2****Application :****Cable glands for non-hazardous areas.**  
**The manufacturer's installation description to be followed.**This Certificate is valid until **2019-06-15**.Issued at **Høvik** on **2015-06-16**DNV GL local station: **Essen**Approval Engineer: **Hanwee Low**for **DNV GL**

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**Marit Laumann**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

## Product description

Classification according to EN 50262:

Type designation	SYNTEC MS Cable glands SYNTEC nickel-plated brass with lamellar technology Long and short entry thread metric One piece sealing ring, not overall length insulated  VDE Approval No.: 40027944 Appendix No.: 200A & 201A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	with cable anchorage type A M12-M63 Impact category 1-4
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M12-M63
Seal material	TPE / NBR

Type designation	SYNTEC Synthetic cable glands SYNTEC with lamellar technology Long and short entry thread metric With one piece sealing ring  VDE Approval No.: 40027945 Appendix No.: 100A & 101A
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 Light grey RAL7035 Dark grey RAL7001 Black RAL 9005
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	with cable anchorage type A M16-M25 Impact category 1-3
6.3 Electrical properties (with electric continuity)	According to EN 50262

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or insulating characteristics)	
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-30°C up to +100°C
Gland sizes [mm]	M16-M25
Seal material	TPE

Type designation	PROGRESS MS Cable glands PROGRESS nickel-plated brass. Short entry thread metric One-piece sealing insert overall length insulated  VDE Approval No.: 40019686 Appendix No.: 200A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	without cable anchorage M6-M8 with cable anchorage type A M8-M75 Impact category 4 up to 8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M6-M75
Seal material	TPE / NBR

Type designation	PROGRESS MS Cable glands PROGRESS nickel-plated brass Short entry thread metric Two-piece sealing insert overall length insulated  VDE Approval No.: 40019686
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	Appendix No.: 201A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	with cable anchorage type A M16-M75 Impact category 5-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	6.4 Resistance to external influences
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M75
Seal material	TPE / NBR

Type designation	PROGRESS MS Cable glands PROGRESS nickel-plated brass Short entry thread metric One-piece sealing insert not overall length insulated  VDE Approval No.: 40019686 Appendix No.: 202A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M6-M8 with cable anchorage type A: M8-M75 Impact category 4-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M6-M75
Seal material	TPE / NBR

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Type designation	PROGRESS MS Cable glands PROGRESS nickel-plated brass Short entry thread metric Two-piece sealing insert, not overall length insulated  VDE Approval No.: 40019686 Appendix No.: 203A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	with cable anchorage type A: M16-M75 Impact category 5-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	N/A
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M75
Seal material	TPE / NBR

Type designation	PROGRESS MS Cable glands PROGRESS nickel-plated brass Long entry thread metric One-piece sealing insert overall length insulated  VDE Approval No.: 40019686 Appendix No.: 204A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M6-M8 with cable anchorage type A: M8-M75 Impact category 4-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to	-40°C up to +100°C

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+65C	
Gland sizes [mm]	M6-M75
Seal material	TPE / NBR

Type designation	PROGRESS MS Cable glands PROGRESS nickel-plated brass Long entry thread metric Two-piece sealing insert overall length insulated  VDE Approval No.: 40019686 Appendix No.: 205A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	with cable anchorage type A: M16-M75 Impact category 5-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M75
Seal material	TPE / NBR

Type designation	PROGRESS MS Cable glands PROGRESS nickel-plated brass Long entry thread metric One-piece sealing insert not overall length insulated  VDE Approval No.: 40019686 Appendix No.: 206A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage M6-12 With cable anchorage type A: M12-M75 Impact category 4-8

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6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M6-M75
Seal material	TPE / NBR

Type designation	PROGRESS MS Cable glands PROGRESS nickel-plated brass Long entry thread metric Two-piece sealing insert not overall length insulated  VDE Approval No.: 40019686 Appendix No.: 207A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M75 Impact category 5-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M75
Seal material	TPE / NBR

Type designation	PROGRESS MS L Cable glands PROGRESS nickel-plated brass with special entry thread. Special long entry thread metric Two-piece sealing insert, not overall length insulated  VDE Approval No.: 40019686 Appendix No.: 208A
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6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M40 Impact category 5-7
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M40
Seal material	TPE / NBR

Type designation	PROGRESS MS FKN Cable glands PROGRESS nickel-plated brass for special applications With antikink spring, short entry thread metric One-piece sealing insert overall length insulated  VDE Approval No.: 40019686 Appendix No.: 210A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage M8 With cable anchorage type A: M8-M32 Impact category 4-6
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M8-M32
Seal material	TPE / NBR



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Type designation	PROGRESS MS FKN Cable glands PROGRESS nickel-plated brass for special applications With antikink spring, short entry thread metric Two-piece sealing insert overall length insulated  VDE Approval No.: 40019686 Appendix No.: 211A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M32 Impact category 5-6
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M32
Seal material	TPE / NBR

Type designation	PROGRESS MS FK Cable glands PROGRESS nickel-plated brass for special cables For flat cables, short entry thread metric One-piece sealing, not insert overall length insulated  VDE Approval No.: 40019686 Appendix No.: 212A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M63 Impact category 5-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C

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Gland sizes [mm]	M16-M63
Seal material	TPE / NBR

Type designation	PROGRESS MS FK Cable glands PROGRESS nickel-plated brass for special cables For flat cables, long entry thread metric One-piece sealing, not insert overall length insulated  VDE Approval No.: 40019686 Appendix No.: 213A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M63 Impact category 5-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M63
Seal material	TPE / NBR

Type designation	PROGRESS MS Multi Cable glands PROGRESS nickel-plated brass for installation of multiple cables short entry thread metric One-piece sealing not insert overall length insulated  VDE Approval No.: 40019686 Appendix No.: 214A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M32 Impact category 5-6
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262

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6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M32
Seal material	TPE / NBR

Type designation	PROGRESS MS Multi Cable glands PROGRESS nickel-plated brass for installation of multiple cables long entry thread metric One-piece sealing, not insert overall length insulated  VDE Approval No.: 40019686 Appendix No.: 215A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M32 Impact category 5-6
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M32
Seal material	TPE / NBR

Type designation	PROGRESS MS T Cable glands PROGRESS nickel-plated brass for special applications short entry thread metric Two-piece sealing insert, not overall length insulated  VDE Approval No.: 40019686 Appendix No.: 216A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3

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6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M40 Impact category 5-7
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M40
Seal material	TPE / NBR

Type designation	PROGRESS MS T Cable glands PROGRESS nickel-plated brass for special applications long entry thread metric Two-piece sealing insert, not overall length insulated  VDE Approval No.: 40019686 Appendix No.: 217A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M40 Impact category 5-7
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M40
Seal material	TPE / NBR

Type designation	PROGRESS MS W90 Cable glands PROGRESS nickel-plated brass elbow 90° short entry thread metric
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	One-piece sealing insert, not overall length insulated VDE Approval No.: 40019686 Appendix No.: 218A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M12 Impact category 4
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M12
Seal material	TPE

Type designation	PROGRESS MS W90 Cable glands PROGRESS nickel-plated brass elbow 90° short entry thread metric Two-piece sealing insert, not overall length insulated  VDE Approval No.: 40019686 Appendix No.: 219A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M40 Impact category 5-7
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M40

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Seal material	TPE
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Type designation	PROGRESS MS W90 Cable glands PROGRESS nickel-plated brass elbow 90° long entry thread metric One-piece sealing insert, not overall length insulated  VDE Approval No.: 40019686 Appendix No.: 220A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M12 Impact category 4
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M12
Seal material	TPE

Type designation	PROGRESS MS W90 Cable glands PROGRESS nickel-plated brass elbow 90° long entry thread metric Two-piece sealing insert, not overall length insulated  VDE Approval No.: 40019686 Appendix No.: 221A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M40 Impact category 5-7
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	

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6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M40
Seal material	TPE

Type designation	PROGRESS MS W90 Cable glands PROGRESS nickel-plated brass elbow 90° with locknut long entry thread metric One-piece sealing insert, not overall length insulated  VDE Approval No.: 40019686 Appendix No.: 222A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M12 Impact category 4
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M12
Seal material	TPE / NBR

Type designation	PROGRESS MS W90 Cable glands PROGRESS nickel-plated brass elbow 90° with locknut long entry thread metric Two-piece sealing insert, not overall length insulated  VDE Approval No.: 40019686 Appendix No.: 223A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M40

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anchorage – type A, B , impact category)	Impact category 5-7
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M40
Seal material	TPE / NBR

Type designation	PROGRESS MS Adapter Adapter PROGRESS nickel-plated brass with integrated cable gland long entry thread metric one-piece sealing insert, not overall length insulated  VDE Approval No.: 40019686 Appendix No.: 224A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M10-M12 Impact category 4
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M10-M12
Seal material	TPE / NBR

Type designation	PROGRESS MS Adapter Adapter PROGRESS nickel-plated brass with integrated cable gland long entry thread metric two-piece sealing insert, not overall length insulated
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	VDE Approval No.: 40019686 Appendix No.: 225A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M63 Impact category 5-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M63
Seal material	TPE / NBR

Type designation	PROGRESS MS Kombi Combination conduit glands PROGRESS nickel-plated brass with integrated cable gland short entry thread metric two-piece sealing insert, not overall length insulated  VDE Approval No.: 40019686 Appendix No.: 226A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M12-M63 Impact category 4-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M12-M63
Seal material	TPE / NBR

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Type designation	PROGRESS MS Kombi Combination conduit glands PROGRESS nickel-plated brass with integrated cable gland long entry thread metric two-piece sealing insert overall length insulated  VDE Approval No.: 40019686 Appendix No.: 227A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M12-M63 Impact category 4-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M12-M63
Seal material	TPE / NBR

Type designation	PROGRESS MS HT Cable glands PROGRESS nickel-plated brass for high temperature applications short entry thread metric one-piece sealing insert, not overall length insulated  VDE Approval No.: 40019688 Appendix No.: 200A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M6-M8 With cable anchorage type A: M8-M63 Impact category 4-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	

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6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +200°C
Gland sizes [mm]	M6-M63
Seal material	FPM

Type designation	PROGRESS MS HT Cable glands PROGRESS nickel-plated brass for high temperature applications short entry thread metric two-piece sealing insert, not overall length insulated  VDE Approval No.: 40019688 Appendix No.: 201A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M63 Impact category 5-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +200°C
Gland sizes [mm]	M16-M63
Seal material	FPM

Type designation	PROGRESS MS HT Cable glands PROGRESS nickel-plated brass for high temperature applications long entry thread metric one-piece sealing insert, not overall length insulated  VDE Approval No.: 40019688 Appendix No.: 202A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage)	Without cable anchorage: M6-M8

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anchorage – type A, B , impact category)	With cable anchorage type A: M8-M63 Impact category 4-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +200°C
Gland sizes [mm]	M6-M63
Seal material	FPM

Type designation	PROGRESS MS HT Cable glands PROGRESS nickel-plated brass for high temperature applications long entry thread metric two-piece sealing insert, not overall length insulated  VDE Approval No.: 40019688 Appendix No.: 203A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M63 Impact category 5-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +200°C
Gland sizes [mm]	M16-M63
Seal material	FPM

Type designation	PROGRESS GFK Synthetic cable glands PROGRESS GFK entry thread metric
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	one-piece sealing insert VDE Approval No.: 40019689 Appendix No.: 100A
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 GF30 Light grey RAL7035
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M8-M12 With cable anchorage type A: M12-M63 Impact category 3-7
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-20°C up to +100°C
Gland sizes [mm]	M8-M63
Seal material	TPE

Type designation	PROGRESS GFK Synthetic cable glands PROGRESS GFK entry thread metric two-piece sealing insert  VDE Approval No.: 40019689 Appendix No.: 101A
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 GF30 Light grey RAL7035
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M63 Impact category 4-7
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-20°C up to +100°C

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Gland sizes [mm]	M16-M63
Seal material	TPE

Type designation	PROGRESS GFK Synthetic cable glands PROGRESS GFK entry thread metric one-piece sealing insert  VDE Approval No.: 40019689 Appendix No.: 102A
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 GF30 Dark grey RAL7001
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M8-M12 With cable anchorage type A: M12-M63 Impact category 3-7
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-30°C up to +100°C
Gland sizes [mm]	M8-M63
Seal material	TPE

Type designation	PROGRESS GFK Synthetic cable glands PROGRESS GFK entry thread metric two-piece sealing insert  VDE Approval No.: 40019689 Appendix No.: 103A
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 GF30 dark grey RAL7001
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M63 Impact category 4-7

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6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-30°C up to +100°C
Gland sizes [mm]	M16-M63
Seal material	TPE

Type designation	PROGRESS GFK Synthetic cable glands PROGRESS GFK entry thread metric one-piece sealing insert  VDE Approval No.: 40019689 Appendix No.: 104A
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 GF30 Black RAL9005
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M8-M12 With cable anchorage type A: M12-M63 Impact category 3-7
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-20°C up to +100°C
Gland sizes [mm]	M8-M63
Seal material	TPE

Type designation	PROGRESS GFK Synthetic cable glands PROGRESS GFK entry thread metric two-piece sealing insert  VDE Approval No.: 40019689
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	Appendix No.: 105A
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 GF30 Black RAL9005
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M63 Impact category 4-7
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-20°C up to +100°C
Gland sizes [mm]	M16-M63
Seal material	TPE

Type designation	PROGRESS GFK Synthetic cable glands PROGRESS GFK entry thread metric one-piece sealing insert  VDE Approval No.: 40019689 Appendix No.: 106A
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 GF30 White RAL9010
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M20 Impact category 4
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-20°C up to +100°C
Gland sizes [mm]	M20
Seal material	TPE



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Type designation	PROGRESS GFK Synthetic cable glands PROGRESS GFK entry thread metric two-piece sealing insert  VDE Approval No.: 40019689 Appendix No.: 107A
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 GF30 White RAL9010
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M25 Impact category 4-5
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-20°C up to +100°C
Gland sizes [mm]	M16-M25
Seal material	TPE

Type designation	PROGRESS GFK Synthetic cable glands PROGRESS GFK entry thread metric two-piece sealing insert  VDE Approval No.: 40019689 Appendix No.: 108A
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 GF30 green grey RAL7009
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M32 Impact category 4-5
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'

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6.4.2 Temperature range if different from -20C to +65C	-20°C up to +100°C
Gland sizes [mm]	M16-M32
Seal material	TPE

Type designation	PROGRESS GFK Multi Synthetic cable glands PROGRESS GFK for installation of multiple cables entry thread metric one-piece sealing insert  VDE Approval No.: 40019689 Appendix No.: 109A
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 GF30 light grey RAL7035
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M32 Impact category 4-5
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-20°C up to +100°C
Gland sizes [mm]	M16-M32
Seal material	TPE

Type designation	PROGRESS MS KB Cable glands PROGRESS nickel plated brass for special applications. With clamps short entry thread metric one-piece sealing insert, not overall length insulated  VDE Approval No.: 40019690 Appendix No.: 200A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type B: M10-M12

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	Impact category 4
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M10-M12
Seal material	TPE / NBR

Type designation	PROGRESS MS KB Cable glands PROGRESS nickel plated brass for special applications. With clamps short entry thread metric two-piece sealing insert, not overall length insulated  VDE Approval No.: 40019690 Appendix No.: 201A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type B: M16-M75 Impact category 5-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M75
Seal material	TPE / NBR

Type designation	PROGRESS MS KB Cable glands PROGRESS nickel plated brass for special applications. With clamps long entry thread metric one-piece sealing insert, not overall length insulated
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Job Id: **262.1-009078-2**  
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	VDE Approval No.: 40019690 Appendix No.: 202A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type B: M10-M12 Impact category 4
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M10-M12
Seal material	TPE / NBR

Type designation	PROGRESS MS KB Cable glands PROGRESS nickel plated brass for special applications. With clamps long entry thread metric two-piece sealing insert, not overall length insulated  VDE Approval No.: 40019690 Appendix No.: 203A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type B: M16-M75 Impact category 5-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M75
Seal material	TPE / NBR

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Type designation	PROGRESS MS T+KB Cable glands PROGRESS nickel plated brass for special applications. With trumpet and clamps short entry thread metric two-piece sealing insert, not overall length insulated  VDE Approval No.: 40019690 Appendix No.: 204A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type B: M16-M40 Impact category 5-7
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M40
Seal material	TPE / NBR

Type designation	PROGRESS MS T+KB Cable glands PROGRESS nickel plated brass for special applications With trumpet and clamps long entry thread metric two-piece sealing insert, not overall length insulated  VDE Approval No.: 40019690 Appendix No.: 205A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type B: M16-M40 Impact category 5-7
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'

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6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M40
Seal material	TPE / NBR

Type designation	PROGRESS S2 Cable glands PROGRESS stainless steel A2 long entry thread metric one-piece sealing insert, not overall length insulated  VDE Approval No.: 40019693 Appendix No.: 200A
6.1 Material (Metallic, Non-metallic, composite)	CrNi Steel A2
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M8 With cable anchorage type A: M8-M63 Impact category 5-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M8-M63
Seal material	TPE / NBR

Type designation	PROGRESS S2 Cable glands PROGRESS stainless steel A2 long entry thread metric two-piece sealing insert, not overall length insulated  VDE Approval No.: 40019693 Appendix No.: 201A
6.1 Material (Metallic, Non-metallic, composite)	CrNi Steel A2
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M63 Impact category 8

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6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M63
Seal material	TPE / NBR

Type designation	PROGRESS S2 HT Cable glands PROGRESS stainless steel A2, for high temperatures long entry thread metric one-piece sealing insert, not overall length insulated  VDE Approval No.: 40019693 Appendix No.: 202A
6.1 Material (Metallic, Non-metallic, composite)	CrNi Steel A2
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M8 With cable anchorage type A: M8-M63 Impact category 5-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +200°C
Gland sizes [mm]	M8-M63
Seal material	FPM

Type designation	PROGRESS S2 HT Cable glands PROGRESS stainless steel A2, for high temperatures long entry thread metric two-piece sealing insert, not overall length insulated
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Job Id: **262.1-009078-2**  
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	VDE Approval No.: 40019693 Appendix No.: 203A
6.1 Material (Metallic, Non-metallic, composite)	CrNi Steel A2
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M63 Impact category 8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +200°C
Gland sizes [mm]	M16-M63
Seal material	FPM

Type designation	PROGRESS S4 HT Cable glands PROGRESS stainless and acid-resistant steel A4, for high temperatures long entry thread metric one-piece sealing insert, not overall length insulated  VDE Approval No.: 40019693 Appendix No.: 204A
6.1 Material (Metallic, Non-metallic, composite)	CrNiMo Steel A4
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M8 With cable anchorage type A: M8-M63 Impact category 5-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +200°C
Gland sizes [mm]	M8-M63



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Seal material	FPM
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Type designation	PROGRESS S4 HT Cable glands PROGRESS stainless and acid-resistant steel A4, for high temperatures long entry thread metric two-piece sealing insert, not overall length insulated  VDE Approval No.: 40019693 Appendix No.: 205A
6.1 Material (Metallic, Non-metallic, composite)	CrNiMo Steel A4
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M63 Impact category 8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +200°C
Gland sizes [mm]	M16-M63
Seal material	FPM

Type designation	PROGRESS MS EMV Cable glands PROGRESS EMC nickel plated brass with contact sleeve short entry thread metric one-piece sealing insert, not overall length insulated  VDE Approval No.: 40019694 Appendix No.: 200A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M8 With cable anchorage type A: M8-M63 Impact category 4-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262

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6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M8-M63
Seal material	TPE / NBR

Type designation	PROGRESS MS EMV Cable glands PROGRESS EMC nickel plated brass with contact sleeve long entry thread metric one-piece sealing insert, not overall length insulated  VDE Approval No.: 40019694 Appendix No.: 201A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M8 With cable anchorage type A: M8-M63 Impact category 4-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M8-M63
Seal material	TPE / NBR

Type designation	PROGRESS MS EMV Rapid Cable glands PROGRESS EMC Rapid nickel plated brass with contact disc long entry thread metric one-piece sealing insert, not overall length insulated  VDE Approval No.: 40019694 Appendix No.: 203A
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Job Id: **262.1-009078-2**  
 Certificate No: **TAE000001M**

6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M12-M32 Impact category 4-6
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M12-M32
Seal material	TPE / NBR

Type designation	PROGRESS MS EMV FKN Cable glands PROGRESS EMC nickel plated brass with antikink spring entry thread metric one-piece sealing insert, not overall length insulated  VDE Approval No.: 40019694 Appendix No.: 204A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M8 With cable anchorage type A: M8-M32 Impact category 4-6
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M8-M32
Seal material	TPE / NBR

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Type designation	PROGRESS MS Adapter Adapter PROGRESS nickel plated brass with integrated EMV cable gland long entry thread metric one-piece sealing insert, not overall length insulated  VDE Approval No.: 40019694 Appendix No.: 205A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M10-M63 Impact category 4-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M10-M63
Seal material	TPE / NBR

Type designation	PROGRESS MS Kombi EMV Combination conduit glands with integrated cable gland PROGRESS EMC long entry thread metric one-piece sealing insert, not overall length insulated  VDE Approval No.: 40019694 Appendix No.: 206A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M12-M63 Impact category 4-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C

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+65C	
Gland sizes [mm]	M12-M63
Seal material	TPE / NBR

Type designation	PROGRESS EMV Serie 85 Cable glands PROGRESS EMC Series 85 nickel plated brass with collet chuck entry thread metric two-piece sealing insert, not overall length insulated  VDE Approval No.: 40024694 Appendix No.: 200A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M16-M63 Impact category 5-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30' IP69 K
6.4.2 Temperature range if different from -20C to +65C	-40°C up to +100°C
Gland sizes [mm]	M16-M63
Seal material	TPE / NBR

Type designation	Serie 51/52 Cable glands PROGRESS nickel plated brass for special applications Antikink nozzle in EPDM short entry thread metric one-piece sealing insert, not overall length insulated  VDE Approval No.: 40019695 Appendix No.: 200A
6.1 Material (Metallic, Non-metallic, composite)	Nickel plated brass CuZn39Pb3
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M8 With cable anchorage type A: M10-M25

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	Impact category 4-8
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-20°C up to +100°C
Gland sizes [mm]	M8-M25
Seal material	NBR / EPDM

Type designation	SYNTEC Synthetic cable glands SYNTEC with lamellar technology. short entry thread metric With one piece sealing ring  VDE Approval No.: 40019696 Appendix No.: 100A remark: only M12 and M32
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 Light grey RAL7035
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M12 with cable anchorage type A M32 Impact category 1-5
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-30°C up to +100°C
Gland sizes [mm]	M12 and M32 M16-M25 see VDE Approval No.:40027945 Appendix 100A and 101A
Seal material	CR

Job Id: **262.1-009078-2**  
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Type designation	SYNTEC Synthetic cable glands SYNTEC with lamellar technology. short entry thread metric With one piece sealing ring  VDE Approval No.: 40019696 Appendix No.: 101A remark: only M12 and M32
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 dark grey RAL7001
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M12 with cable anchorage type A M32 Impact category 2 and 5
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-30°C up to +100°C
Gland sizes [mm]	M12 and M32 M16-M25 see VDE Approval No.:40027945 Appendix 100A and 101A
Seal material	CR

Type designation	SYNTEC Synthetic cable glands SYNTEC with lamellar technology. short entry thread metric With one piece sealing ring  VDE Approval No.: 40019696 Appendix No.: 102A remark: only M12 and M32
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 black RAL9005
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M12 with cable anchorage type A M32 Impact category 2 and 5

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6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-30°C up to +100°C
Gland sizes [mm]	M12 and M32 M16-M25 see VDE Approval No.:40027945 Appendix 100A and 101A
Seal material	CR

Type designation	SYNTEC Synthetic cable glands SYNTEC with lamellar technology. long entry thread metric With one piece sealing ring  VDE Approval No.: 40019696 Appendix No.: 103A remark: only M12 and M32-M63
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 light grey RAL7035
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M12 with cable anchorage type A M32-M63 Impact category 2 and 6
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-30°C up to +100°C
Gland sizes [mm]	M12 and M32-M63 M16-M25 see VDE Approval No.:40027945 Appendix 100A and 101A
Seal material	CR



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Type designation	SYNTEC Synthetic cable glands SYNTEC with lamellar technology. long entry thread metric With one piece sealing ring  VDE Approval No.: 40019696 Appendix No.: 104A remark: only M12 and M32-M63
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 dark grey RAL7001
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M12 with cable anchorage type A M32-M63 Impact category 2 and 6
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-30°C up to +100°C
Gland sizes [mm]	M12 and M32-M63 M16-M25 see VDE Approval No.:40027945 Appendix 100A and 101A
Seal material	CR

Type designation	SYNTEC Synthetic cable glands SYNTEC with lamellar technology. long entry thread metric With one piece sealing ring  VDE Approval No.: 40019696 Appendix No.: 105A remark: only M12 and M32-M63
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 black RAL9005
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M12 with cable anchorage type A M32-M63 Impact category 2 and 6

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6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-30°C up to +100°C
Gland sizes [mm]	M12 and M32-M63 M16-M25 see VDE Approval No.:40027945 Appendix 100A and 101A
Seal material	CR

Type designation	SYNTEC mit Knickschutz Synthetic cable glands SYNTEC with lamellar technology and antikink nozzle short entry thread metric With one piece sealing ring  VDE Approval No.: 40019696 Appendix No.: 106A
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 light grey RAL7035
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M12-M20 with cable anchorage type A M20 Impact category 2-3
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	N/A
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-30°C up to +100°C
Gland sizes [mm]	M12-M20
Seal material	CR

Type designation	SYNTEC mit Knickschutz Synthetic cable glands SYNTEC with lamellar technology and antikink nozzle
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	short entry thread metric With one piece sealing ring  VDE Approval No.: 40019696 Appendix No.: 107A
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 dark grey RAL7001
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M12-M20 with cable anchorage type A M20 Impact category 2-3
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-30°C up to +100°C
Gland sizes [mm]	M12-M20
Seal material	CR

Type designation	SYNTEC mit Knickschutz Synthetic cable glands SYNTEC with lamellar technology and antikink nozzle short entry thread metric With one piece sealing ring  VDE Approval No.: 40019696 Appendix No.: 108A
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 black RAL9005
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M12-M20 with cable anchorage type A M20 Impact category 2-3
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	

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6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-30°C up to +100°C
Gland sizes [mm]	M12-M20
Seal material	CR

Type designation	SYNTEC mit Knickschutz Synthetic cable glands SYNTEC with lamellar technology and antikink nozzle long entry thread metric With one piece sealing ring  VDE Approval No.: 40019696 Appendix No.: 109A
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 light grey RAL7035
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M12-M20 with cable anchorage type A M20 Impact category 2-3
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-30°C up to +100°C
Gland sizes [mm]	M12-M20
Seal material	CR

Type designation	SYNTEC mit Knickschutz Synthetic cable glands SYNTEC with lamellar technology and antikink nozzle long entry thread metric With one piece sealing ring  VDE Approval No.: 40019696 Appendix No.: 110A
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Job Id: **262.1-009078-2**  
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6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 dark grey RAL7001
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M12-M20 with cable anchorage type A M20 Impact category 2-3
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-30°C up to +100°C
Gland sizes [mm]	M12-M20
Seal material	CR

Type designation	SYNTEC mit Knickschutz Synthetic cable glands SYNTEC with lamellar technology and antikink nozzle long entry thread metric With one piece sealing ring  VDE Approval No.: 40019696 Appendix No.: 111A
6.1 Material (Metallic, Non-metallic, composite)	Polyamide PA6 black RAL9005
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	Without cable anchorage: M12-M20 with cable anchorage type A M20 Impact category 2-3
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to EN 50262
6.4 Resistance to external influences	
6.4.1 IP class	IP68 1 bar 30'
6.4.2 Temperature range if different from -20C to +65C	-30°C up to +100°C
Gland sizes [mm]	M12-M20

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 Certificate No: **TAE000001M**

Seal material	CR
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Type designation	PROGRESS EMV easyConnect Cable glands PROGRESS EMC nickel plated brass with contact spring short and long entry thread metric two-piece sealing insert, not overall length insulated  VDE Approval No.: 40036383 Appendix No.: 200A
6.1 Material (Metallic, Non-metallic, composite)	Body: Nickel plated brass CuZn39Pb3  Contact Spring: steel 1.4310
6.2 Mechanical properties (without or with cable anchorage – type A, B , impact category)	With cable anchorage type A: M12-M32 Impact category 3
6.3 Electrical properties (with electric continuity or insulating characteristics)	According to IEC 62444
6.4 Resistance to external influences	
6.4.1 IP class	IP68, 2 up to 30 bar during 30'  IP69K
6.4.2 Temperature range if different from -20C to +65C	-60°C up to +100°C
Gland sizes [mm]	M12-M32
Seal material	TPE / NBR

## Application/Limitation

For use in non-hazardous areas, only.

## Type Approval documentation

Test reports / certificates:

VDE Certificate no. 40027944, appendix 200A, 201A.

VDE Certificate no. 40027945, appendix 100A, 101A.

VDE Certificate no. 40019686, appendix 200A, 201A, 202A, 203A, 204A, 205A, 206A, 207A, 208A, 210A, 211A, 212A, 213A, 214A, 215A, 216A, 217A, 218A, 219A, 220A, 221A, 222A, 223A, 224A, 227A.

VDE Certificate no. 40019688, appendix 200A, 201A, 202A, 203A.

VDE Certificate no. 40019689, appendix 100A, 101A, 102A, 103A, 104A, 105A, 106A, 107A, 108A, 109A.

VDE Certificate no. 40019690, appendix 200A, 201A, 202A, 203A, 204A, 205A.

VDE Certificate no. 40019693, appendix 200A, 201A, 202A, 203A, 204A, 205A.

VDE Certificate no. 40019694, appendix 200A, 201A, 203A, 204A, 205A, 206A.

VDE Certificate no. 40019695, appendix 200A.

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Certificate No: **TAE000001M**

VDE Certificate no. 40019696, appendix 100A, 101A, 102A, 103A, 104A, 105A, 106A, 107A, 108A, 109A, 110A, 111A.

VDE Certificate no. 40036383, appendix 200A.

Data sheets / drawings:

Relevant pages from Agro's product catalogue.

## **Tests carried out**

Type tests in accordance with EN 50262 carried out by VDE. Refer to product description for each cable gland type for certificate number.

## **Marking of product**

Agro – type designation.

In addition the thread size on the types Syntec, Syntec MS, Progress GFK, Progress GFK Multi, Syntec and Syntec mit Knicksgutz.

The Progress S2 type is market with 1 groove for A2-steel and 2 grooves for A4-steel.

## **Periodical assessment**

The scope of the periodical assessment survey is to verify that the conditions stipulated for the type approval is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the periodical assessment are:

- Inspection of factory samples, selected at random from the production line (where practicable)
- Results from production sample tests (PST) and routine tests (RT) to be checked (if not available tests according to PST and RT to be carried out)
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and type approval certificate

Periodical assessment shall be performed at least every second year.

END OF CERTIFICATE