

# IonFree Generation I

## Ion exchange filter for fuel cells

---



# MANN+HUMMEL IonFree Generation I

## Ion exchange filter for fuel cells

### Functional description

- Protection against electrical shorts in the stack:**  
 IonFree keeps the conductivity of cooling liquid in fuel cells low through ion exchange technology
- Optimum protection:** high quality ion exchange resin regarding capacity and purity
- Easy to adapt:** different sizes, mounting positions, stud angles and stud types allow easy fit in almost every installation space
- Clean and easy service:** no loss of high quality coolant as only the cartridge needs to be replaced

Large variety of possibilities for you to configure our modular kit to fit your specific application.

Please refer to our ion exchange filter family OmniFlow designed for multiple industry segments and applications such as material handling equipment, stationary applications and many more.



Over 12 years experience with ion exchange filters



Open the website for more information about products for electrified powertrains from MANN+HUMMEL.



Watch the video of the ion exchange filter for fuel cell systems.



Visit our E-Mobility Onlineshop to check our offerings and buy directly.

MANN+HUMMEL memberships and partnerships in e-mobility and fuel cells:

Leadership in Filtration



# MANN+HUMMEL IonFree Generation I

## Ion exchange filter for fuel cells

### Technical specification

	Medium capacity	High capacity
Capacity (cation + anion)	820 meq	1,190 meq
Amount of brackets	1	2
Flow direction	Bottom up	
Mounting orientation	Vertical	
Connector	DIN 3021-A 26 or VDA coupling DN 20	
Ion exchange resin	1:1 mixed bed of anion and cation resin in OH <sup>-</sup> / H <sup>+</sup> form	
Max. pressure (absolute)	3.5 bar	
Operating temperature	-40 °C to +90 °C	
Electrical conductivity	< 5 µS/cm	
Pressure loss (@ 10 l/min, 90 °C)	< 240 mbar	< 420 mbar
Product weight	772 g	1103 g
Cartridge spare part order number	ION 7001	ION 7002

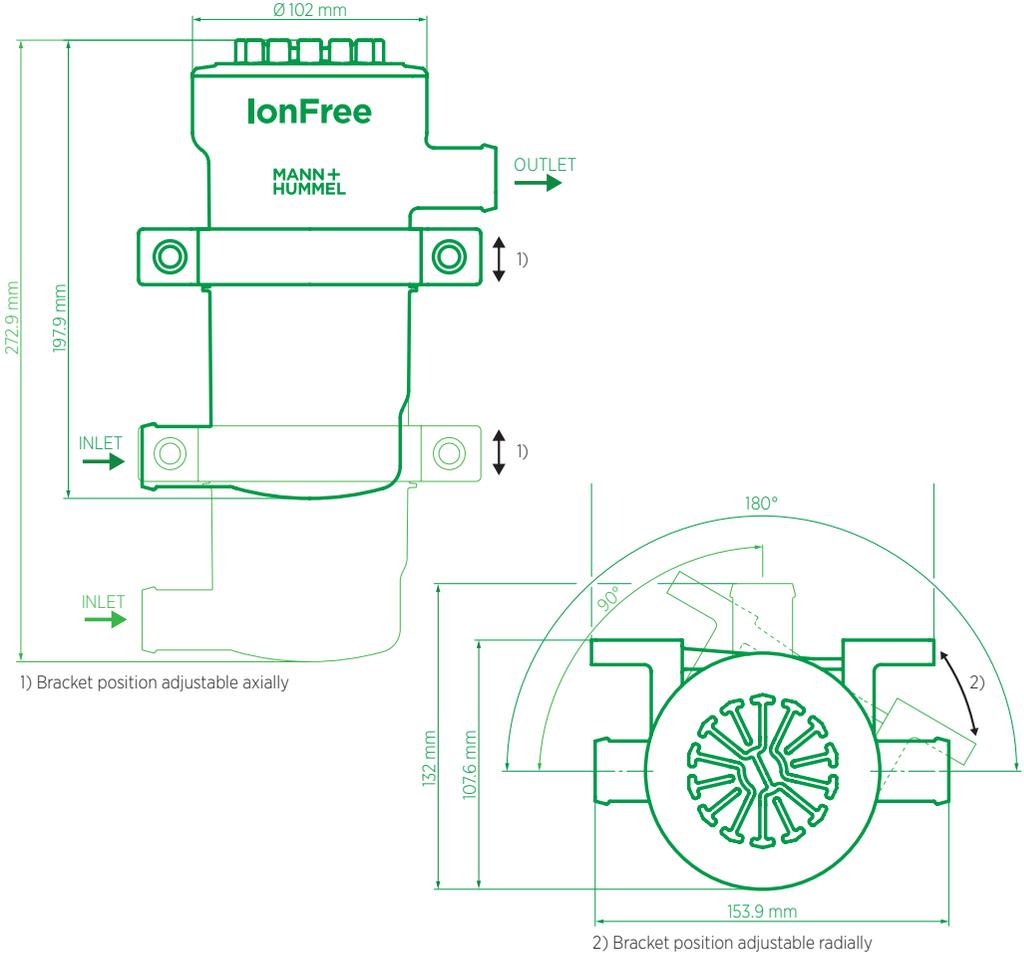


Replaceable with a 64 mm  
14 flutes wrench





### Dimensions



# MANN+HUMMEL IonFree Generation I

## Ion exchange filter for fuel cells

**Capacity**

	Passenger car	Heavy duty
Medium	820 meq	-
High	-	1,190 meq

**Stud type**

	Passenger car	Heavy duty
DIN 3021-A 26	✓	✓
VDA DN 20	✓	✓

**Stud angle**

	Passenger car	Heavy duty
180 degree	✓	✓
90 degree	✓	✓

**Your IonFree matrix code**

Example: Ion exchange filter for heavy duty applications with high capacity, VDA DN 20 stud and 180 degree angle.

<b>GenI-IF</b>	<b>2</b>	<b>2</b>	<b>1</b>
<b>Your IonFree matrix code</b>	<b>GenI-IF</b>		

**Matrix codes**

**Capacity**

1
2

**Stud type**

1
2

**Stud angle**

1
2



Medium capacity – Passenger car applications



High capacity – Heavy duty applications



Hose clamp studs according to DIN 3021-A 26



VDA coupling DN 20



180 degree angle



90 degree angle



## MANN+HUMMEL Contact

---

### **Sales**

Arnaud Champion  
Sales New Products  
arnaud.champion@mann-hummel.com  
Phone: +33 243 49-7987

### **Engineering**

Dr. Simon Leininger  
Development Ion Exchange Filter  
simon.leininger@mann-hummel.com  
Phone: +49 7141 98-2635