

Technical Data Sheet

Dräger X-plore® Rd90 Respiratory Filter

990 A1B1E1K1 Hg P3 R D



1.0 General Data	
1.1	Manufacturer Dräger Safety AG & Co. KGaA Revalstraße 1, D – 23 560 Luebeck, Germany
1.2	Designation 990 A1B1E1K1 Hg P3 R D
1.3	Dräger part no. 67 38 812
	EAN Code 4026056004737
1.4	Intended use Respiratory protection against gases, vapours and particles in conjunction with a specified face piece. Scope of protection as indicated by product documentation, technical standards and installed application rules.
1.5	Relevant standards DIN EN 14387: 2008
1.6	Certification EU type approval test certificate, granted by accredited and notified test institute IFA, Alte Heerstr. 111, 53757 St. Augustin, Germany

2.0 Design & Construction	
2.1	Connection to facepiece Thread connection Rd90 (Rd 91 mm x 1/7"), Dräger specific
2.2	Materials Filter housing: aluminium, coated inside Sorbents: activated carbon Particle filter: micro-glass fibres, cellulose-fibres, additives Label and seals: paper
2.3	Design The filter housing has a round shape and consists of the filter pot with the Rd90 thread outside. At the inhalation side the filter housing has integrated wholes. The filter includes one filter bed with activated carbon. It is fixed by the housing and internal sieves. The particle filter is positioned in front of the gas filtration parts. It is made of one part and has round folds. A particle tight connection between the particle filter and the housing is performed by butyl glue.
2.4	Working principle Gases and vapours are removed from the ambient air by adsorption onto the sorbent (activated carbon), particles are filtered by the micro-glass fibre filter.
2.5	Shelf life Max. 6 years (4+2)
2.6	Dimensions Outer diameter: 96.5 mm Height: 49.5 mm Volume of carbon: 175 ml
2.7	Weight excl. package: approx. 170 g

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3.0 Performance Data	(minimum data in accordance with standard)		
3.1 Particle filtration efficiency	Test aerosols:	sodium chloride, paraffin oil	
	Minimum efficiency:	99.95 % NaCl, 99.95 % paraffin oil	
3.2 Gas filtration capacity	Test conditions:	30 L/min flow rate, 70% rel. humidity	

Type	Test gas	Class	Concentration	Breakthrough	Min. duration
A	Cyclohexane (C ₆ H ₁₂)	1	1,000 ppm	10 ppm	70 min
B	Chlorine (Cl ₂)	1	1,000 ppm	0.5 ppm	20 min
	Hydrogen Sulphide (H ₂ S)	1	1,000 ppm	10 ppm	40 min
	Hydrogen Cyanide (HCN)	1	1,000 ppm	10 ppm	25 min
E	Sulphur Dioxide (SO ₂)	1	1,000 ppm	5 ppm	20 min
K	Ammonia (NH ₃)	1	1,000 ppm	25 ppm	50 min
Hg	Mercury Vapour (Hg)	one class only	13.1 mg/m ³	0.1 ppm	100 h Max. use time limited to 50 h (EN)

3.3 Breathing resistance	at 30 Liter/min, constant flow	2.2 mbar
	at 95 Liter/min, constant flow	8.2 mbar
3.4 Mechanical resistance	Resistant to shock and vibration as required by EN 14387	
3.5 Chemical resistance	For normal use conditions the filter is resistant against temperature, humidity and corrosives. The filter is internally resistant against the filtering agents (sorbents). Ingress of water or other liquids must be avoided.	

4.0 Documentation	
4.1 Markings	Label: marking includes colour coding in accordance with EN 14387, batch number, expiry date, approval number and indication on the instruction for use (sand clock symbol). Approval marking: CE 0158
4.2 Instructions for use	<p><u>Standard IFU with main languages:</u> English, French, German, Spanish, Portuguese, Italian, Norwegian, Swedish, Danish, Dutch, Greece, Turkish</p> <p><u>Additional IFU South-East Europe:</u> Bulgarian, Rumanian, Slovenian, Slovak, Czech, Hungarian</p> <p><u>Additional IFU North-East Europe:</u> Finnish, Estonian, Lithuanian, Latvian, Polish, Russian</p> <p><u>Additional IFU Asia:</u> Chinese</p>

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5.0 Packing & Packaging		
5.1	Package	Each filter is packed in an aluminium foil bag; the box is robust for normal transportation and storage, closed with factory label indicating designation, type of filter, batch number, expire date
5.2	Packaged units	5 filters per carton, incl. 1 standard IFU (additional IFU if required)

6.0 User Notes		
6.1	System usability	<p>Suitable for all half masks with Dräger specific thread Rd90 (Rd 91 mm x 1/7"), e.g. Dräger X-plore® 4790</p> <p>Extended use: In connection with the Dräger filter box 40/90 suitable for all positive tested (non power assisted) face pieces with a standard thread connection conforming to EN 148-1.</p>
6.2	Limitations	<p>The filter conforms to the minimum requirements of the standard indicated by the class and type of the filter it is marked with. It must be noted that laboratory values can differ from those measured in practice. This may result in longer or shorter break through times. The user must read and understand the instructions for use. Additionally the knowledge of all relevant application rules is mandatory (see in particular the limitations in use). Further information on request.</p>

Dräger Safety AG & Co. KGaA