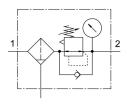
## Filter regulator MS4-LFR-1/4-D6-E-P-M-AG-BAR-F1A-B Part number: 8175799

**FESTO** 





## General operating condition

## **Data sheet**

Series MS Actuator lock Rotary knob with detent Mounting position Vertical +/- 5º Grade of filtration Condensate drain Manually rotating Structural design Filter regulator with pressure gauge Directly controlled piston regulator Max. condensate volume Controller function Outlet pressure constant With secondary exhausting With return flow function Symbol O0991589 Displayable unit(s) bar psi Pressure gauge with pressure gauge Operating pressure Operating pressure 1 bar 10 bar Pressure regulation range 0.3 bar 7 bar Max. pressure hysteresis 0.05 MPa Max. pressure hysteresis 0.05 MPa Max. pressure hysteresis 1.25 psi Standard nominal flow rate 0.725 psi Standard nominal flow rate 0.726 psi Standard nominal flow rate 0.726 psi Standard nominal flow rate 0.726 psi Standard nominal flow rate 0.728 psi Standard nominal flow rate 0.729 psi Standard nominal flow rate 0.729 psi Standard nominal flow rate 0.729 psi Standard nominal flow rate 0.720 printed circuit boards, rables, electrical plug connectors and coils 0.728 psi Cleanroom class 0.728 psi Cleanroom class 0.739 cc 50 °C 50 °C Air quality class at the output 0.75 °C 50 °C 50 °C Air quality class at the output 0.75 °C 50 °C Air quality class at the output 0.75 °C 50 °C	Feature	Value
Actuator lock  Mounting position  Vertical +/- 5°  Grade of filtration  40 µm  Manually rotating  Structural design  Filter regulator with pressure gauge Directly controlled piston regulator  Max. condensate volume  16.5 ml  Controller function  Outlet pressure constant With secondary exhausting With return flow function  Symbol  Displayable unit(s)  bar psi  Pressure gauge  With pressure gauge  Operating pressure  Operating pressure  0.1 MPa 1 MPa  Operating pressure  1 bar 10 bar  Pressure regulation range  0.3 bar 7 bar  Max. pressure hysteresis  0.05 MPa  Max. pressure hysteresis  0.5 bar  Max. pressure hysteresis  7.25 psi  Standard nominal flow rate  1 compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Corrosion resistance class (CRC)  1 - Low corrosion stress  Corposion resistance class (CRC)  1 - Low corrosion stress  Class (PMIS) conformity  VDMA24364-B1/B2-L  Suitability for the production of Li-ion batteries  Alterian School	Size	4
Mounting position  Vertical +/- 5°  Grade of filtration  40 μm  Manually rotating  Filter regulator with pressure gauge Directly controlled piston regulator  Max. condensate volume  16.5 ml  Controller function  With secondary exhausting With return flow function  Symbol  Displayable unit(s)  Deparating pressure  0.1 MPa 1 MPa  Operating pressure  1 bar 10 bar  Pressure regulation range  0.3 bar 7 bar  Max. pressure hysteresis  0.05 MPa  Max. pressure hysteresis  0.5 bar  Max. pressure hysteresis  1.25 psi  Standard nominal flow rate  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  LABS (PWIS) conformity  VDMA24364-B1/B2-L  Suitability for the production of Li-ion batteries  Metals with more than 1 % by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils  Cleanroom class  Cleanroom class  Cleanroom class  Cleanroom class at the output  Compressed air as per ISO 8573-1:2010 [7:4:4]  Cleanroom class  Cleanroom class  Cleanroom class  Cleanroom class at the output  Compressed air as per ISO 8573-1:2010 [7:4:4]	Series	MS
Grade of filtration  Condensate drain  Structural design  Filter regulator with pressure gauge Directly controlled piston regulator  Max. condensate volume  Controller function  Outlet pressure constant With secondary exhausting With return flow function  Symbol  Displayable unit(s)  Pressure gauge  Operating pressure  Operating pressure  Operating pressure  1 bar 10 bar  Pressure regulation range  Max. pressure hysteresis  O.5 MPa  Max. pressure hysteresis  7.25 psi  Standard nominal flow rate  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4]  Inert gas  Corrosion resistance class (CRC)  1 - Low corrosion stress  Cleanroom class  Cleans of a compensation of Cleinon batteries  Cleanroom class  Cleans of a compensation of Cleinon described in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and colls  Cleanroom class  Cleanroom class  Cleanroom class  Cleanroom class at the output  Compressed air as per ISO 8573-1:2010 [7:4:4]	Actuator lock	Rotary knob with detent
Condensate drain  Manually rotating  Filter regulator with pressure gauge Directly controlled piston regulator  Max. condensate volume  Controller function  Outlet pressure constant With secondary exhausting With return flow function  Symbol  Displayable unit(s)  Dar psi  Pressure gauge  With pressure gauge  Operating pressure  On 1 MPa 1 MPa  Operating pressure  1 bar 10 bar  Pressure regulation range  O.3 bar 7 bar  Max. pressure hysteresis  O.5 bar  Max. pressure hysteresis  O.5 bar  Max. pressure hysteresis  Corrosion resistance class (CRC)  LABS (PWIS) conformity  VDMA24364-B1/B2-L  Suitability for the production of Li-ion batteries  Class 7 according to 1SO 14644-1  Storage temperature  Lompressed air as per ISO 8573-1:2010 [7:4:4] Increase  Class 7 according to ISO 14644-1  Storage temperature  Lompressed air as per ISO 8573-1:2010 [7:4:4]  Compressed air as per ISO 8573-1:2010 [7:4:4]  Clease of the controlled piston regulator  Low corrosion stress  Class 7 according to ISO 14644-1  Compressed air as per ISO 8573-1:2010 [7:4:4]  Temperature of medium  Compressed air as per ISO 8573-1:2010 [7:4:4]	Mounting position	Vertical +/- 5°
Filter regulator with pressure gauge Directly controlled piston regulator  Max. condensate volume  16.5 ml  Controller function  Outlet pressure constant With secondary exhausting With return flow function  Symbol  Displayable unit(s)  Dar psi  Pressure gauge  With pressure gauge  Operating pressure  O1. MPa 1 MPa  Operating pressure  1 bar 10 bar Pressure regulation range  Max. pressure hysteresis  O.5 bar  Max. pressure hysteresis  O.5 bar  Max. pressure hysteresis  O.5 bar  Max. pressure hysteresis  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4] Intert gas  LABS (PWIS) conformity  VDMA24364-B1/B2-L  Suitability for the production of Li-ion batteries  Class 7 according to ISO 14644-1  Storage temperature  -5 °C 50 °C  Air quality class at the output  Compressed air as per ISO 8573-1:2010 [7:4:4]  Temperature of medium  -5 °C 50 °C  Compressed air as per ISO 8573-1:2010 [7:4:4]	Grade of filtration	40 μm
Directly controlled piston regulator  Max. condensate volume  Controller function  Outlet pressure constant With secondary exhausting With return flow function  Symbol  Oo991589  Displayable unit(s)  bar psi  Pressure gauge  With pressure gauge  Operating pressure  O,1 MPa 1 MPa  Operating pressure  1 bar 10 bar Pressure regulation range  O,3 bar 7 bar  Max. pressure hysteresis  O,5 bar  Max. pressure hysteresis  O,5 bar  Max. pressure hysteresis  7.25 psi  Standard nominal flow rate  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  LABS (PWIS) conformity  VDMA24364-B1/B2-L  Suitability for the production of Li-ion batteries  Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and colls  Cleas 7 according to ISO 14644-1  Storage temperature  5° C 50° C  Air quality class at the output  Compressed air as per ISO 8573-1:2010 [7:4:4]  Temperature of medium  -5° C 50° C	Condensate drain	Manually rotating
Controller function  Outlet pressure constant With secondary exhausting With return flow function  Oo991589  Displayable unit(s)  bar psi  Pressure gauge  Operating pressure  On the arm of the pressure gauge  Operating pressure  On the arm of the pressure gauge  Operating pressure  On the arm of the pressure gauge  Oor of the pressure regulation range  On the arm of the pressure fresh of the pressure gauge  Oor of the pressure regulation range  On the arm of the pressure fresh of	Structural design	
With secondary exhausting With return flow function  Opposition	Max. condensate volume	16.5 ml
Displayable unit(s)  bar psi  Pressure gauge  With pressure gauge  Operating pressure  Operating pressure  1 bar 1 0bar  Pressure regulation range  0.3 bar 7 bar  Max. pressure hysteresis  0.05 MPa  Max. pressure hysteresis  0.5 bar  Max. pressure hysteresis  7.25 psi  Standard nominal flow rate  1700 l/min  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Corrosion resistance class (CRC)  1 - Low corrosion stress  LABS (PWIS) conformity  VDMA24364-B1/B2-L  Suitability for the production of Li-ion batteries  Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils  Cleanroom class  Class 7 according to ISO 14644-1  Storage temperature  -5 °C 50 °C  Air quality class at the output  Compressed air as per ISO 8573-1:2010 [7:4:4]  Temperature of medium  -5 °C 50 °C	Controller function	With secondary exhausting
Pressure gauge  Operating pressure  Operating pressure  Operating pressure  Operating pressure  Operating pressure  I bar 10 bar  Pressure regulation range  Operating pressure plateresis  Operating pressure plateresis  Operating pressure plateresis  Operating pressure plateresis  Operating pressure hysteresis  Operating pressure hysteresis  Total plane  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Corrosion resistance class (CRC)  I - Low corrosion stress  LABS (PWIS) conformity  VDMA24364-B1/B2-L  Suitability for the production of Li-ion batteries  Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils  Cleanroom class  Class 7 according to ISO 14644-1  Storage temperature  -5 °C 50 °C  Air quality class at the output  Compressed air as per ISO 8573-1:2010 [7:4:4]  Temperature of medium  -5 °C 50 °C	Symbol	00991589
Operating pressure Operating pressure 1 bar 10 bar Operating pressure 0.3 bar 7 bar Operating pressure hysteresis 0.05 MPa Max. pressure hysteresis 0.5 bar Max. pressure hysteresis 7.25 psi Standard nominal flow rate Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas Corrosion resistance class (CRC) 1 - Low corrosion stress LABS (PWIS) conformity VDMA24364-B1/B2-L Suitability for the production of Li-ion batteries Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils Cleanroom class Class 7 according to ISO 14644-1 Storage temperature -5 °C 50 °C Air quality class at the output Compressed air as per ISO 8573-1:2010 [7:4:4] Temperature of medium -5 °C 50 °C	Displayable unit(s)	
Operating pressure  1 bar 10 bar  Operating pressure regulation range  0.3 bar 7 bar  O.5 MPa  Max. pressure hysteresis  0.5 bar  Max. pressure hysteresis  7.25 psi  Standard nominal flow rate  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Corrosion resistance class (CRC)  1 - Low corrosion stress  LABS (PWIS) conformity  VDMA24364-B1/B2-L  Suitability for the production of Li-ion batteries  Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils  Cleanroom class  Class 7 according to ISO 14644-1  Storage temperature  -5 °C 50 °C  Air quality class at the output  Compressed air as per ISO 8573-1:2010 [7:4:4]  Temperature of medium  -5 °C 50 °C	Pressure gauge	with pressure gauge
Pressure regulation range  O.3 bar 7 bar  O.05 MPa  Max. pressure hysteresis  O.5 bar  Max. pressure hysteresis  7.25 psi  Standard nominal flow rate  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Corrosion resistance class (CRC)  1 - Low corrosion stress  LABS (PWIS) conformity  VDMA24364-B1/B2-L  Suitability for the production of Li-ion batteries  Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils  Cleanroom class  Class 7 according to ISO 14644-1  Storage temperature  -5 °C 50 °C  Air quality class at the output  Compressed air as per ISO 8573-1:2010 [7:4:4]  Temperature of medium  -5 °C 50 °C	Operating pressure	0.1 MPa 1 MPa
Max. pressure hysteresis  0.05 MPa  0.5 bar  Max. pressure hysteresis  7.25 psi  Standard nominal flow rate  1700 I/min  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Corrosion resistance class (CRC)  1 - Low corrosion stress  LABS (PWIS) conformity  VDMA24364-B1/B2-L  Suitability for the production of Li-ion batteries  Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils  Cleanroom class  Class 7 according to ISO 14644-1  Storage temperature  -5 °C 50 °C  Compressed air as per ISO 8573-1:2010 [7:4:4]  Temperature of medium  -5 °C 50 °C	Operating pressure	1 bar 10 bar
Max. pressure hysteresis  7.25 psi  Standard nominal flow rate  7.25 psi  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Corrosion resistance class (CRC)  1 - Low corrosion stress  LABS (PWIS) conformity  VDMA24364-B1/B2-L  Suitability for the production of Li-ion batteries  Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils  Cleanroom class  Class 7 according to ISO 14644-1  Storage temperature  -5 °C 50 °C  Compressed air as per ISO 8573-1:2010 [7:4:4]  Temperature of medium  -5 °C 50 °C	Pressure regulation range	0.3 bar 7 bar
Max. pressure hysteresis  T.25 psi  Standard nominal flow rate  1700 l/min  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Corrosion resistance class (CRC)  1 - Low corrosion stress  LABS (PWIS) conformity  VDMA24364-B1/B2-L  Suitability for the production of Li-ion batteries  Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils  Cleanroom class  Class 7 according to ISO 14644-1  Storage temperature  -5 °C 50 °C  Compressed air as per ISO 8573-1:2010 [7:4:4]  Temperature of medium  -5 °C 50 °C	Max. pressure hysteresis	0.05 MPa
Standard nominal flow rate  1700 l/min  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Corrosion resistance class (CRC)  1 - Low corrosion stress  LABS (PWIS) conformity  VDMA24364-B1/B2-L  Suitability for the production of Li-ion batteries  Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils  Cleanroom class  Class 7 according to ISO 14644-1  Storage temperature  -5 °C 50 °C  Air quality class at the output  Compressed air as per ISO 8573-1:2010 [7:4:4]  Temperature of medium  -5 °C 50 °C	Max. pressure hysteresis	0.5 bar
Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Corrosion resistance class (CRC)  1 - Low corrosion stress  VDMA24364-B1/B2-L  Suitability for the production of Li-ion batteries  Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils  Cleanroom class  Class 7 according to ISO 14644-1  Storage temperature  -5 °C 50 °C  Air quality class at the output  Compressed air as per ISO 8573-1:2010 [7:4:4]  Temperature of medium  -5 °C 50 °C	Max. pressure hysteresis	7.25 psi
Inert gas  Corrosion resistance class (CRC)  1 - Low corrosion stress  VDMA24364-B1/B2-L  Suitability for the production of Li-ion batteries  Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils  Cleanroom class  Class 7 according to ISO 14644-1  Storage temperature  -5 °C 50 °C  Air quality class at the output  Compressed air as per ISO 8573-1:2010 [7:4:4]  Temperature of medium  -5 °C 50 °C	Standard nominal flow rate	1700 l/min
LABS (PWIS) conformity  VDMA24364-B1/B2-L  Suitability for the production of Li-ion batteries  Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils  Cleanroom class  Class 7 according to ISO 14644-1  Storage temperature  -5 °C 50 °C  Air quality class at the output  Compressed air as per ISO 8573-1:2010 [7:4:4]  Temperature of medium  -5 °C 50 °C	Operating medium	
Suitability for the production of Li-ion batteries  Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils  Cleanroom class  Class 7 according to ISO 14644-1  Storage temperature  -5 °C 50 °C  Air quality class at the output  Compressed air as per ISO 8573-1:2010 [7:4:4]  Temperature of medium  -5 °C 50 °C	Corrosion resistance class (CRC)	1 - Low corrosion stress
are excluded from use. Exceptions are nickel in steel, chemically nickel- plated surfaces, printed circuit boards, cables, electrical plug connectors and coils  Class 7 according to ISO 14644-1  Storage temperature  -5 °C 50 °C  Air quality class at the output  Temperature of medium  -5 °C 50 °C	LABS (PWIS) conformity	VDMA24364-B1/B2-L
Storage temperature -5 °C 50 °C  Air quality class at the output Compressed air as per ISO 8573-1:2010 [7:4:4]  Temperature of medium -5 °C 50 °C	Suitability for the production of Li-ion batteries	are excluded from use. Exceptions are nickel in steel, chemically nickel- plated surfaces, printed circuit boards, cables, electrical plug connectors
Air quality class at the output  Compressed air as per ISO 8573-1:2010 [7:4:4]  Temperature of medium  -5 °C 50 °C	Cleanroom class	Class 7 according to ISO 14644-1
Temperature of medium -5 °C 50 °C	Storage temperature	-5 °C 50 °C
·	Air quality class at the output	Compressed air as per ISO 8573-1:2010 [7:4:4]
Ambient temperature -5 °C 50 °C	Temperature of medium	-5 ℃ 50 ℃
	Ambient temperature	-5 °C 50 °C

Feature	Value
Product weight	207 g
Type of mounting	Optionally: Front panel mounting Line installation With accessories
Pneumatic connection 1	G1/4
Pneumatic connection 2	G1/4
Note on materials	RoHS-compliant
Seals material	NBR
Rotary knob material	POM
Material of spring	High-alloy stainless steel
Compressed air filter material	PE
Housing material	PA-reinforced
Material of bowl	PC
Valve tappet material	POM