

Marex ECS - Easy Control System



AVENTICS™ Marex ECS - Easy Control System



Marex ECS, control head type 500

- AVENTICS Marine Technology, Control head for speed and gear control



Ambient temperature min./max.	-25 ... 77 °C
Medium temperature min./max.	-25 ... 77 °C
Relative humidity	5% - 98%
Vibration resistance	2 ... 13 Hz +1mm
Protection class	IP66
Housing	Black
Lever	Black through-dyed
power supply	via CAN data line
Shock resistance max.	10 g
Weight	0.9 kg

Technical data

Part No.	Type	Fig.
R417003143	Control head for single engine systems type 500	Fig. 1
R417003145	Control head for double engine systems type 500	Fig. 2

Technical information

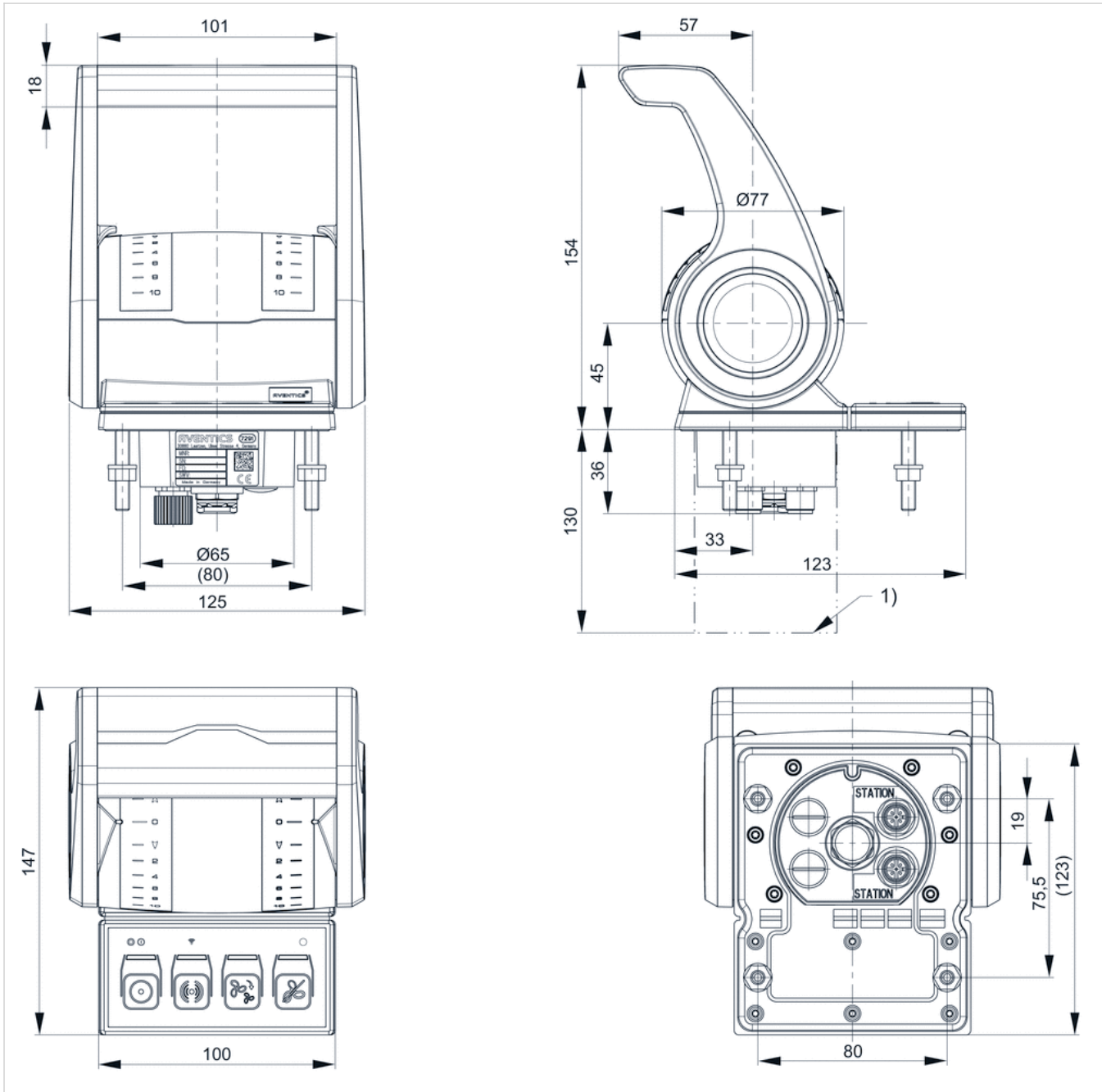
Button for assuming command, acknowledging alarms, switching drive curves, warming up
 LED display for control head active, drive curve active, warming up active, control station ready for operation
 Sensor for automatic dimming
 Integrated Wi-Fi module
 CAN data line and power supply
 Connection for control unit and further control heads

Technical information

Material	
Housing	Polyamide fiber-glass reinforced
Housing Color	Black
Lever	Polyarylamide, fiber-glass reinforced
Lever Surface	Black through-dyed

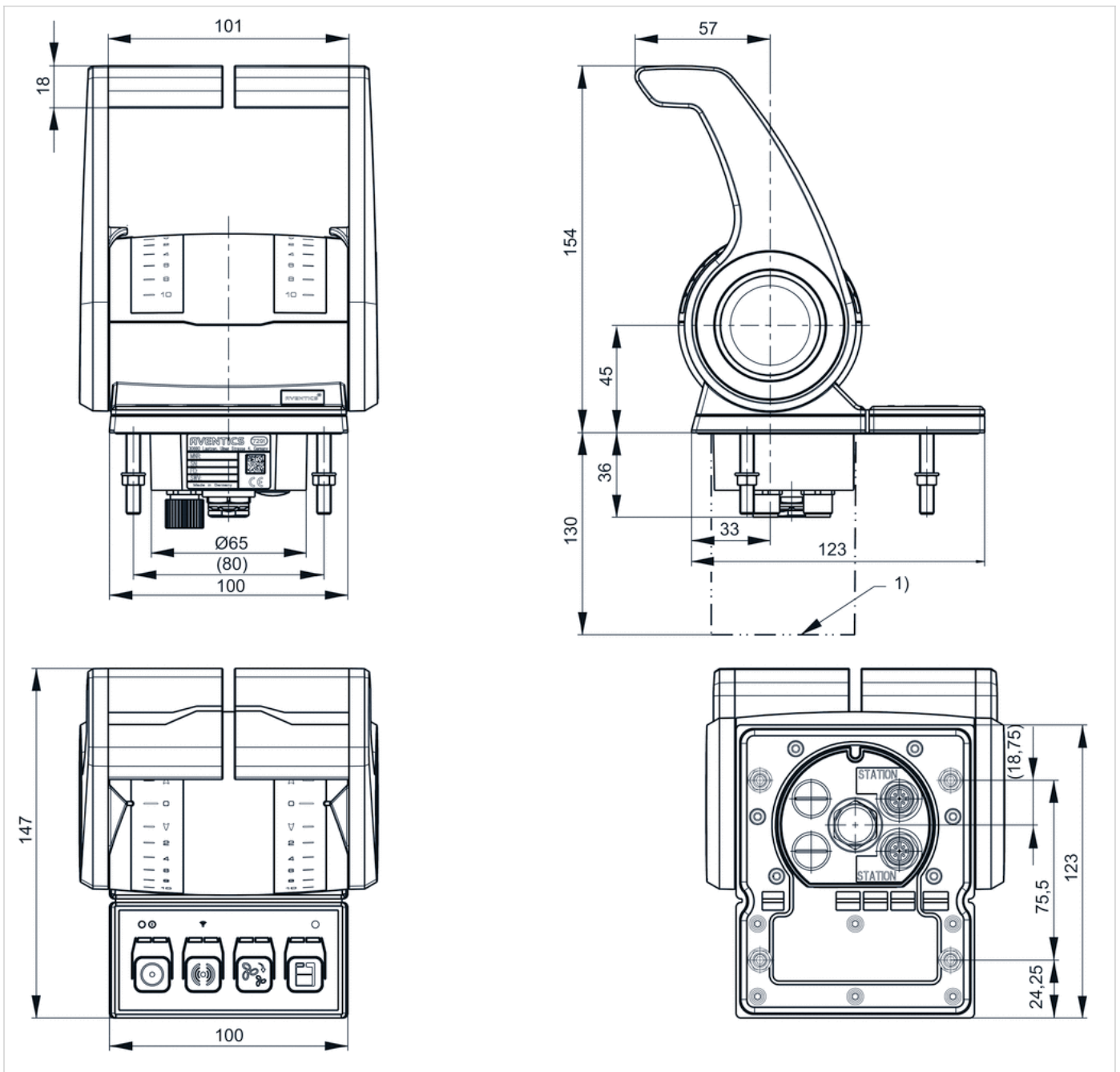
Dimensions

Fig. 1



1) Recommended installation space for plug

Fig. 2



1) Recommended installation space for plug

Marex ECS, control head type 500

- AVENTICS Marine Technology, Control head for speed and gear control



Ambient temperature min./max.	-25 ... 77 °C
Medium temperature min./max.	-25 ... 77 °C
Relative humidity	5% - 98%
Vibration resistance	2 ... 13 Hz +1mm
Protection class	IP66
Housing	Black
Lever	chrome-plated
power supply	via CAN data line
Shock resistance max.	10 g
Weight	0.9 kg

Technical data

Part No.	Type	Fig.
R417003144	Control head for single engine systems type 500	Fig. 1
R417003146	Control head for double engine systems type 500	Fig. 2

Technical information

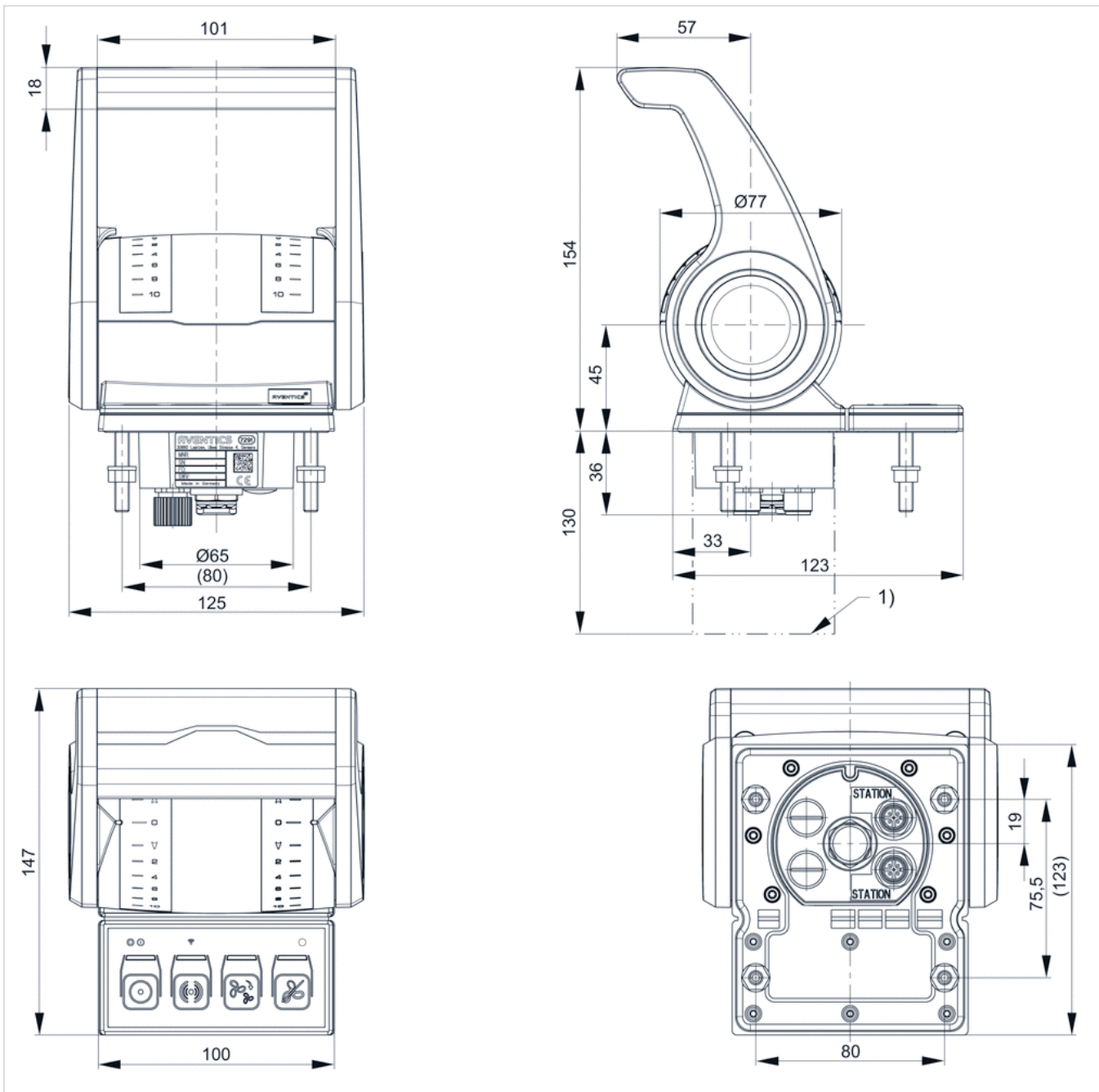
Button for assuming command, acknowledging alarms, switching drive curves, warming up
 LED display for control head active, drive curve activ, warming up active, control station ready for operation
 Sensor for automatic dimming
 Integrated Wi-Fi module
 CAN data line and power supply
 Connection for control unit and further control heads

Technical information

Material	
Housing	Polyamide fiber-glass reinforced
Housing Color	Black
Lever	metal
Lever Surface	chrome-plated

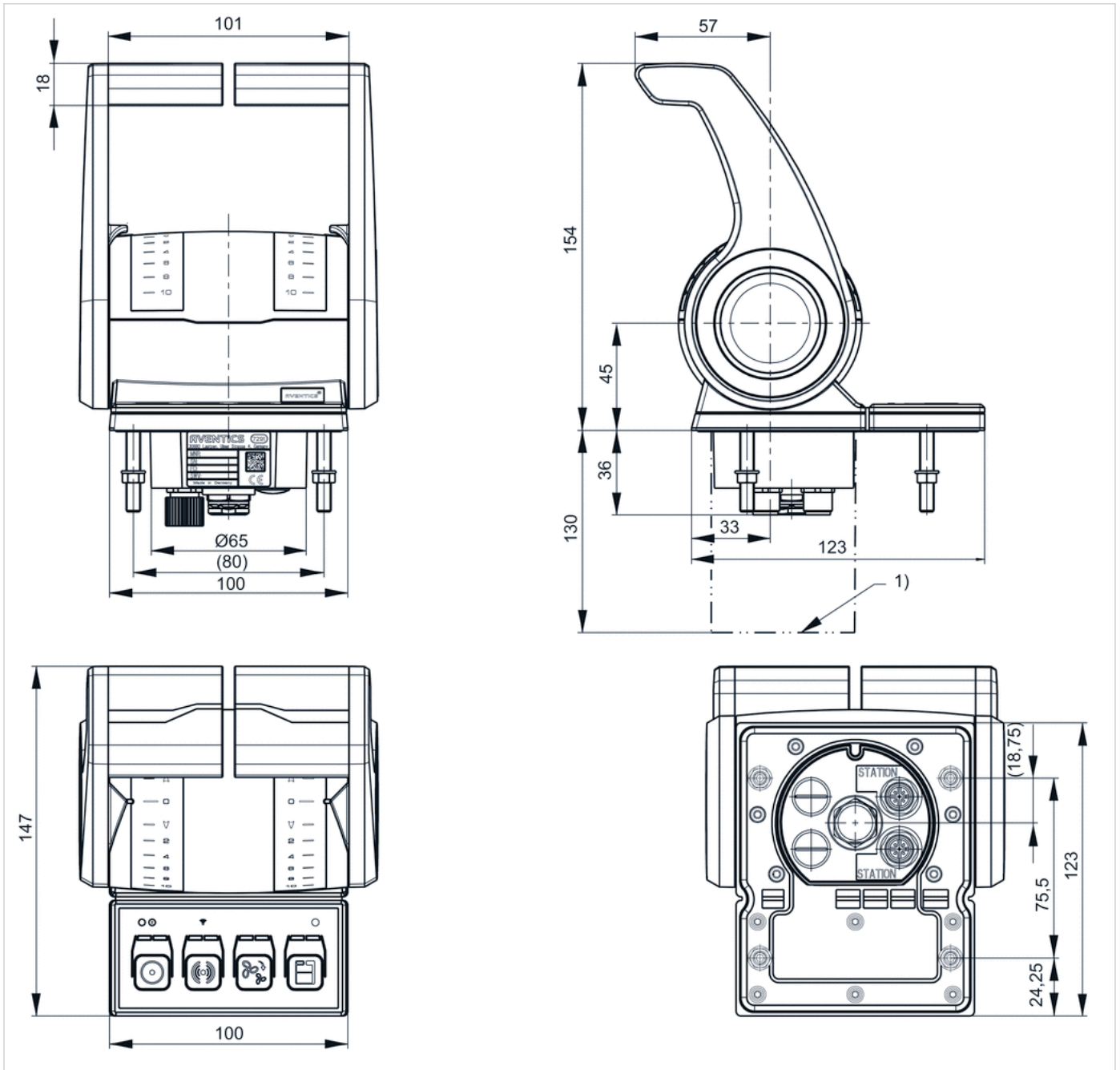
Dimensions

Fig. 1



1) Recommended installation space for plug

Fig. 2



1) Recommended installation space for plug

Marex ECS, control unit type EDC

- AVENTICS Marine Technology, Control unit for speed and gear control for single and double engine systems



Mounting orientation	Any
Ambient temperature min./max.	-20 ... 77 °C
Medium temperature min./max.	-25 ... 80 °C
Vibration resistance	4G (2 ... 100 Hz) IEC 60068-2-6
Insulation strength	500 V AC
Operating voltage DC, min.	24 V DC
Voltage tolerance DC	-25% / +30%
Protection class	IP65
Weight	2.4 kg

Technical data

Part No.

R419302115

Technical information

Please provide additional space of 80 mm in the area of the CAN connections and 30 mm in the area of the terminals for the connection cables.

Technical information

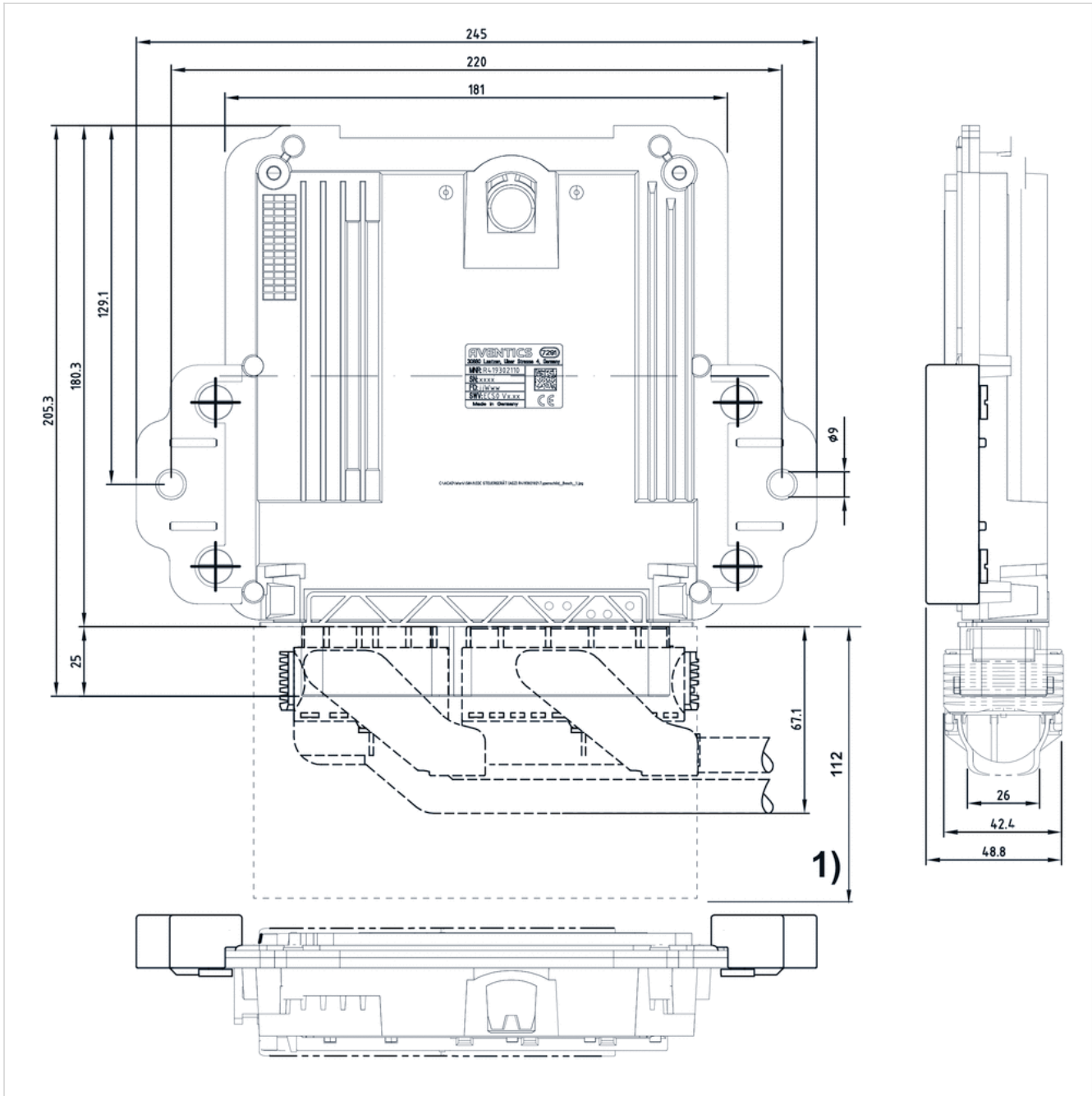
Material

Housing

Die-cast aluminum

Dimensions

Dimensions



1) recommended installation space

Marex ECS, actuator

- AVENTICS Marine Technology



power supply

See table below

Voltage tolerance DC

-25% / +30%

Min. current consumption

See table below

Max. power consumption

See table below

Protection class

IP66

Technical data

Part No.	power supply	Min. current consumption	Max. power consumption	Nominal stroke	Positioning accuracy
R417003154	12 V	8 A	12 A	76	±0,5 mm
R417003155	24 V	16 A	30 A	51	±0,3 mm

Part No.	Nominal adjustment force	max. temporary adjustment force	Nominal adjustment speed min.
R417003154	150 N	200 N	38 m/s
R417003155	225 N	300 N	25 m/s

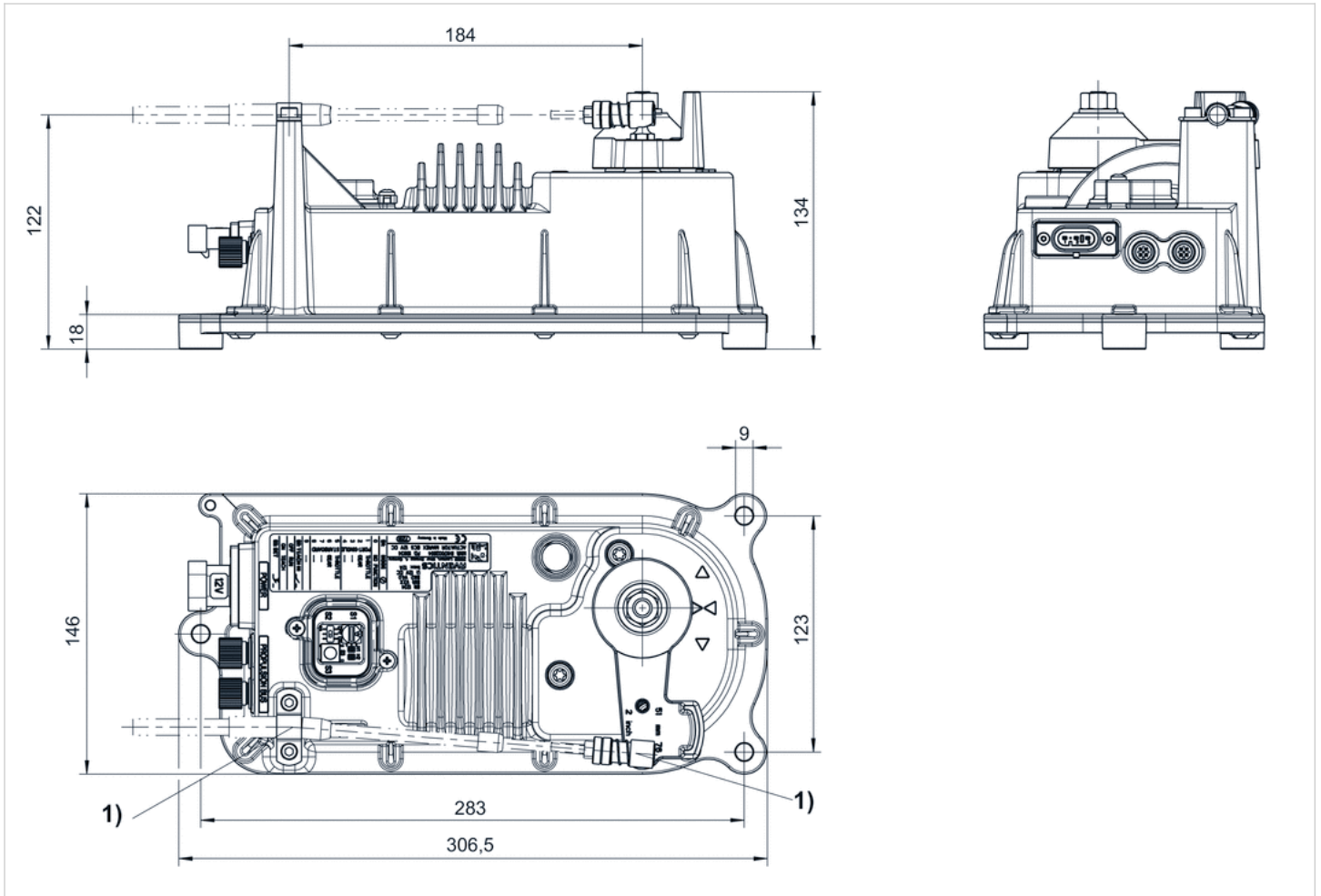
Part No.	Nominal adjustment speed max.
R417003154	120 m/s
R417003155	80 m/s

Technical information

Material	
Housing	Die-cast aluminum

Dimensions

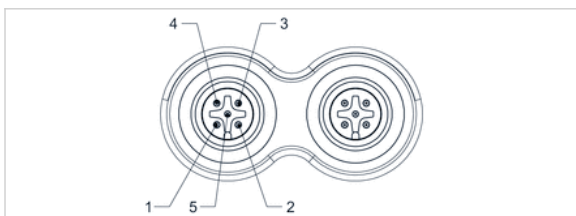
Dimensions



1) Assembly material for tension-pressure cables included separately

Pin assignments

Pin assignments



Marex ECS, cable tree

- AVENTICS Marine Technology, fully wired



Ambient temperature min./max.	-25 ... 77 °C
Medium temperature min./max.	-40 ... 85 °C
Protection class	IP55
Weight	See table below

Technical data

Part No.	Type	Function	Weight	Fig.
R419302205	1x for single engine systems	with throttle	0.6 kg	Fig. 1
R419302207	1x for single engine systems	without throttle	0.45 kg	Fig. 2
R419302206	2x for double engine systems	with throttle	0.7 kg	Fig. 3
R419302208	2x for double engine systems	without throttle	0.5 kg	Fig. 4

Dimensions

Fig. 1, 1x for single engine systems, with throttle

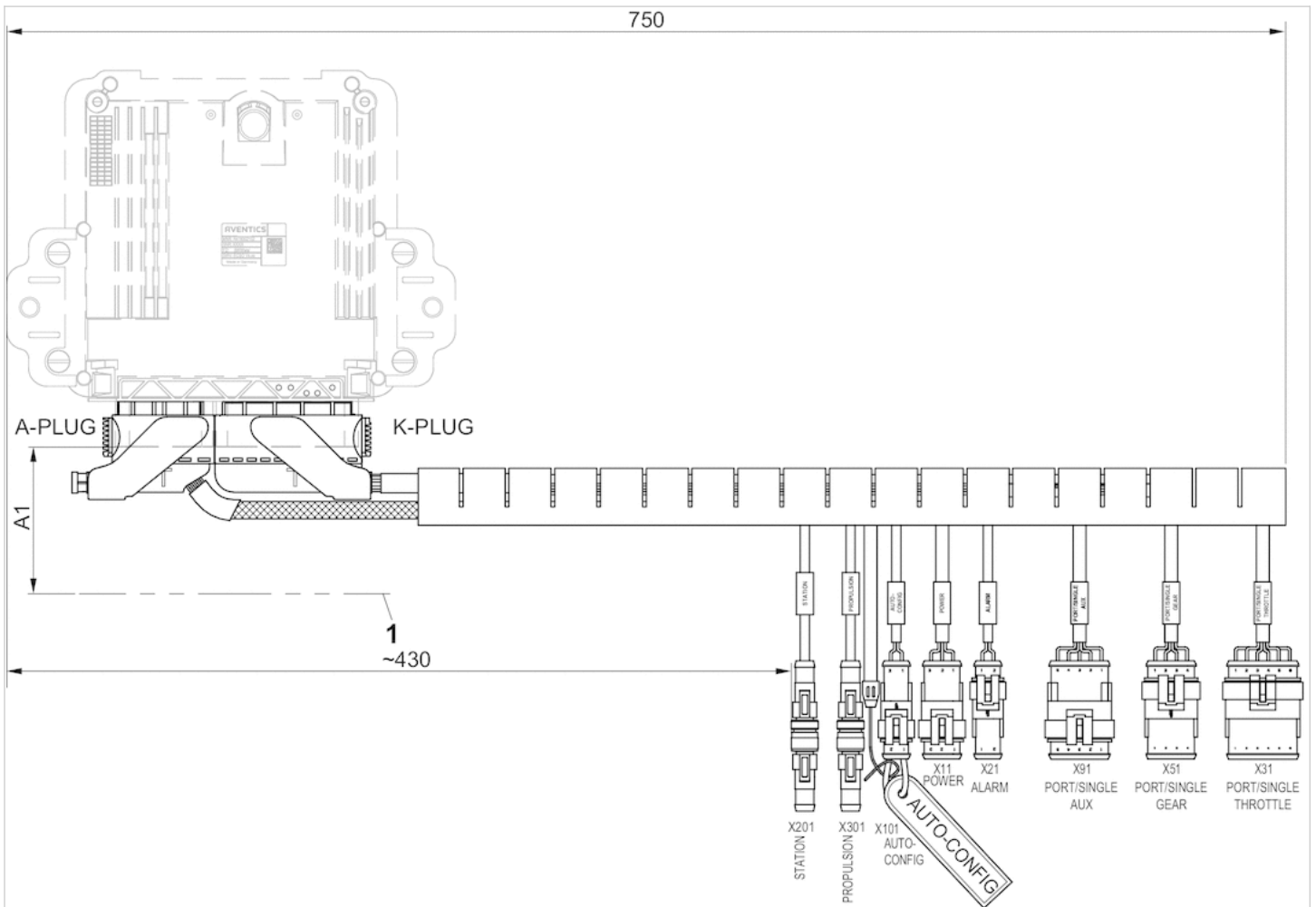


Fig. 2, 1x for single engine systems, without throttle

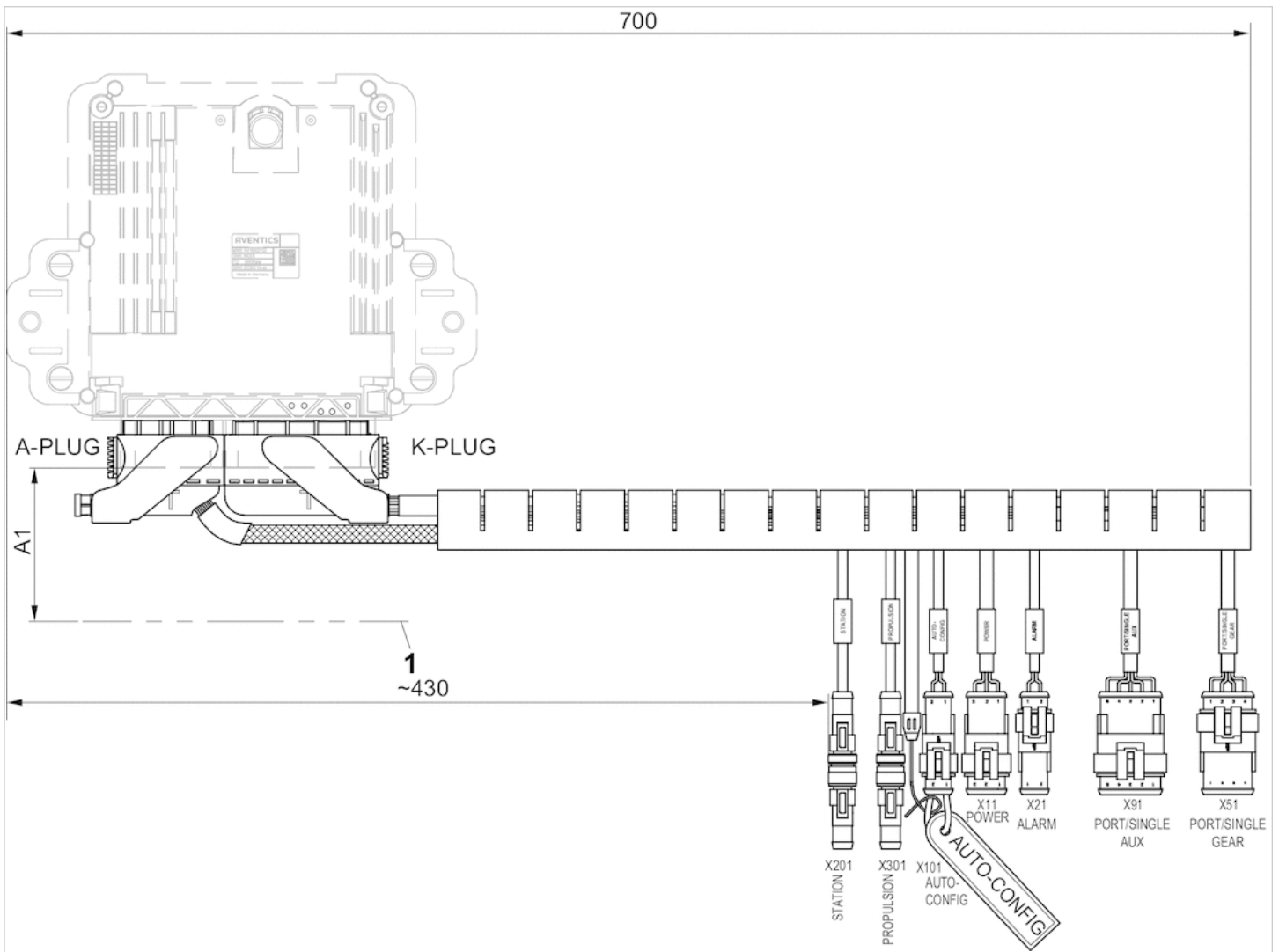


Fig. 3, 2x for double engine systems, with throttle

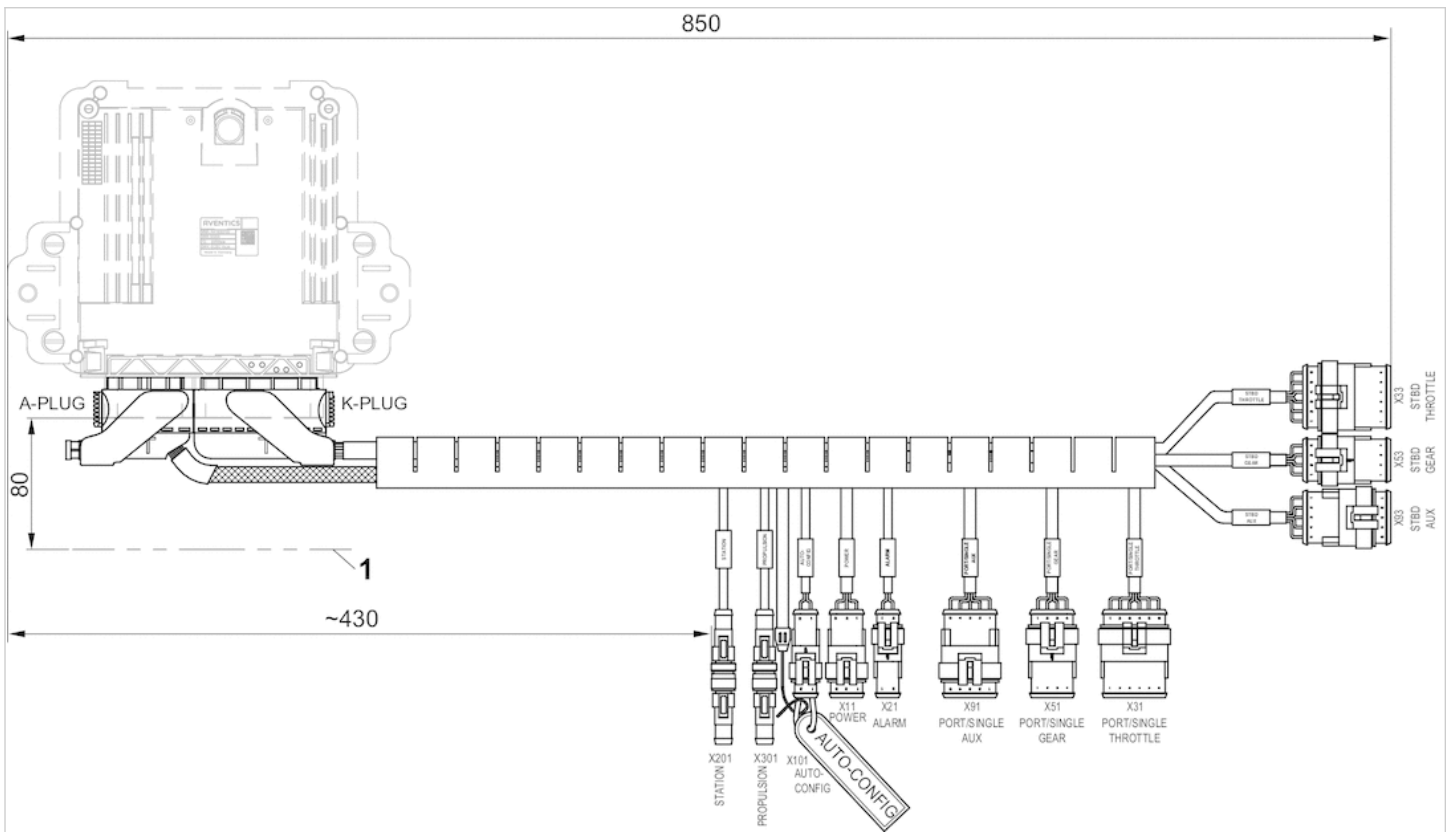
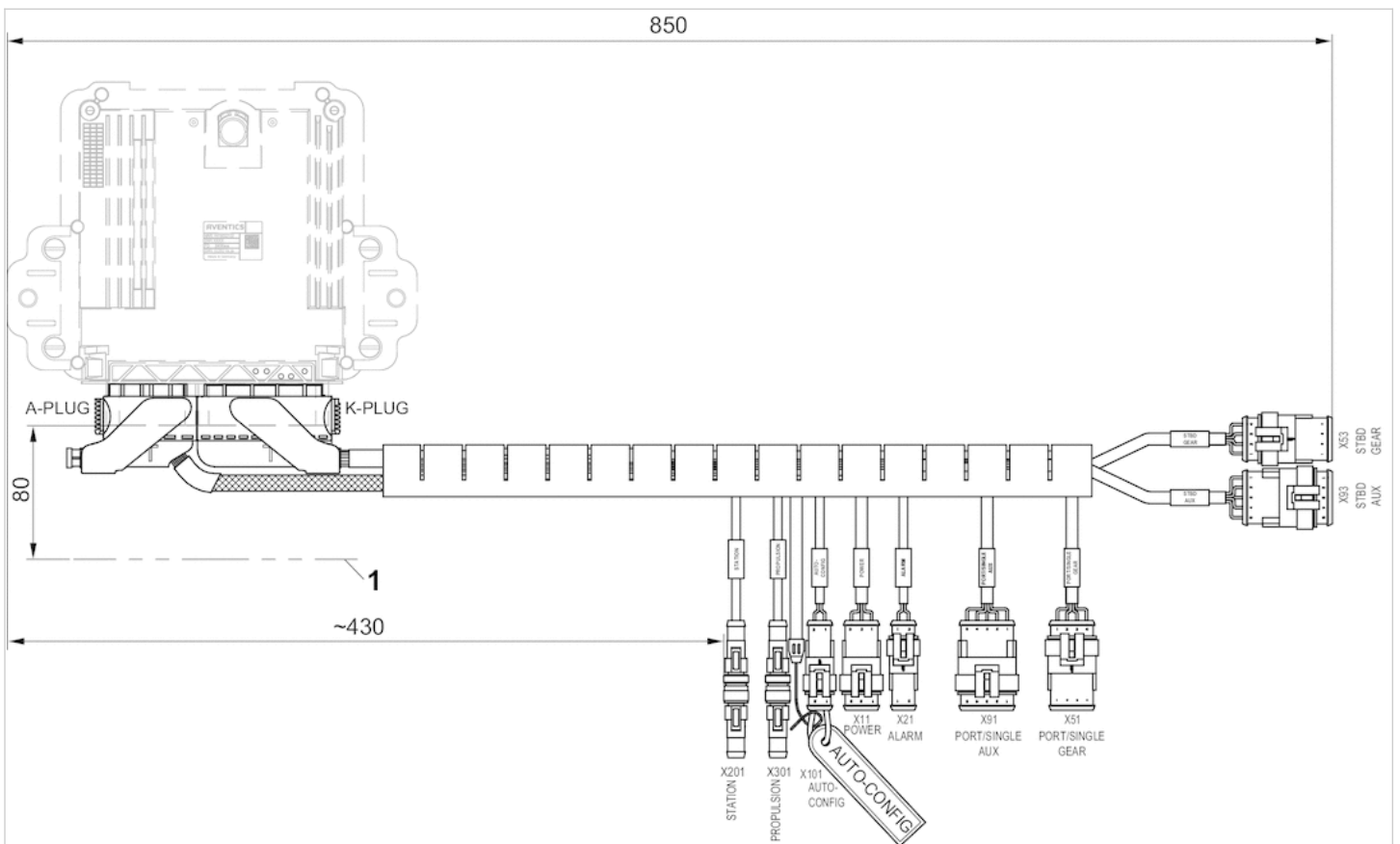
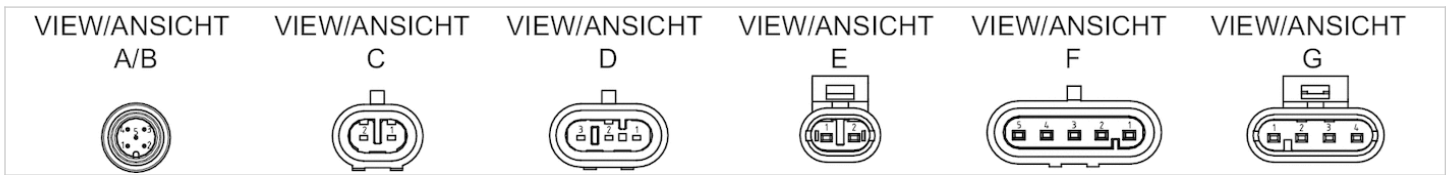


Fig. 4, 2x for double engine systems, without throttle

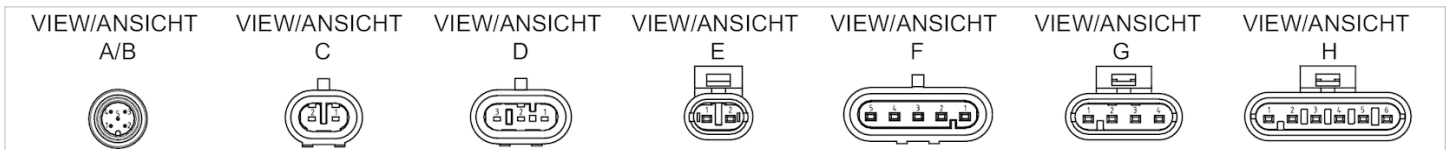


Pin assignments

Pin assignments, 1x for single engine systems



Pin assignments, 2x for double engine systems



Marex ECS, alarm control cable

- AVENTICS Marine Technology, halogen-free, self-extinguishing, oil-resistant



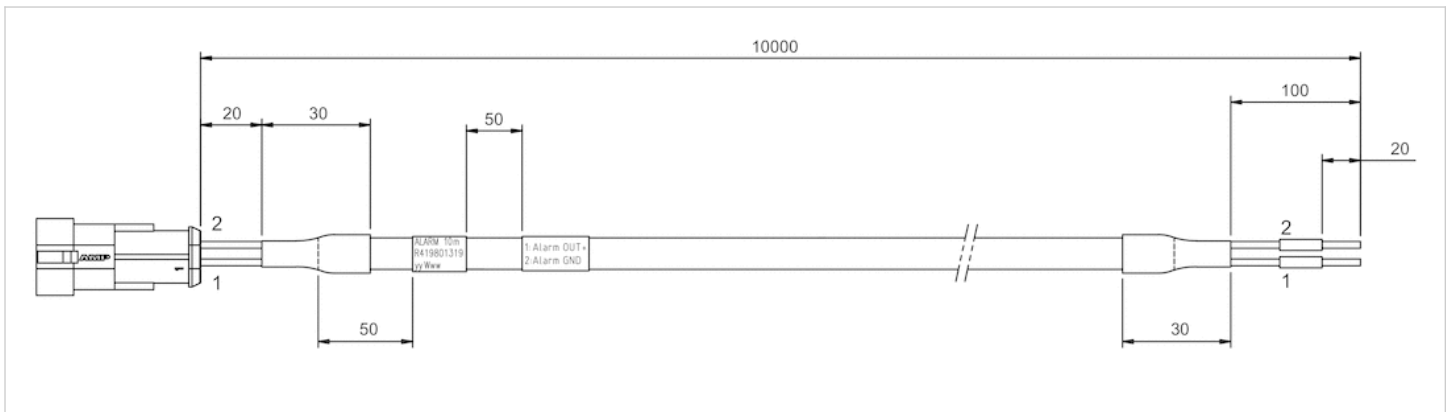
Ambient temperature min./max.	-25 ... 77 °C
Medium temperature min./max.	-25 ... 77 °C
Shielding	unshielded
Number of wires	2
Wire cross-section	0.5 mm ²

Technical data

Part No.	Cable length
R419801319	10 m

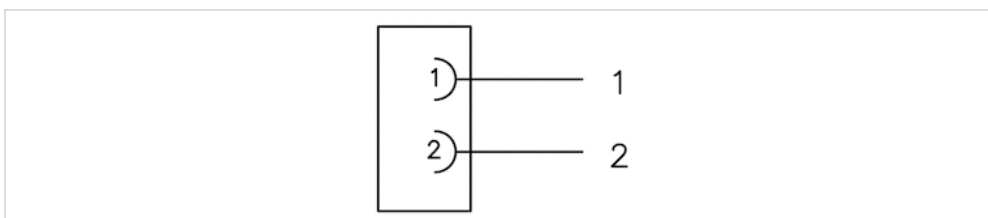
Dimensions

Dimensions



Pin assignments

Pin assignments



(1) ALARM OUT (2) ALARM GND

Marex ECS, Dual Power Supply control cable

- AVENTICS Marine Technology, halogen-free, self-extinguishing, oil-resistant

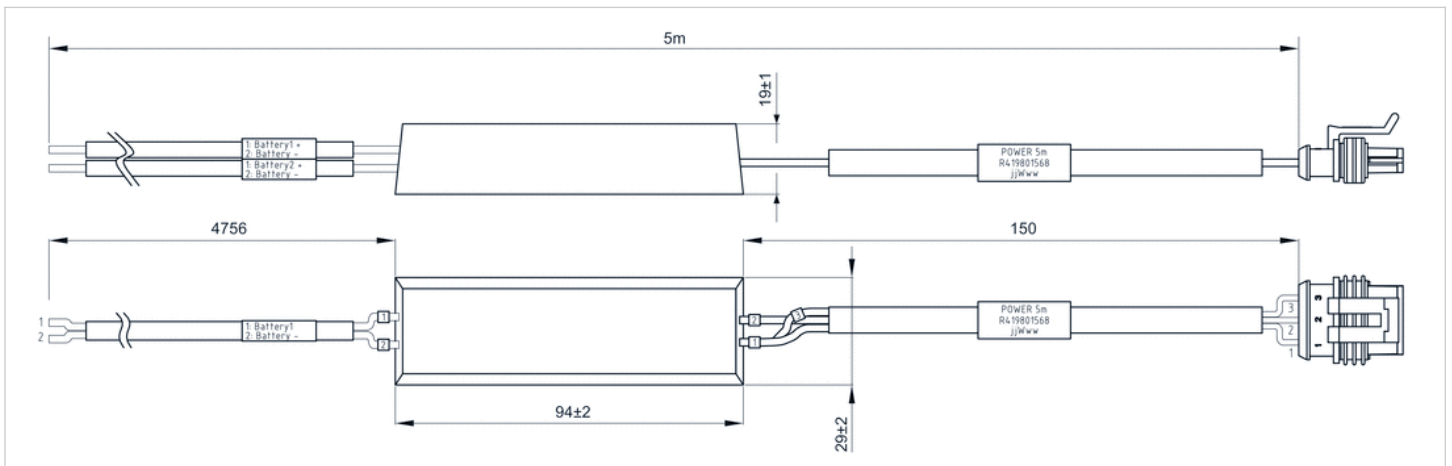


Ambient temperature min./max.	-25 ... 77 °C
Medium temperature min./max.	-25 ... 77 °C
Protection class	IP65
Shielding	unshielded
Number of wires	3

Technical data

Part No.	Cable length
R419801568	5 m
R419801522	10 m

Dimensions



Marex ECS, Power Ignition power cable

- AVENTICS Marine Technology, halogen-free, self-extinguishing, oil-resistant



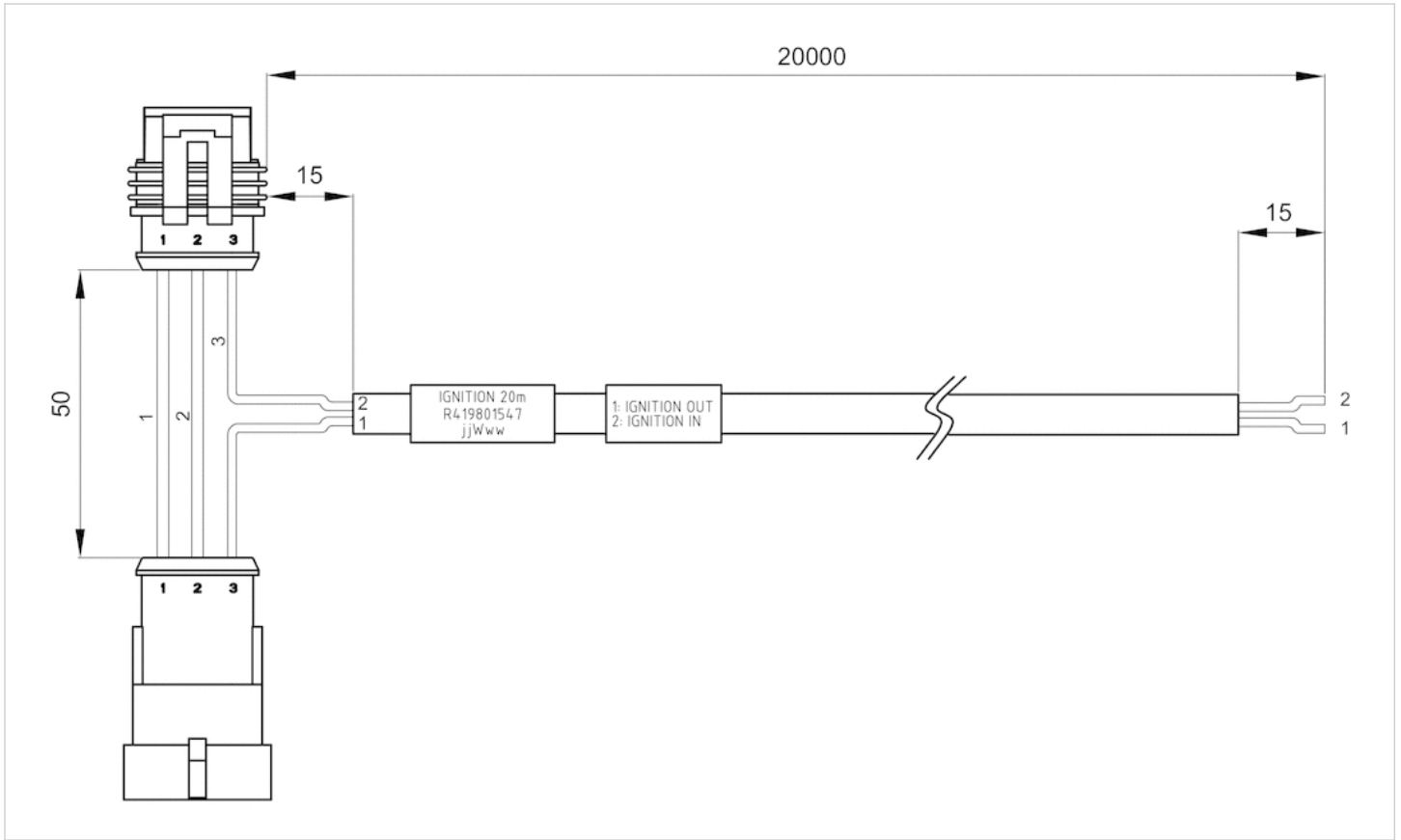
Ambient temperature min./max.	-25 ... 77 °C
Medium temperature min./max.	-25 ... 77 °C
Protection class	IP65
Shielding	unshielded
Number of wires	2

Technical data

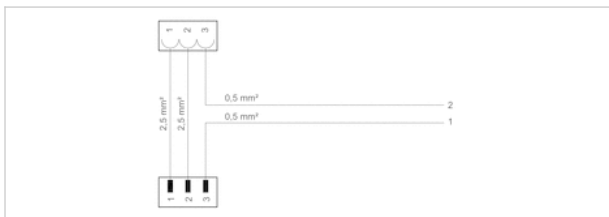
Part No.	Cable length
R419801547	20 m

Dimensions

Dimensions



Pin assignments



Marex ECS, Station / Propulsion bus cable

- AVENTICS Marine Technology, halogen-free, self-extinguishing, oil-resistant

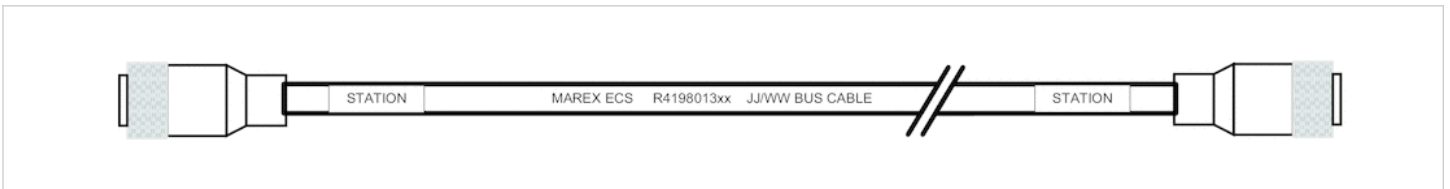


Ambient temperature min./max.	-30 ... 77 °C
Medium temperature min./max.	-30 ... 77 °C
Shielding	unshielded
Number of wires	5
Wire cross-section	0.5 mm ²

Technical data

Part No.	Cable length
R419801349	1 m
R419801350	5 m
R419801351	10 m
R419801352	15 m
R419801353	20 m
R419801354	30 m
R419801560	40 m
R419801561	50 m
R419801562	60 m

Dimensions



Pin assignments



Marex ECS, bus terminating resistor

- AVENTICS Marine Technology



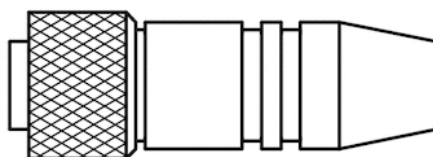
Protection class	IP67
Number of wires	5

Technical data

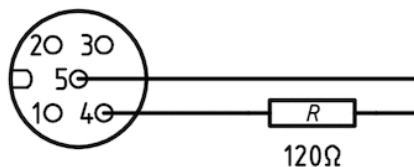
Part No.

8941054274

Dimensions



Pin assignments



Marex ECS, Station / Propulsion bus cable

- AVENTICS Marine Technology, halogen-free, self-extinguishing, oil-resistant

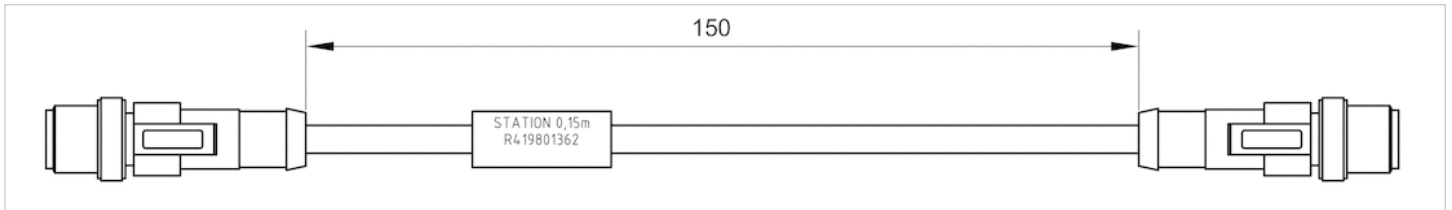


Ambient temperature min./max.	-25 ... 77 °C
Medium temperature min./max.	-25 ... 77 °C
Protection class	IP65
Shielding	unshielded
Number of wires	5
Wire cross-section	0.5 mm ²

Technical data

Part No.	Cable length
R419801362	0.15 m

Dimensions



Pin assignments



Marex ECS, speed cable

- AVENTICS Marine Technology, halogen-free, self-extinguishing, oil-resistant



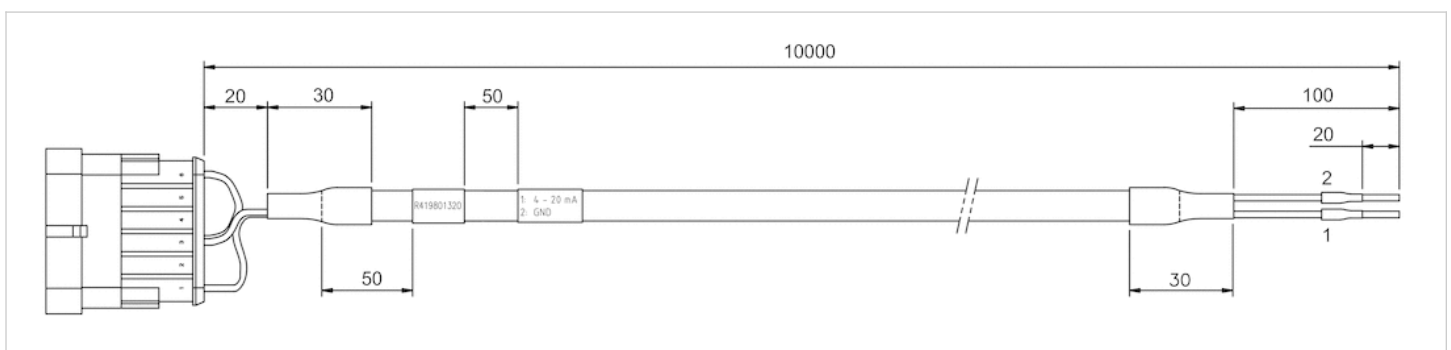
Ambient temperature min./max.	-25 ... 77 °C
Medium temperature min./max.	-25 ... 77 °C
Protection class	IP65
Shielding	unshielded
Number of wires	2
Wire cross-section	2.5 mm ²

Technical data

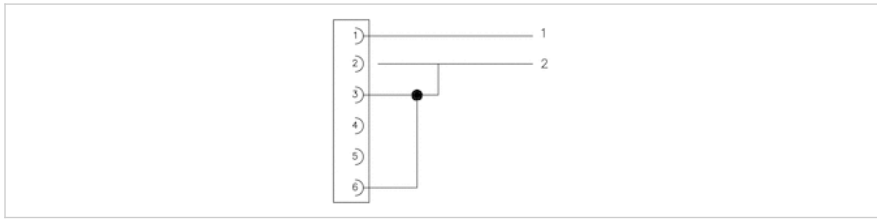
Part No.	Cable length	Switch signal	Fig.
R419801320	10 m	4 ... 20 mA	Fig. 1
R419801321	20 m	4 ... 20 mA	Fig. 1
R419801322	10 m	0 ... 5 (10) V DC	Fig. 2
R419801323	20 m	0 ... 5 (10) V DC	Fig. 2
R419801324	10 m	PWM	Fig. 3
R419801325	20 m	PWM	Fig. 3

Dimensions

Fig. 2



Pin assignments



Marex ECS, gear cable

- AVENTICS Marine Technology, halogen-free, self-extinguishing, oil-resistant

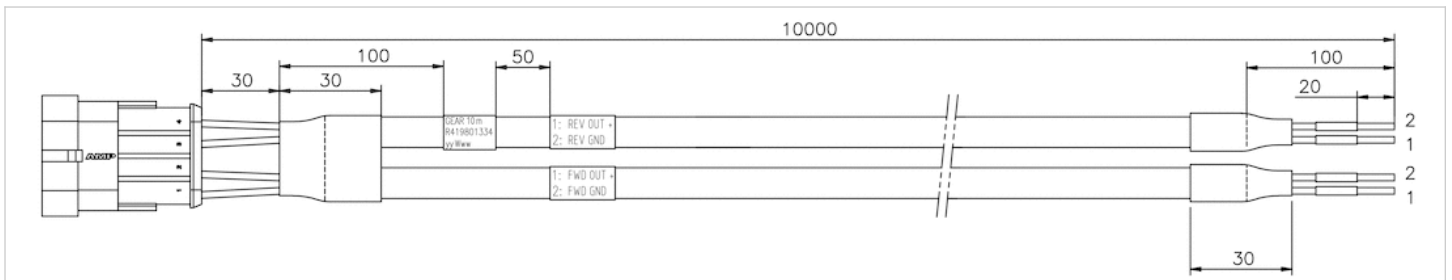


Ambient temperature min./max.	-25 ... 77 °C
Medium temperature min./max.	-25 ... 77 °C
Protection class	IP65
Shielding	unshielded
Number of wires	2
Wire cross-section	1.5 mm ²

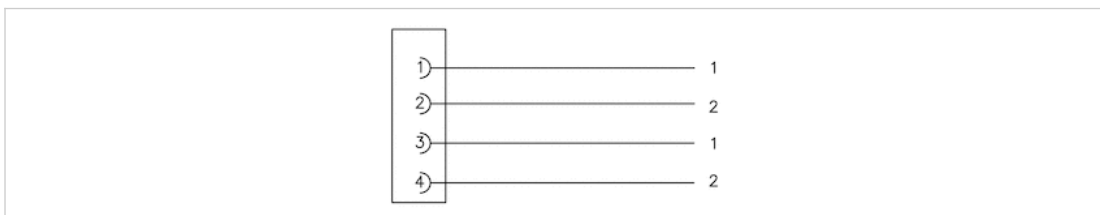
Technical data

Part No.	Cable length
R419801334	10 m

Dimensions



Pin assignments



Marex ECS, gear cable with plug

- AVENTICS Marine Technology, halogen-free, self-extinguishing, oil-resistant
 - Plug

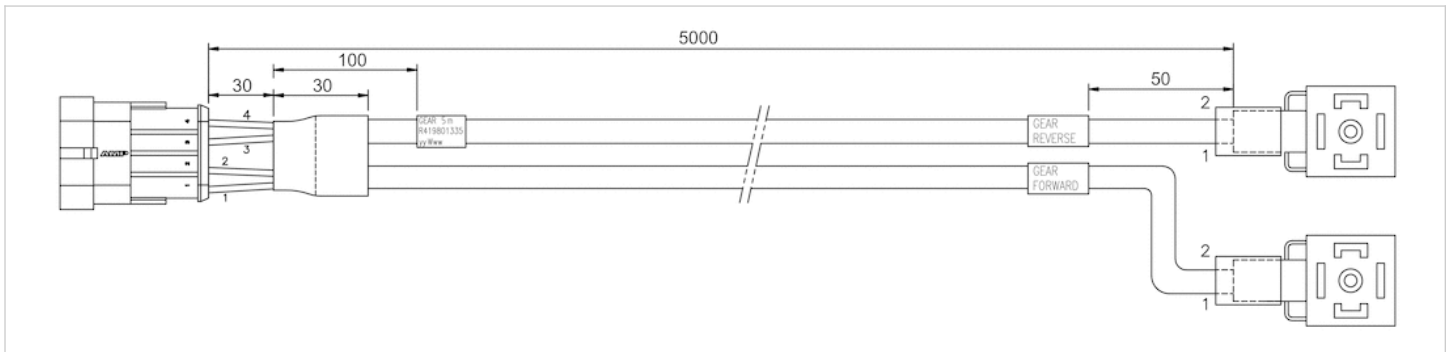


Ambient temperature min./max.	-25 ... 77 °C
Medium temperature min./max.	-25 ... 77 °C
Protection class	IP65
Shielding	unshielded
Number of wires	2
Wire cross-section	1.5 mm ²

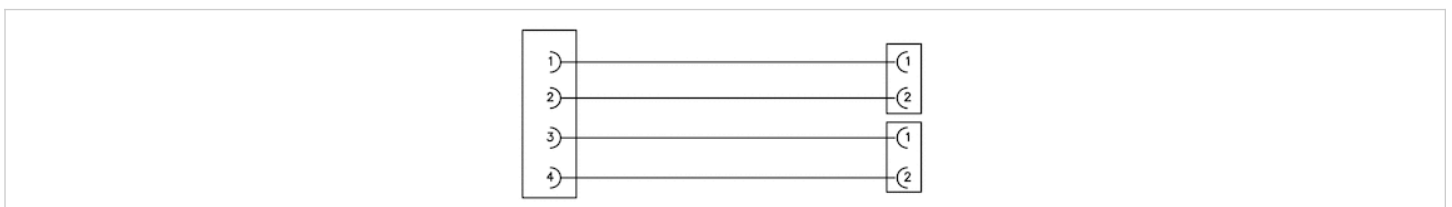
Technical data

Part No.	Function	Cable length
R419801335	Plug type A, 18 mm, with LED	5 m
R419801336	Plug type A, 18 mm, with LED	10 m

Dimensions



Pin assignments



Marex ECS. AUX cable, start blocking

- AVENTICS Marine Technology, halogen-free, self-extinguishing, oil-resistant

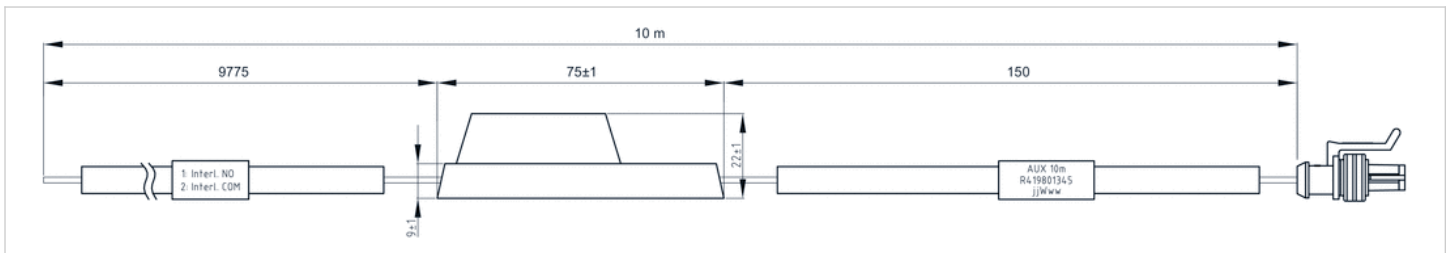


Ambient temperature min./max.	-25 ... 77 °C
Medium temperature min./max.	-25 ... 77 °C
Protection class	IP65
Shielding	unshielded
Number of wires	2
Wire cross-section	0.5 mm ²

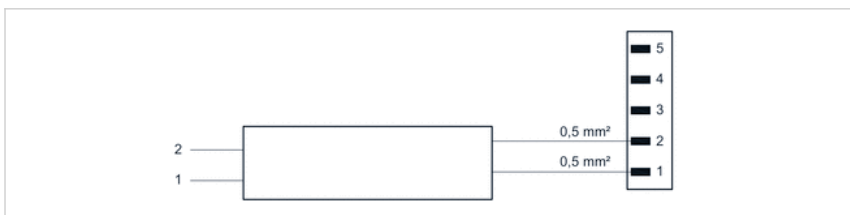
Technical data

Part No.	Function	Cable length
R419801345	Start blocking	10 m

Dimensions



Pin assignments



Marex ECS. AUX cable, extended function

- AVENTICS Marine Technology, halogen-free, self-extinguishing, oil-resistant

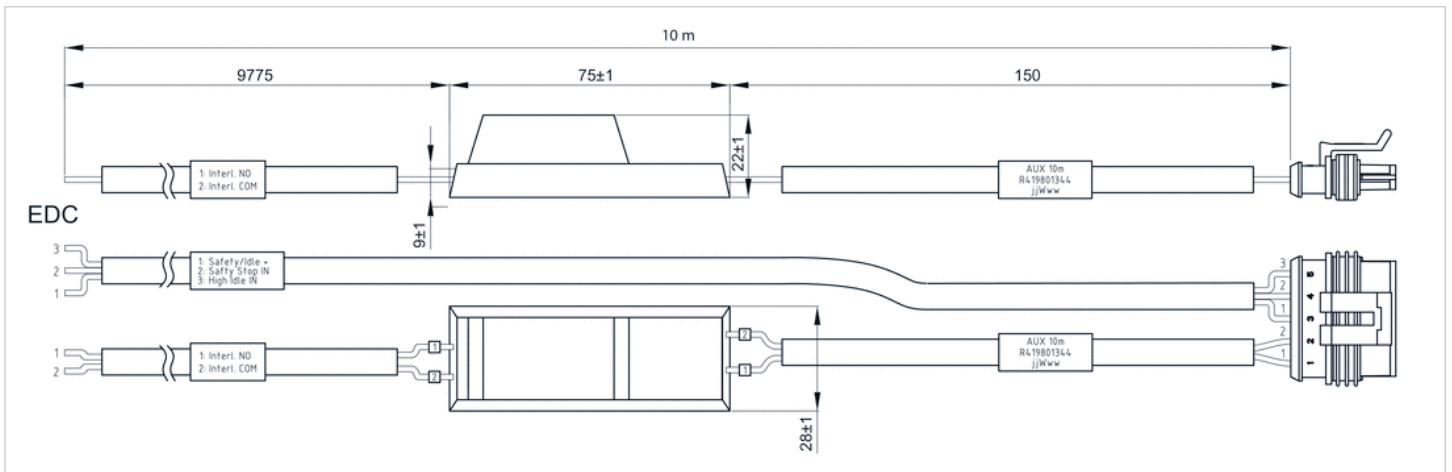


Ambient temperature min./max.	-25 ... 77 °C
Medium temperature min./max.	-25 ... 77 °C
Shielding	unshielded
Number of wires	2
Wire cross-section	0.5 mm ²

Technical data

Part No.	Function	Cable length
R419801344	Start blocking Safety stop 2nd idling speed (High-Idle)	10 m

Dimensions



Pin assignments



Marex ECS, power supply cable

- AVENTICS Marine Technology, halogen-free, self-extinguishing, oil-resistant



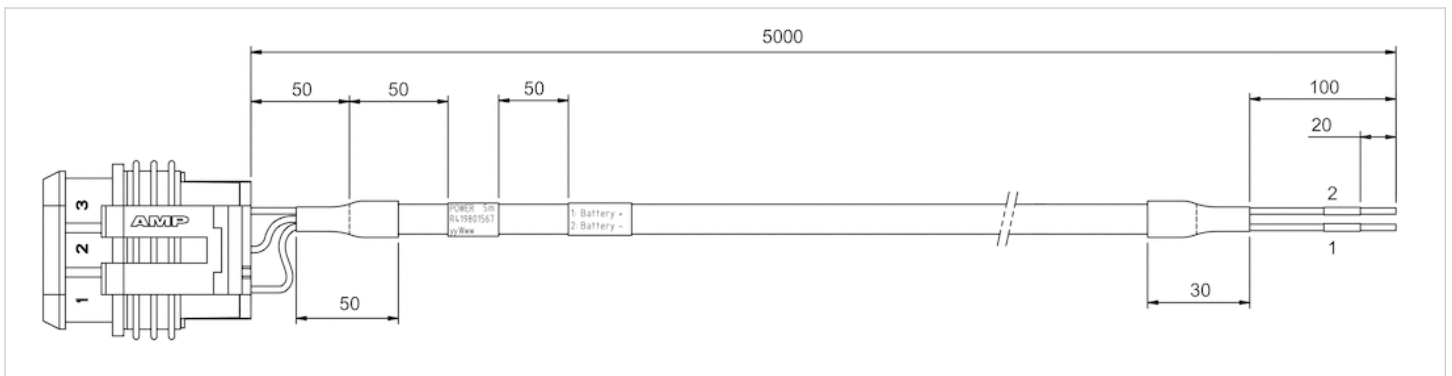
Ambient temperature min./max.	-25 ... 77 °C
Medium temperature min./max.	-25 ... 77 °C
Protection class	IP65
Shielding	unshielded
Number of wires	2
Wire cross-section	2.5 mm ²

Technical data

Part No.	Cable length
R419801567	5 m
R419801316	10 m

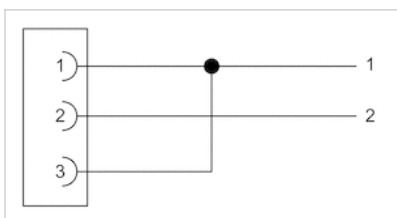
Dimensions

Dimensions



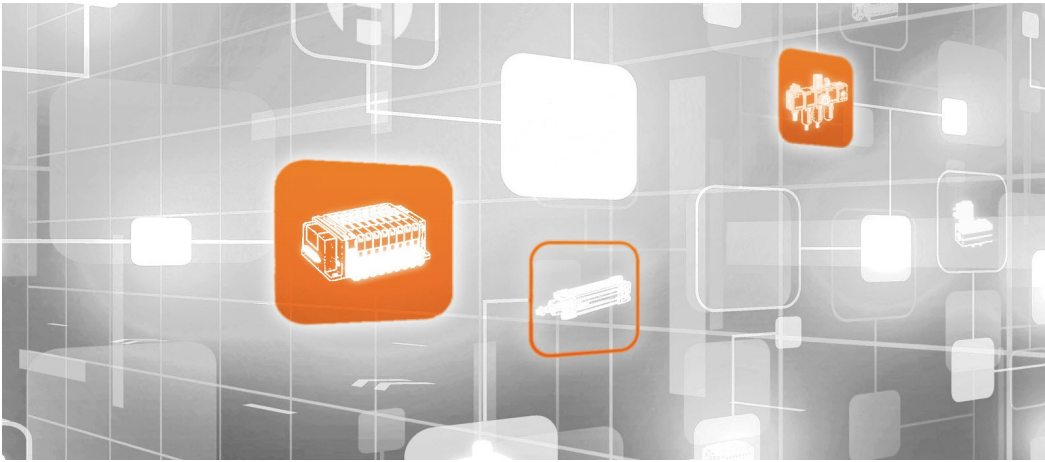
Pin assignments

Pin assignments



(1) battery + (2) battery -

Efficient pneumatic solutions, our program: cylinders and drives, valves and valve systems, air supply management



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2019-03



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