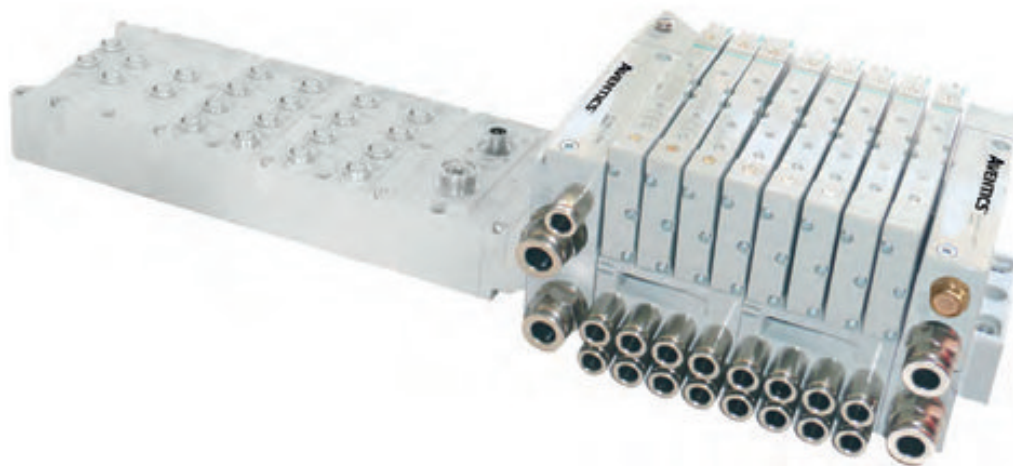


Series 501



AVENTICS™ Series 501



Series 501

- System overview



Technical information

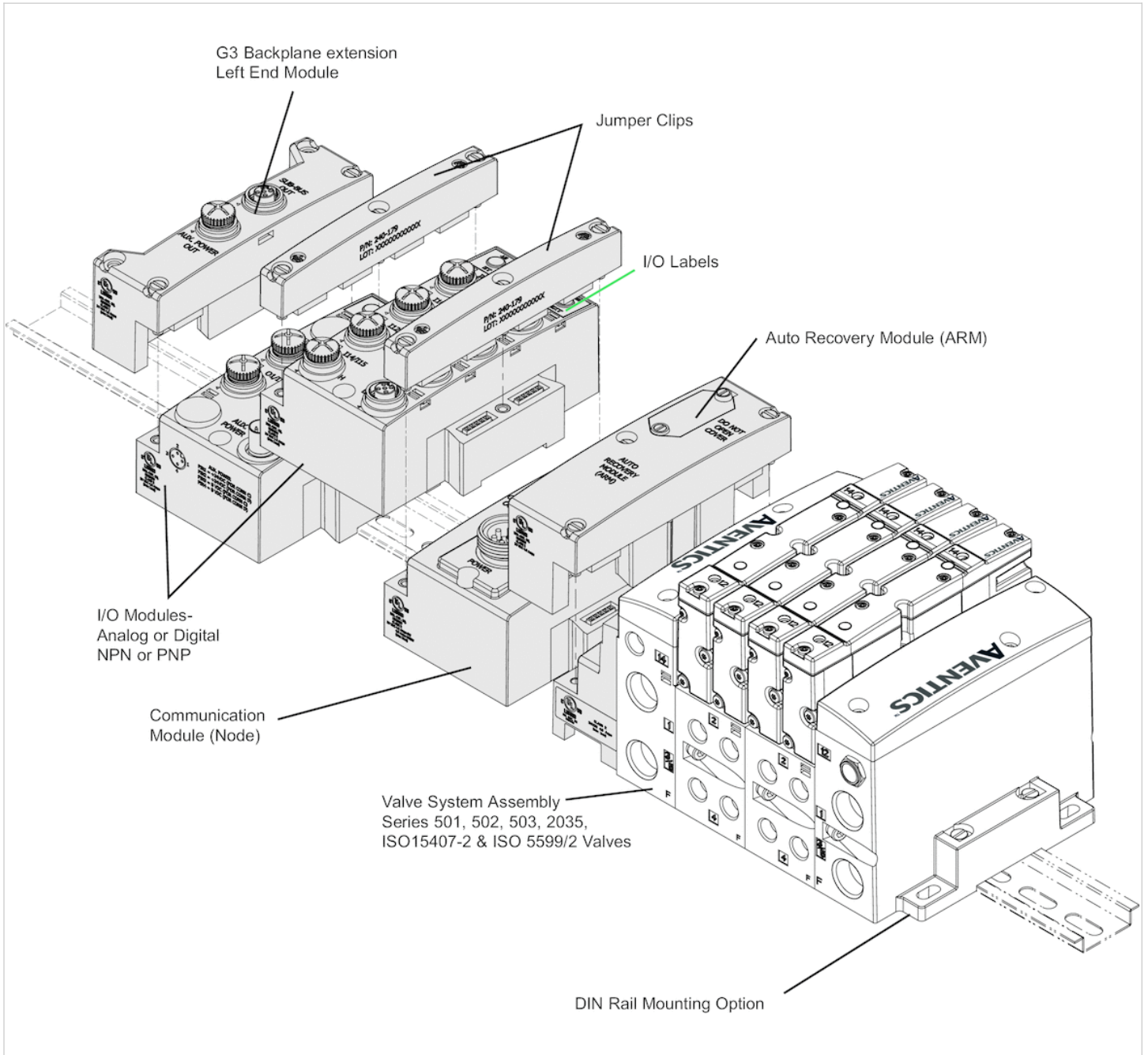
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Accessories overview














2x3/2-directional valve, Series 501

- 2x3/2
- $Q_n = 400-460 \text{ l/min}$
- NC/NC NO/NO NC/NO
- Plate connection
- Can be assembled into blocks
- Manual override : without detent with detent
- double solenoid
- With spring/air spring return
- Pilot : External



Type	Spool valve, positive overlapping
Activation	Electrically
Pilot	External
Sealing principle	Soft sealing
Blocking principle	Single base plate principle, can be assembled into blocks
Working pressure min./max.	2 ... 8 bar
Control pressure min./max.	2 ... 8 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m ³
Nominal flow Q_n	See table below
Pilot control exhaust	with directional pilot air exhaust
Protection class with connection	IP65
Protective circuit	Varistor
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	18 ms
Typ. switch-off time	18 ms
mounting screws	with hexagon socket
Mounting screw tightening torque	0.45 Nm
Weight	0.93 kg

Technical data

Part No.		MO		Voltage tolerance		Power consumption	
				DC	DC	DC	DC
R501A2BD0MA00F1			NC/NC	-15% / +10%		0.68 W	
R501A2BA0MA00F1			NO/NO	-15% / +10%		0.68 W	
R501A2BC0MA00F1			NC/NO	-15% / +10%		0.68 W	
R501A2BD0M11BF1			NC/NC	-15% / +10%		0.68 W	
R501A2BA0M11BF1			NO/NO	-15% / +10%		0.68 W	
R501A2BC0M11BF1			NC/NO	-15% / +10%		0.68 W	

Part No.	Nominal flow Qn
R501A2BD0MA00F1	405 l/min
R501A2BA0MA00F1	400 l/min
R501A2BC0MA00F1	460 l/min
R501A2BD0M11BF1	405 l/min
R501A2BA0M11BF1	400 l/min
R501A2BC0M11BF1	460 l/min

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The oil content of compressed air must remain constant during the life cycle.

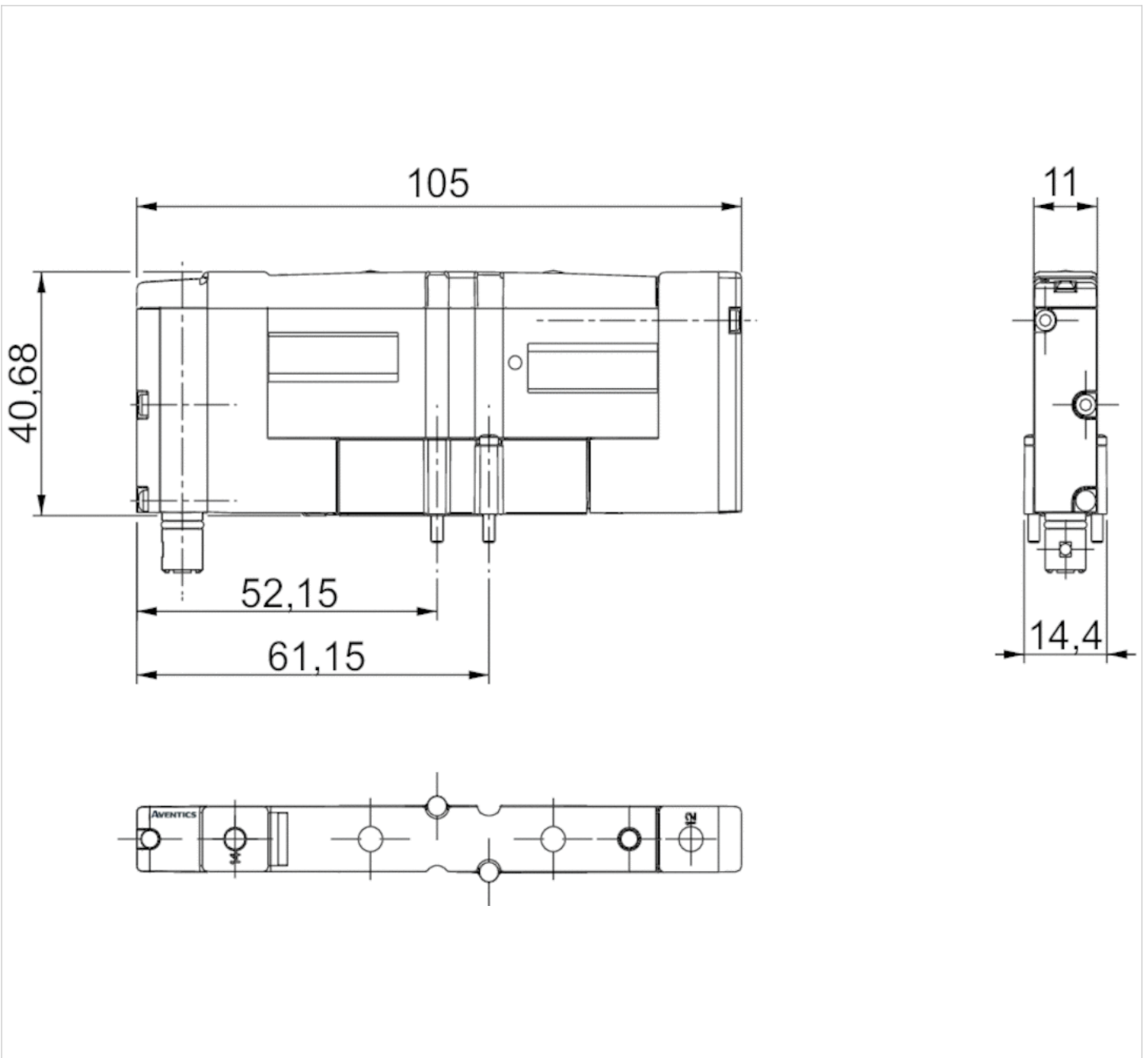
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Housing	Die cast zinc
Seals	Nitrile butadiene rubber Polyurethane
Front plate	Polyamide
End plate	Polyamide

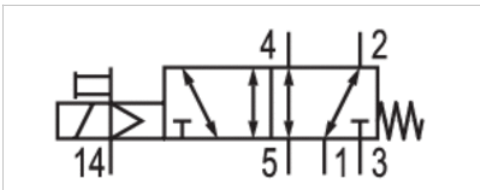
Dimensions

Dimensions





5/2-directional valve, Series 501

- 5/2
- Qn = 405 l/min
- NC/NO
- Plate connection
- Can be assembled into blocks
- Manual override : without detent with detent
- single solenoid
- With spring return
- Pilot : External



Type	Spool valve, positive overlapping
Activation	Electrically
Pilot	External
Sealing principle	Soft sealing
Blocking principle	Single base plate principle, can be assembled into blocks
Working pressure min./max.	2... 8 bar
Control pressure min./max.	2 ... 8 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m ³
Nominal flow Qn	405 l/min
Pilot control exhaust	with directional pilot air exhaust
Protection class with connection	IP65
Protective circuit	Varistor
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	14 ms
Typ. switch-off time	29 ms
mounting screws	with hexagon socket
Mounting screw tightening torque	0.45 Nm
Weight	0.93 kg

Technical data

Part No.	MO		Voltage tolerance		Power consumption	
			DC		DC	
R501A2B10MA00F1		NC/NO	-15% / +10%		0.68 W	
R501A2B10M11BF1		NC/NO	-15% / +10%		0.68 W	

Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The oil content of compressed air must remain constant during the life cycle.

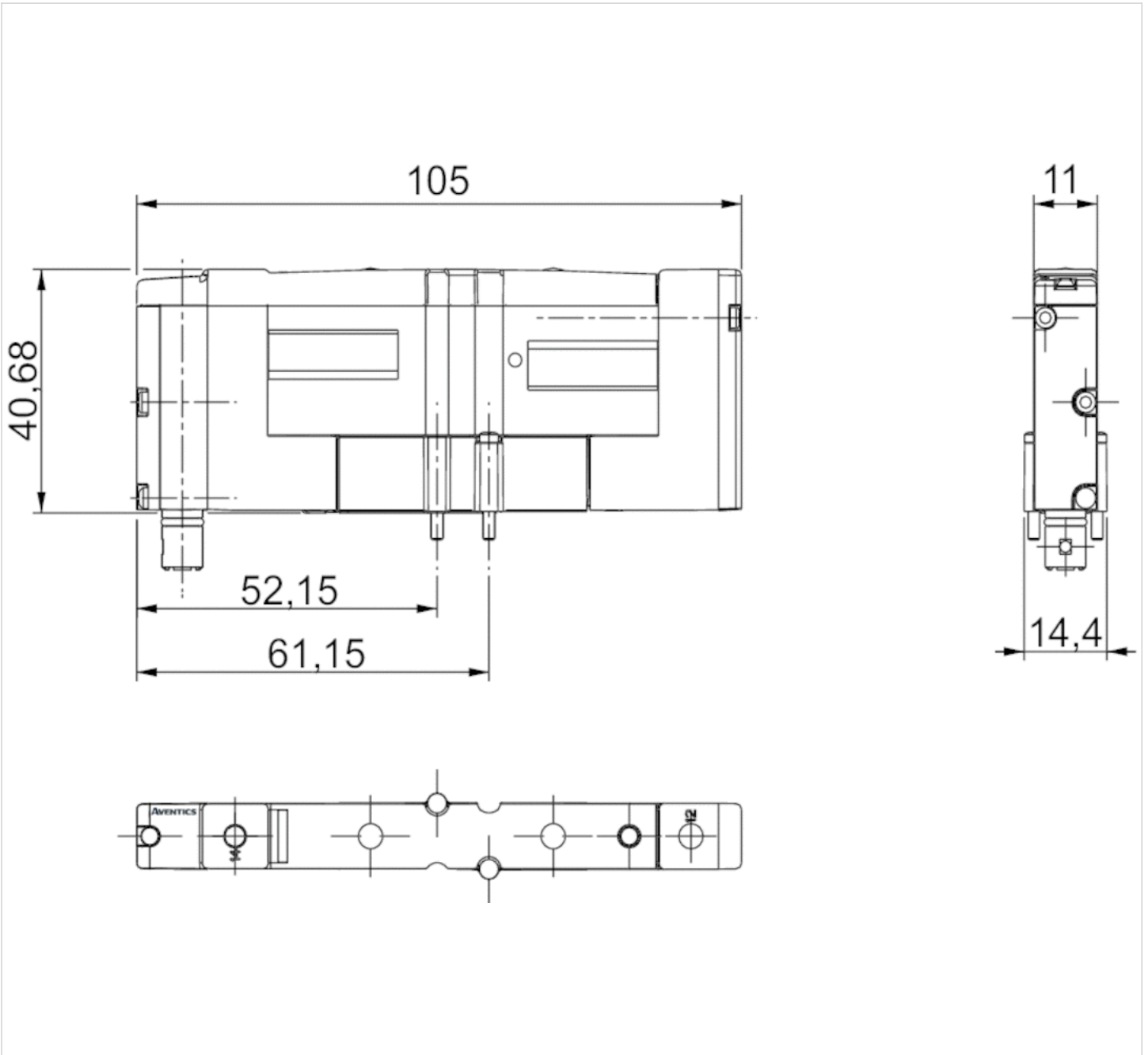
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Housing	Die cast zinc
Seals	Nitrile butadiene rubber Polyurethane
Front plate	Polyamide
End plate	Polyamide

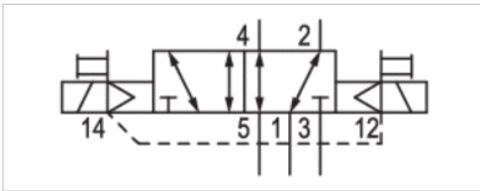
Dimensions

Dimensions





5/2-directional valve, Series 501

- 5/2
- $Q_n = 405 \text{ l/min}$
- NC/NO
- Plate connection
- Can be assembled into blocks
- Manual override : without detent with detent
- double solenoid
- Pilot : External



Type	Spool valve, positive overlapping
Activation	Electrically
Pilot	External
Sealing principle	Soft sealing
Blocking principle	Single base plate principle, can be assembled into blocks
Working pressure min./max.	2 ... 8 bar
Control pressure min./max.	2 ... 8 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m ³
Nominal flow Q_n	405 l/min
Pilot control exhaust	with directional pilot air exhaust
Protection class with connection	IP65
Protective circuit	Varistor
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
Typ. switch-on time	11 ms
Typ. switch-off time	11 ms
mounting screws	with hexagon socket
Mounting screw tightening torque	0.45 Nm
Weight	0.93 kg

Technical data

Part No.	MO		Voltage tolerance	Power consumption
			DC	DC
R501A2B40MA00F1		NC/NO	-15% / +10%	0.68 W
R501A2B40M11BF1		NC/NO	-15% / +10%	0.68 W

Technical information

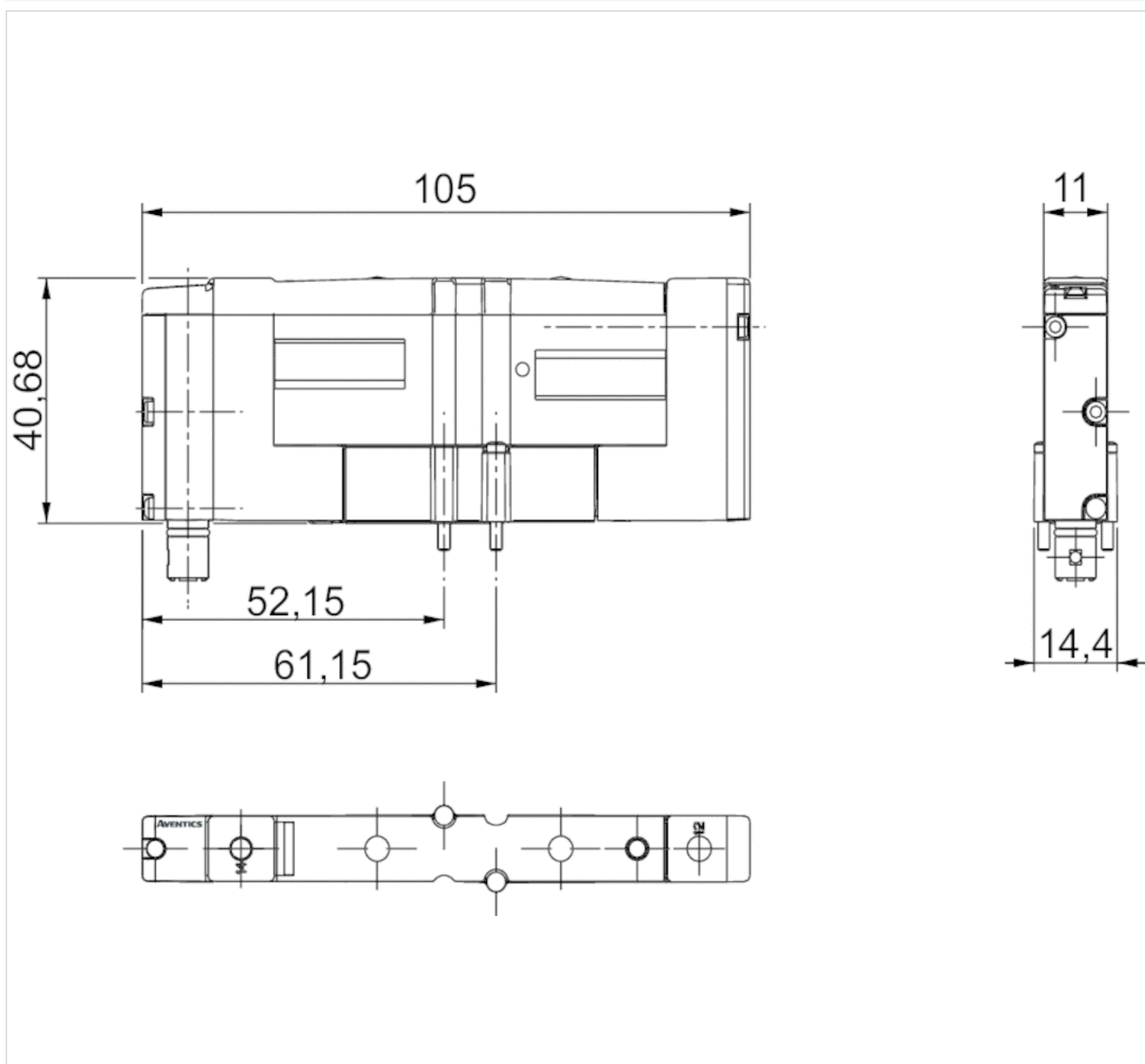
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
 The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
 The oil content of compressed air must remain constant during the life cycle.
 Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Housing	Die cast zinc
Seals	Nitrile butadiene rubber Polyurethane
Front plate	Polyamide
End plate	Polyamide

Dimensions

Dimensions















5/3-directional valve, Series 501

- 5/3
- Qn = 365-405 l/min
- exhausted center closed center pressurized center
- Plate connection
- Can be assembled into blocks
- Manual override : without detent with detent
- double solenoid
- Pilot : External



Type	Spool valve, positive overlapping
Activation	Electrically
Pilot	External
Sealing principle	Soft sealing
Blocking principle	Single base plate principle, can be assembled into blocks
Working pressure min./max.	2 ... 8 bar
Control pressure min./max.	See table below
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m ³
Nominal flow Qn	See table below
Pilot control exhaust	with directional pilot air exhaust
Protection class with connection	IP65
Protective circuit	Varistor
Reverse polarity protection	Protected against polarity reversal
LED status display	Yellow
Duty cycle	100 %
mounting screws	with hexagon socket
Mounting screw tightening torque	0.45 Nm
Weight	0.93 kg

Technical data

Part No.		MO		Voltage tolerance	
					DC
R501A2B50MA00F1				exhausted center	-15% / +10%
R501A2B60MA00F1				closed center	-15% / +10%
R501A2B70MA00F1				pressurized center	-15% / +10%
R501A2B50M11BF1				exhausted center	-15% / +10%
R501A2B60M11BF1				closed center	-15% / +10%
R501A2B70M11BF1				pressurized center	-15% / +10%

Part No.	Power consumption		Nominal flow Qn	Control pressure min./max.	Typ. switch-on time
	DC				
R501A2B50MA00F1	0.68 W		365 l/min	2 ... 8 bar	27 ms
R501A2B60MA00F1	0.68 W		405 l/min	2 ... 8 bar	13 ms
R501A2B70MA00F1	0.68 W		405 l/min	2.5 ... 8 bar	17 ms

Part No.	Power consumption	Nominal flow Q _n	Control pressure min./max.	Typ. switch-on time
	DC			
R501A2B50M11BF1	0.68 W	365 l/min	2 ... 8 bar	27 ms
R501A2B60M11BF1	0.68 W	405 l/min	2 ... 8 bar	13 ms
R501A2B70M11BF1	0.68 W	405 l/min	2.5 ... 8 bar	17 ms

Part No.	Typ. switch-off time
R501A2B50MA00F1	12 ms
R501A2B60MA00F1	12 ms
R501A2B70MA00F1	38 ms
R501A2B50M11BF1	12 ms
R501A2B60M11BF1	12 ms
R501A2B70M11BF1	38 ms

Technical information

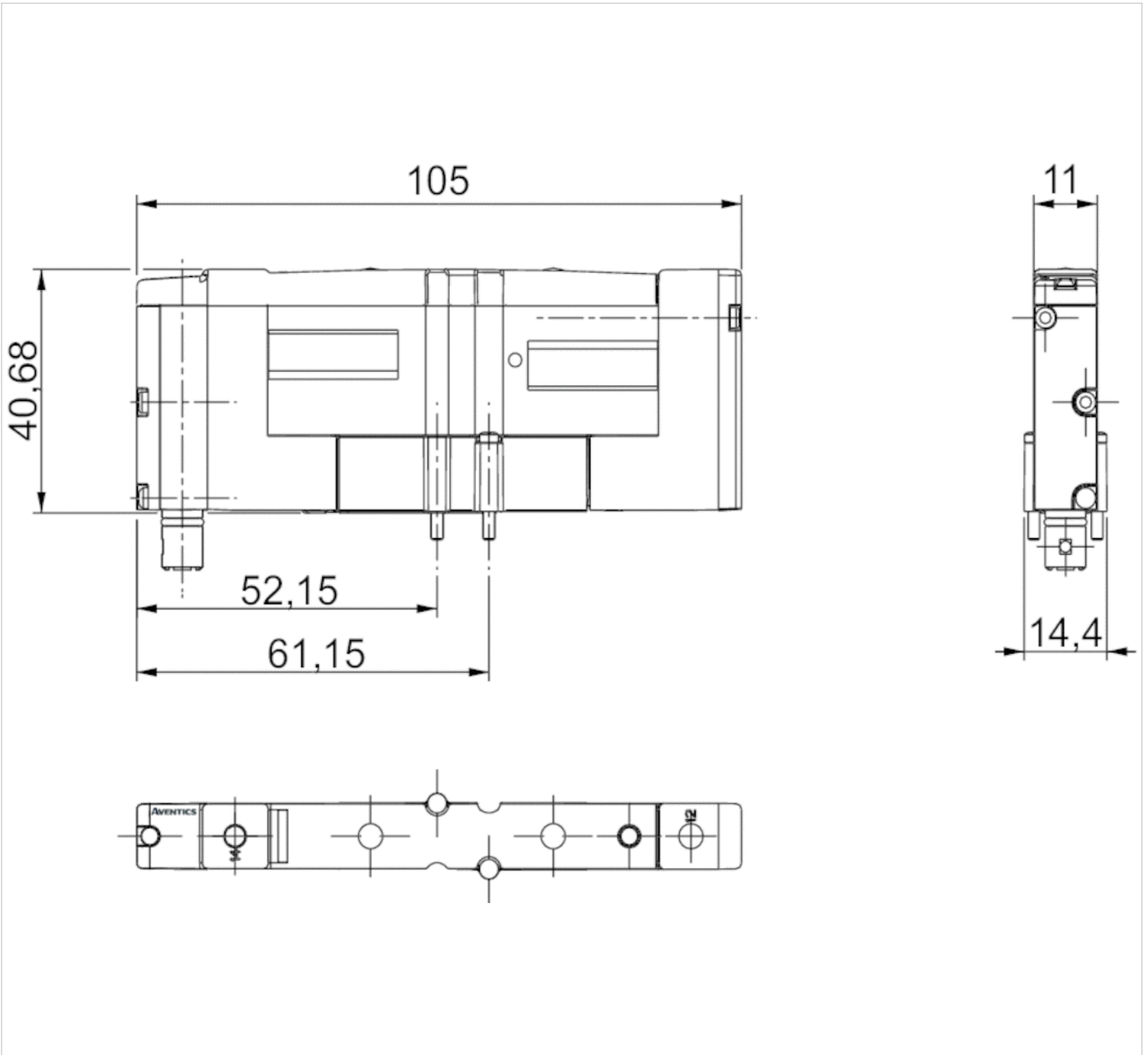
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
 The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
 The oil content of compressed air must remain constant during the life cycle.
 Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Housing	Die cast zinc
Seals	Nitrile butadiene rubber Polyurethane
Front plate	Polyamide
End plate	Polyamide

Dimensions

Dimensions



Bus coupler, Series G3

- Fieldbus connection with I/O functionality, power supply 7/8", 4-pin
- Bus coupler
- Fieldbus protocol DeviceNet



Version	Bus coupler
Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.11 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of solenoid coils max.	32
Number of valve positions max.	32
Diagnosis	Undervoltage
I/O module extension max.	16
Weight	0.252 kg

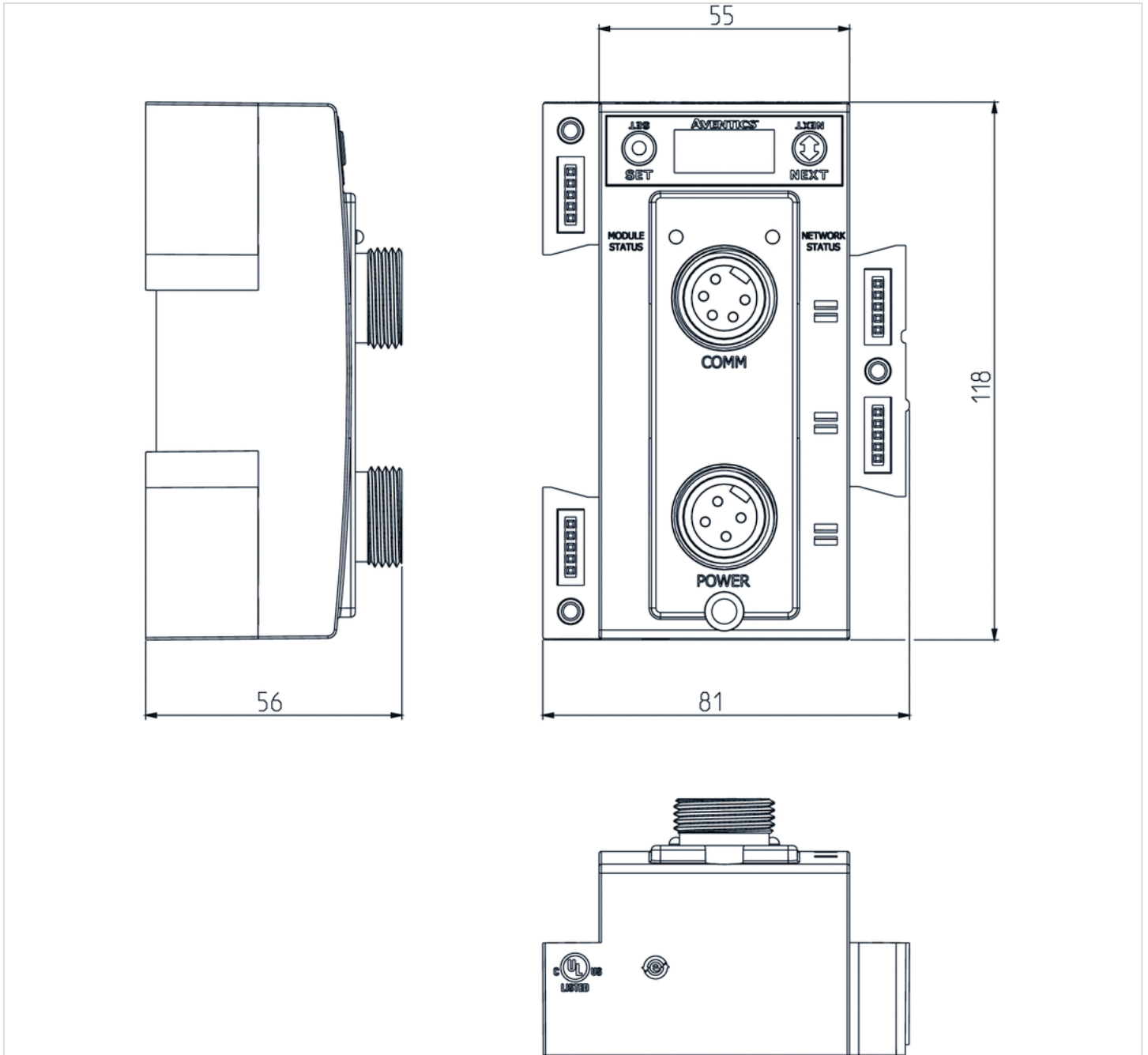
Technical data

Part No.	Fieldbus protocol	power supply
240-180	DeviceNet	Plug (male), 7/8", 4-pin

Technical information

Material	
Housing	Polybutyleneterephthalate

Dimensions



Series G3

- Fieldbus connection with I/O functionality, power supply 7/8", 4-pin
- Bus coupler
- Fieldbus protocol MODBUS TCP



Version	Bus coupler
Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.104 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of solenoid coils max.	128
Number of valve positions max.	110
Diagnosis	Undervoltage
I/O module extension max.	16
Weight	0.255 kg

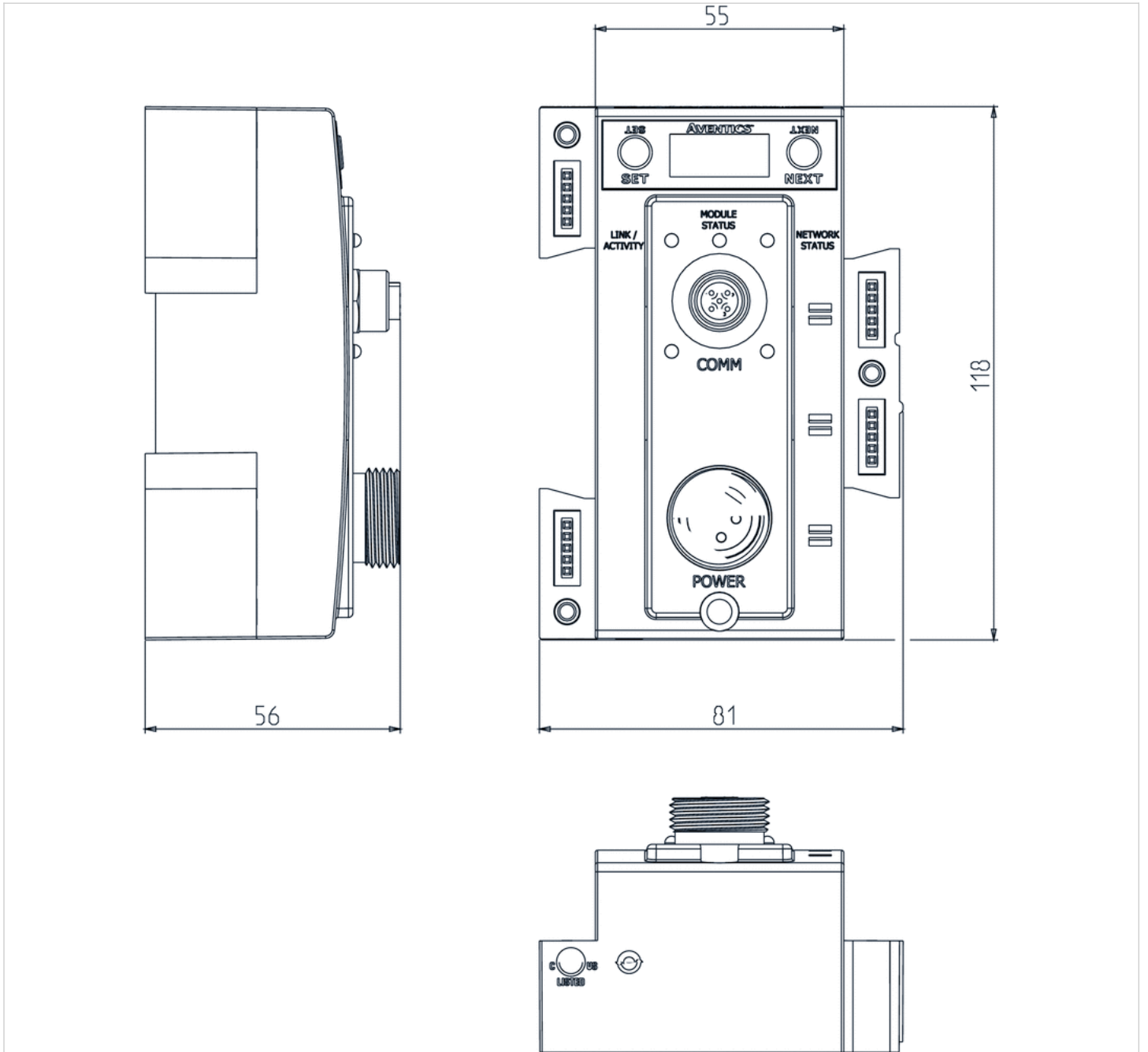
Technical data

Part No.	Fieldbus protocol	power supply
240-292	MODBUS TCP	Plug (male), 7/8", 4-pin

Technical information

Material	
Housing	Polybutyleneterephthalate

Dimensions



Series G3

- Fieldbus connection with I/O functionality, power supply 7/8", 5-pin
- Bus coupler
- Fieldbus protocol PROFIBUS DP



Version	Bus coupler
Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.104 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of solenoid coils max.	128
Number of valve positions max.	110
Diagnosis	Undervoltage
I/O module extension max.	16
Weight	0.227 kg

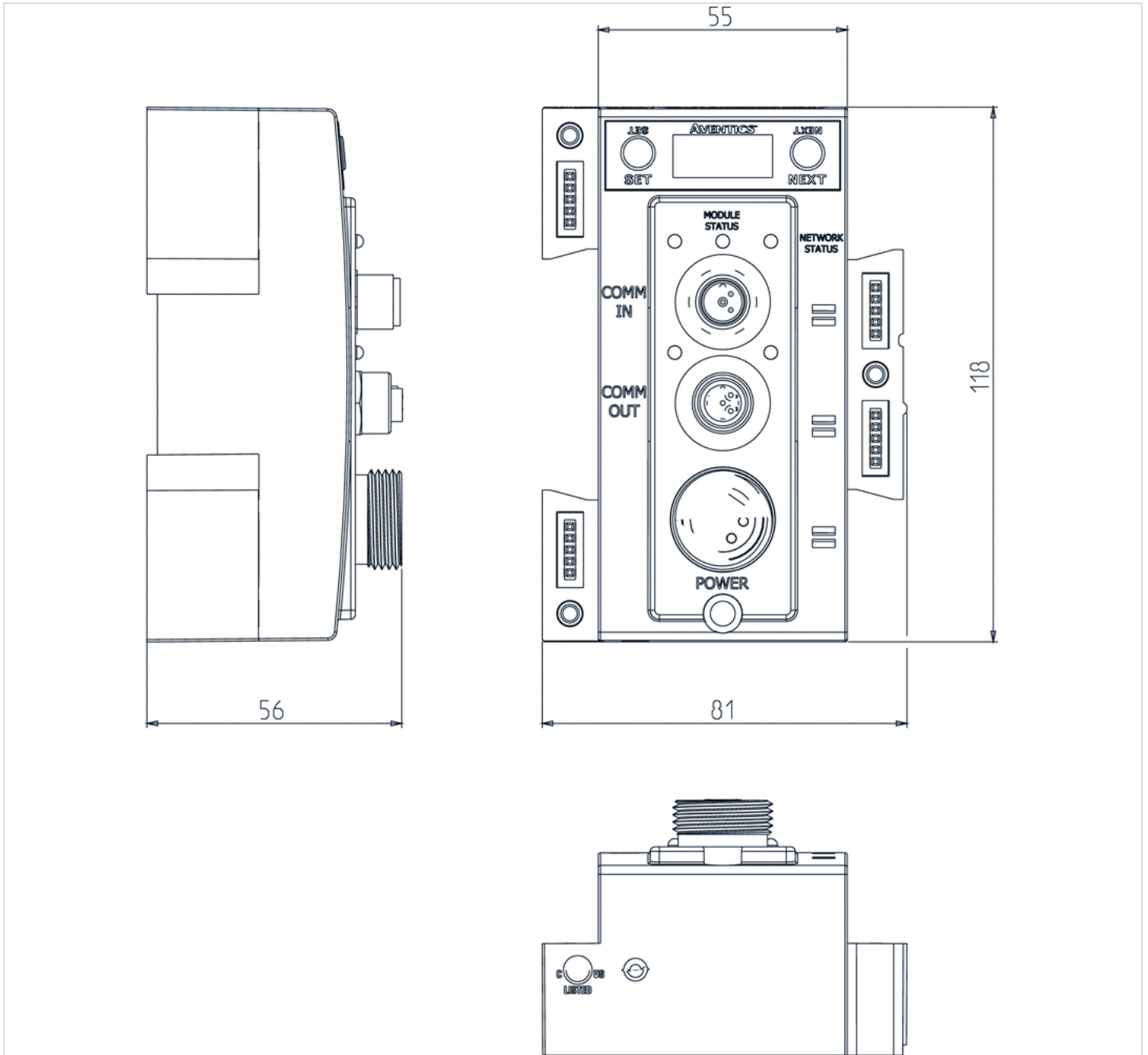
Technical data

Part No.	Fieldbus protocol	power supply
240-239	PROFIBUS DP	Plug (male), 7/8", 5-pin

Technical information

Material	
Housing	Polybutyleneterephthalate

Dimensions



Series G3

- Fieldbus connection with I/O functionality, power supply 7/8", 5-pin
- Bus coupler
- Fieldbus protocol Profinet



Version	Bus coupler
Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.104 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of solenoid coils max.	128
Number of valve positions max.	110
Diagnosis	Undervoltage
I/O module extension max.	16
Weight	0.227 kg

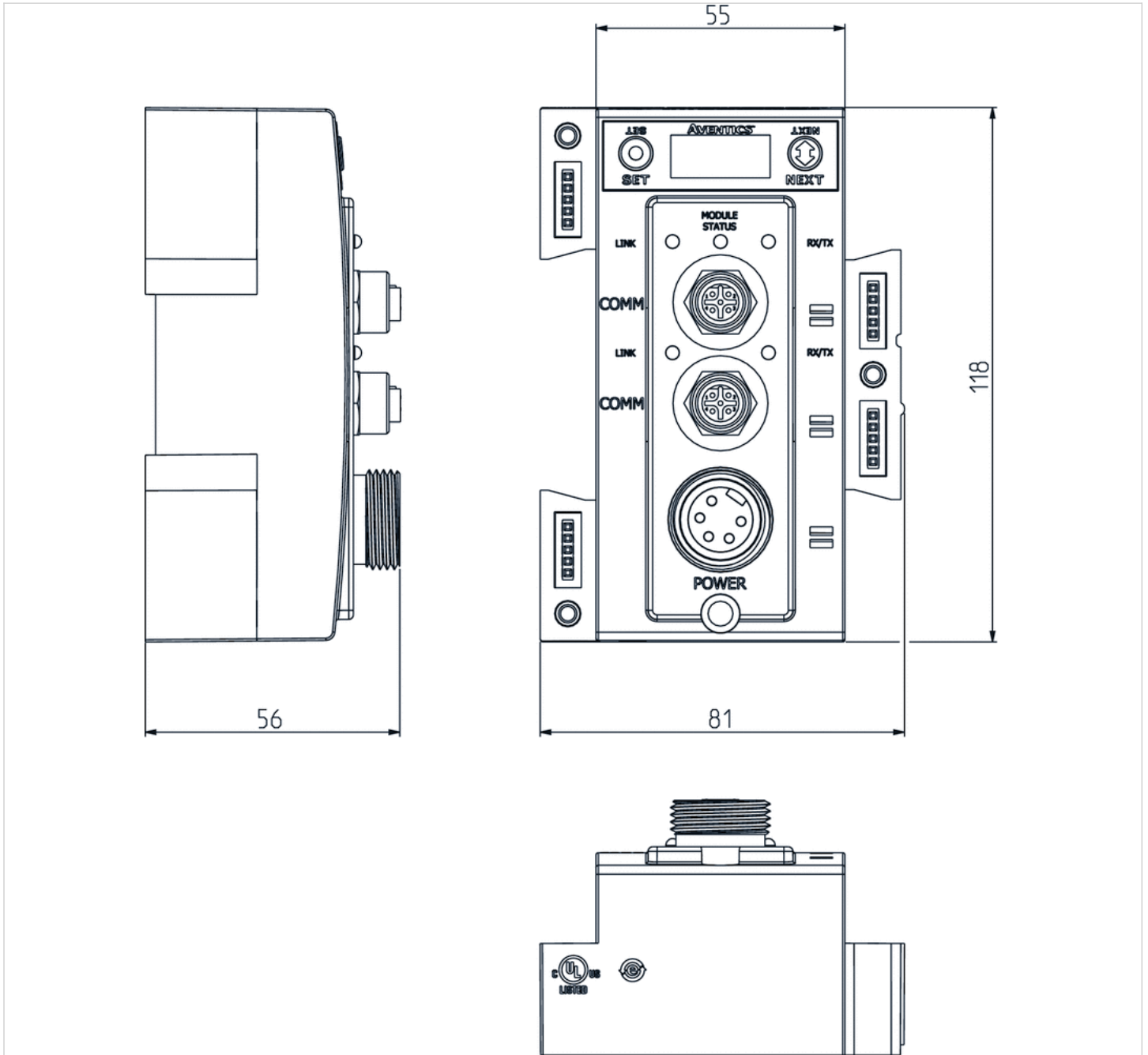
Technical data

Part No.	Fieldbus protocol	power supply
240-240	Profinet	Plug (male), 7/8", 5-pin

Technical information

Material	
Housing	Polybutyleneterephthalate

Dimensions



Series G3

- Fieldbus connection with I/O functionality, power supply 7/8", 5-pin
- Bus coupler
- Fieldbus protocol POWERLINK



Version	Bus coupler
Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.104 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of solenoid coils max.	128
Number of valve positions max.	110
Diagnosis	Undervoltage
I/O module extension max.	16
Weight	0.227 kg

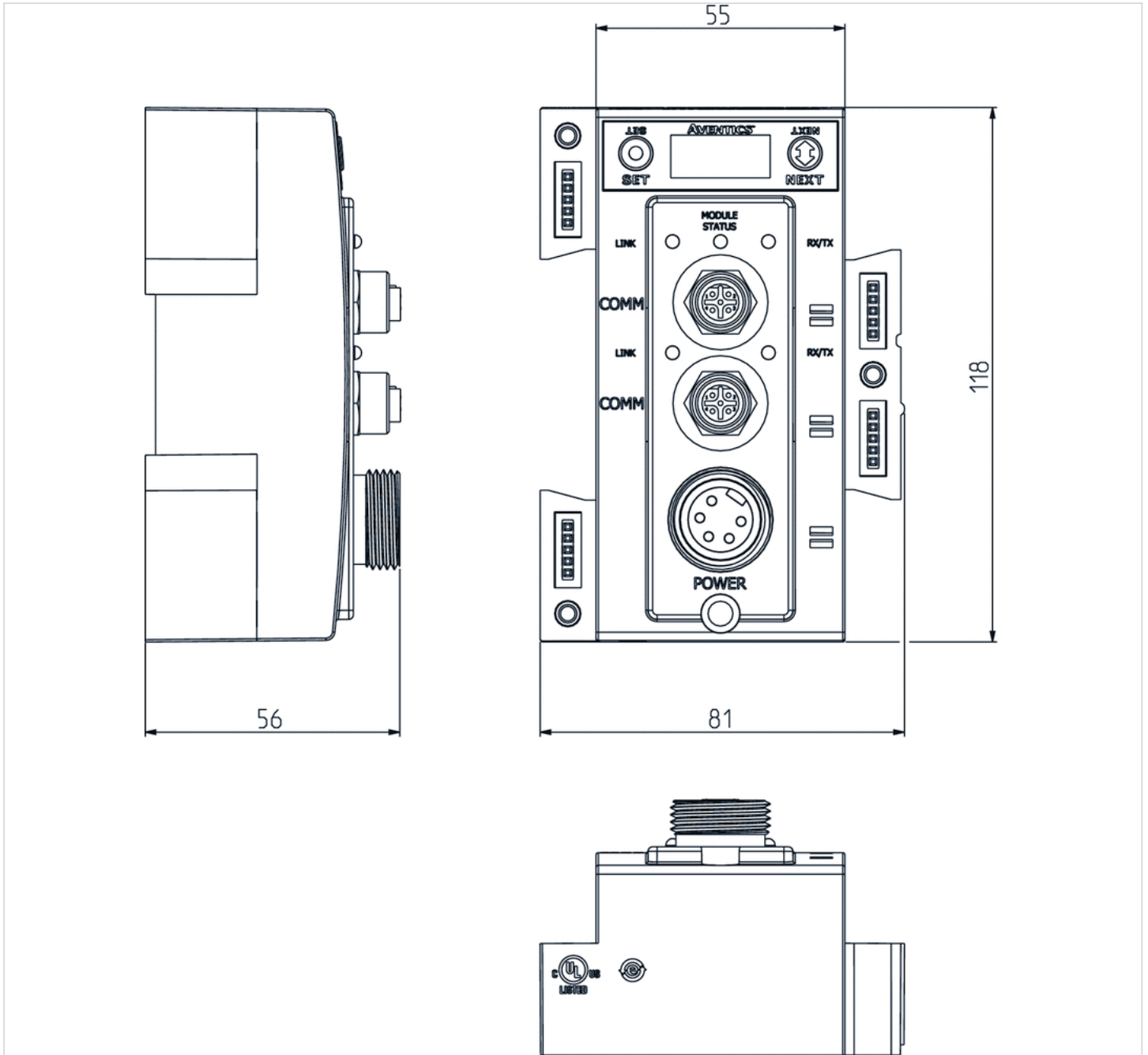
Technical data

Part No.	Fieldbus protocol	power supply
240-309	POWERLINK	Plug (male), 7/8", 5-pin

Technical information

Material	
Housing	Polybutyleneterephthalate

Dimensions



Series G3

- Fieldbus connection with I/O functionality, power supply 7/8", 4-pin
- Bus coupler
- Fieldbus protocol CANopen



Version	Bus coupler
Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.11 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of solenoid coils max.	32
Number of valve positions max.	32
Diagnosis	Undervoltage
I/O module extension max.	16
Weight	0.252 kg

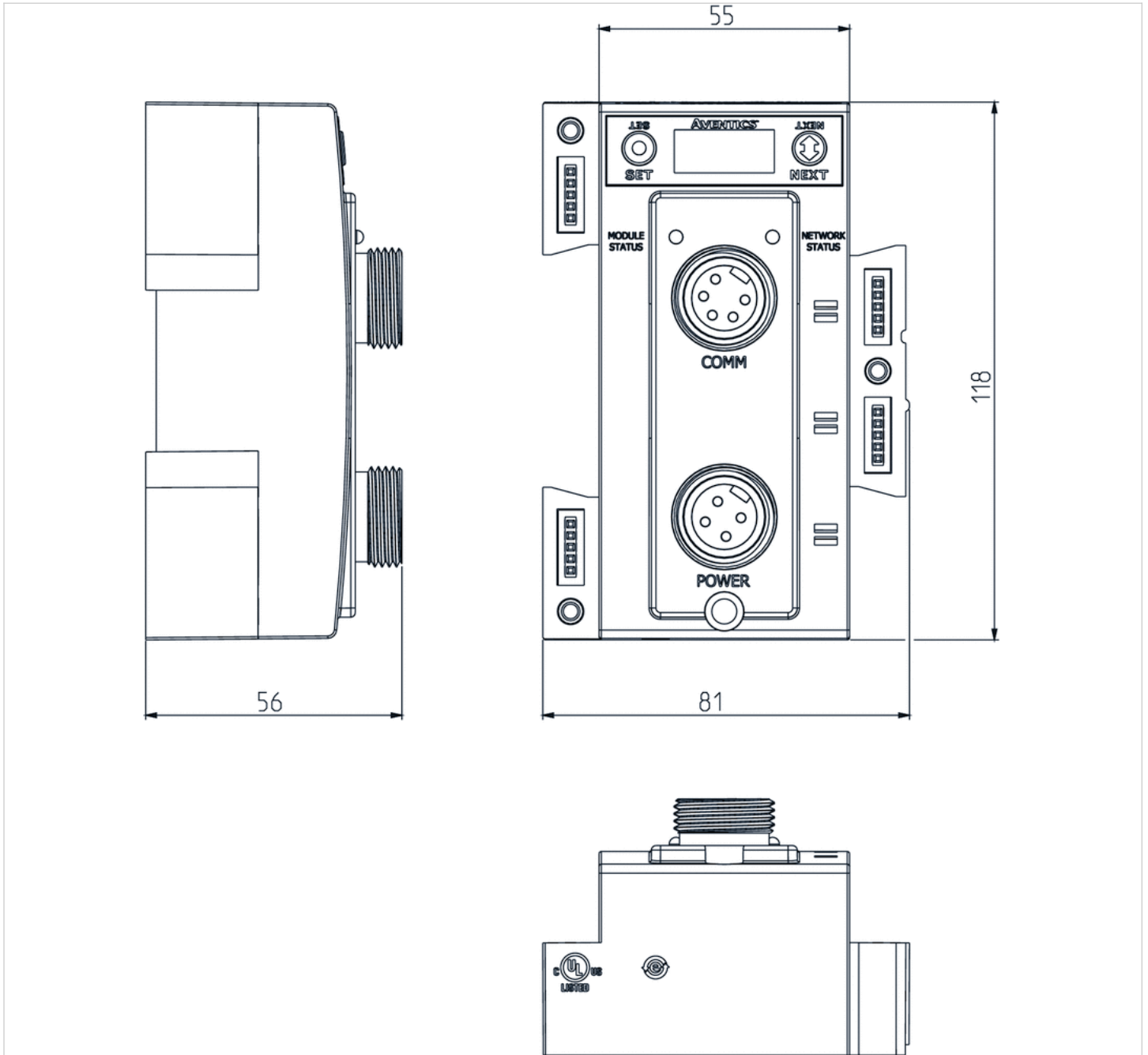
Technical data

Part No.	Fieldbus protocol	power supply
240-291	CANopen	Plug (male), 7/8", 4-pin

Technical information

Material	
Housing	Polybutyleneterephthalate

Dimensions



Series G3

- Fieldbus connection with I/O functionality, power supply 7/8", 4-pin
- Bus coupler
- Fieldbus protocol EtherNET/IP



Version	Bus coupler
Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.104 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of solenoid coils max.	128
Number of valve positions max.	110
Diagnosis	Undervoltage
I/O module extension max.	16
Weight	0.227 kg

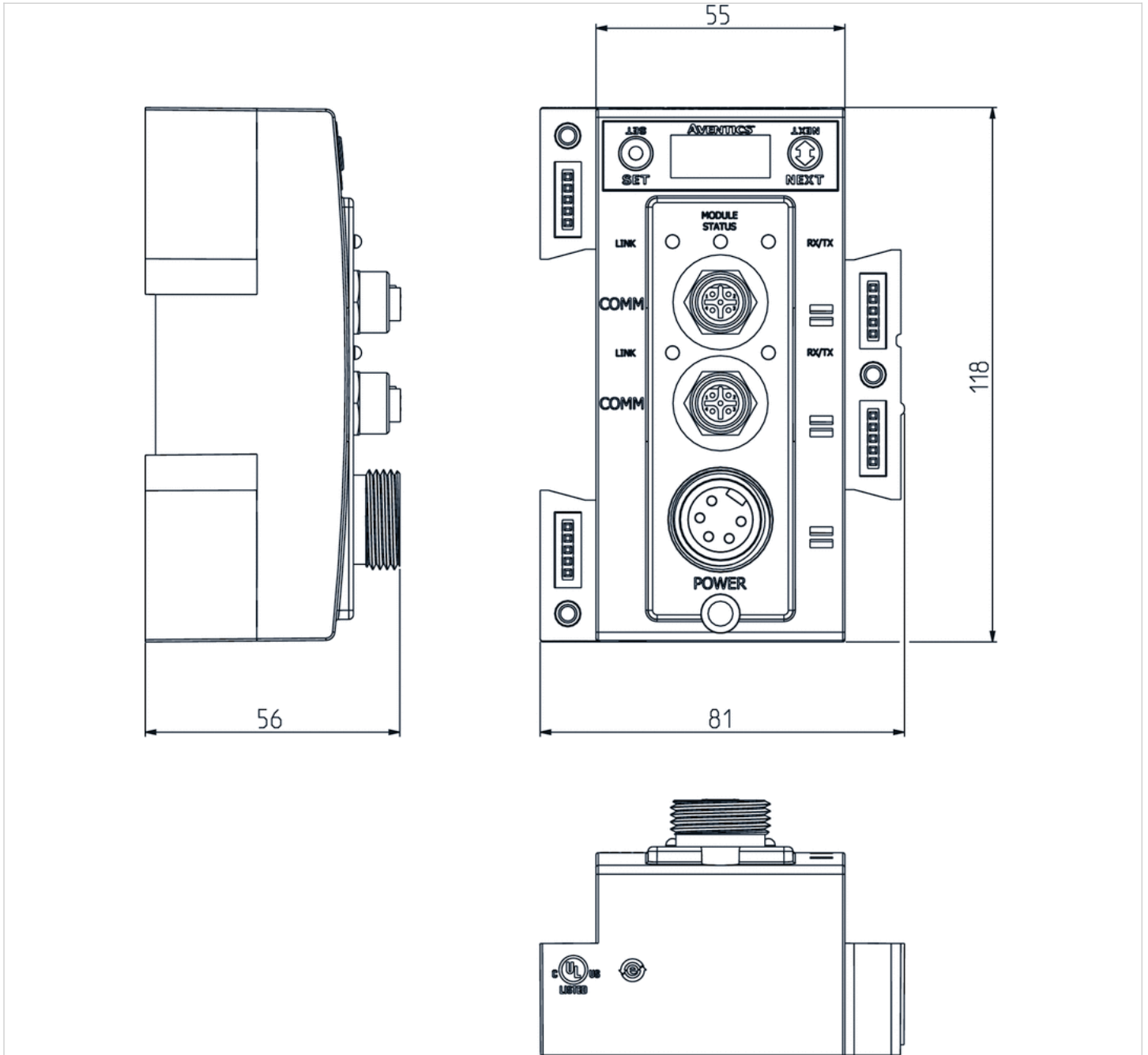
Technical data

Part No.	Fieldbus protocol	power supply
240-325	EtherNET/IP	Plug (male), 7/8", 4-pin

Technical information

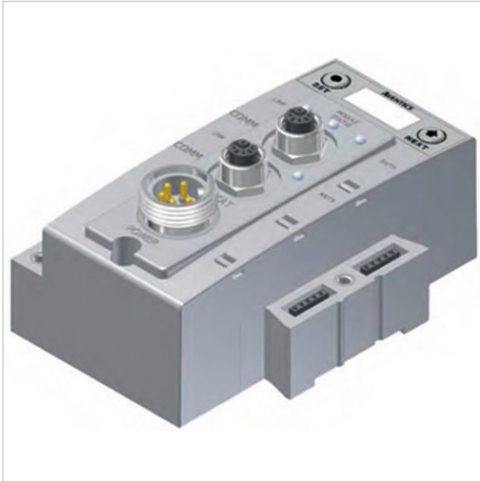
Material	
Housing	Polybutyleneterephthalate

Dimensions



Series G3

- Fieldbus connection with I/O functionality, power supply 7/8", 4-pin
- Bus coupler
- Fieldbus protocol EtherCAT



Version	Bus coupler
Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.104 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of solenoid coils max.	128
Number of valve positions max.	110
Diagnosis	Undervoltage
I/O module extension max.	16
Weight	0.227 kg

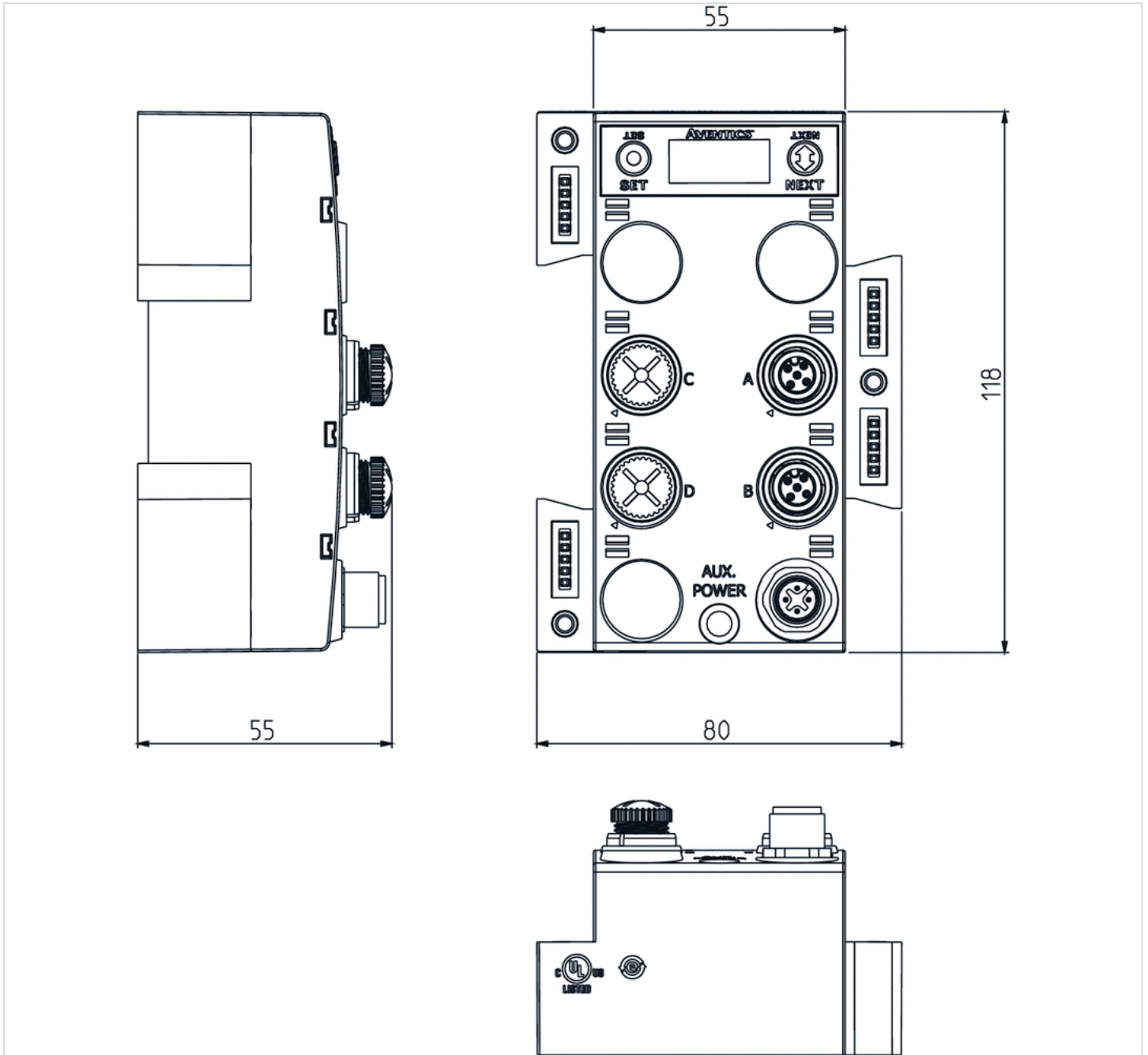
Technical data

Part No.	Fieldbus protocol	power supply
240-310	EtherCAT	Plug (male), 7/8", 4-pin

Technical information

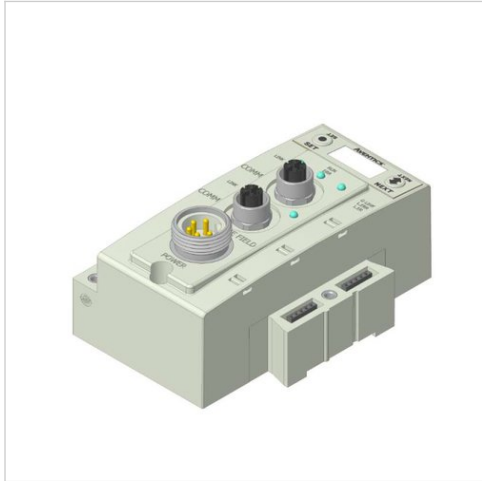
Material	
Housing	Polybutyleneterephthalate

Dimensions



Series G3

- Fieldbus connection with I/O functionality, power supply 7/8", 4-pin
- Bus coupler
- Fieldbus protocol EtherCAT



Version	Bus coupler
Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.11 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Diagnosis	Undervoltage
I/O module extension max.	16
Weight	0.269 kg

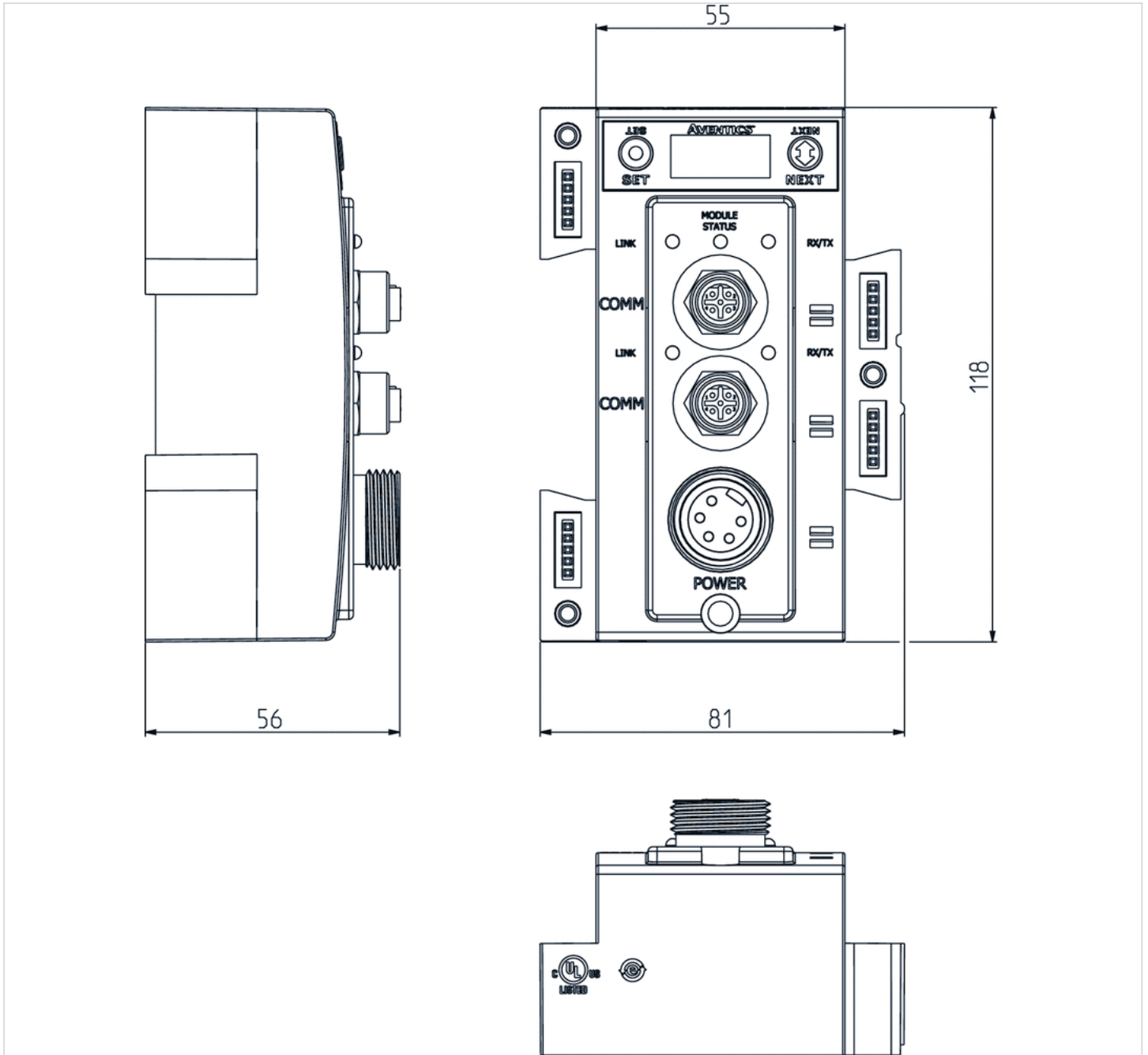
Technical data

Part No.	Fieldbus protocol	power supply
240-362	EtherCAT	Plug, 7/8", 4-pin

Technical information

Material	
Housing	Polybutyleneterephthalate

Dimensions



End plate left

- Left end plate G3



Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Total current for actuators	4 A
Protection class	IP65
Weight	0.091 kg

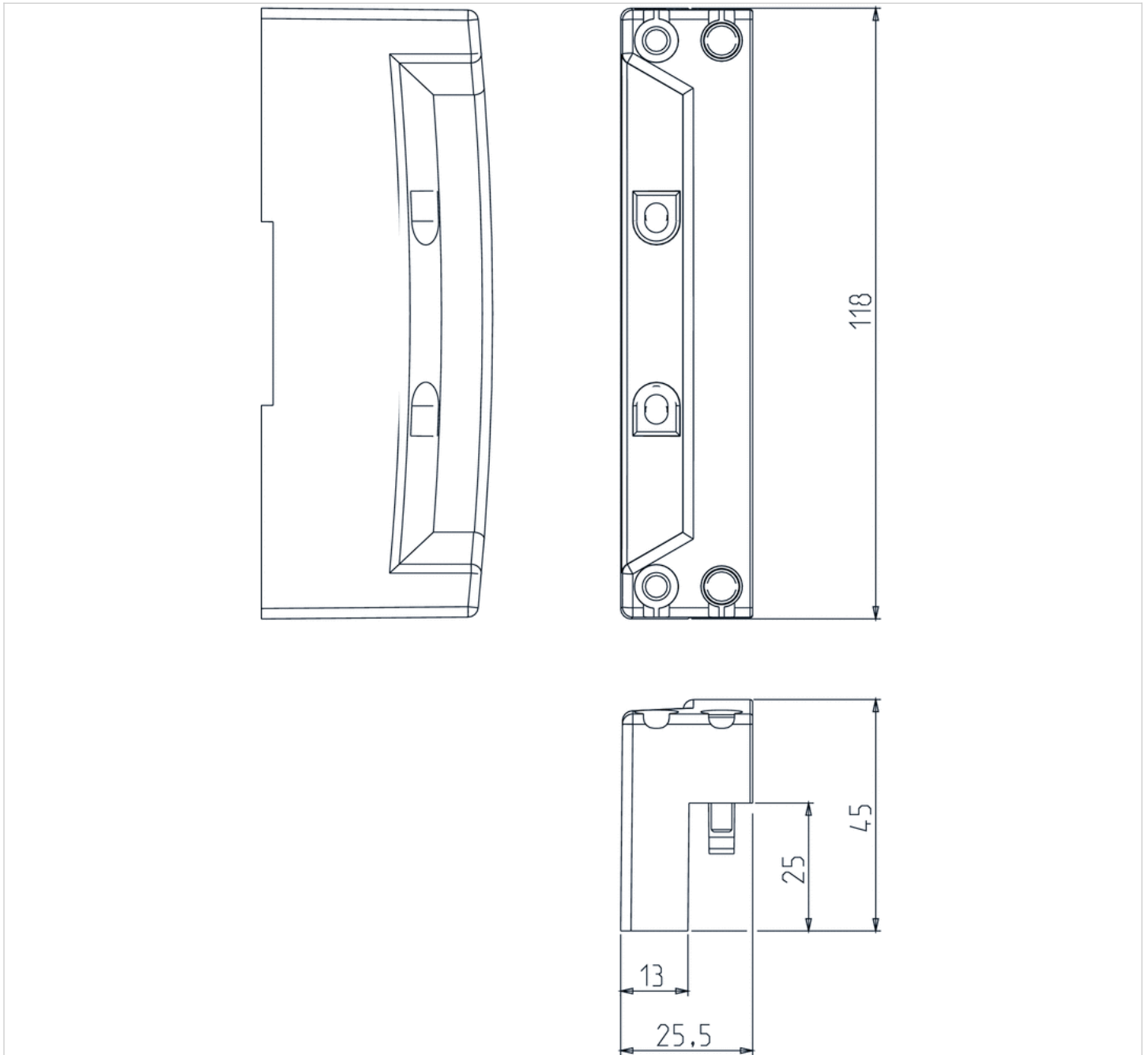
Technical data

Part No.	power supply
240-184	4

Technical information

Material	
Housing	polyethyleneterephthalate

Dimensions



Left end plate for Subbus G3



Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Total current for actuators	4 A
Protection class	IP65
I/O connection	M12x1, 4-pin
Weight	0.13 kg

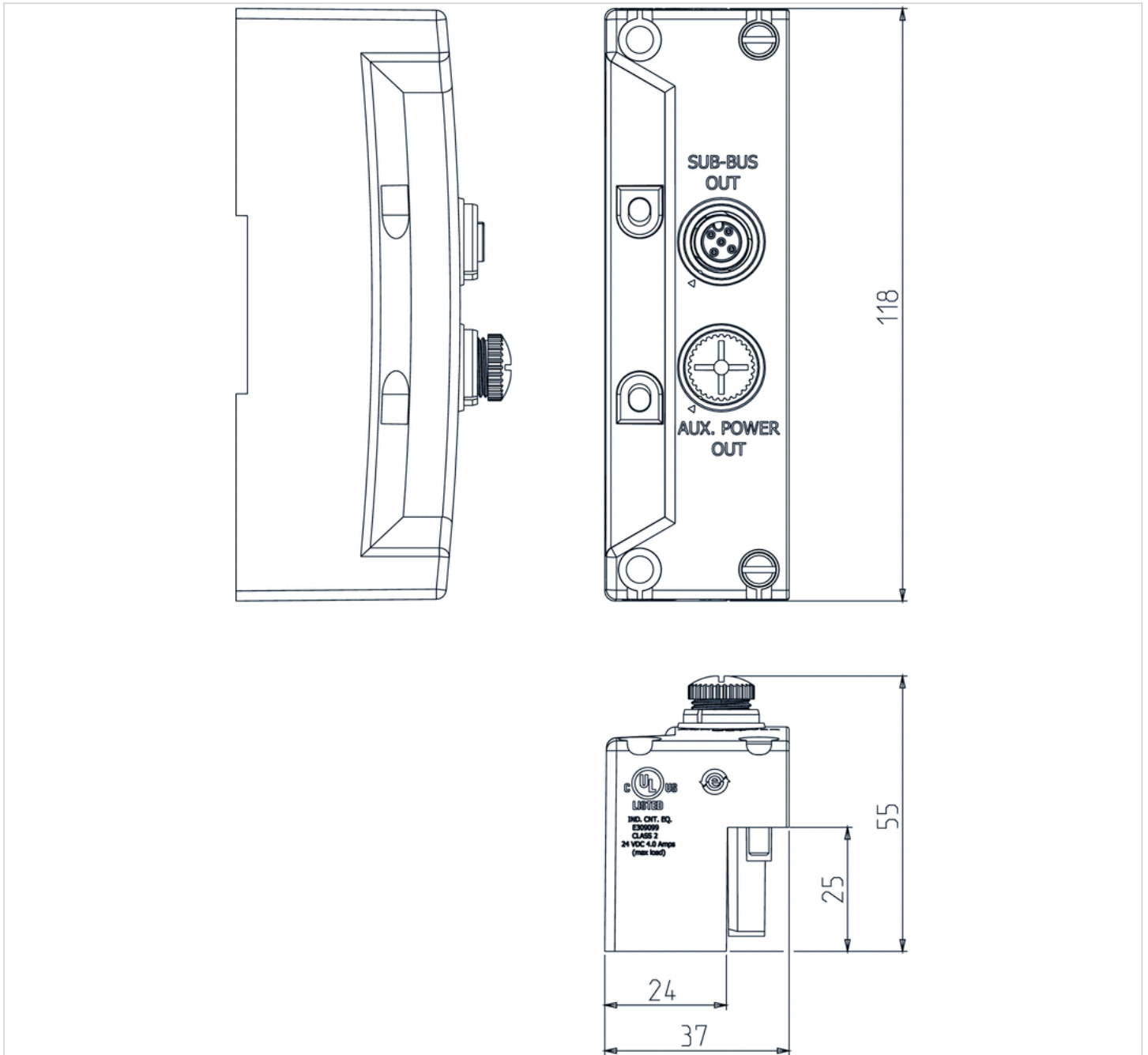
Technical data

Part No.	power supply	I/O connection
240-183	4	M12x1, 4-pin

Technical information

Material	
Housing	polyethyleneterephthalate

Dimensions



Right end plate for Subbus G3

240-185

General series information Series G3

■ In today's highly automated machines, the AVENTICS Series G3 electronic fieldbus valve system is replacing conventional hardwired solutions. It integrates communication interfaces to pneumatic valve valve system with input/output (I/O) capabilities. This next-generation electronic platform permits easy access to connections; it's simple to assemble, install, commission, and maintain. The G3's functionality allows programmable logic controllers to more efficiently turn valves on and off, and to channel I/O data from sensors, lights, relays, individual valves, or other I/O devices via various industrial networks. The G3 is the only pneumatic valve manifold that contains a graphical display used for configuration, commissioning, and diagnostics. It offers improvements in application, performance, and maintenance for original equipment manufacturers (OEMs) and end users alike.



Technical data

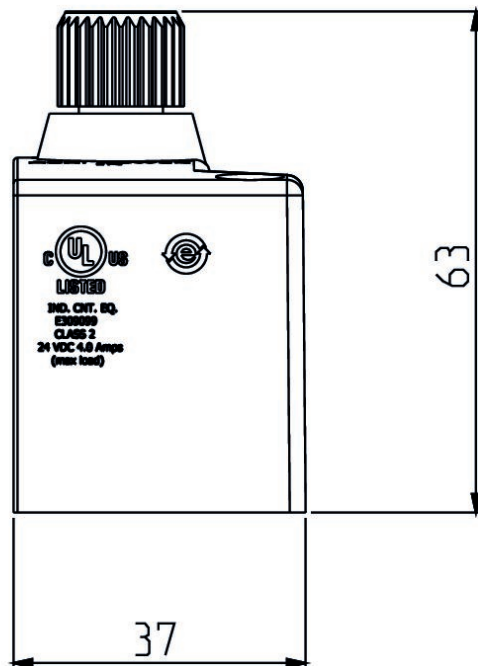
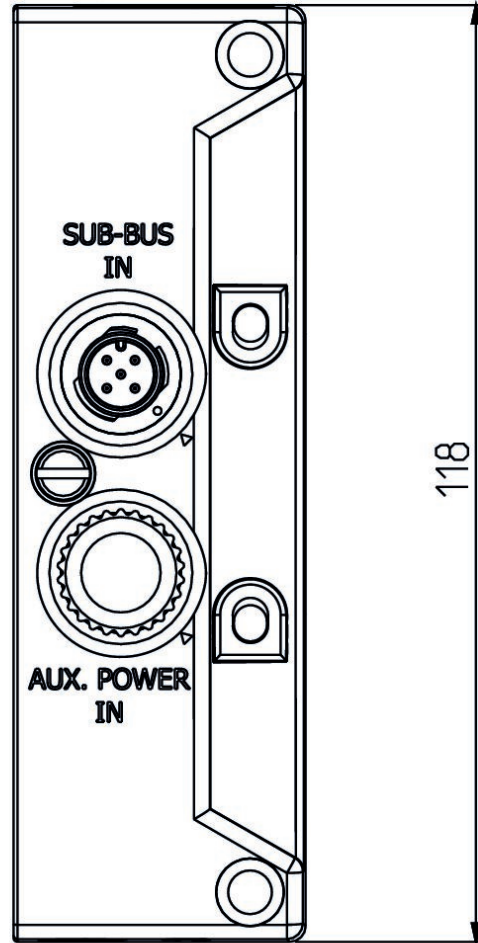
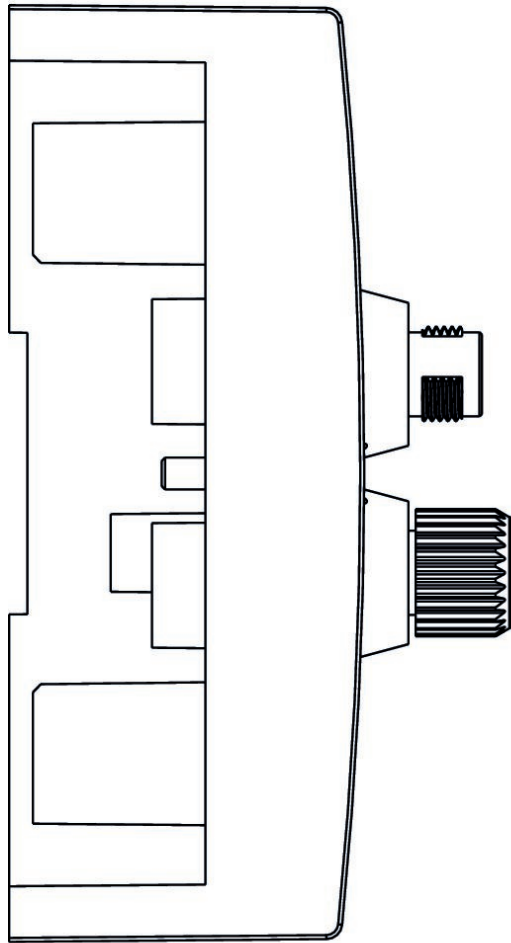
Industry	Industrial
Signal connection E/A thread size	M12x1
Signal connection E/A number of poles	4-pin
Min. ambient temperature	-10 °C
Max. ambient temperature	50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Total output for valves	4 A
Protection class	IP65
Electrical connection	4
Weight	0.13 kg

Material

Housing material	polyethyleneterephthalate
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Part No.

240-185



Right end plate for G3 Standalone

240-255

General series information Series G3

■ In today's highly automated machines, the AVENTICS Series G3 electronic fieldbus valve system is replacing conventional hardwired solutions. It integrates communication interfaces to pneumatic valve valve system with input/output (I/O) capabilities. This next-generation electronic platform permits easy access to connections; it's simple to assemble, install, commission, and maintain. The G3's functionality allows programmable logic controllers to more efficiently turn valves on and off, and to channel I/O data from sensors, lights, relays, individual valves, or other I/O devices via various industrial networks. The G3 is the only pneumatic valve manifold that contains a graphical display used for configuration, commissioning, and diagnostics. It offers improvements in application, performance, and maintenance for original equipment manufacturers (OEMs) and end users alike.

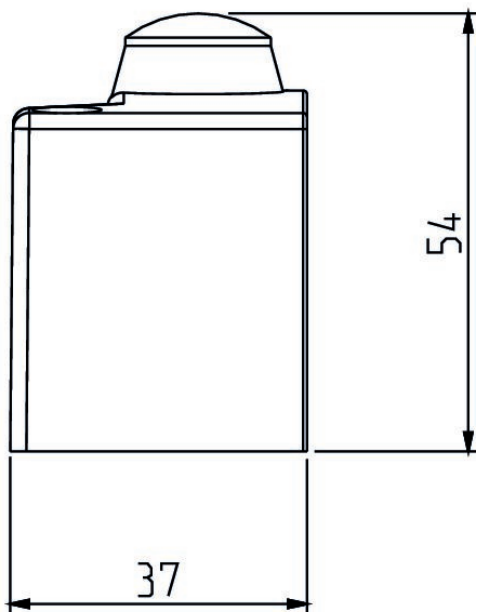
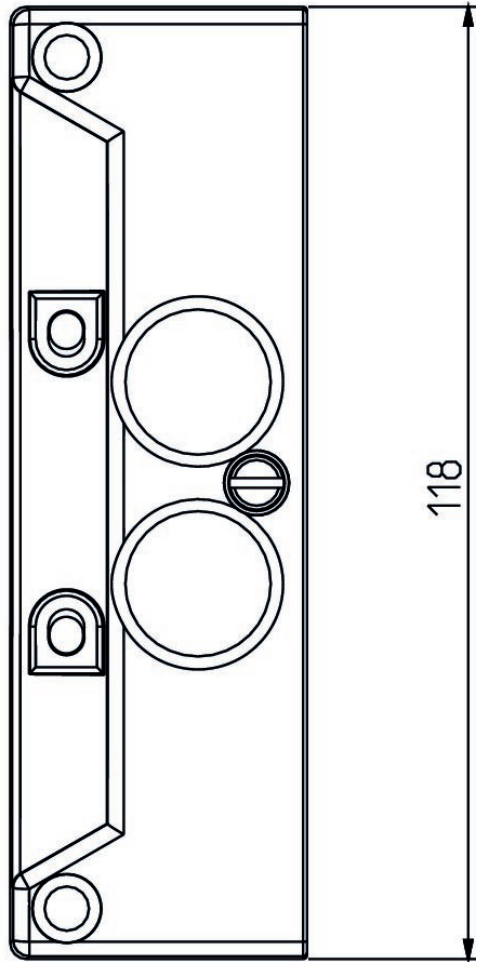
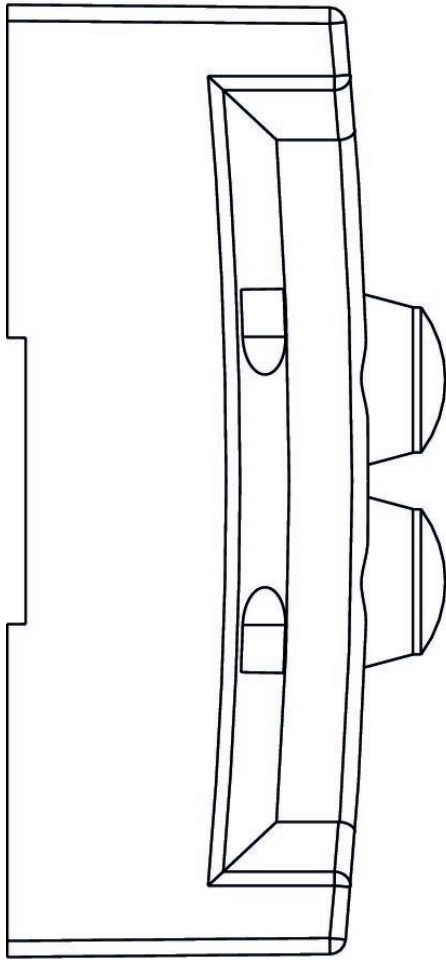


Technical data

Industry	Industrial
Min. ambient temperature	-10 °C
Max. ambient temperature	50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Total output for valves	4 A
Protection class	IP65
Electrical connection	4
Weight	0.071 kg

Material

Housing material	polyethyleneterephthalate
Part No.	240-255



Wireless auto-recovery module, series G3

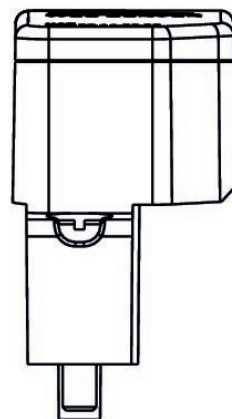
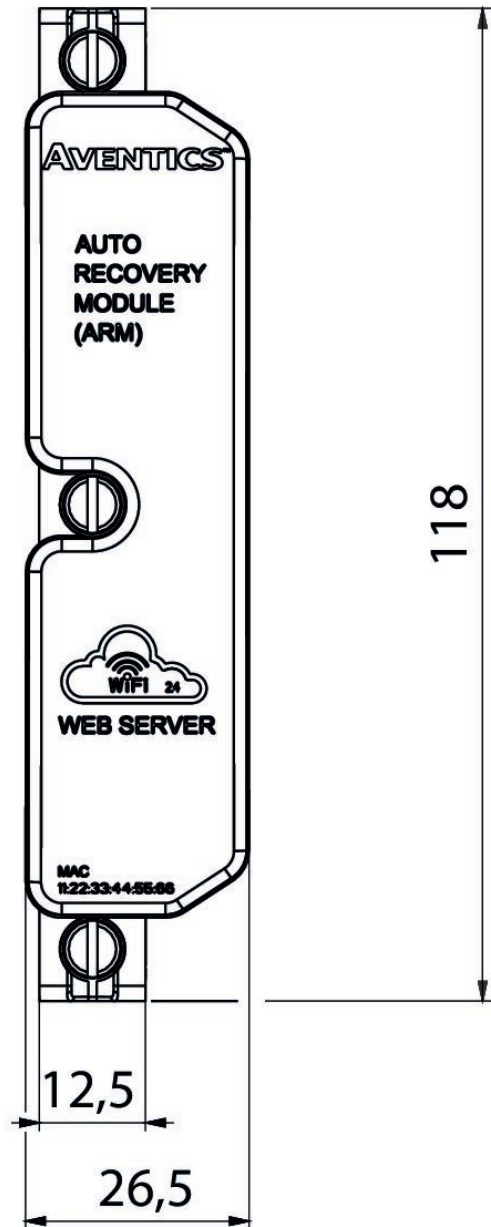
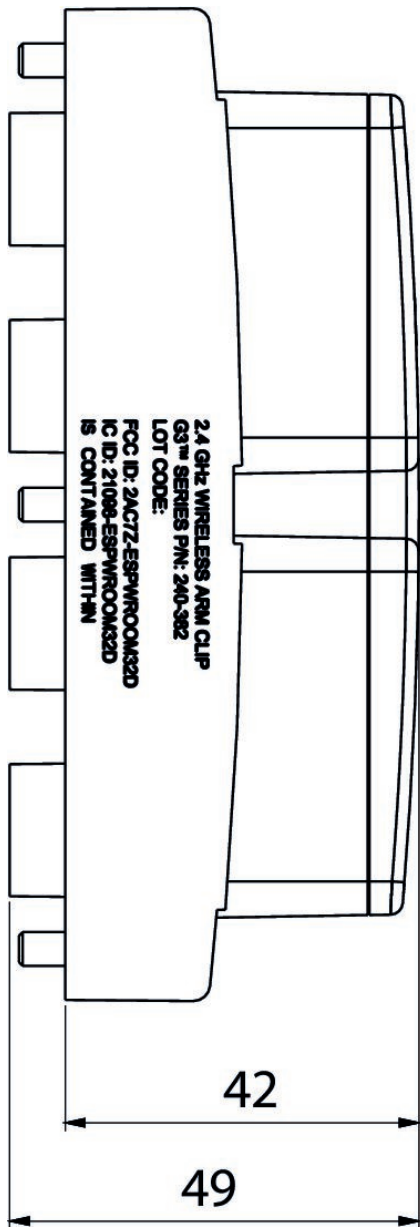
240-382

Series G3



Technical data

Industry	Industrial
Min. ambient temperature	-10 °C
Max. ambient temperature	50 °C
Part No.	240-382



Distributor

- Valve driver, Series 500



Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Total current for actuators	4 A
Protection class	IP65

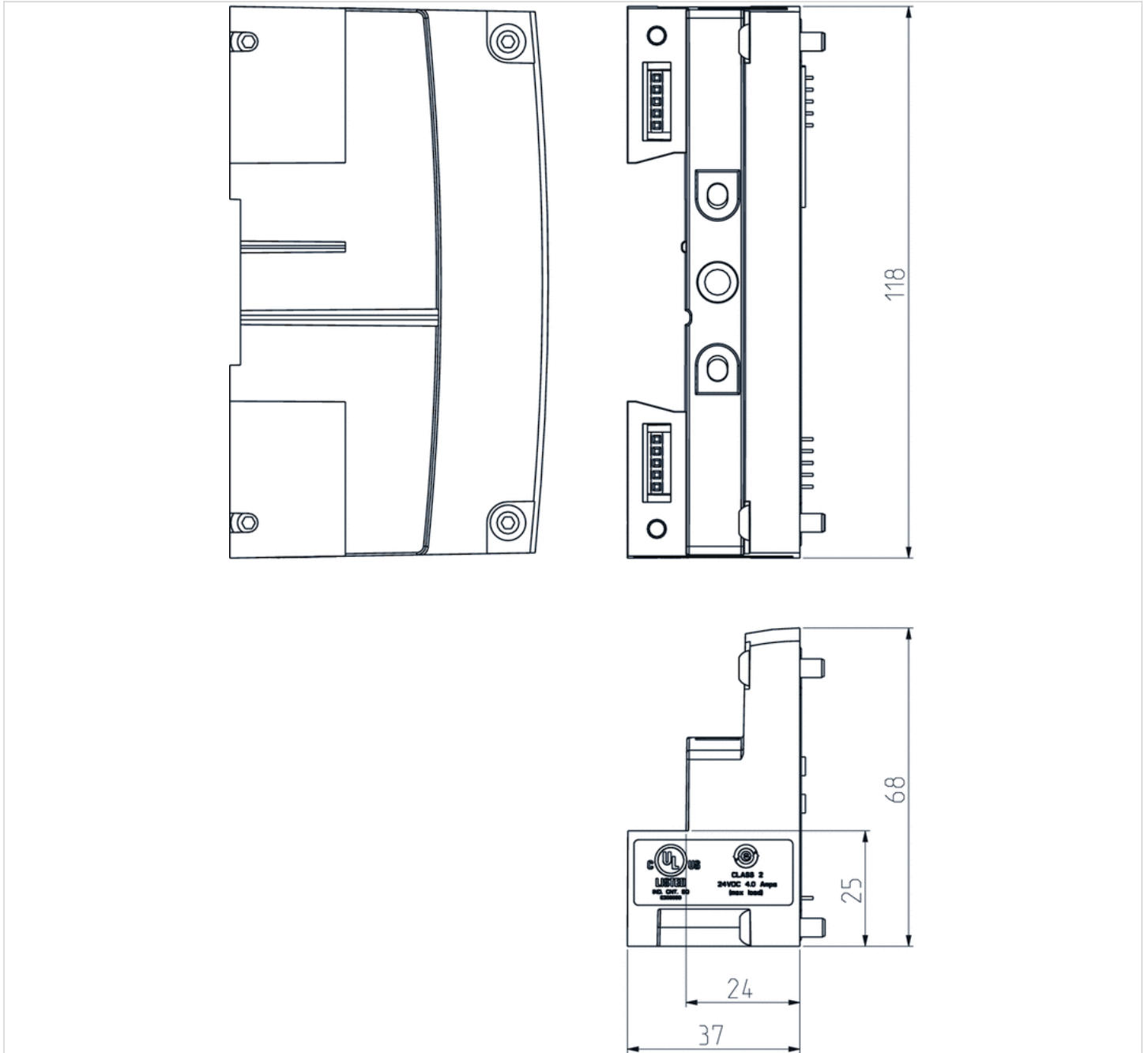
Technical data

Part No.	power supply
P599AE508827001	4

Technical information

Material	
Housing	polyethyleneterephthalate

Dimensions



Connection piece

240-179

Mechanical accessories



Technical data

Industry

For series

Industrial

G3

501

502

503

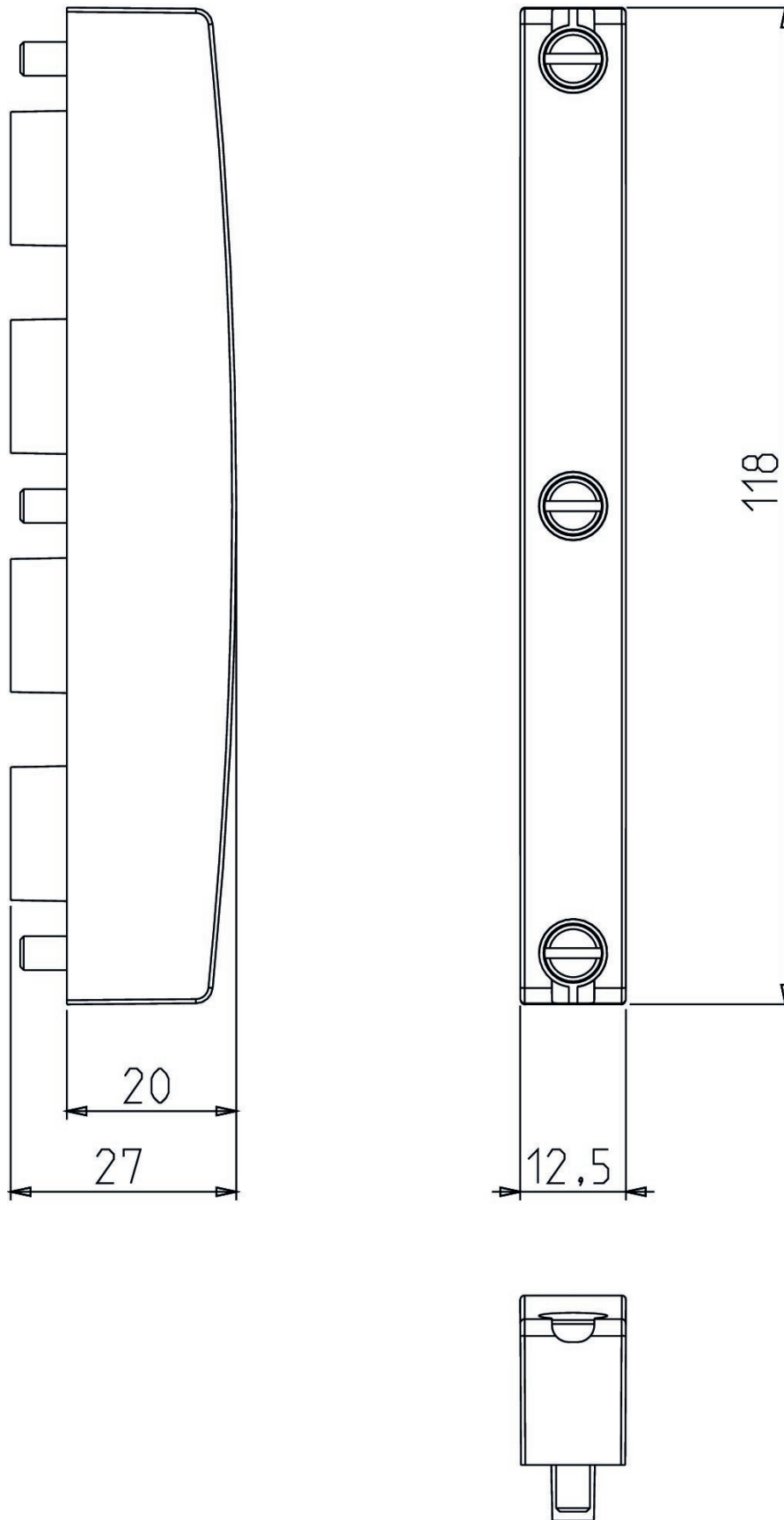
Material

Housing material

Part No.

Polybutyleneterephthalate

240-179



Distributor

- Power supply plug 7/8", 4-pin



Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.03 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of valve positions max.	32
Diagnosis	Undervoltage
I/O module extension max.	15
Weight	0.235 kg

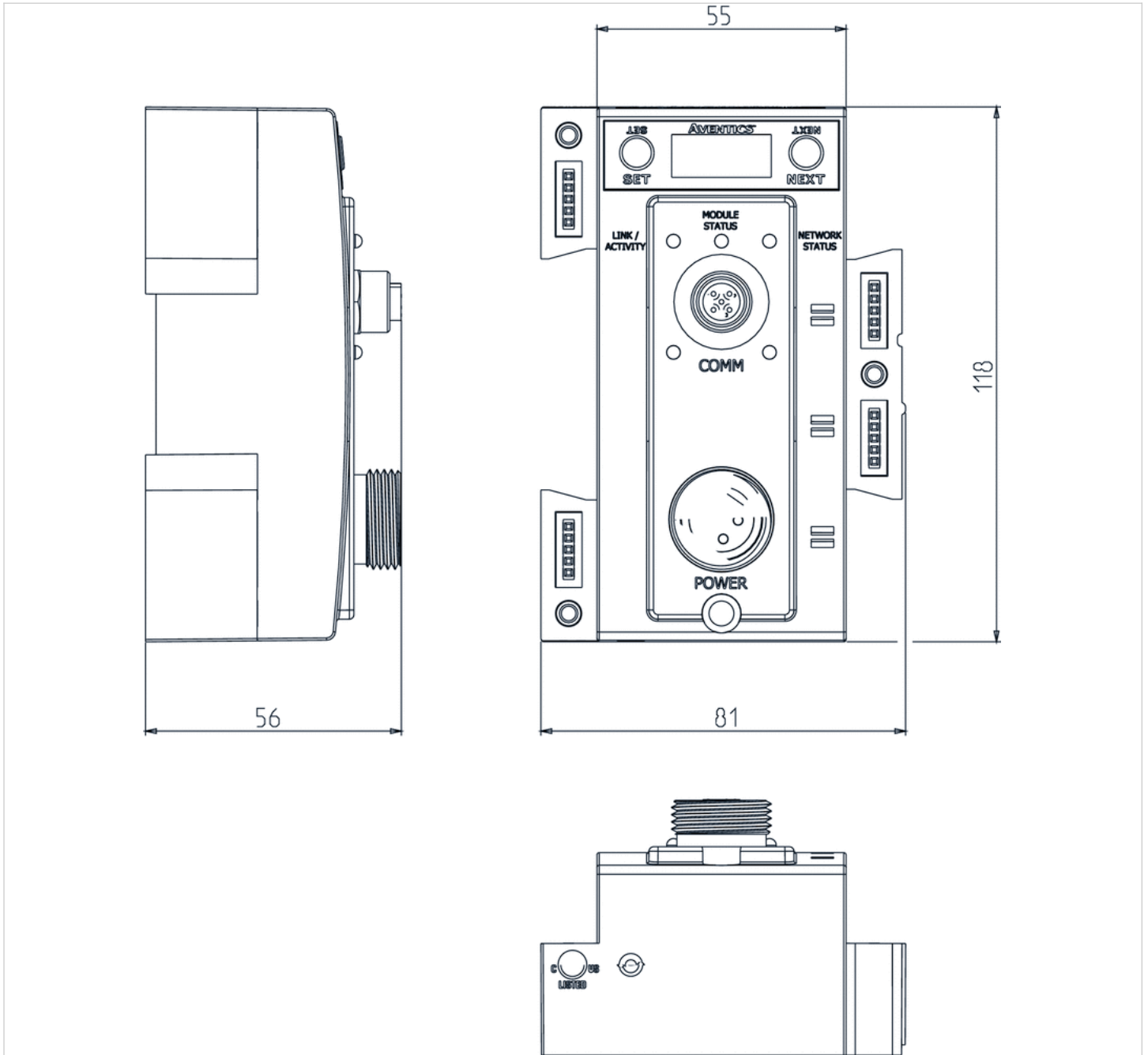
Technical data

Part No.	power supply
240-241	Plug, 7/8", 4-pin

Technical information

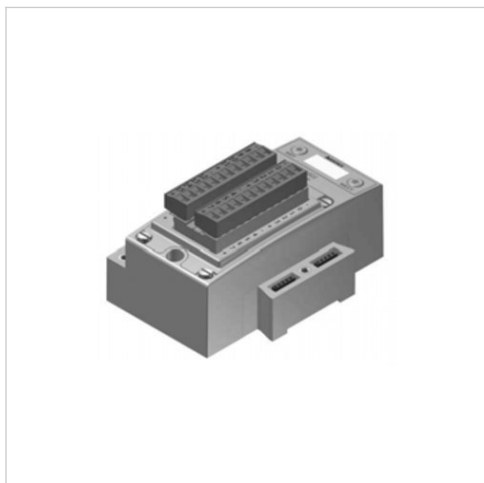
Material	
Housing	polyethyleneterephthalate

Dimensions



I/O modules, Series G3

- Screw terminal block
- I/O module version



Version	I/O module version
Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.05 A
Power supply for actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Total current of sensors max.	1,2 A
Diagnosis	Short circuit
Weight	0.274 kg

Technical data

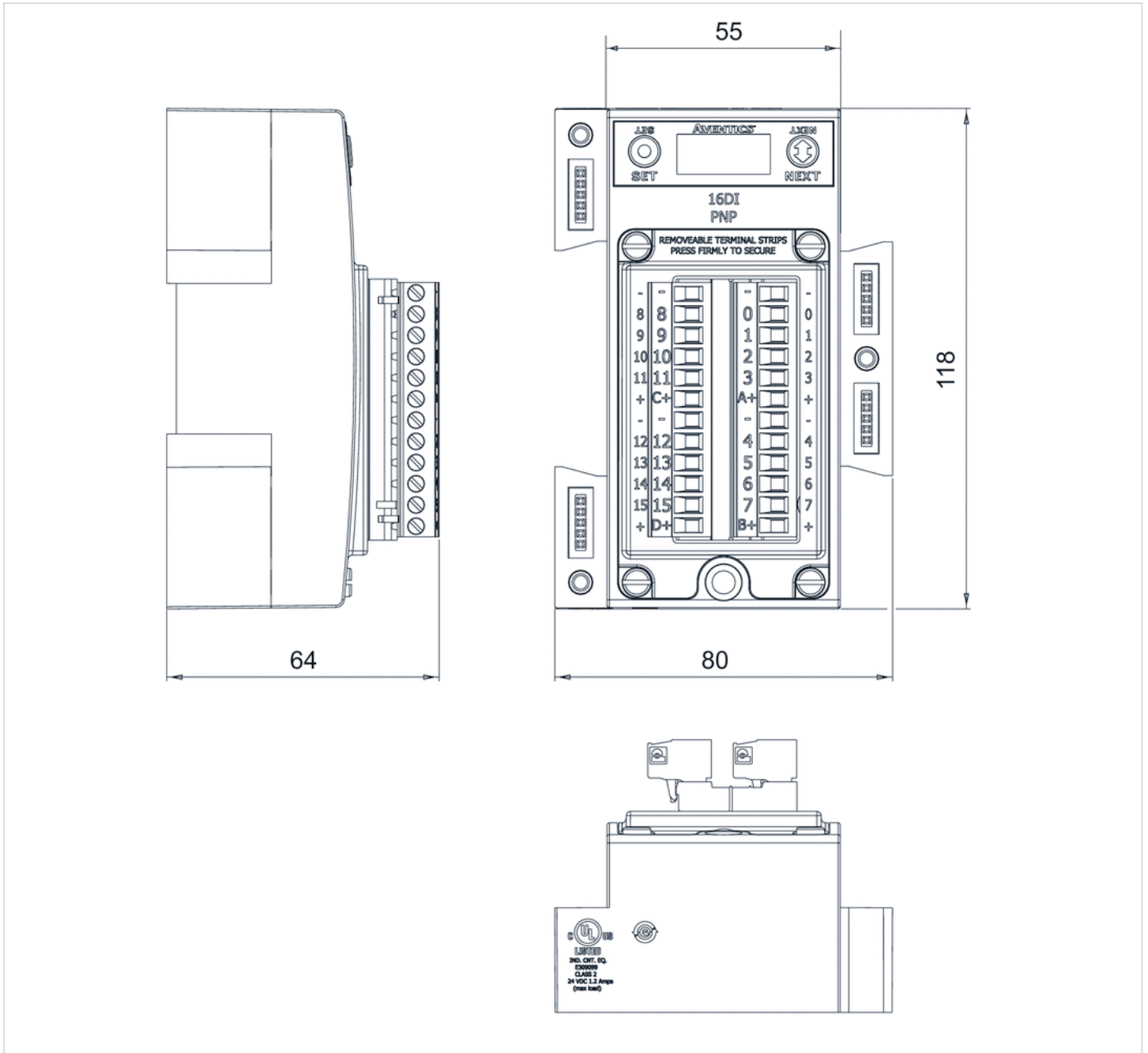
Part No.	Number of inputs	Number of outputs	I/O module version
240-203	16	-	digital inputs PNP
240-204	16	-	digital inputs NPN
240-316	8	-	digital inputs PNP
240-330	-	16	digital inputs NPN

Technical information

Material	
Housing	polyethyleneterephthalate

Dimensions

Dimensions



I/O modules, Series G3

- digital inputs PNP, Socket (female), M8x1

- I/O module version



Version	I/O module version
Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	55 A
Max. current per channel	0.15 A
Power supply for actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Total current of sensors max.	1,2 A
Diagnosis	Short circuit
Weight	0.274 kg

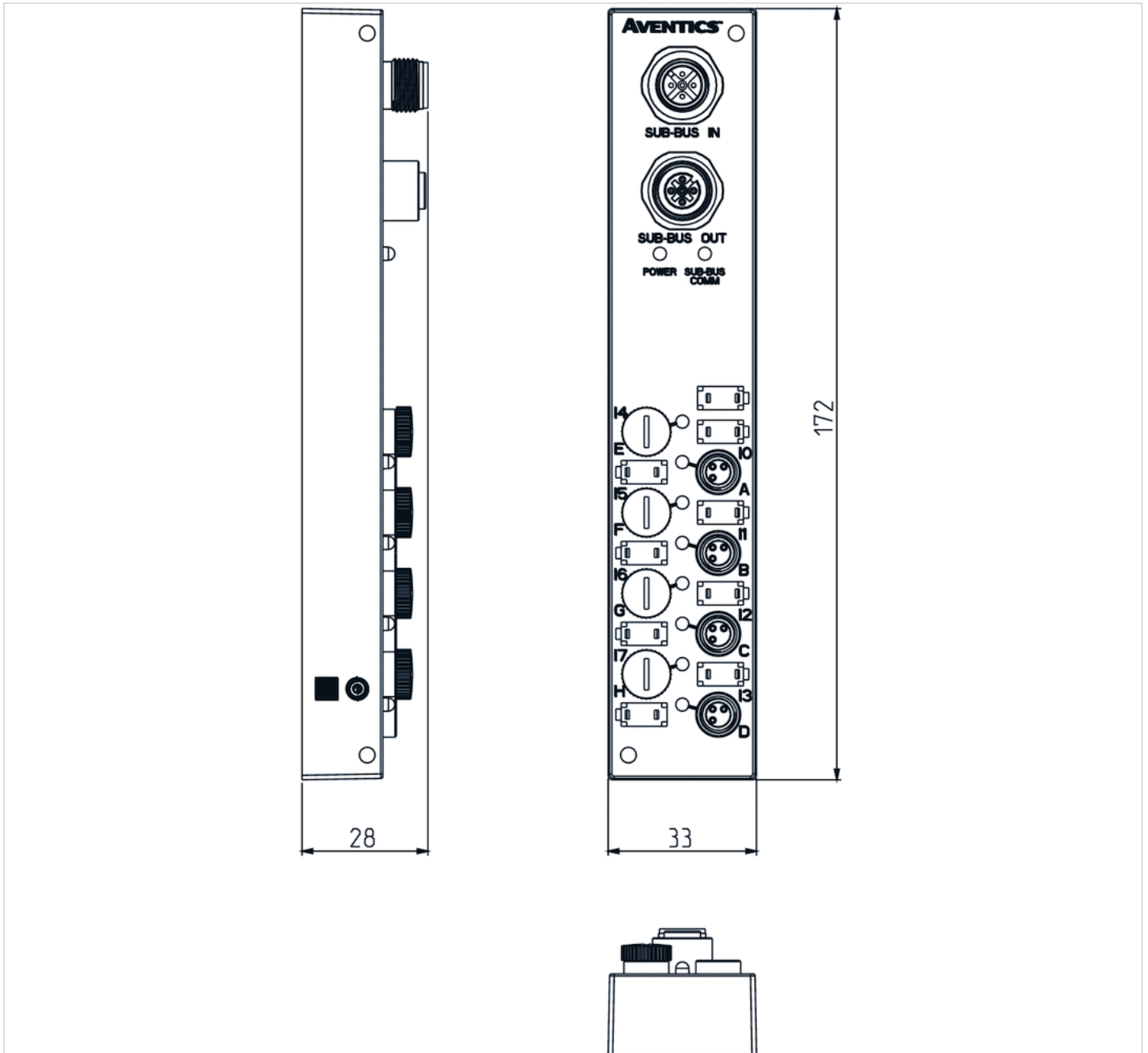
Technical data

Part No.	Number of inputs	I/O module version
240-379	8	digital inputs PNP

Technical information

Material	
Housing	polyethyleneterephthalate

Dimensions



I/O modules, Series G3

- Plug, M23x1, 19-pin, Screw terminal block
- A-design
- I/O module version



Version	I/O module version
Ambient temperature min./max.	-10 ... 50 °C
Power consumption electronics	0.05 A
Max. current per channel	0.3 A
Power supply for actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Total current of sensors max.	1,2 A
Diagnosis	Short circuit
Weight	0.274 kg

Technical data

Part No.	Number of inputs	I/O module version
240-323	16	digital inputs PNP

Technical information

Material	
Housing	polyethyleneterephthalate

I/O modules, Series G3

- Socket, M12x1
- A-design
- I/O module version



Version	I/O module version
Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Max. current per channel	0.15 A
Power supply for actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Total current of sensors max.	1,2 A
Diagnosis	Short circuit
I/O connection	M12x1, 4-pin
Weight	See table below

Technical data

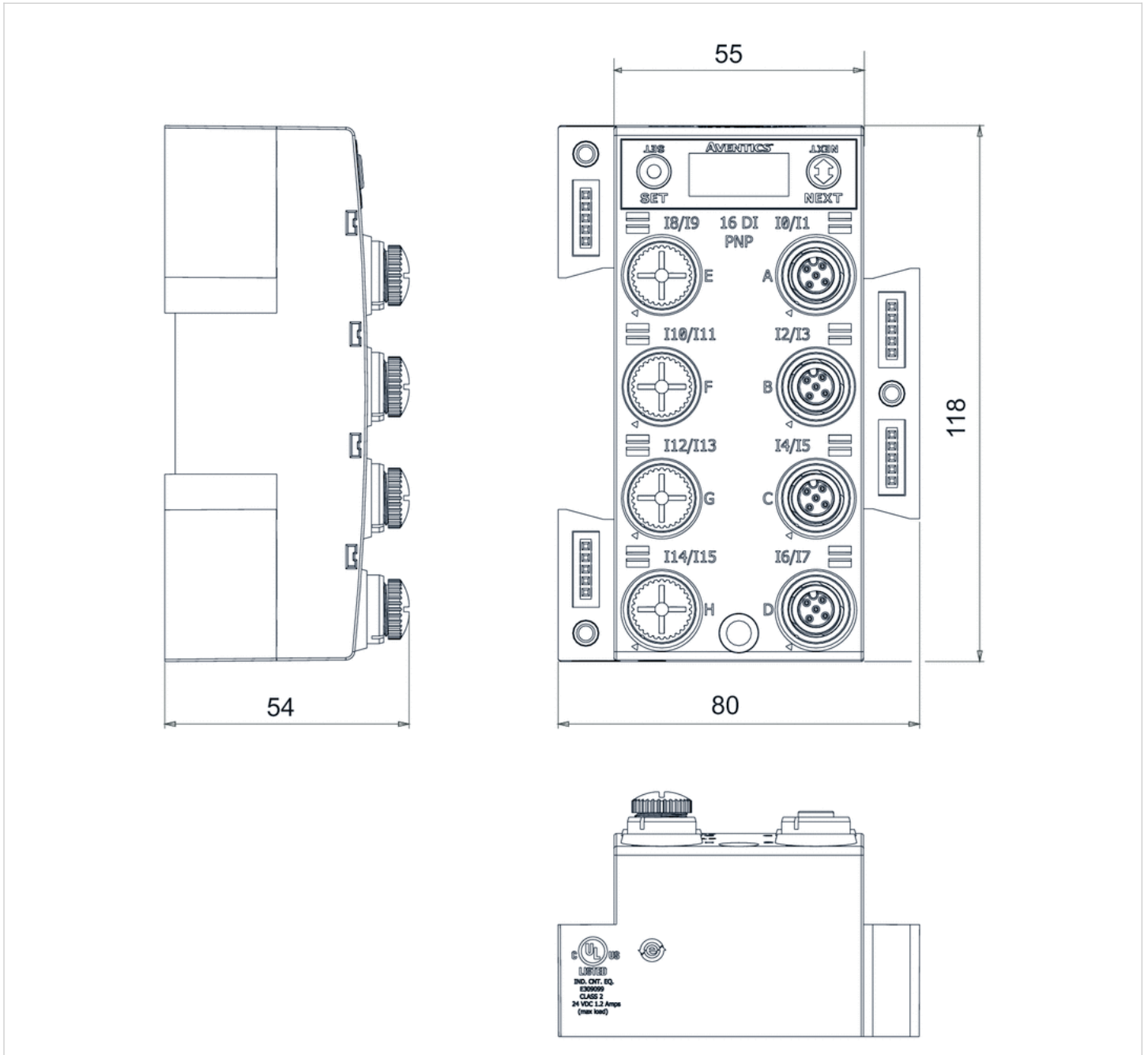
Part No.	Type	Number of inputs	Number of outputs
240-205	16DI8M12 digital inputs PNP	16	-
240-206	8DI8M8 digital inputs PNP	8	-
240-207	16DO8M12 digital outputs PNP	-	16
240-208	8DO8M12 digital outputs PNP	-	8
240-209	16DI8M12 digital inputs NPN	16	-
240-210	8DI8M12 digital inputs NPN	8	-
240-211	8DO8M12 digital inputs/outputs PNP	8	8
240-300	8DO8M12	-	8

Part No.	I/O module version	I/O connection	Power consumption electronics	Weight
240-205	digital inputs PNP	M12x1, 4-pin	0.05 A	0.274 kg
240-206	digital inputs PNP	M12x1, 4-pin	0.05 A	0.274 kg
240-207	Digital outputs	M12x1, 4-pin	0.11 A	0.274 kg
240-208	digital outputs PNP	M12x1, 4-pin	0.09 A	0.274 kg
240-209	digital inputs NPN	M12x1, 4-pin	0.05 A	0.274 kg
240-210	digital inputs NPN	M12x1, 4-pin	0.05 A	0.274 kg
240-211	digital inputs/outputs PNP	M12x1, 4-pin	0.1 A	0.274 kg
240-300	Digital outputs	M12x1, 4-pin	0.09 A	0.264 kg

Technical information

Material	
Housing	polyethyleneterephthalate

Dimensions



I/O modules, Series G3

- Socket, M12x1

- A-design



Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power supply for actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Diagnosis	Short circuit
I/O connection	M12x1, 4-pin
Weight	See table below

Technical data

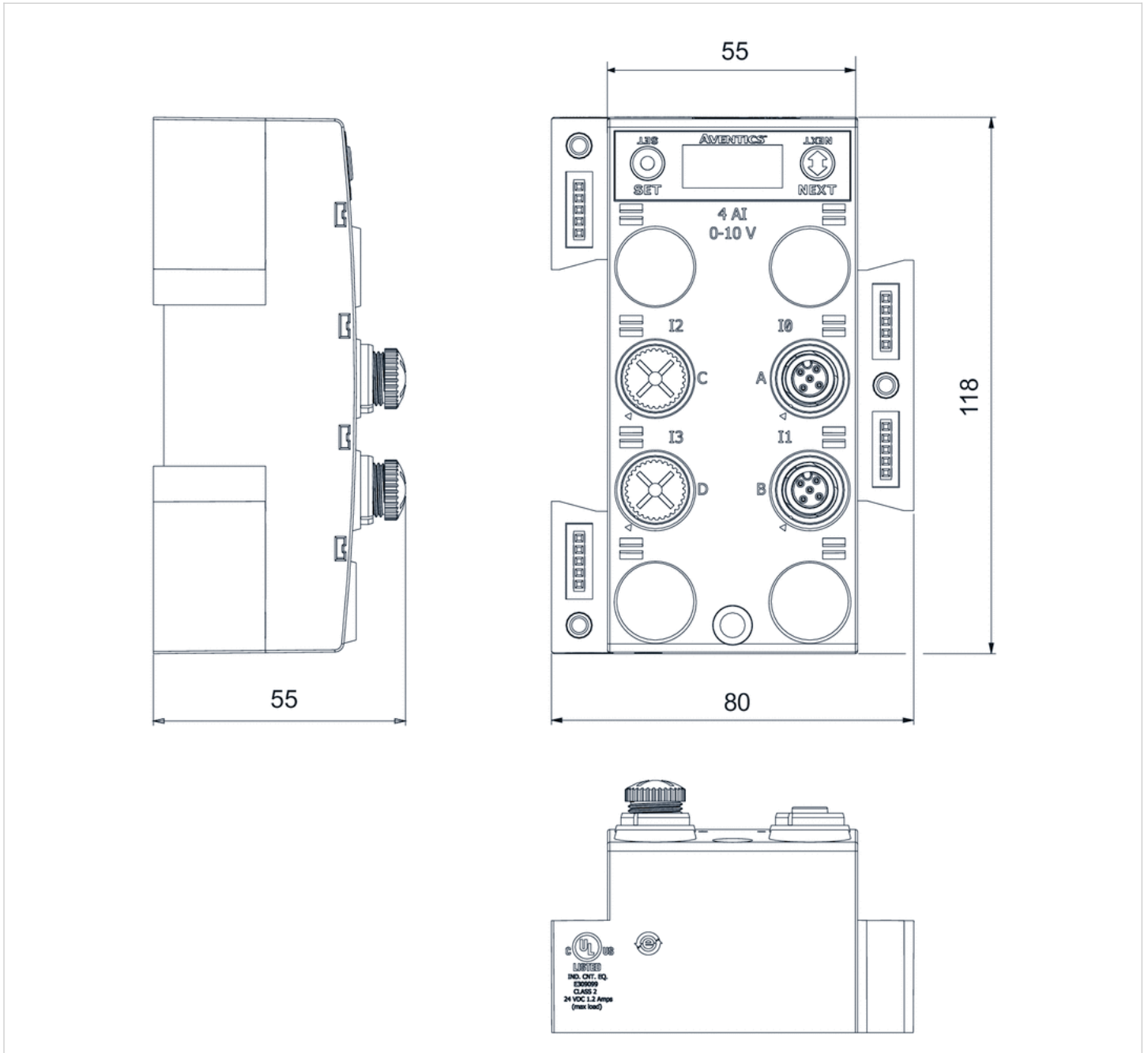
Part No.	Type	Number of inputs	Number of outputs	Analog inputs	Analog outputs	I/O module version
240-212	4AI4M12-E	4	-	0 ... 10 V	-	Analog inputs
240-213	2AIAO8M12	2	2	0 ... 10 V	0 ... 10 V	analog inputs/outputs
240-214	4AI4M12-E	4	-	4 ... 20 mA	-	Analog inputs
240-215	2AIAO4M12	2	2	4 ... 20 mA	4 ... 20 mA	analog inputs/outputs
240-307	2AIAO8M12	2	2	0 ... 10 V	0 ... 10 V	analog inputs/outputs
240-363	-	4	4	-	-	analog inputs/outputs

Part No.	I/O connection	Power consumption electronics	Total current of the power supply for the external sensors	Weight
240-212	M12x1, 4-pin	0.08 A	1,2 A	0.244 kg
240-213	M12x1, 4-pin	0.09 A	1,2 A	0.244 kg
240-214	M12x1, 4-pin	0.08 A	1,2 A	0.244 kg
240-215	M12x1, 4-pin	0.09 A	1,2 A	0.244 kg
240-307	M12x1, 4-pin	0.08 A	4 A	0.264 kg
240-363	M12x1, 4-pin	0.08 A	8 A	0.247 kg

Technical information

Material	
Housing	polyethyleneterephthalate

Dimensions



Series G3

- A-design
- I/O module version



Version	I/O module version
Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.07 A
Power supply for actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Total current of sensors max.	1,2 A
Diagnosis	Overvoltage Undervoltage

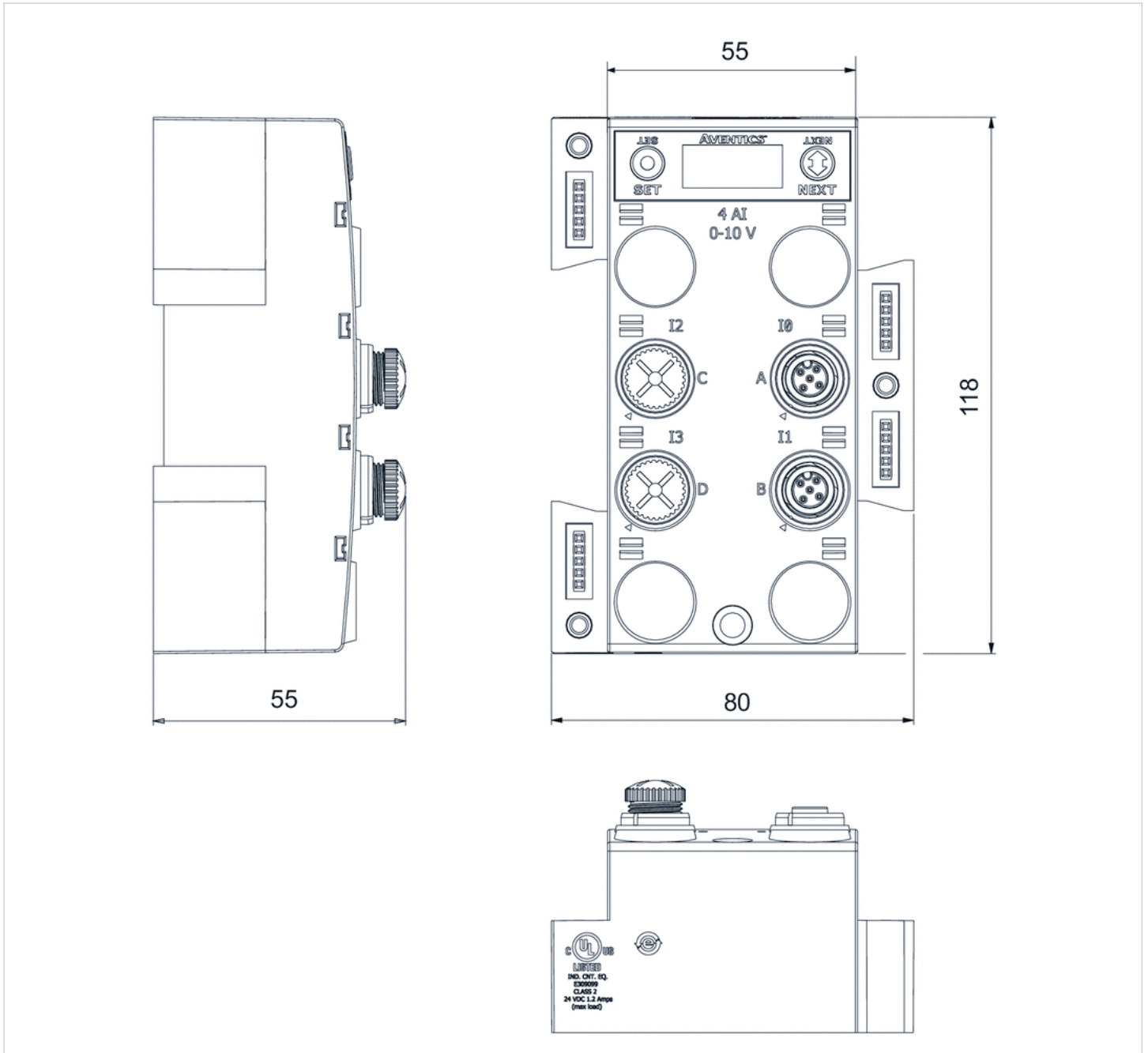
Technical data

Part No.	Type	I/O module version
240-311	Socket, M12x1	Analog inputs

Technical information

Material	
Housing	polyethyleneterephthalate

Dimensions



I/O modules, Series G3

- digital inputs PNP, Socket (female), M8x1

- I/O module version



Version	I/O module version
Ambient temperature min./max.	-10 ... 50 °C
Power consumption electronics	55 A
Max. current per channel	0.15 A
Power supply for actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Total current of sensors max.	1,2 A
Diagnosis	Short circuit
Weight	0.274 kg

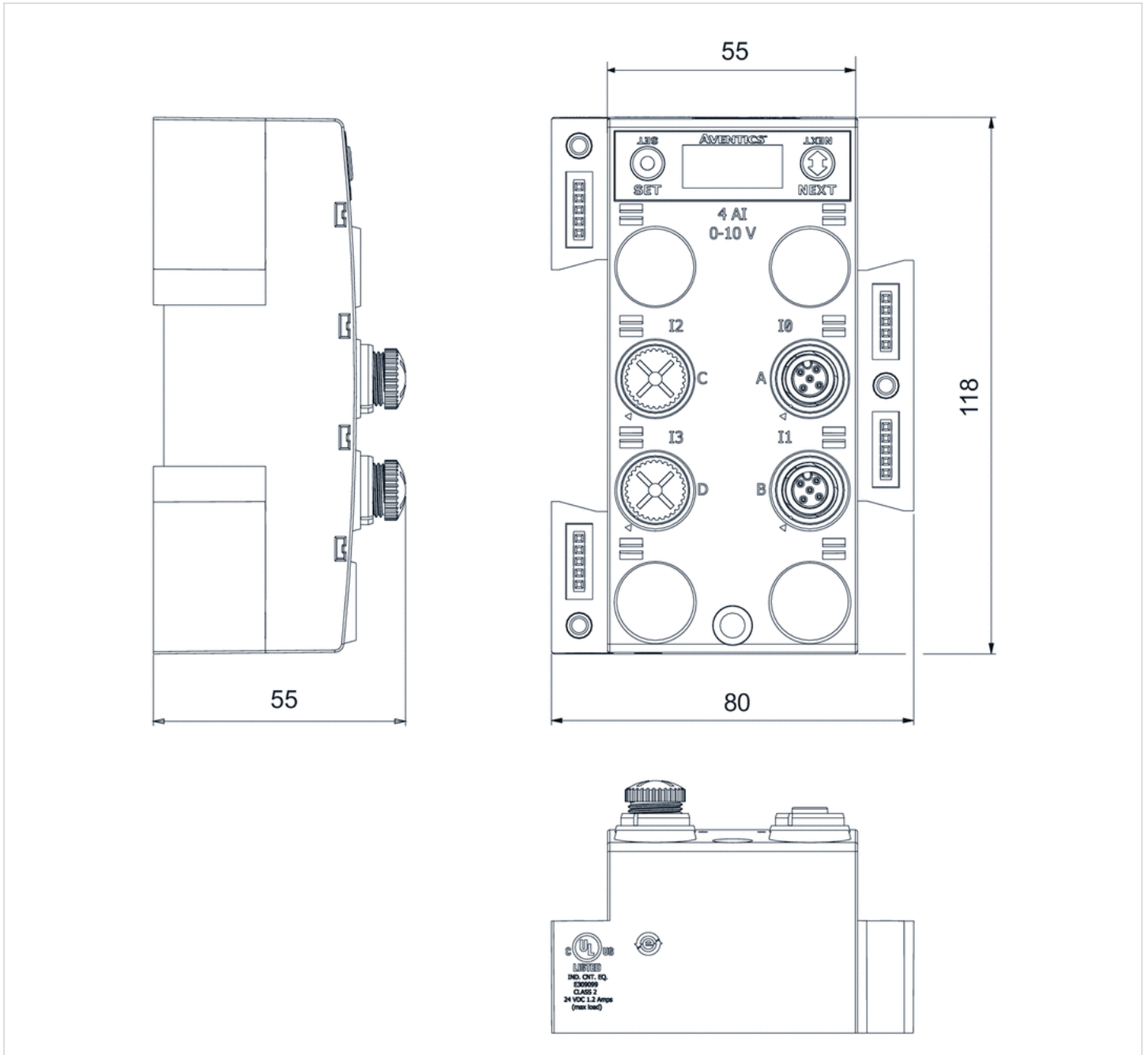
Technical data

Part No.	Number of inputs
240-326	8

Technical information

Material	
Housing	Polybutyleneterephthalate

Dimensions



Bus coupler, Series 580

- CANopen, Central fieldbus connection without I/O function, Power supply plug M12x1, 4-pin
- Bus coupler
- Fieldbus protocol CANopen



Version	Bus coupler
Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.1 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of solenoid coils max.	32
Number of valve positions max.	32
Diagnosis	Short circuit Overvoltage
Weight	0.32 kg

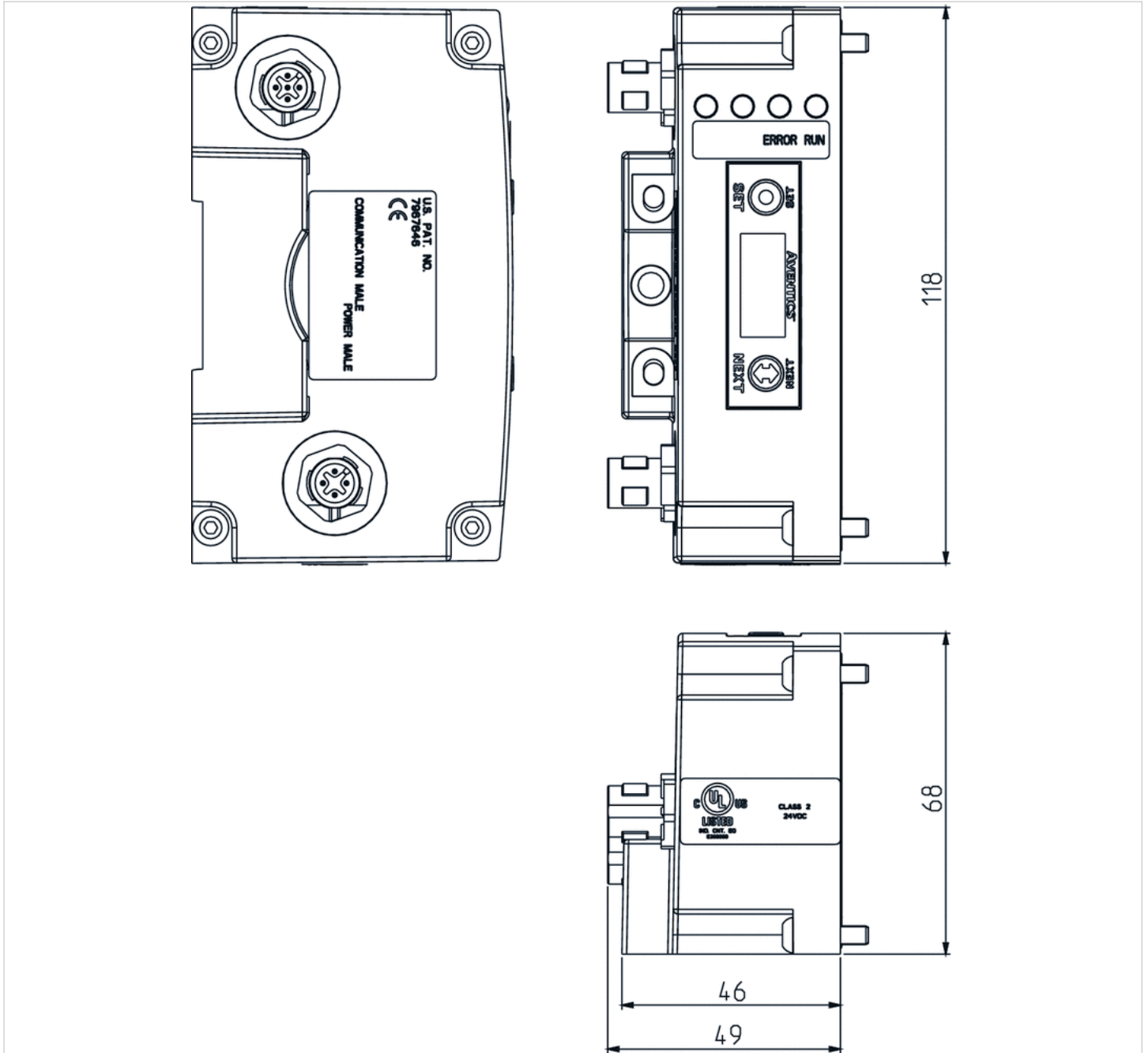
Technical data

Part No.	Fieldbus protocol	power supply
P580AECO1010A00	CANopen	Plug (male), M12, 4-pin, A-coded

Technical information

Material	
Housing	Die-cast aluminum

Dimensions



Series 580

- Central fieldbus connection without I/O function
- Fieldbus protocol DeviceNet



Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.1 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of solenoid coils max.	32
Number of valve positions max.	32
Diagnosis	Short circuit Overvoltage
Weight	0.32 kg

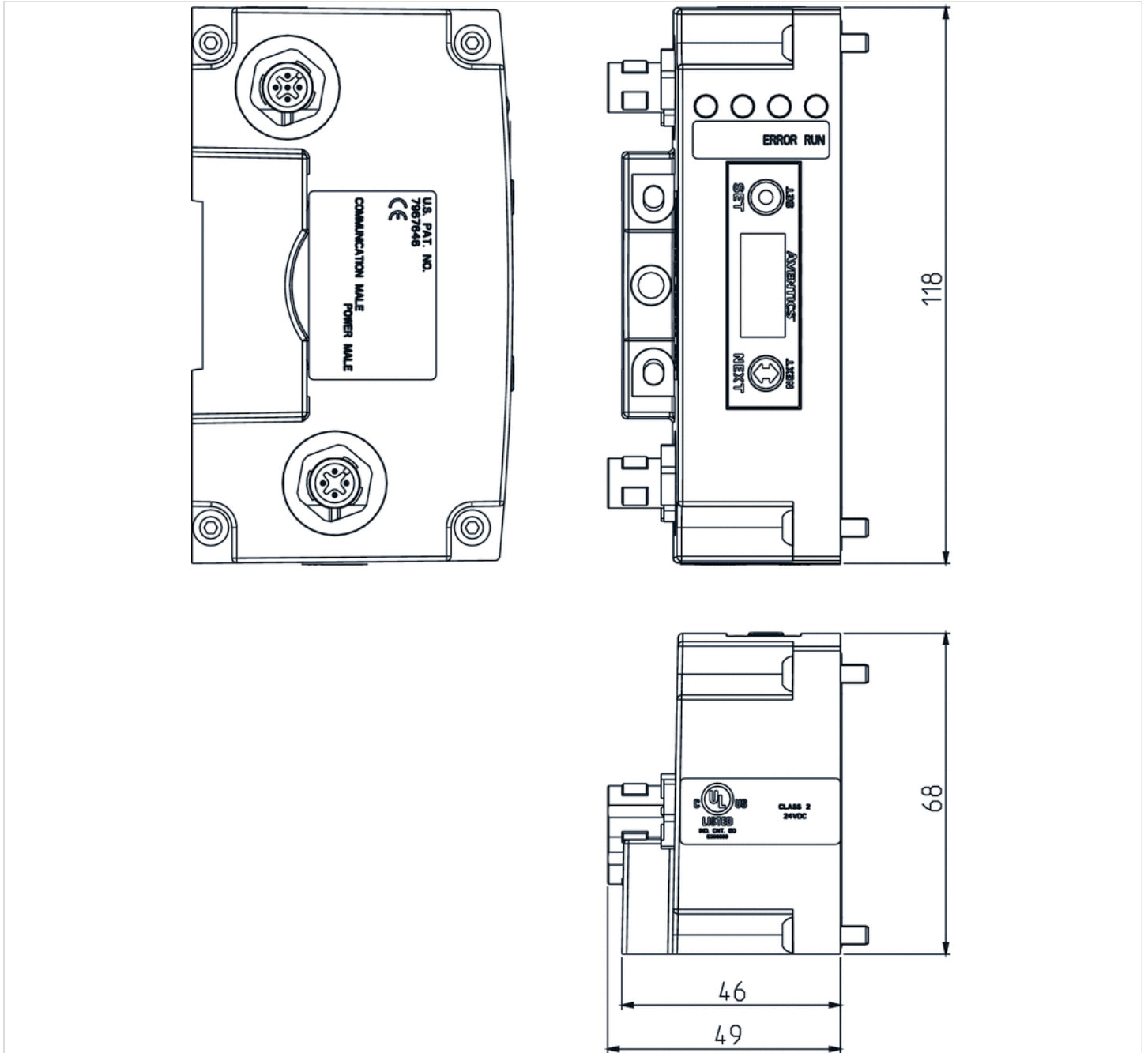
Technical data

Part No.	Fieldbus protocol	power supply
P580AEDN1010A00	DeviceNet	Plug (male), M12, 4-pin, A-coded

Technical information

Material	
Housing	Die-cast aluminum

Dimensions



Series 580

- Central fieldbus connection without I/O function
- Fieldbus protocol EtherCAT



Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.11 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of solenoid coils max.	128
Number of valve positions max.	110
Diagnosis	Short circuit Overvoltage
Weight	0.32 kg

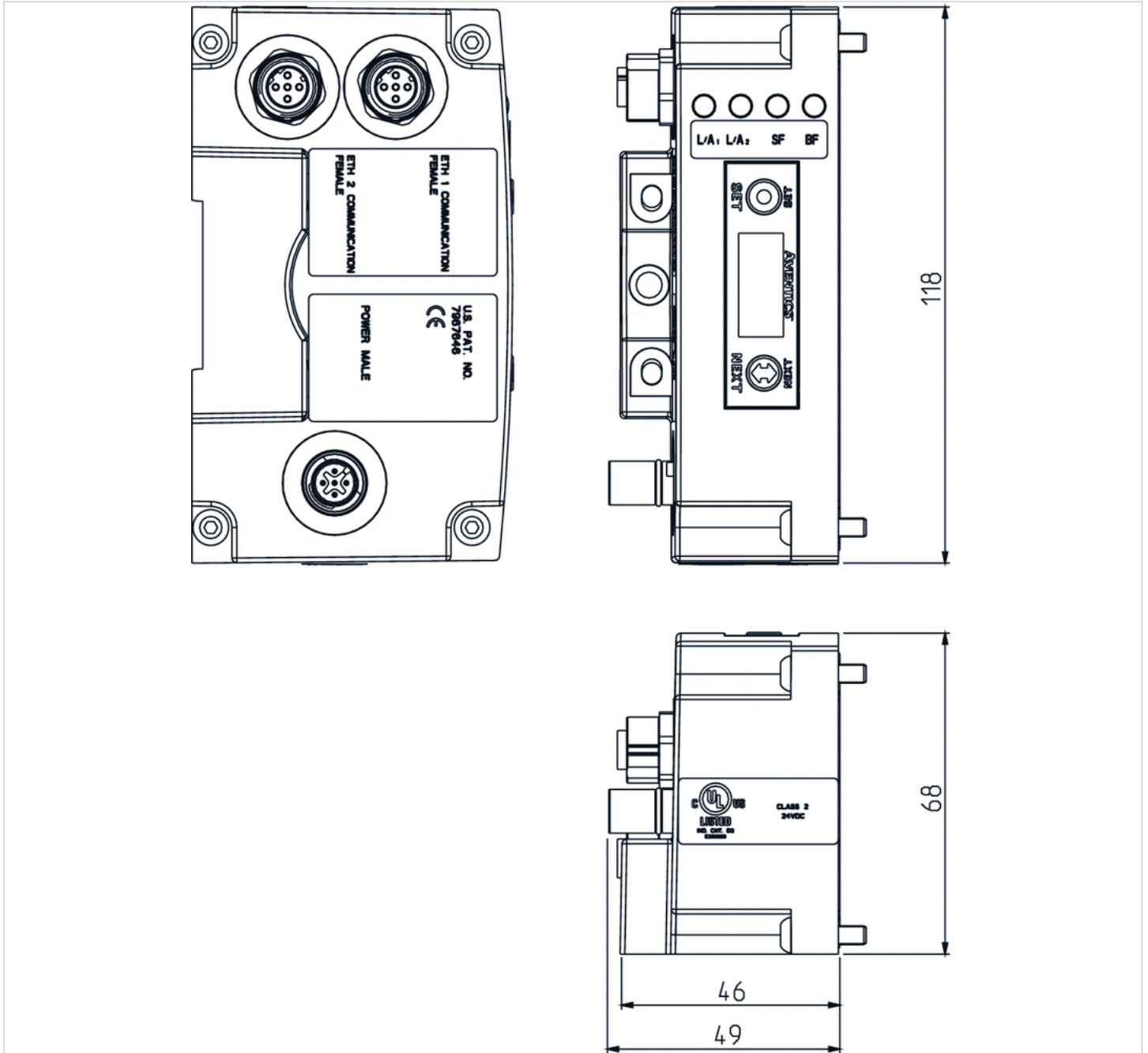
Technical data

Part No.	Fieldbus protocol	power supply
P580AEEC1010A00	EtherCAT	Plug (male), M12, 5-pin, A-coded

Technical information

Material	
Housing	Die-cast aluminum

Dimensions



Series 580

- Central fieldbus connection without I/O function
- Fieldbus protocol Ethernet



Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.9 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of solenoid coils max.	128
Number of valve positions max.	110
Diagnosis	Short circuit Overvoltage
Weight	0.337 kg

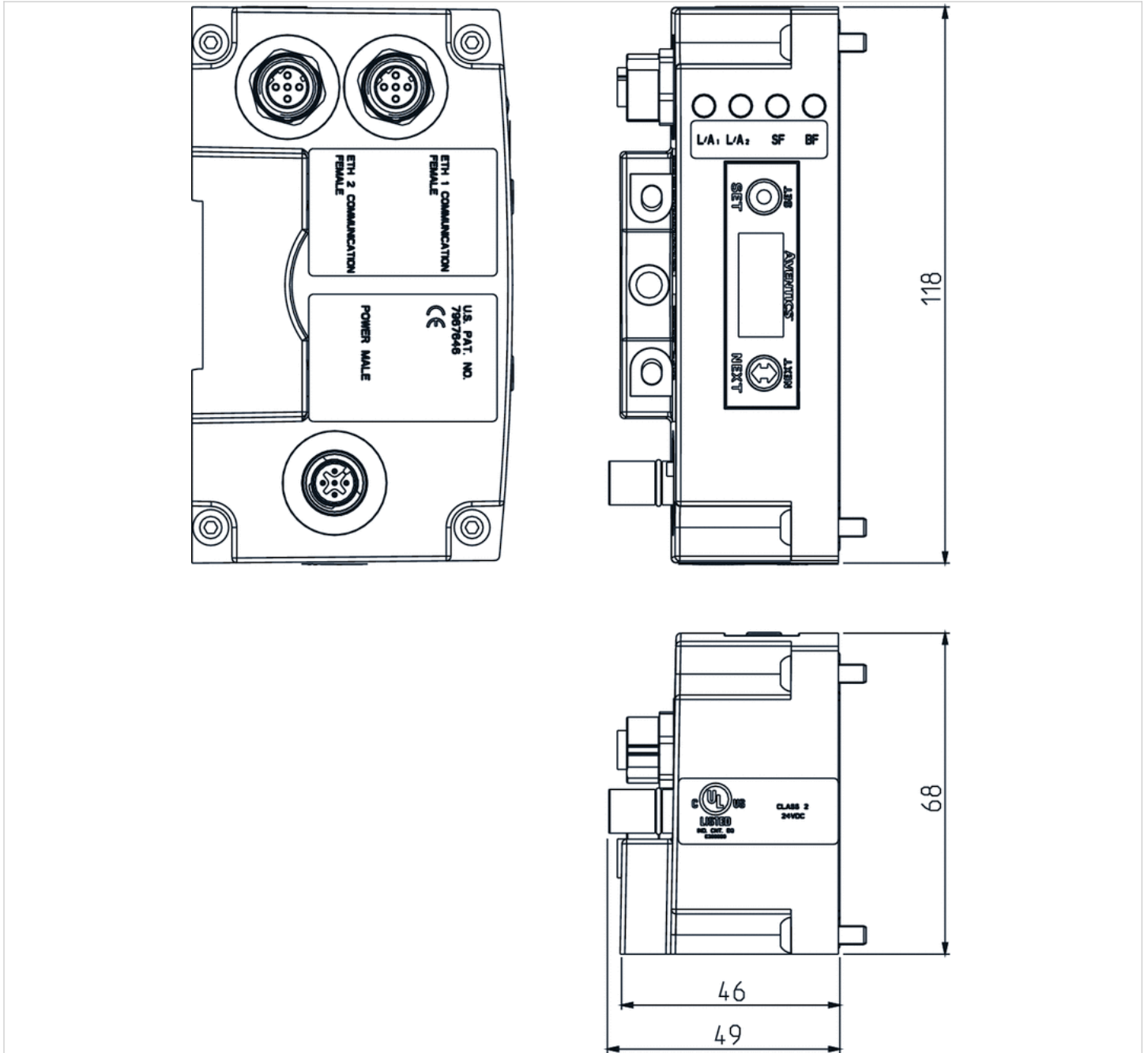
Technical data

Part No.	Fieldbus protocol	power supply
P580AEED1010A00	Ethernet	Plug (male), M12, 4-pin, A-coded

Technical information

Material	
Housing	Die-cast aluminum

Dimensions



Series 580

- Central fieldbus connection without I/O function
- Fieldbus protocol POWERLINK



Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.11 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of solenoid coils max.	128
Number of valve positions max.	110
Diagnosis	Short circuit Overvoltage
Weight	0.328 kg

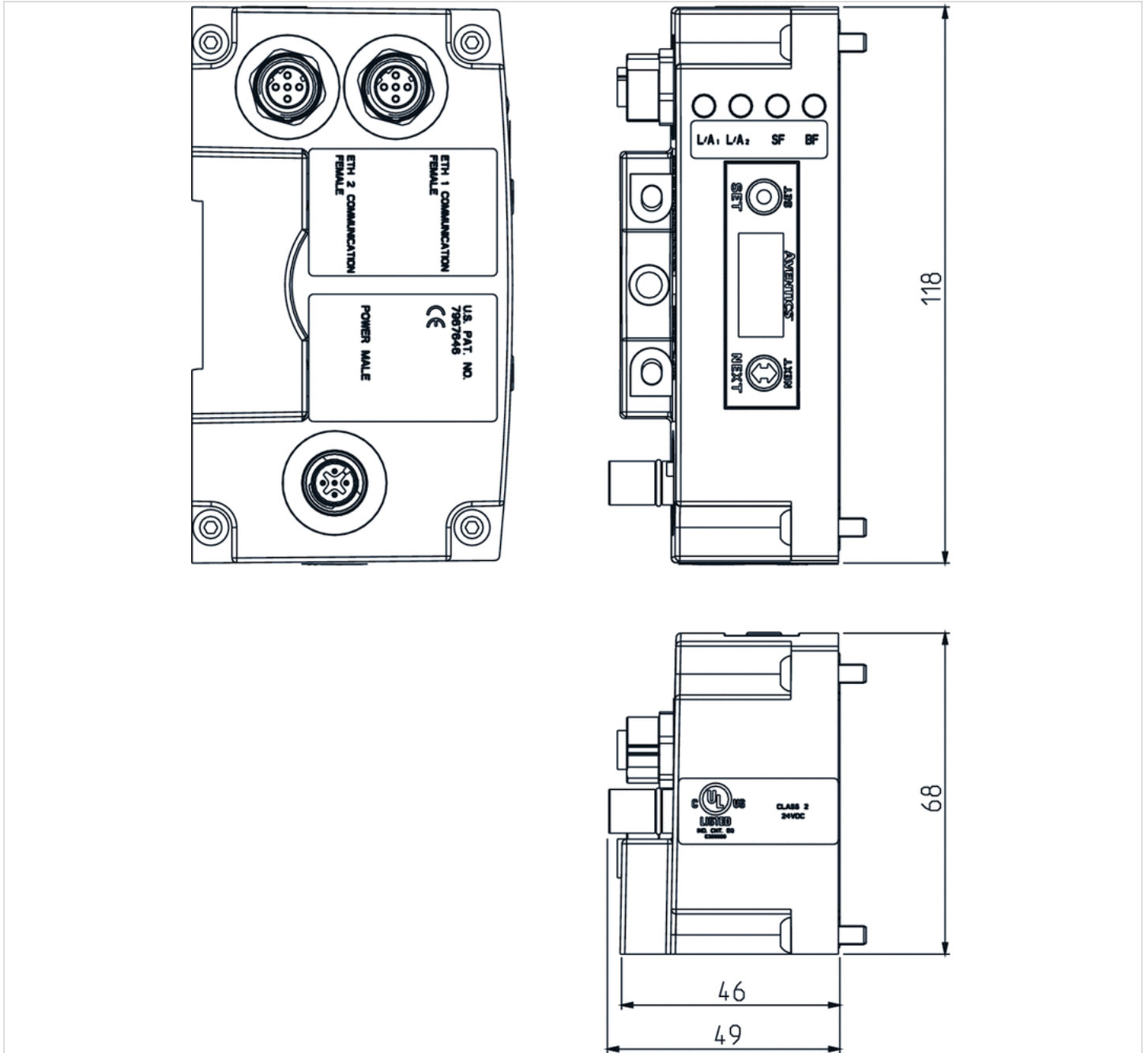
Technical data

Part No.	Fieldbus protocol	power supply
P580AEPL1010A00	POWERLINK	Plug (male), M12, 4-pin, A-coded

Technical information

Material	
Housing	Die-cast aluminum

Dimensions



Series 580

- Central fieldbus connection without I/O function, Power supply plug M12x1, 5-pin, class B
- Fieldbus protocol PROFIBUS DP



Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.08 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of solenoid coils max.	128
Number of valve positions max.	110
Diagnosis	Short circuit Overvoltage
Weight	0.326 kg

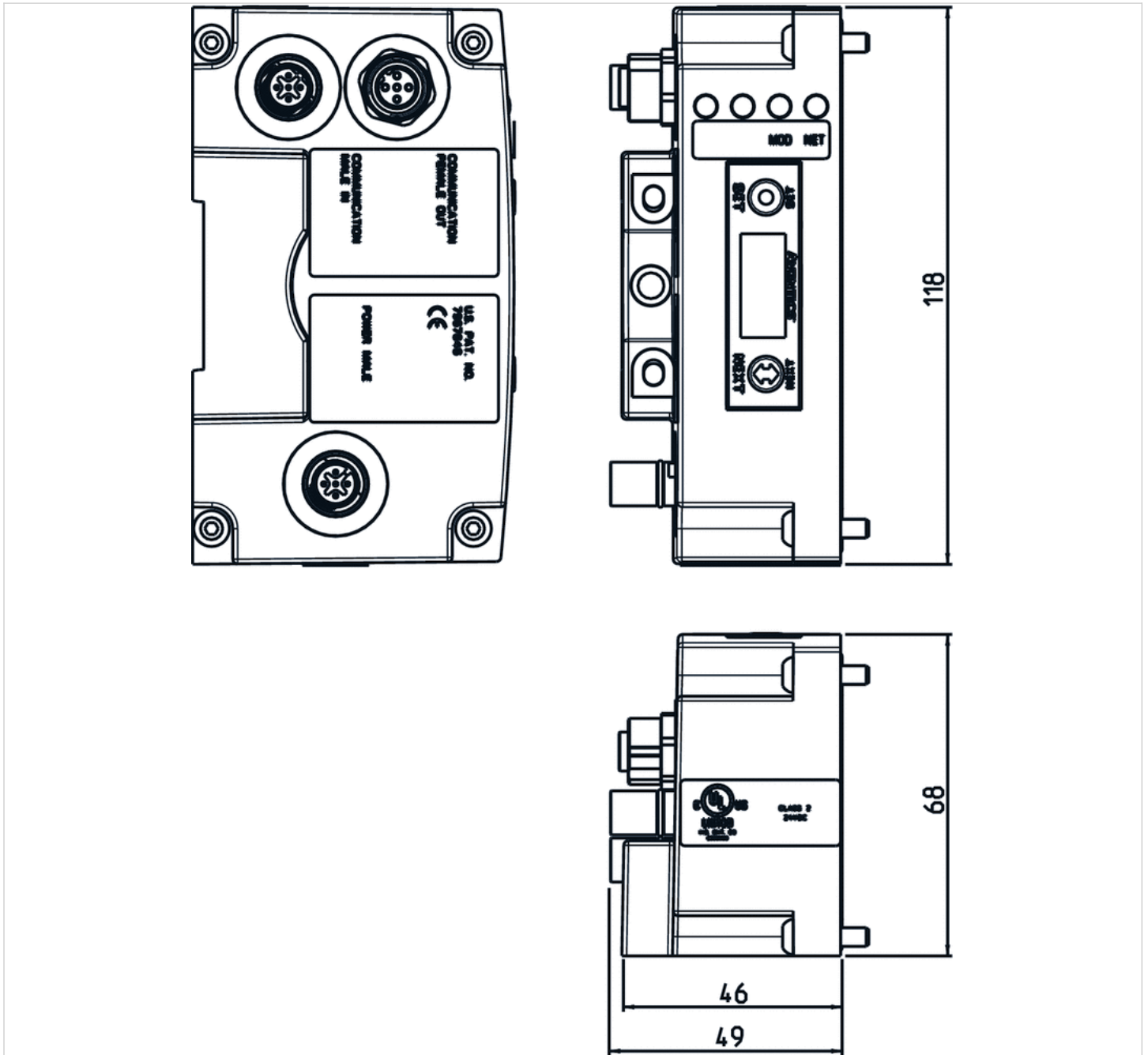
Technical data

Part No.	Fieldbus protocol	power supply
P580AEPT1010A00	PROFIBUS DP	Plug (male), M12, 5-pin, A-coded

Technical information

Material	
Housing	Die-cast aluminum

Dimensions



Series 580

- Central fieldbus connection without I/O function
- Fieldbus protocol Profinet



Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.11 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of solenoid coils max.	128
Number of valve positions max.	110
Diagnosis	Short circuit Overvoltage
Weight	0.335 kg

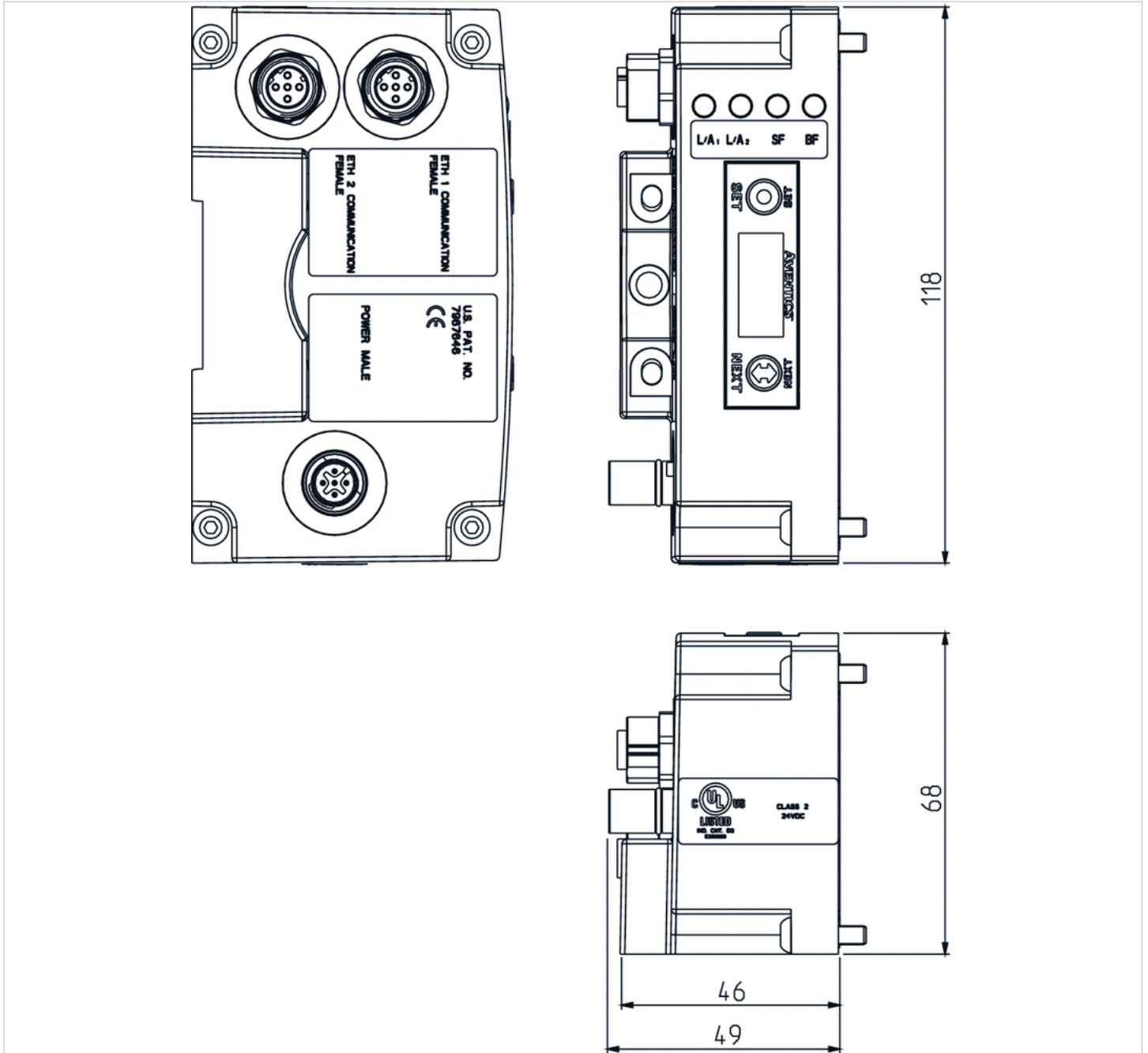
Technical data

Part No.	Fieldbus protocol	power supply
P580AEPN1010A00	Profinet	Plug (male), M12, 5-pin, A-coded

Technical information

Material	
Housing	Die-cast aluminum

Dimensions



Bus coupler, Series 580

- Central fieldbus connection without I/O function, Power supply plug M12x1, 5-pin
- Bus coupler
- Fieldbus protocol Profinet



Version	Bus coupler
Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.3 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of valve positions max.	43
Diagnosis	Short circuit Overvoltage
Weight	0.32 kg

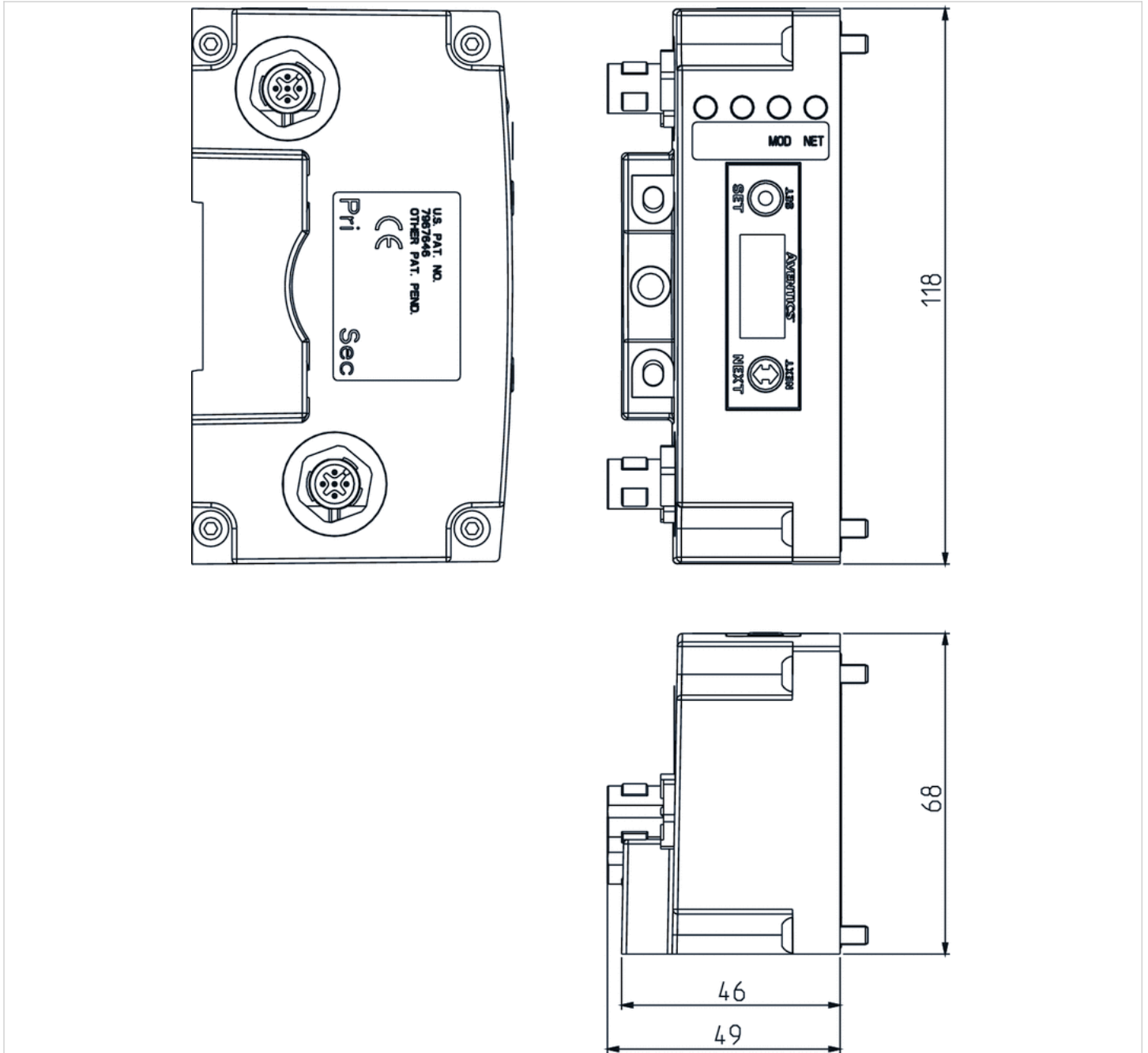
Technical data

Part No.	Fieldbus protocol	power supply
P580AECH2010A00	Profinet	Plug, M12x1, 5-pin, A-coded

Technical information

Material	
Housing	Die-cast aluminum

Dimensions



Series 580

- Central fieldbus connection without I/O function, Power supply plug M12x1, 4-pin
- Bus coupler
- Fieldbus protocol IO-Link



Version	Bus coupler
Ambient temperature min./max.	-10 ... 50 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-10% / +10%
Power consumption electronics	0.04 A
Operating voltage, actuators	24 V DC
Total current for actuators	4 A
Protection class	IP65
Number of solenoid coils max.	32
Number of valve positions max.	32
Diagnosis	Short circuit Overvoltage
I/O connection	M12x1, 5-pin, A-coded
Weight	See table below

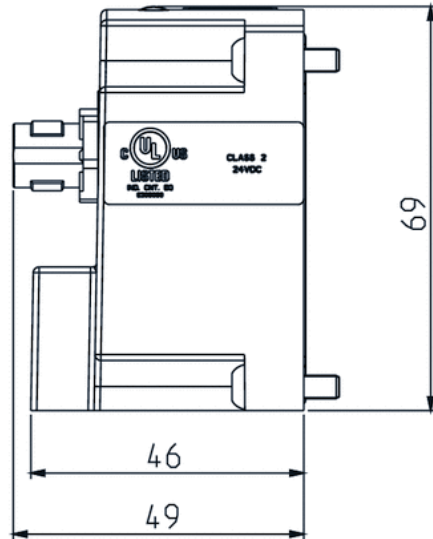
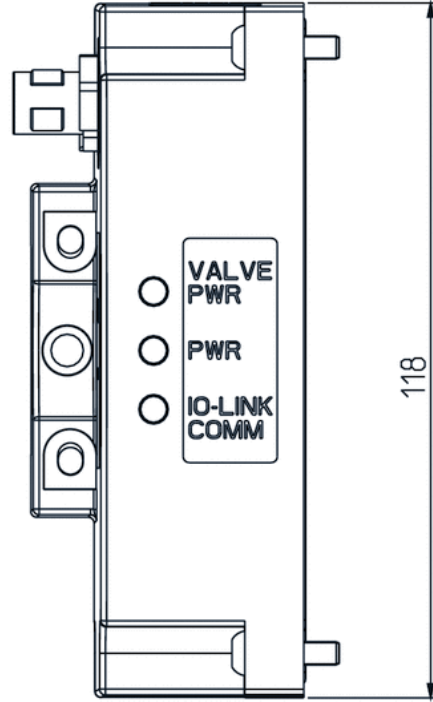
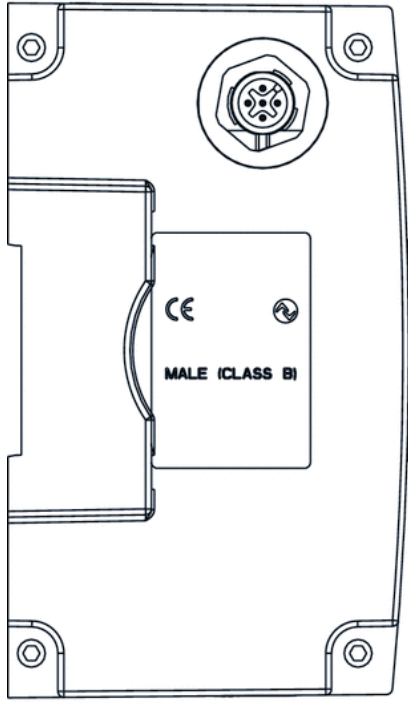
Technical data

Part No.	Fieldbus protocol	I/O connection	Weight
P580AELM1010A00	IO-Link	M12x1, 5-pin, A-coded	0.298 kg
P580AELM2010A00	IO-Link	M12x1, 5-pin, A-coded	0.303 kg

Technical information

Material	
Housing	Die-cast aluminum

Dimensions



Stop plate to exchange valve, series 501



Working pressure min./max.	-0.95 ... 10 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Number of valve positions max.	2
Protection class	IP65
Weight	0.11 kg

Technical data

Part No.	Scope of delivery
R501AY428501001	Sandwich plate, sealing kit, mounting screws

Delivery includes sealing kit and 1x mounting screw

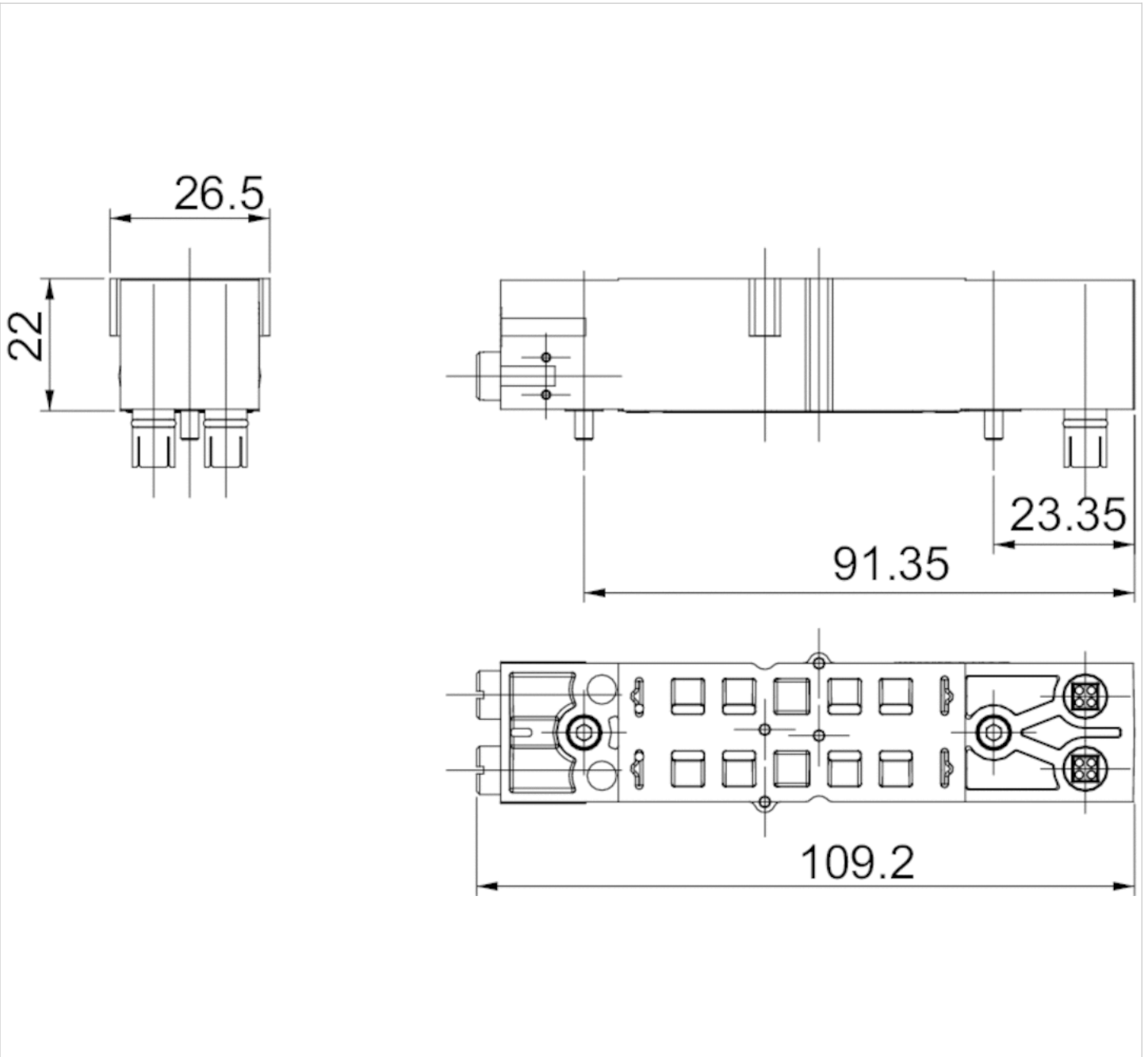
Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
 The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
 The oil content of compressed air must remain constant during the life cycle.
 Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Housing	Die-cast aluminum
Seal	Acrylonitrile butadiene rubber
Screws	galvanized steel

Dimensions



Blanking plate, series 501



Working pressure min./max.	-0.95 ... 10 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Number of valve positions max.	1
Protection class	IP65
Weight	27 kg

Technical data

Part No.	Scope of delivery
P501AB429685001	Stop plate, sealing kit, mounting screws

Delivery includes sealing kit and 1x mounting screw

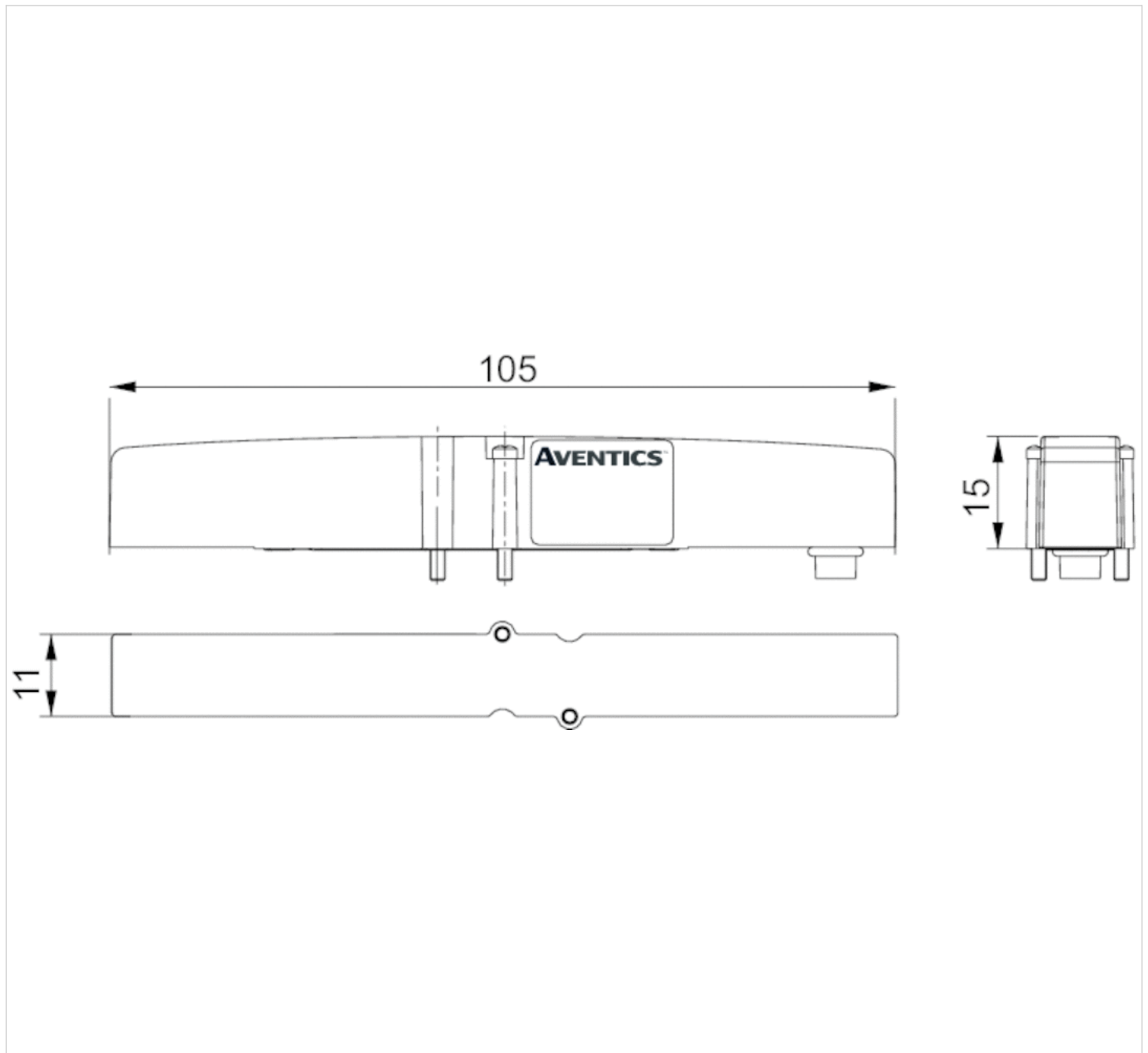
Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
 The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
 The oil content of compressed air must remain constant during the life cycle.
 Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Housing	Die-cast aluminum
Seal	Acrylonitrile butadiene rubber
Screws	Stainless steel

Dimensions



Throttle plate, series 501



Working pressure min./max.	-0.95 ... 10 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Number of valve positions max.	1
Protection class	IP65
Weight	0.055 kg

Technical data

Part No.	Position	Scope of delivery
R501AS428500001	1	Sandwich plate, sealing kit, mounting screws

Delivery includes sealing kit and 1x mounting screw

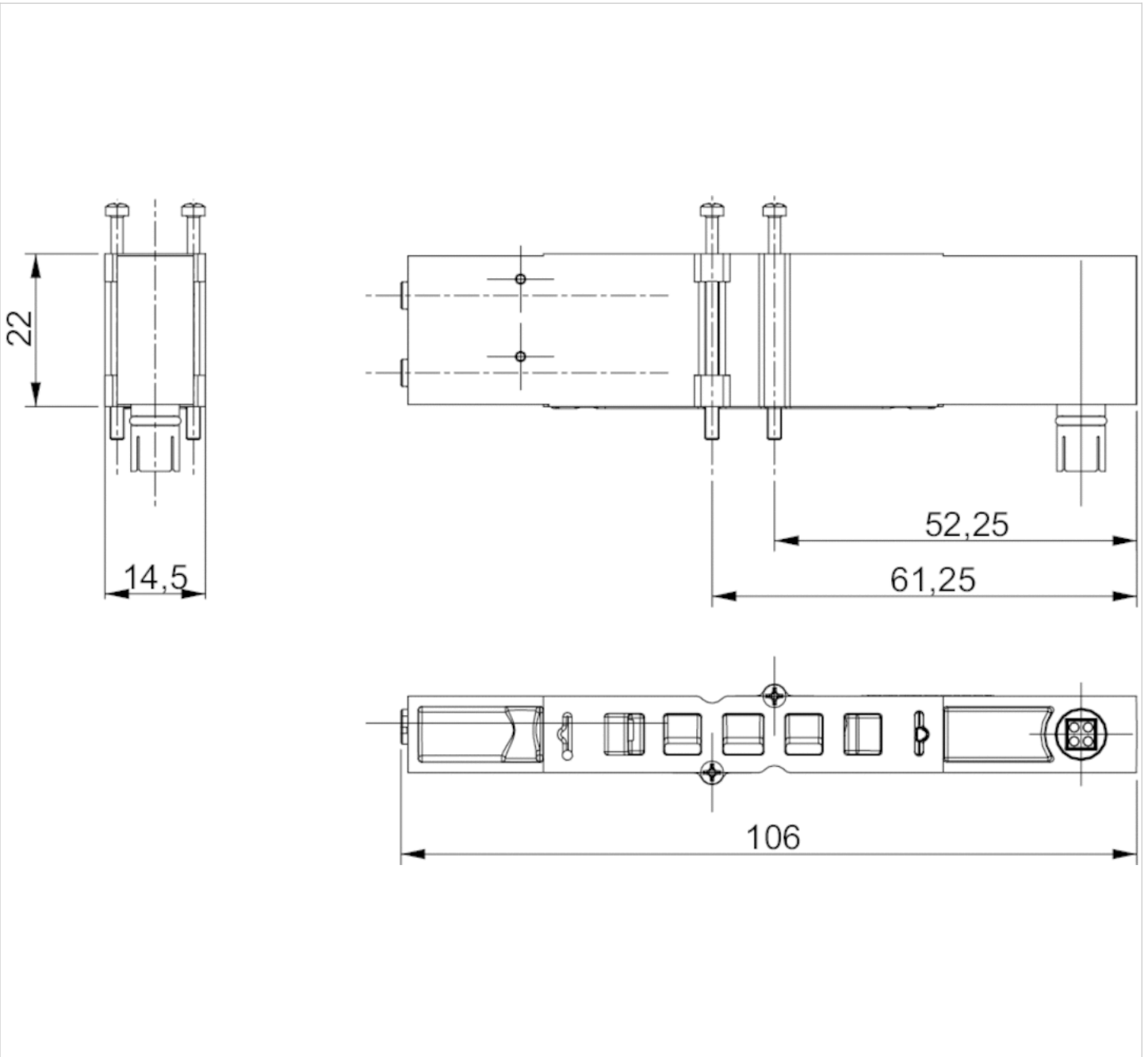
Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
 The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
 The oil content of compressed air must remain constant during the life cycle.
 Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Housing	Die-cast aluminum
Seal	Acrylonitrile butadiene rubber
Screws	galvanized steel

Dimensions



Pressure regulator for vertical stacking assembly, series 501



Working pressure min./max.	-0.95 ... 10 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Protection class	IP65
Weight	0.028 kg

Technical data

Part No.	Scope of delivery
R501ARS52JA0010	Sandwich plate, sealing kit, mounting screws

Delivery includes sealing kit and 1x mounting screw

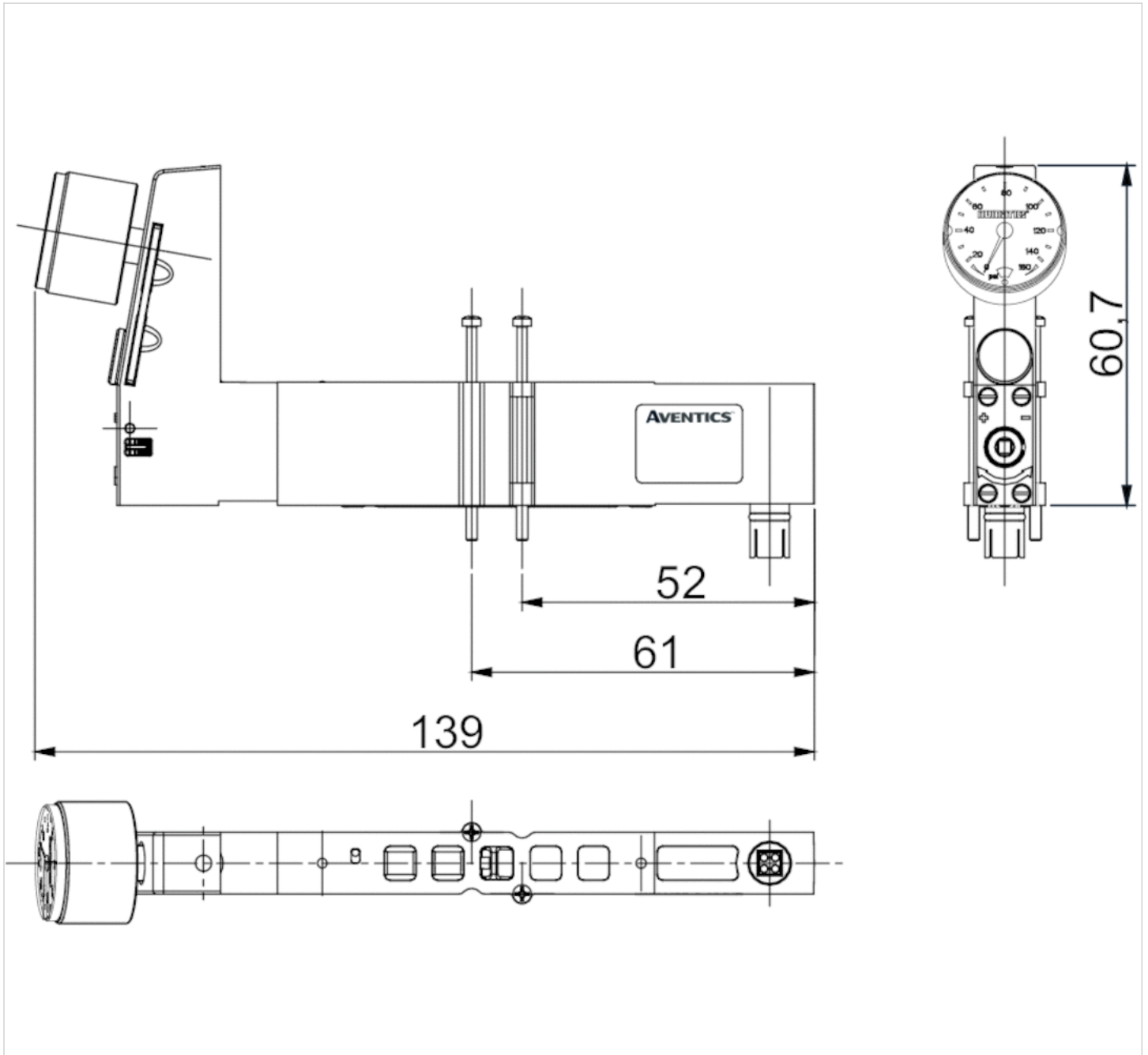
Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
 The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
 The oil content of compressed air must remain constant during the life cycle.
 Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Housing	Die-cast aluminum
Seal	Nitrile rubber
Screws	Stainless steel

Dimensions



End plate, series 501



Working pressure min./max.	-0.95 ... 10 bar
Ambient temperature min./max.	-10 ... 50 °C
Medium temperature min./max.	-10 ... 50 °C
Medium	Compressed air
Protection class	IP65
Weight	0.502 kg

Technical data

Part No.	Scope of delivery
G501AK429465009	Left and right end plate, sealing kit, mounting screws

Part No.	Compressed air connection Input [1]	Compressed air connection Exhaust [3 / 5]
G501AK429465009	G 1/8	G 1/8

Delivery includes sealing kit and 1x mounting screw

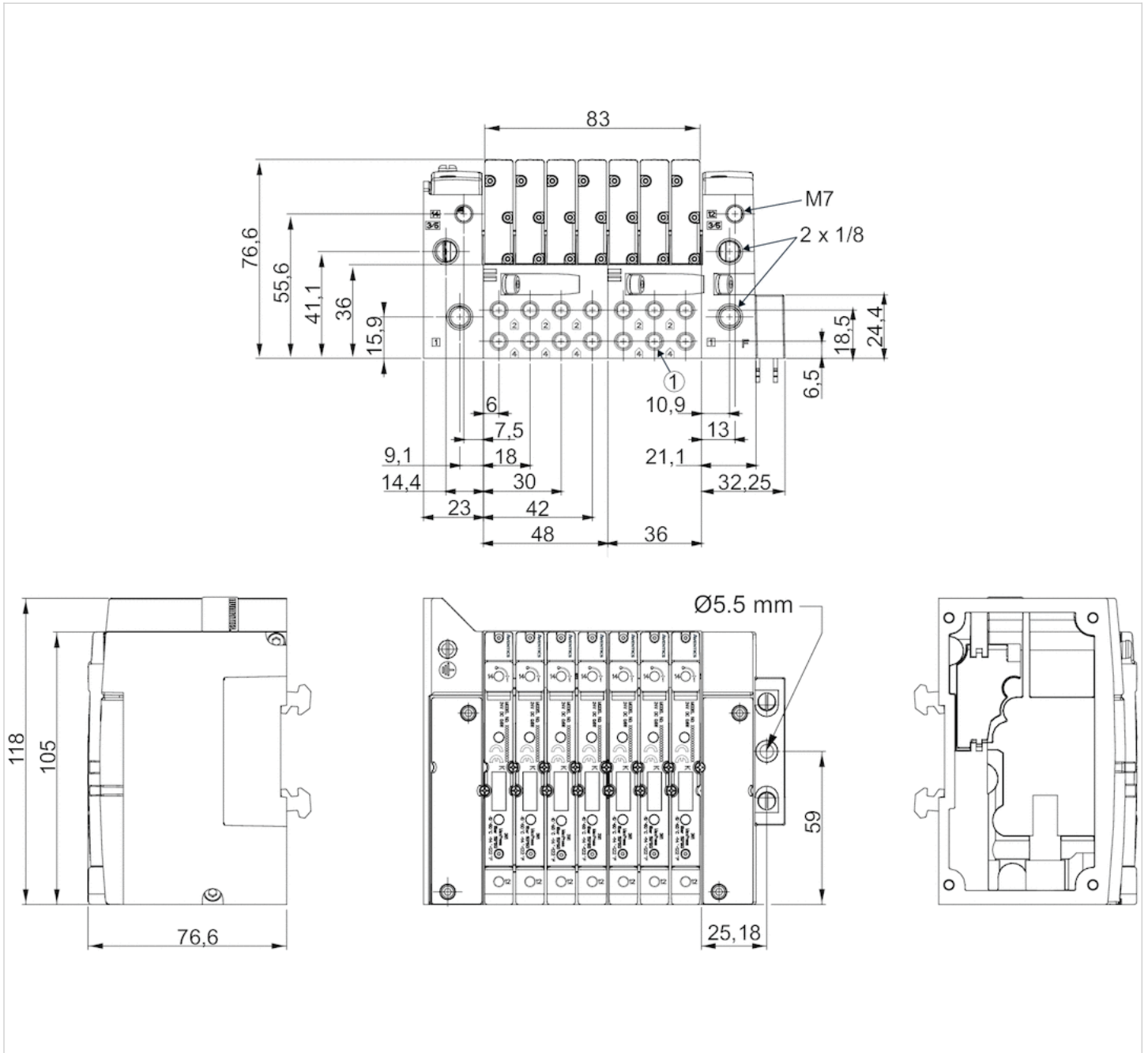
Technical information

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
 The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
 The oil content of compressed air must remain constant during the life cycle.
 Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in the MediaCentre).

Technical information

Material	
Housing	Die-cast aluminum
Seal	Acrylonitrile butadiene rubber
Screws	Stainless steel

Dimensions



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