Series 646 Regulators and Filters

AVENTICS™ Series 646 Regulators and Filters

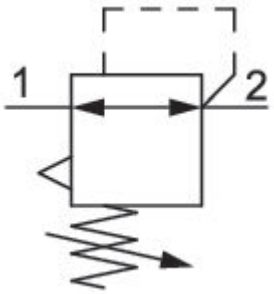
EMERSON.

Pressure regulator, Series 646

G646ARS23NA00H0

General series information
AVENTICS Series 646 Pressure Regulator

- The Series 646 Railway Regulators and Filters are designed for the unique needs of the railway industry. The units meet railway regulations for Fire Safety (EN 45545: HL3), Shock & Vibration (EN 61373: Cat 1 Class B), and Corrosion Resistance (ISO 9227).
- The Series 646 Railway Regulators are robust, high flow products that are available with up to 10 bar (145 PSI) output pressure. They offer three adjustment methods including screw, t-handle, or lockable knob.
- The 646 Railway Filters provide exceptional filtration to ensure oil and particulates are removed from the compressed air system. Large high-flow elements ensure maximum element change out intervals with minimum system pressure drop and maximum air flow.



Technical data

Industry	Rail
Note	Complies with standards for railway applications
Function	high flow, inline ported
Parts	Pressure regulator
Adjustment Type	adjustment screw
Pressure gauge	No gauge with port plate
Mounting orientation	Any
Port	G 3/8
Compressed air connection standard	according to ISO 228-1
Nominal flow Qn	6530 l/min
Regulation range min.	0.5 bar
Regulation range max.	10 bar
Working pressure min.	1 bar
Working pressure max	16 bar
Min. ambient temperature	-40 °C
Max. ambient temperature	70 °C
Medium	Compressed air

Min. medium temperature	-40 °C
Max. medium temperature	70 °C
Weight	0.272 kg

Material

Housing material	Aluminum
Surface housing	anodized
Seal material	Acrylonitrile butadiene rubber
Part No.	G646ARS23NA00H0

Technical information

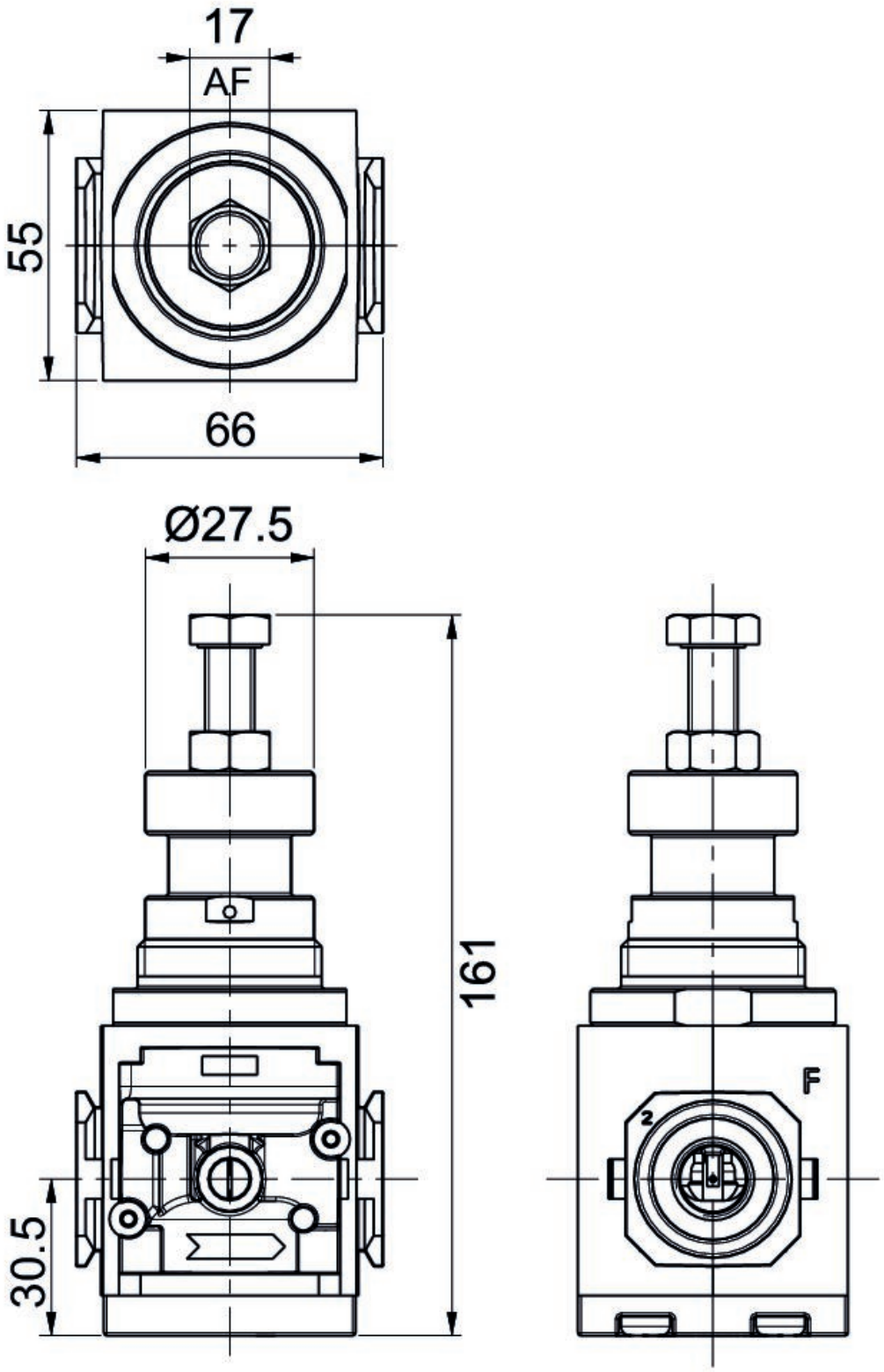
Order pressure gauge separately

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 less than ambient and medium temperature and may not exceed 3 °C.

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

Dimensions in mm



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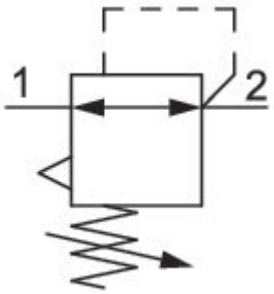

Technical data

Industry	Rail
Note	Complies with standards for railway applications
Function	high flow, inline ported
Parts	Pressure regulator
Adjustment Type	adjustment screw
Pressure gauge	No gauge with port plate
Mounting orientation	Any
Port	G 1/2
Compressed air connection standard	according to ISO 228-1
Nominal flow Qn	7000 l/min
Regulation range min.	0.5 bar
Regulation range max.	10 bar
Working pressure min.	1 bar
Working pressure max	16 bar
Min. ambient temperature	-40 °C
Max. ambient temperature	70 °C
Medium	Compressed air

Min. medium temperature	-40 °C
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Weight	0.272 kg

Material

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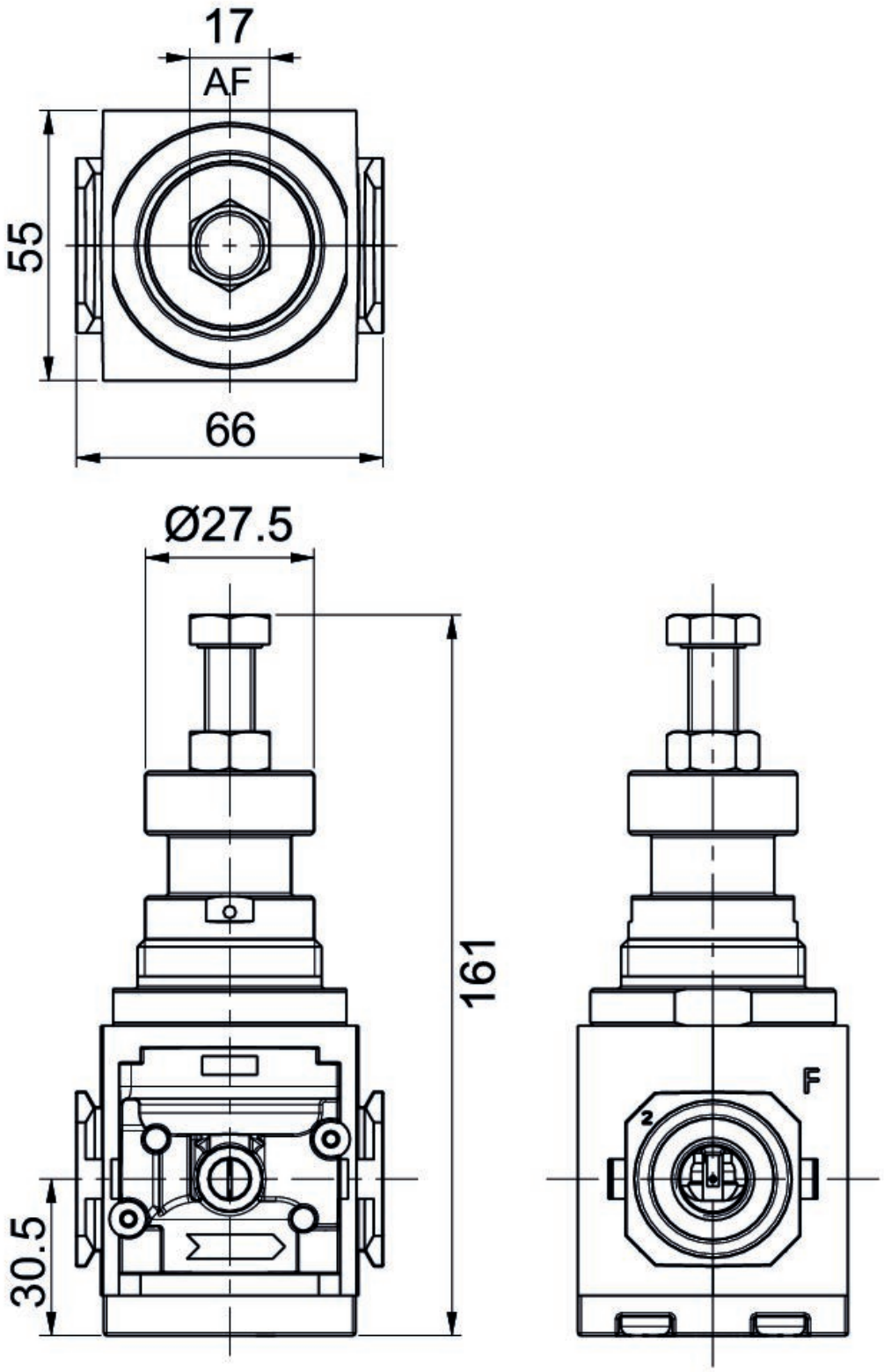

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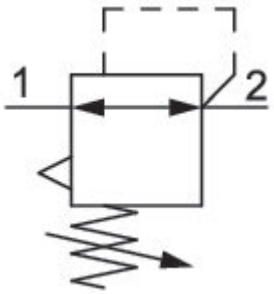

Technical data

Industry	Rail
Note	Complies with standards for railway applications
Function	high flow, inline ported
Parts	Pressure regulator
Adjustment Type	adjustment screw
Pressure gauge	No gauge with port plate
Mounting orientation	Any
Port	3/8 NPT
Nominal flow Qn	6530 l/min
Regulation range min.	0.5 bar
Regulation range max.	10 bar
Working pressure min.	1 bar
Working pressure max	16 bar
Min. ambient temperature	-40 °C
Max. ambient temperature	70 °C
Medium	Compressed air
Min. medium temperature	-40 °C

Max. medium temperature	70 °C
Weight	0.272 kg

Material

Housing material	Aluminum
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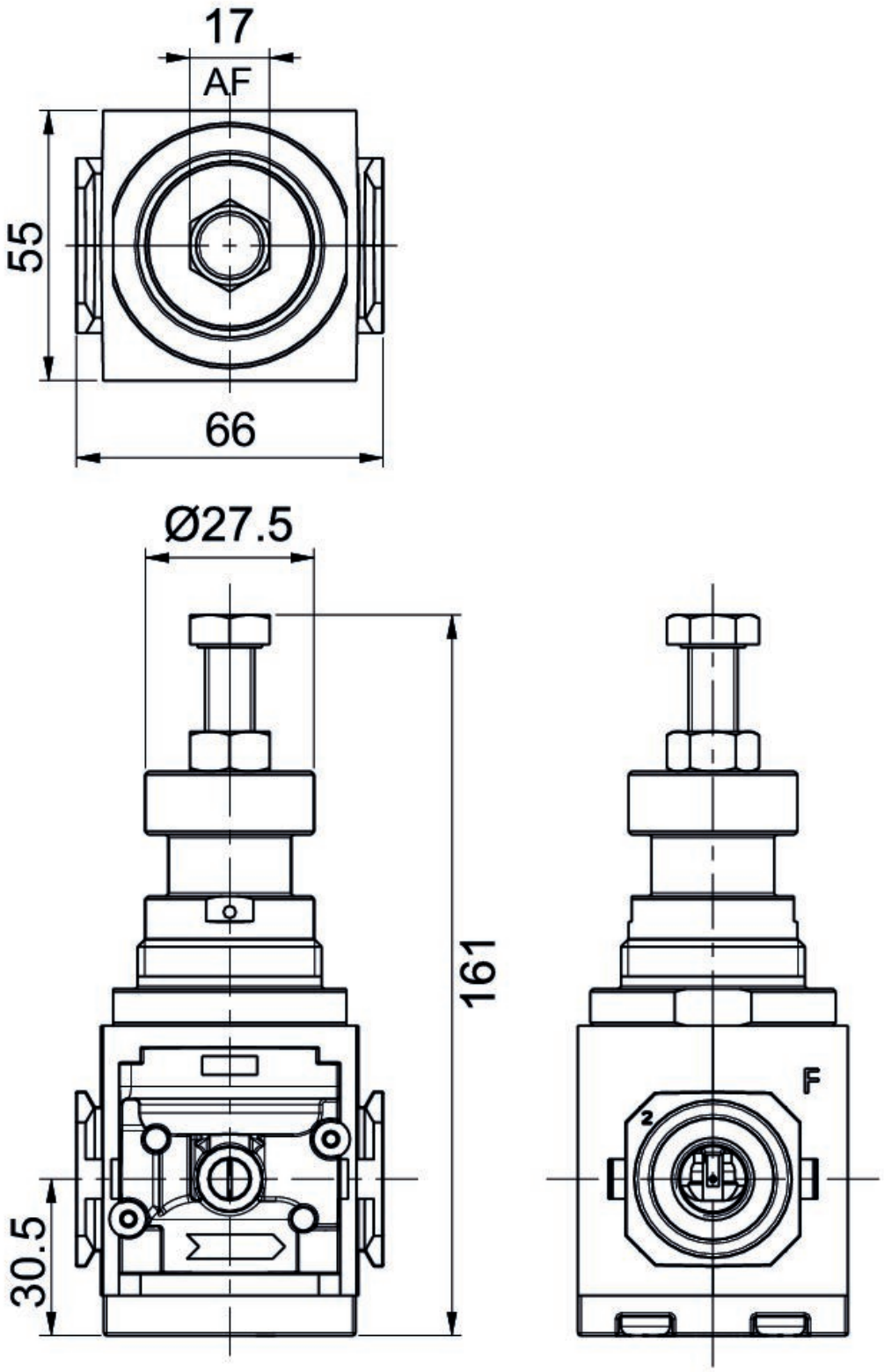

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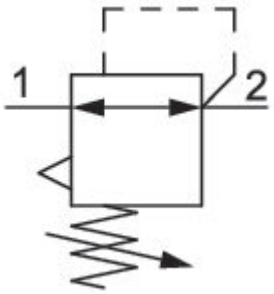

Technical data

Industry	Rail
Note	Complies with standards for railway applications
Function	high flow, inline ported
Parts	Pressure regulator
Adjustment Type	adjustment screw
Pressure gauge	No gauge with port plate
Mounting orientation	Any
Port	1/2 NPT
Nominal flow Qn	7000 l/min
Regulation range min.	0.5 bar
Regulation range max.	10 bar
Working pressure min.	1 bar
Working pressure max	16 bar
Min. ambient temperature	-40 °C
Max. ambient temperature	70 °C
Medium	Compressed air
Min. medium temperature	-40 °C

Max. medium temperature	70 °C
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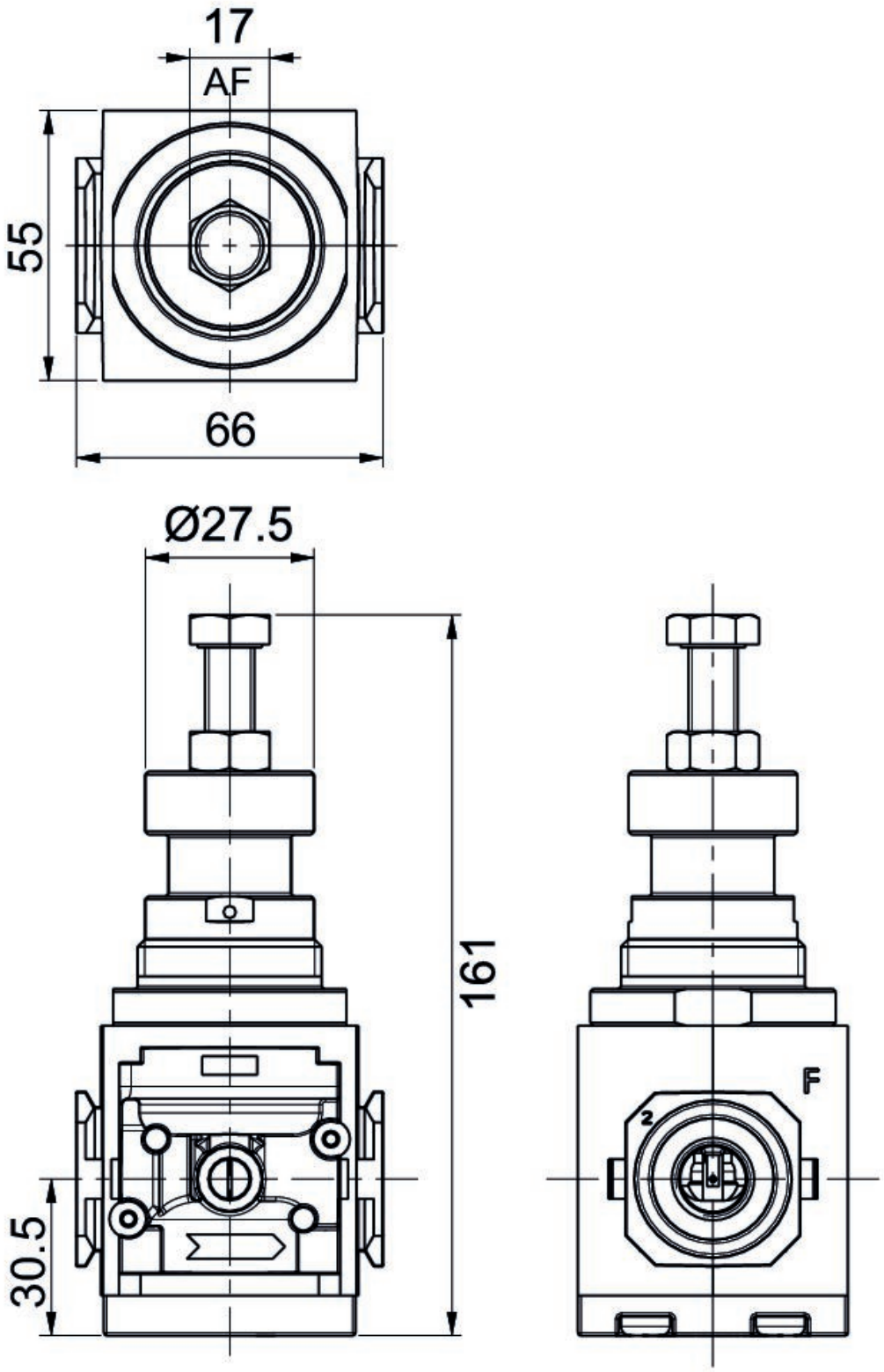

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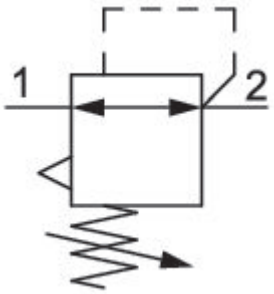

Technical data

Industry	Rail
Note	Complies with standards for railway applications
Function	high flow, inline ported
Parts	Pressure regulator
Adjustment Type	T-handle
Pressure gauge	No gauge with port plate
Mounting orientation	Any
Port	G 3/8
Compressed air connection standard	according to ISO 228-1
Nominal flow Qn	6530 l/min
Regulation range min.	0.5 bar
Regulation range max.	10 bar
Working pressure min.	1 bar
Working pressure max	16 bar
Min. ambient temperature	-40 °C
Max. ambient temperature	70 °C
Medium	Compressed air

Min. medium temperature	-40 °C
Max. medium temperature	70 °C
Weight	0.272 kg

Material

Housing material	Aluminum
Surface housing	anodized
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The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

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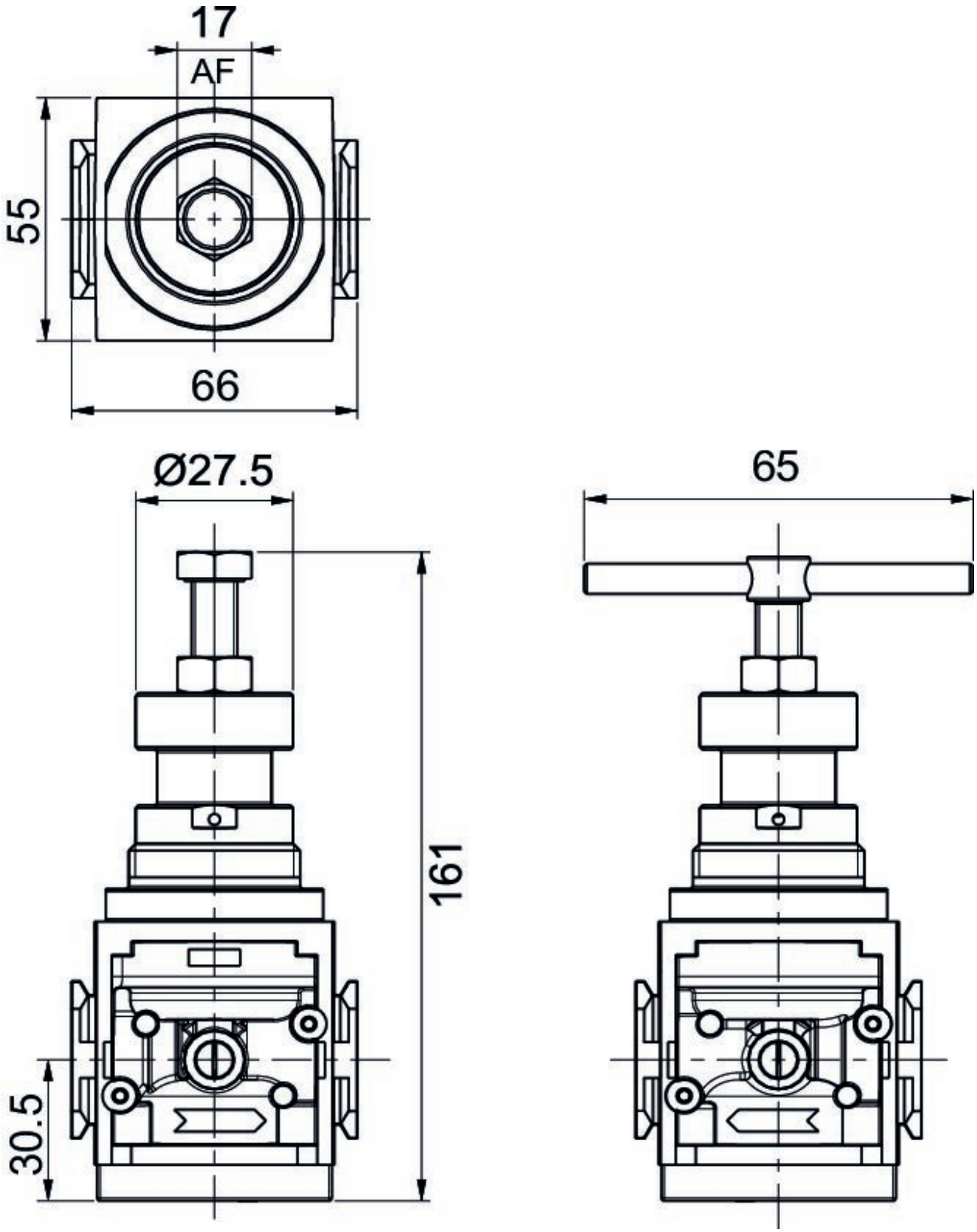
Dimensions in mm



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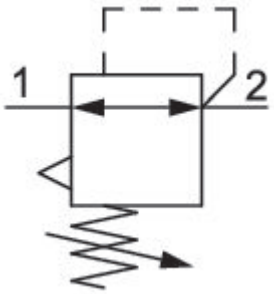

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Industry	Rail
Note	Complies with standards for railway applications
Function	high flow, inline ported
Parts	Pressure regulator
Adjustment Type	T-handle
Pressure gauge	No gauge with port plate
Mounting orientation	Any
Port	G 1/2
Compressed air connection standard	according to ISO 228-1
Nominal flow Qn	7000 l/min
Regulation range min.	0.5 bar
Regulation range max.	10 bar
Working pressure min.	1 bar
Working pressure max	16 bar
Min. ambient temperature	-40 °C
Max. ambient temperature	70 °C
Medium	Compressed air

Min. medium temperature	-40 °C
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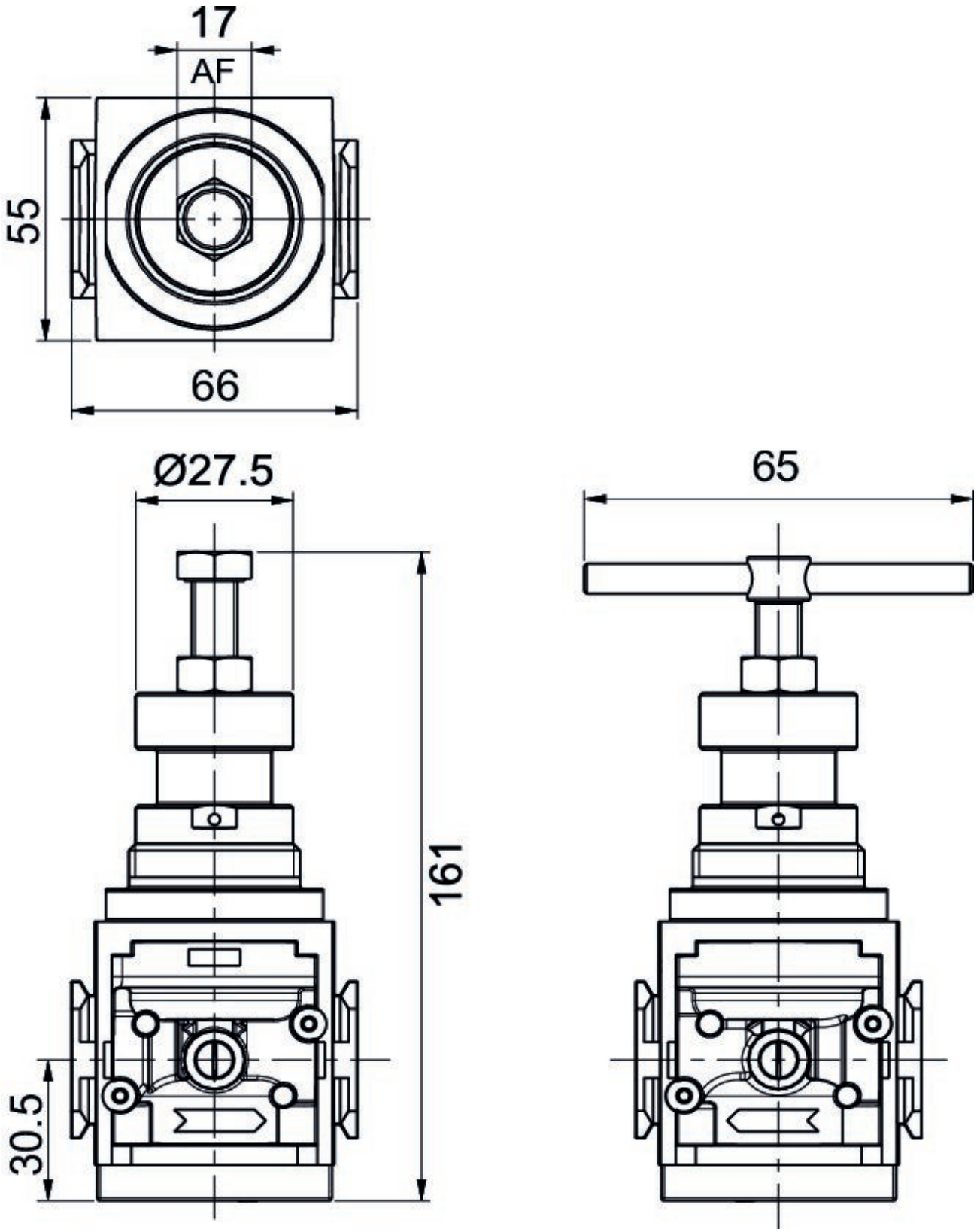

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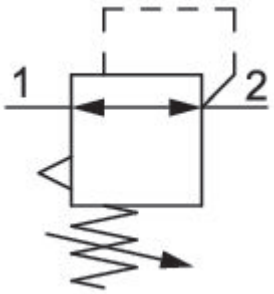

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Industry	Rail
Note	Complies with standards for railway applications
Function	high flow, inline ported
Parts	Pressure regulator
Adjustment Type	T-handle
Pressure gauge	No gauge with port plate
Mounting orientation	Any
Port	3/8 NPT
Compressed air connection standard	according to ISO 228-1
Nominal flow Qn	6530 l/min
Regulation range min.	0.5 bar
Regulation range max.	10 bar
Working pressure min.	1 bar
Working pressure max	16 bar
Min. ambient temperature	-40 °C
Max. ambient temperature	70 °C
Medium	Compressed air

Min. medium temperature	-40 °C
Max. medium temperature	70 °C
Weight	0.272 kg

Material

Housing material	Aluminum
Surface housing	anodized
Seal material	Acrylonitrile butadiene rubber
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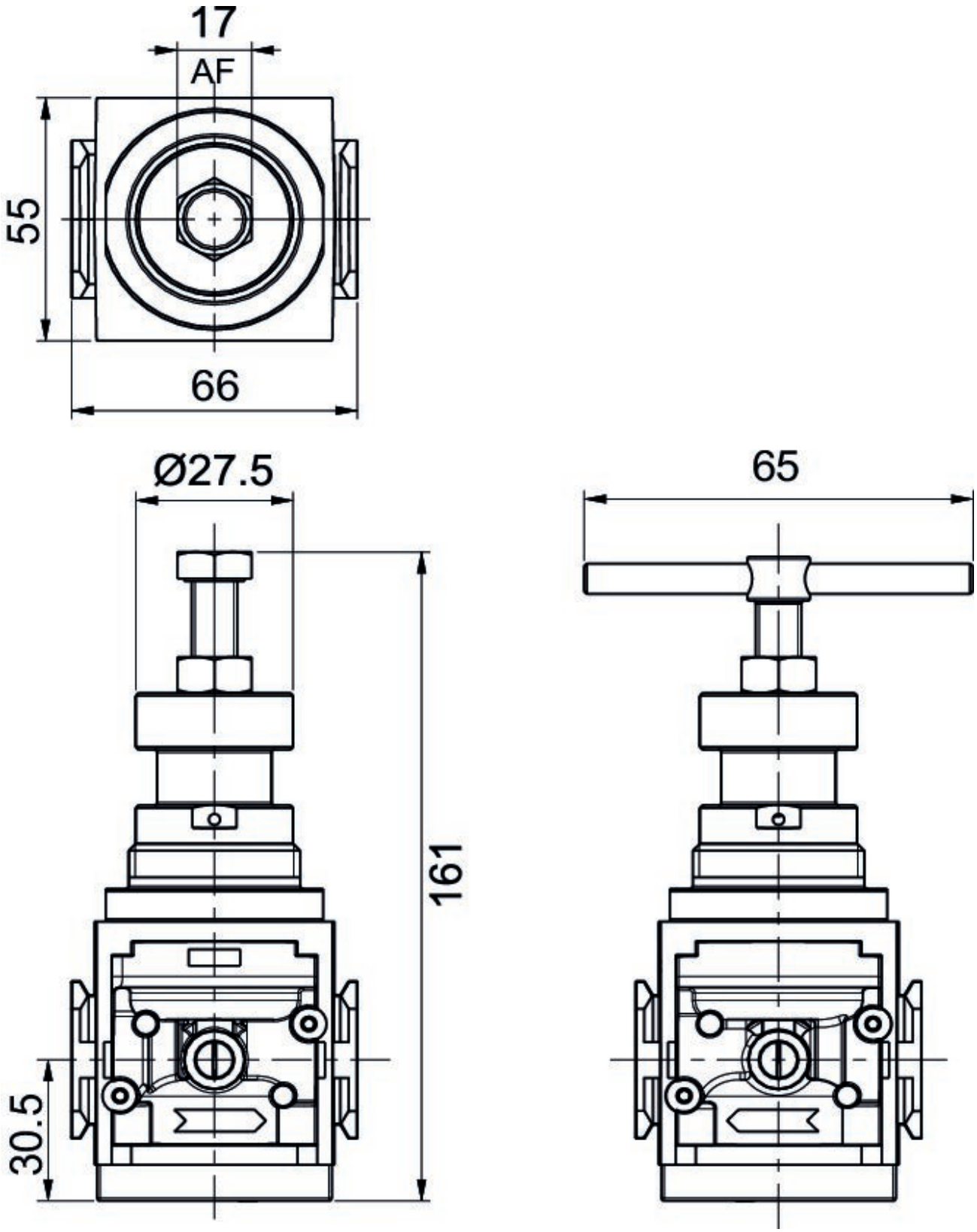

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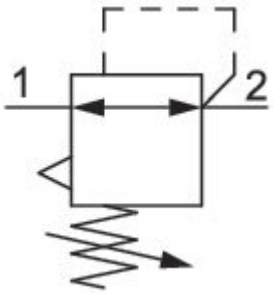

Technical data

Industry	Rail
Note	Complies with standards for railway applications
Function	high flow, inline ported
Parts	Pressure regulator
Adjustment Type	T-handle
Pressure gauge	No gauge with port plate
Mounting orientation	Any
Port	1/2 NPT
Compressed air connection standard	according to ISO 228-1
Nominal flow Qn	7000 l/min
Regulation range min.	0.5 bar
Regulation range max.	10 bar
Working pressure min.	1 bar
Working pressure max	16 bar
Min. ambient temperature	-40 °C
Max. ambient temperature	70 °C
Medium	Compressed air

Min. medium temperature	-40 °C
Max. medium temperature	70 °C
Weight	0.272 kg

Material

Housing material	Aluminum
Surface housing	anodized
Seal material	Acrylonitrile butadiene rubber
Part No.	8646ARH24NA00H0

Technical information

Order pressure gauge separately

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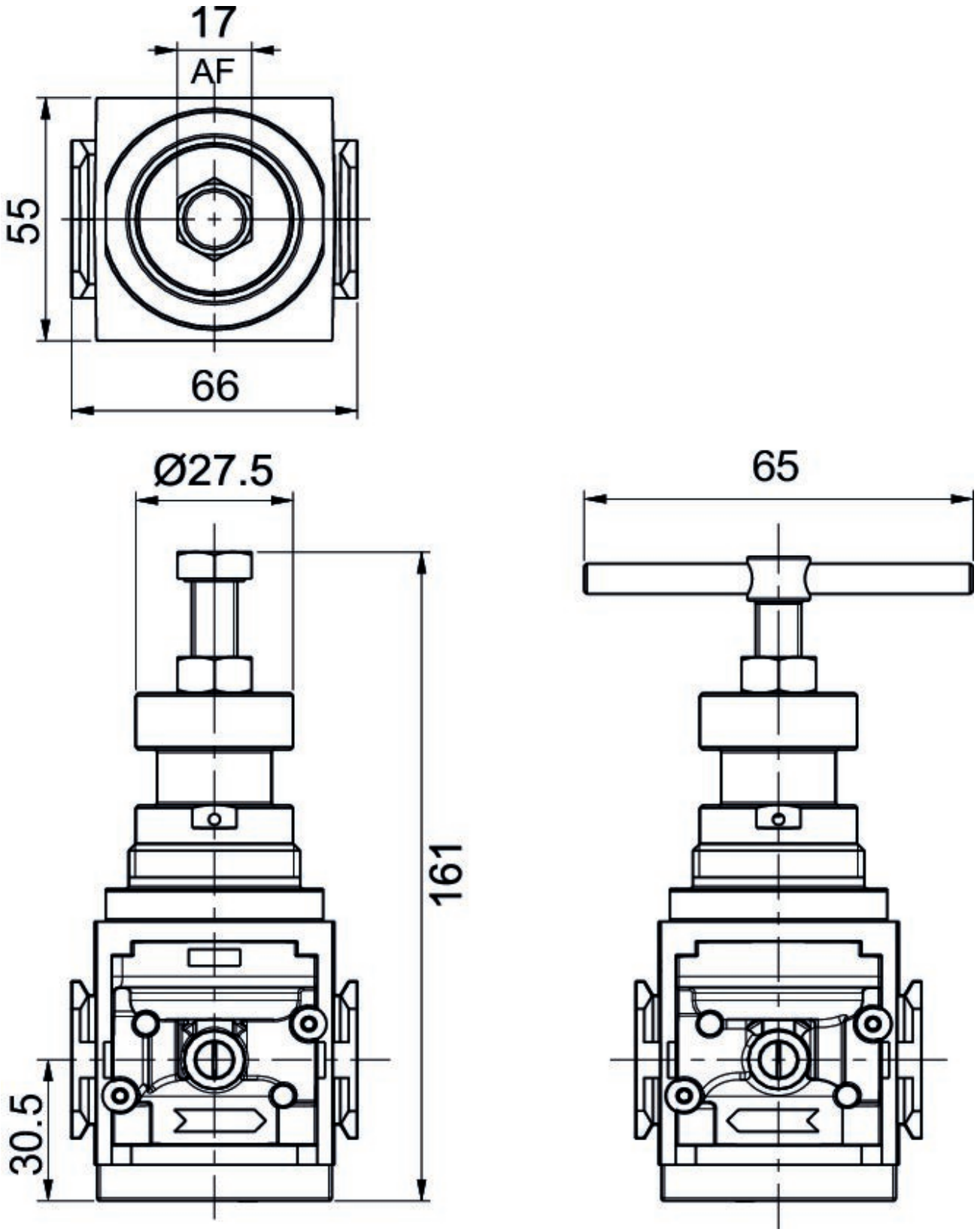
Dimensions in mm



Filter, Series 646

8646AFDK4JA000Q

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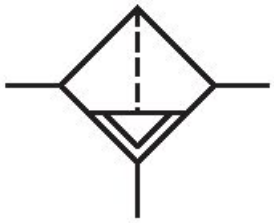


Technical data

Industry
Industrial

Parts
Filter

Port
1/2 NPT

Filter porosity
0.3 µm

Nominal flow Qn
870 l/min

Condensate drain
Manual

Working pressure min.
0 bar

Working pressure max
16 bar

Min. ambient temperature
-40 °C

Max. ambient temperature
70 °C

Medium
Compressed air

Weight
0.509 kg

Material

Housing material
Aluminum

Seal material
Nitrile butadiene rubber

Material filter insert
Borosilicate glass fiber
Polyester

Material condensate drain
Stainless Steel

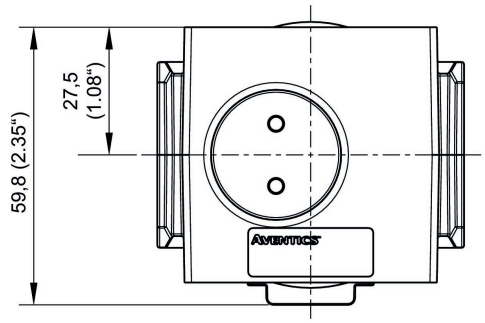
Part No.
8646AFDK4JA000Q

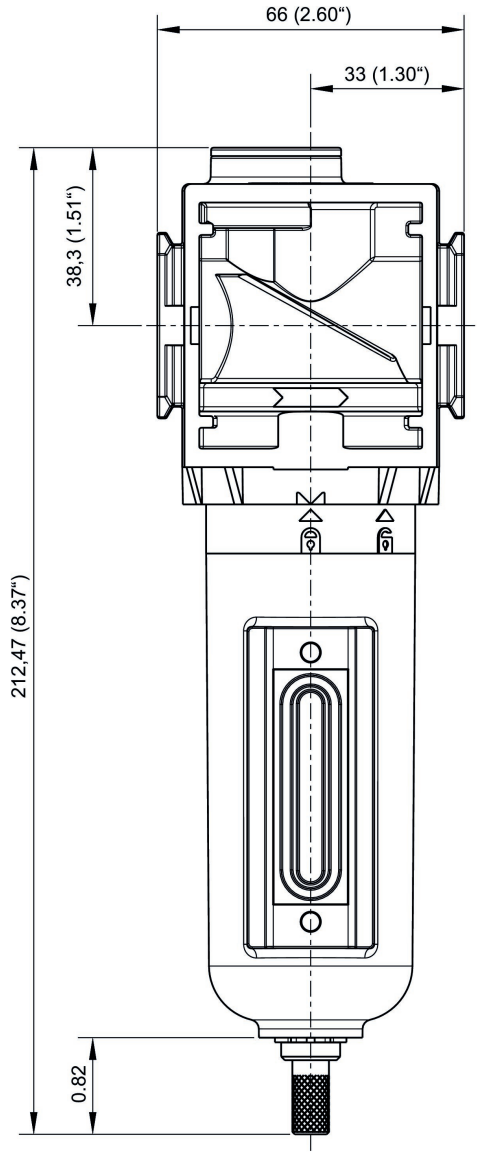
Technical information

Max. achievable compressed air class acc. to ISO 8573-1:2010 3 : 7 : 3 (0,3 µm filter porosity) and 2 : 7 : 2 (0,01 µm filter porosity)

Other filter porosities on request.

Dimensions in mm (inch)





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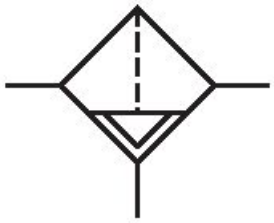


Technical data

Industry
Industrial

Parts
Filter

Port
G 3/8

Filter porosity
5 µm

Nominal flow Qn
2190 l/min

Condensate drain
Manual

Working pressure min.
0 bar

Working pressure max
16 bar

Min. ambient temperature
-40 °C

Max. ambient temperature
70 °C

Medium
Compressed air

Weight
0.513 kg

Material

Housing material
Aluminum

Seal material
Nitrile butadiene rubber

Material filter insert
Sintered polyethylene

Material condensate drain
Stainless Steel

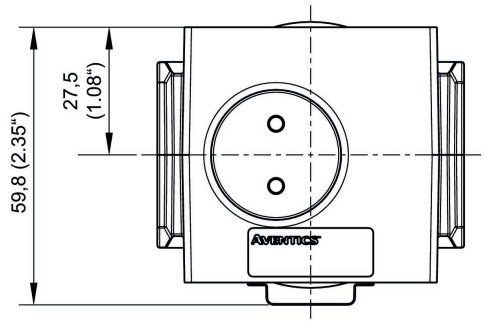
Part No.
G646ABBK3JA000Q

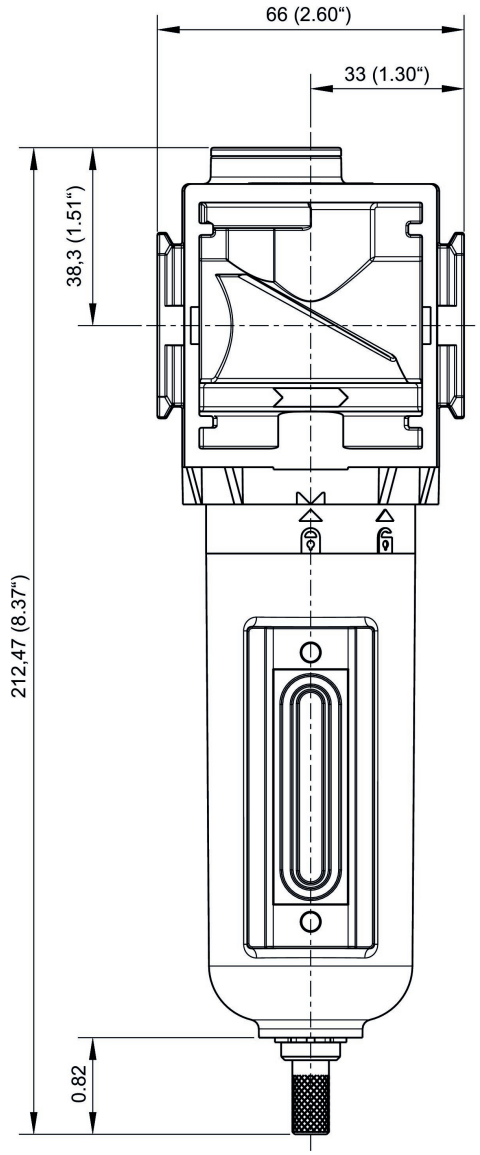
Technical information

Max. achievable compressed air class acc. to ISO 8573-1:2010 5 : 8 : 4 (5 µm filter porosity) und 6 : 8 : 4 (25µm filter porosity)

Other filter porosities on request.

Dimensions in mm (inch)





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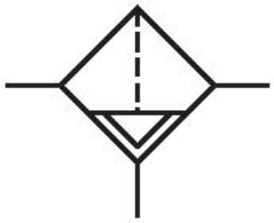


Technical data

Industry
Industrial

Parts
Filter

Port
G 1/2

Filter porosity
5 µm

Nominal flow Qn
2290 l/min

Condensate drain
Manual

Working pressure min.
0 bar

Working pressure max
16 bar

Min. ambient temperature
-40 °C

Max. ambient temperature
70 °C

Medium
Compressed air

Weight
0.513 kg

Material

Housing material
Aluminum

Seal material
Nitrile butadiene rubber

Material filter insert
Sintered polyethylene

Material condensate drain
Stainless Steel

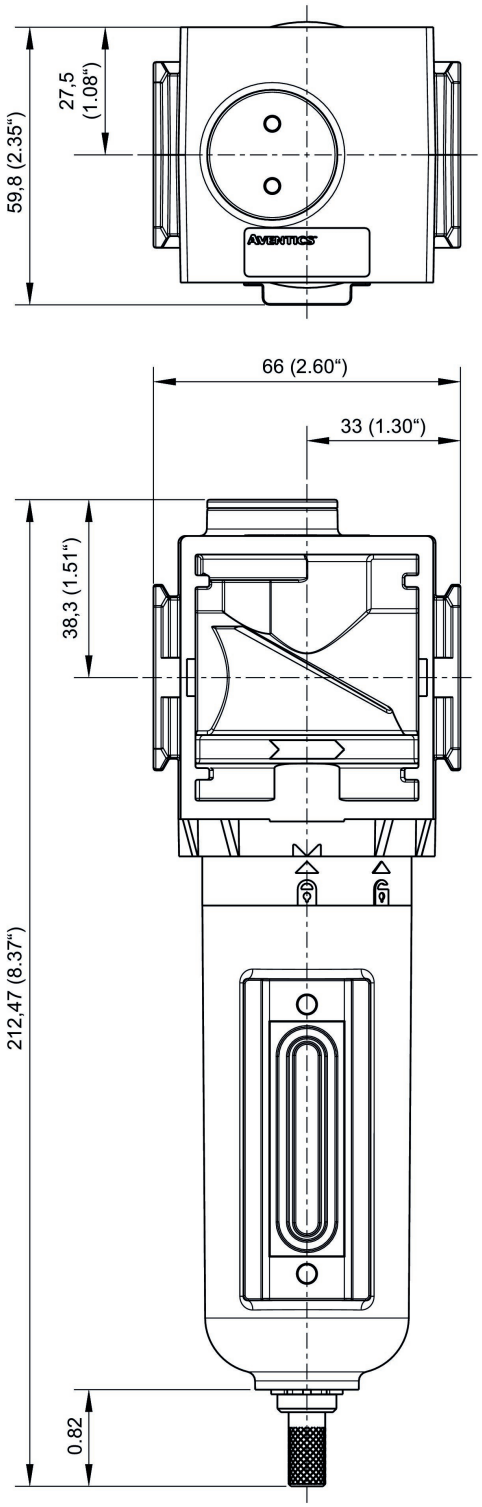
Part No.
G646ABBK4JA000Q

Technical information

Max. achievable compressed air class acc. to ISO 8573-1:2010 5 : 8 : 4 (5 µm filter porosity) und 6 : 8 : 4 (25µm filter porosity)

Other filter porosities on request.

Dimensions in mm (inch)

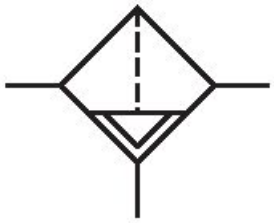


Filter, Series 646

G646AFDK4JA000Q

General series information
Series 646

- The Series 646 Railway Regulators and Filters are designed for the unique needs of the railway industry. The units meet railway regulations for Fire Safety (EN 45545: HL3), Shock & Vibration (EN 61373: Cat 1 Class B), and Corrosion Resistance (ISO 9227).
- The Series 646 Railway Regulators are robust, high flow products that are available with up to 10 bar (145 PSI) output pressure. They offer three adjustment methods including screw, t-handle, or lockable knob.
- The 646 Railway Filters provide exceptional filtration to ensure oil and particulates are removed from the compressed air system. Large high-flow elements ensure maximum element change out intervals with minimum system pressure drop and maximum air flow.



Technical data

Industry
Industrial

Parts
Filter

Port
G 1/2

Filter porosity
0.3 µm

Nominal flow Qn
870 l/min

Condensate drain
Manual

Working pressure min.
0 bar

Working pressure max
16 bar

Min. ambient temperature
-40 °C

Max. ambient temperature
70 °C

Medium
Compressed air

Weight
0.509 kg

Material

Housing material
Aluminum

Seal material
Nitrile butadiene rubber

Material filter insert
Borosilicate glass fiber
Polyester

Material condensate drain
Stainless Steel

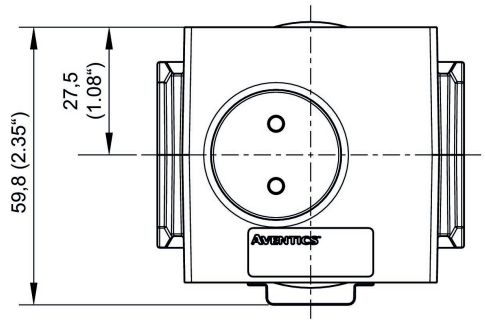
Part No.
G646AFDK4JA000Q

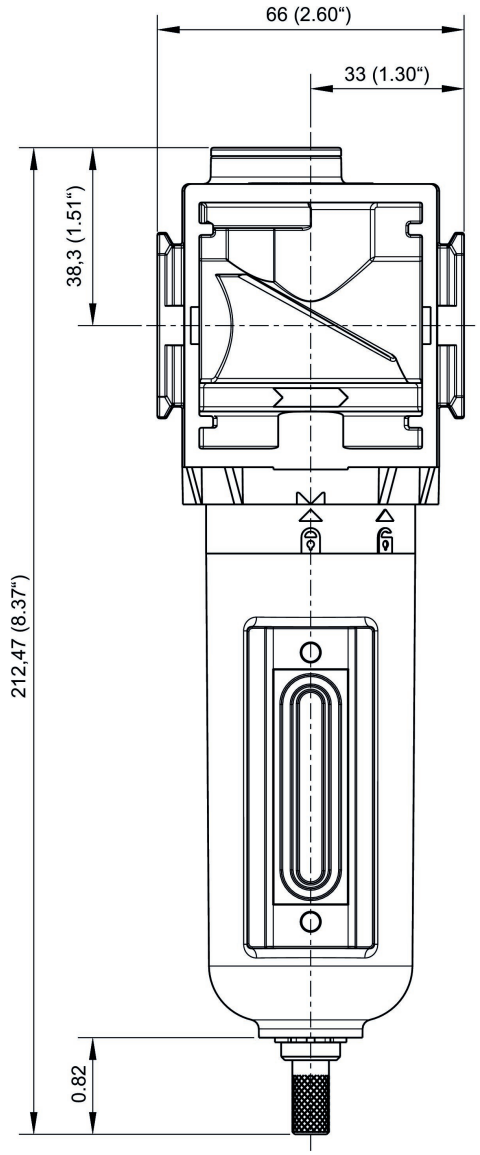
Technical information

Max. achievable compressed air class acc. to ISO 8573-1:2010 3 : 7 : 3 (0,3 µm filter porosity) and 2 : 7 : 2 (0,01 µm filter porosity)

Other filter porosities on request.

Dimensions in mm (inch)





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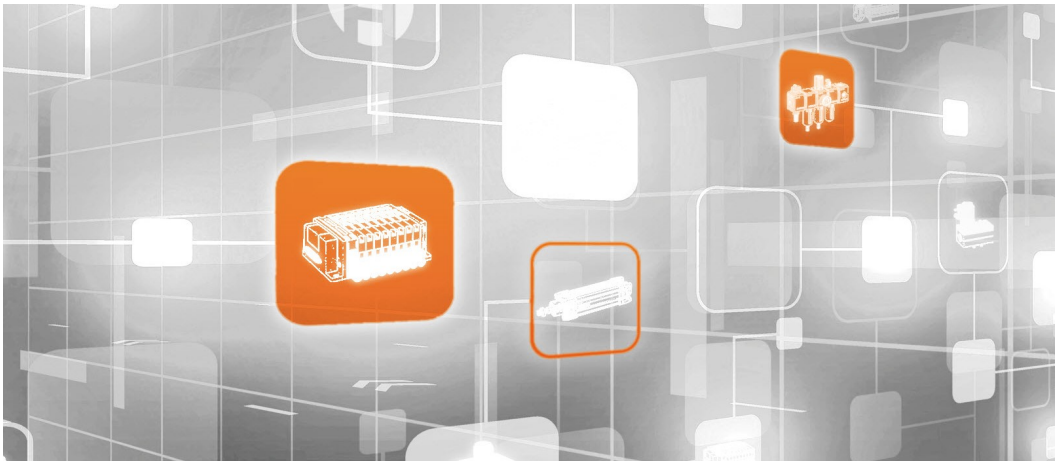

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2023-08-08

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