## Water Separator Element-less specification AF20/30/40- $\square \square \square-\square-A-X 2729$

## The element-less specification eliminates the need for replacement.

## Water droplets are removed by centrifugal force.

Water droplet removal ratio: 99\%
At rated flow
(Based on SMC's measuring conditions)
Air containing water droplets is rotated to remove them by centrifugal force.


Better environmental resistance with 2-layer
construction

Connectable to modular F.R.L. units


Products do not come assembled. They should be ordered separately and assembled by the customer.

## Simple Specials System

Units with an F.R.L are available through the simple specials ordering system. The lead time is almost the same as the standard product.
Please contact your local sales representative for more details.

The bowl is covered with a transparent bowl guard!

* Body size 30 or more

Instead of windows on the bowl guard, the inner bowl is covered with a polycarbonate transparent bowl guard. Now, even if the environment changes and the bowl is exposed to corrosive chemical or oil splash, the foreign matter will not stick directly to the pressurized bowl. This reduces the risk of bowl breakage.

## Superior visibility

The status inside the bowl can be checked from all directions.


## Application example

Protection of pneumatic equipment in a machine tool


## Specifications

| Model | AF20-A-X2729 | AF30-A-X2729 | AF40-A-X2729 | AF40-06-A-X2729 |
| :---: | :---: | :---: | :---: | :---: |
| Port size | 1/8, 1/4 | 1/4, 3/8 | 1/4, 3/8, 1/2 | 3/4 |
| Fluid | Air |  |  |  |
| Proof pressure | 1.5 MPa |  |  |  |
| Max. operating pressure | 1.0 MPa |  |  |  |
| Ambient and fluid temperatures | -5 to $60^{\circ} \mathrm{C}$ (No freezing) |  |  |  |
| Water droplet removal ratio *1 | 99\% |  |  |  |
| Drain capacity [ $\mathrm{cm}^{3}$ ] | 8 | 25 | 45 | 45 |
| Rated flow [L/min (ANR)] *2 | 600 | 1400 | 2000 | 2000 |

*1 This shows the water droplet removal ratio at the rated flow rate under SMC's measuring conditions. This product can remove water droplets, but cannot remove other moisture content (water vapor). If the flow rate is less than the rated flow rate, the water droplet removal ratio will decrease.
*2 P1 = 0.7 MPa pressure. Be aware that when a fluid flows at a flow rate exceeding the rated flow rate, the accumulated condensate may be pulled up and may flow out to the outlet side.

* This product cannot remove any oil content or solid foreign objects.

How to Order Symbo: When more than one specificaiton is required, indicate in apharuumeric order.


|  | Port size |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Port <br> size | Body size |  |  |
|  |  | $\mathbf{3 0}$ | $\mathbf{4 0}$ |  |
| $\mathbf{0 1}$ | $1 / 8$ | $\bullet$ | - | - |
| 02 | $1 / 4$ | $\bullet$ |  | $\bullet$ |
| $\mathbf{0 3}$ | $3 / 8$ | - |  | $\bullet$ |
| $\mathbf{0 4}$ | $1 / 2$ | - | - | $\bullet$ |
| 06 | $3 / 4$ | - | - | $\bullet$ |

## Drain port* ${ }^{*}$



Flow direction

| Nil | Flow direction: Left to right | $\bullet$ | $\ominus$ | $\bullet$ |
| :---: | :--- | :---: | :---: | :---: |
| $\mathbf{R}$ | Flow direction: Right to left | $\bullet$ | $\bullet$ | $\bullet$ |
| $\mathbf{+}$ |  |  |  |  |

## Pressure unit

| Nil | Name plate and caution plate for bowl in SI units: MPa | $\bullet$ | $\bullet$ | $\ominus^{\bullet}$ |
| :---: | :--- | :---: | :---: | :---: |
| $\mathbf{Z}^{* 11}$ | Name plate and caution plate for bowl in imperial units: $\mathrm{psi},{ }^{\circ} \mathrm{F}$ | $\bigcirc^{* 12}$ | $\mathrm{O}^{* 12}$ | $\mathrm{O}^{* 12}$ |

- Mounting

|  | Nil | Without mounting option | $\bullet$ | $\bullet$ | $\bullet$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | B*3 | With bracket | $\bullet$ | $\bullet$ | $\bullet$ |
|  | Float type auto drain |  |  |  |  |
|  | Nil | Without auto drain | $\bullet$ | - | $\bullet$ |
|  | C*4 | N.C. (Normally closed) Drain port is closed when pressure is not applied. | $\bullet$ | $\bullet$ | $\bullet$ |
|  | D*5 | N.O. (Normally open) Drain port is open when pressure is not applied. | - | $\bullet$ | $\bullet$ |

*1 Drain guide is an NPT thread. The auto drain port comes with a $\varnothing 3 / 8$ " One-touch fitting (applicable to the AF30-A-X2729 and AF40-A-X2729).
*2 Drain guide is a G thread. The auto drain port comes with a $\varnothing 10$ One-touch fitting (applicable to the AF30-A-X2729 and AF40-A-X2729).
*3 Option B is not assembled and supplied loose at the time of shipment. Assembly consists of a bracket and 2 mounting screws.
*4 When pressure is not applied, condensate which does not start the auto drain mechanism will be left in the bowl. Releasing the residual condensate before ending operations for the day is recommended.
*5 If the compressor is small ( 0.75 kW , discharge flow is less than $100 \mathrm{~L} / \mathrm{min}$ [ANR]), air leakage from the drain cock may occur during the start of operations. The N.C. type is recommended.
*6 A bowl guard is provided as standard equipment (polycarbonate).
*7 A bowl guard is provided as standard equipment (nylon).
*8 The combination of float type auto drain C and D is not available.
*9 Without a valve function
*10 The combination of bowl 2 and 8 is not available.
*11 For pipe thread type: NPT
This product is for overseas use only according to the New Measurement Act. (The SI unit type is provided for use in Japan.)
*12 O: For pipe thread type: NPT only

Flow Rate Characteristics (Representative values)

AF20-02-A-X2729


## AF30-03-A-X2729



## AF40-06-A-X2729




| Model | AF20-A-X2729 |  |  |  | AF30 to 40-A-X2729 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Option Semi-standard specifications | With auto drain (N.C.) | Metal bowl | With drain guide | Metal bowl with drain guide | With auto drain (N.O./N.C.) |
| Dimensions |  |  |  |  | Thread type/NPT: $03 / 8$ " One-touch fiting |


| Model | AF30 to 40-A-X2729 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Option Semi-standard specifications | Metal bowl | Metal bowl with drain guide | Metal bowl with level gauge | Metal bowl with level gauge, with drain guide | With drain guide | Drain cock with barb fitting |
| Dimensions |  |  |  |  |  |  |


| Model | P | A | B | C | D | E | G | J |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AF20-A-X2729 | $1 / 8,1 / 4$ | 40 | 87.6 | 9.8 | 20 | - | 25 | 20 |
| AF30-A-X2729 | $1 / 4,3 / 8$ | 53 | 115.1 | 14 | 26.7 | 30 | 35 | 26.7 |
| AF40-A-X2729 | $1 / 4,3 / 8,1 / 2$ | 70 | 147.1 | 18 | 35.5 | 38.4 | 40 | 35.5 |
| AF40-06-A-X2729 | $3 / 4$ | 75 | 149.1 | 20 | 35.5 | 38.4 | 40 | 35.5 |


| Model | Bracket mount |  |  |  |  |  |  |  | With auto drain | With barb fitting | With drain guide | Metal bowl | Metal bowl with drain | Metal bowl with level | Metal bowl with level gauge, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M | N | Q | R | S | T | U | V | B | B | B | B | B | B | B |
| AF20-A-X2729 | 30 | 27 | 22 | 5.4 | 8.4 | 40 | 2.3 | 28 | 104.9 | - | 91.4 | 87.4 | 93.9 | - | - |
| AF30-A-X2729 | 41 | 35 | 23 | 6.5 | 13 | 53 | 2.3 | 30 | 156.8 | 123.6 | 121.9 | 117.6 | 122.1 | 137.6 | 142.1 |
| AF40-A-X2729 | 50 | 52 | 26 | 8.5 | 12.5 | 70 | 2.3 | 35 | 186.9 | 155.6 | 153.9 | 149.6 | 154.1 | 169.6 | 174.1 |
| AF40-06-A-X2729 | 50 | 52 | 25 | 8.5 | 12.5 | 70 | 2.3 | 34 | 188.9 | 157.6 | 155.9 | 151.6 | 156.1 | 171.6 | 176.1 |

