

## Overview Rotronic Filter and Filter Carriers

### DESCRIPTION

Filter carriers protect the humidity and temperature sensors against mechanical damage. Filters act as a protective barrier against contaminants/pollutants that can influence the sensor. When choosing the correct combination of filter carrier and filter there are many factors to consider. Specific conditions such as high air velocities, pollutants in the air, disinfection and cleaning routines, mechanical impacts, high bioactivity, condensation, airborne chemical contaminants and required response time are some of the many considerations.


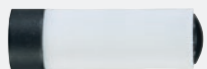

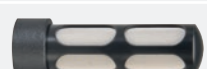


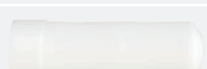



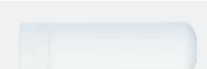

Plastic filter carrier	Metal filter carrier
<ul style="list-style-type: none"> <li>Maximum temperature 100 °C</li> <li>Mechanical protection</li> </ul> 	<ul style="list-style-type: none"> <li>Maximum temperature 200 °C</li> <li>Mechanical protection</li> </ul> 

Overview filters	Teflon filters	Polyethylene filters	Sintered steel filters (stainless steel)	Wire mesh filters (metal)
Maximum temperature (consider range of application of filter carrier)	200 °C	100 °C	200 °C	200 °C
Protection against particulates	✓✓	✓✓	✓	✓
Protection against abrasives in the air			✓✓✓	✓
Pore size	10 µm	40 µm	25 µm	10 µm
Max. air velocity [m/s] (continuous load)	50	50	70	50


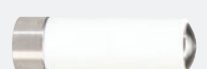
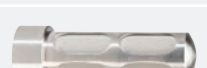

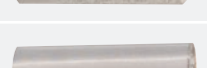
✓ = low    ✓✓ = medium    ✓✓✓ = high

Range of application (temp.)		Overview probes										
		-50...100 °C						-40...85°C	-100...200°C			
Probe		HC2A-S	HC2A-S3	HC2A-SH	HC2A-S3H	HC2A-S-HH	HC2A-SM	XD33A-S3X	HC2A-ICxxx	HC2A-ICxxx-A	HC2A-IMxxx-M	HC2A-IExxx
		-50...100 °C	SPA-PCB			✓				✓		
SPA-PCW				✓				✓				
-100...200°C	SPA-SS			✓			✓	✓			✓	
	SPA-PCB-PE			✓				✓				
-50...100 °C	SPA-PCB-PTFE			✓				✓				
	SPA-PCB-WM			✓				✓				
	SPA-PCW-PE			✓				✓				
	SPA-PCW-PTFE			✓				✓				
	SPA-PCW-WM			✓				✓				
	SPA-SS-PE			✓			✓	✓				
	SPA-PE			✓			✓	✓				
-100...200°C	SPA-SS-PTFE			✓			✓	✓			✓	
	SPA-SS-WM			✓			✓	✓			✓	
	SPA-SSS			✓			✓	✓			✓	
	SPA-WM			✓			✓	✓			✓	
	SPA-PTFE			✓			✓	✓			✓	



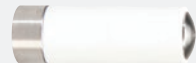

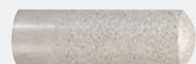

### HC2A-S / HC2A-S3 / HC2A-SH / HC2A-S3H / HC2A-S-HH / HC2A-SM

Order code	Filter carrier	Filter element	Pore size	Range of application	
SPA-PCB	Polycarbonate, black	No filter, only filter carrier		-50...100 °C	
SPA-PCB-PE		Polyethylene, white	40-50 µm		
SPA-PCB-PTFE		PTFE, white	10 µm		
SPA-PCB-WM		Wire mesh 1.4401	10 µm		
SPA-PCW	Polycarbonate, white	No filter, only filter carrier		-50...100 °C	
SPA-PCW-PE		Polyethylene, white	40-50 µm		
SPA-PCW-PTFE		PTFE, white	10 µm		
SPA-PCW-WM		Wire mesh 1.4401	10 µm		
SPA-PE	No filter carrier, only filter	Polyethylene, white	40-50 µm		
SPA-PTFE	No filter carrier, only filter	PTFE, white	10 µm	-100...200 °C	
<b>Particulate filter / Waterproof</b>					
SPA-POM-FD2	POM white	Teflon	2 µm	-50...100 °C	
SPA-PE-FD2	POM white	Polyethylene	2 µm		

### HC2A-IC / HC2A-IM / HC2A-IE

Order code	Filter carrier	Filter element	Pore size	Range of application	
SPA-SS	1.4301	No filter, only filter carrier		-100...200 °C	
SPA-SS-PTFE		PTFE, white	10 µm		
SPA-SS-WM		Wire mesh 1.4401	10 µm		
SPA-SSS	Filter carrier incl. filter	Sintered steel 1.4404	25 µm		
SPA-WM	No filter carrier, only filter	Wire mesh 1.4401	10 µm		

HC2A-SM

Order code	Filter carrier	Filter element	Pore size	Range of application	
SPA-SS	1.4301	No filter, only filter carrier		-50...100 °C	
SPA-SS-PE		Polyethylen, white	40–50 µm		
SPA-SS-PTFE		PTFE, white	10 µm		
SPA-SS-WM		Wire mesh 1.4401	10 µm		
SPA-SSS	Filter carrier incl. filter	Sintered steel 1.4404	25 µm	-100...200 °C	
SPA-WM	No filter carrier, only filter	Wire mesh 1.4401	10 µm		

**Note**

The range of application depends on the component with the smallest temperature range.