

Technical Data Sheet

Dräger PARAT 3100 / 3200



1.0 General Data	
1.1	Manufacturer Dräger Safety AG & Co. KGaA, Revalstraße 1, D-23560 Lübeck, Germany
1.2	Designation/part-no. PARAT 3100 3704476 (EAN Code: 04026056122325) PARAT 3200 3704478 (EAN Code: 04026056122332)
1.3	Intended use For self-rescue from gases and vapors in the ambient air
1.4	Operating period 15 minutes, to escape from industrial gases
1.5	Relevant standards DIN 58647-7
1.6	Certification EU type-examination certificate issued by the accredited and notified Certification Body DEKRA Testing and Certification GmbH, Handwerkstraße 15, 70565 Stuttgart, Germany
1.7	Export approval No classification → no sales restrictions

2.0 Design & Construction	
2.1	Design
2.1.1	Design of complete unit PARAT 3100 Escape filter unit with half mask facepiece. The half mask with quick release fastener ensures safe donning and enables good communication. PARAT 3200 Escape filter unit with mouthpiece / nose clip assembly facepiece. Ensures optimum seal through extremely low leakage (mouthpiece assemblies might be unsuitable for persons with dental plates) Both units are sealed in a robust and ergonomic housing.
2.1.2	Design of filter ABEK15 The filter housing has a round shape and consists of a filter pot and a sieve. At the inhalation and the exhalation side the filter pot is equipped with a perforated plate. The filter pot contains a carbon filter bed which is firmly attached by the housing and the sieve.
2.2	Materials
2.2.1	Device materials Mouthpiece: NR (natural rubber) Half mask: CR (chloroprene rubber)
2.2.2	Case materials the same for PARAT 3100 and 3200. Cover: PMMA (Polymethylmethacrylate) Bottom: ASA (Acrylic ester styrene acrylonitrile) Clip: PK (Polyketone) Sealing tape: TPE (thermoplastic elastomer) Opening tab: PP (Polypropylene) Clyrell Seal: special plastic Label: PP (Polypropylene)

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2.2.3	Filter materials	Housing: Filter medium:	Aluminum impregnated carbon
2.3	Operating principle	Gases and vapors (no carbon monoxide (CO)) are filtered from the ambient air by adsorption on the carbon.	
2.4	Service life	12 years in total, exchange of filter after 4 years (see filter marking)	
2.5	Dimensions of complete unit		
2.5.1	Dimensions (incl. clip) (L x W x H)	PARAT 3100: PARAT 3200:	170 x 110 x 75 mm 170 x 110 x 60 mm
2.5.2	Weight	PARAT 3100: PARAT 3200:	approx. 360 g approx. 330 g

3.0 Performance Data					
3.1	Mechanical characteristics: according to DIN 58647-7				
3.2	Chemical resistance : When used under normal operating conditions, the filter is resistant to temperature, humidity, and corrosive substances. Ingress of water or other liquids must be avoided.				
3.3	ABEK15 filter capacity: according to DIN 58647-7				
		Test conditions (DIN 58647-7)		30 l/min, 70 % relative humidity, 20 °C	
	Type	Test gas	Concentration in ppm	Breakthrough in ppm	Minimum breakthrough time in min (class)
	A	Cyclohexane (C ₆ H ₁₂)	2,500	1.0	15
	B	Chlorine (Cl ₂)	2,500	0.5	15
	B	Hydrogen sulphide (H ₂ S)	2,500	10	15
	B	Hydrogen cyanide (HCN)	2,500	10	15
	E	Sulphur dioxide (SO ₂)	2,500	5.0	15
	K	Ammonia (NH ₃)	2,500	25	15
	B	Hydrogen sulphide (H ₂ S)	10,000 *)	20	5
*) For valuation of the penetration security of the gas filter, it is proofed with 10,000 ppm hydrogen sulfide.					
3.4	Breathing resistance (in acc. with DIN 58647-7)		Inhalation resistance: ≤ 8 mbar (at 95 l/min constant air flow rate)	Exhalation resistance: ≤ 5 mbar (at 95 l/min constant air flow rate)	

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4.0 Documentation and Packaging

4.1	Complete unit:	The complete unit including instructions for use is individually packed in a plastic bag. The Dräger label in the plastic bag contains the following markings: Device name, LOT no., expiry date, EAN code
4.2	Instructions for use	<u>Languages:</u> German, English, French, Spanish, Portuguese, Italian, Dutch, Danish, Finnish, Norwegian, Swedish, Estonian, Latvian, Lithuanian, Polish, Russian, Croatian, Slovenian, Slovak, Czech, Bulgarian, Romanian, Hungarian, Greek, Turkish

5.0 Accessories

5.1	Carrying options	<p>For carrying and fixing the PARAT 3100 / 3200, Dräger offers various options:</p> <p><u>Slip guard carabiner:</u></p> <p>The slip guard carabiner is a carrying option which fulfills two functions. First, the function of a carabiner hook. Secondly, it provides a drop safety for the unit. When carrying the PARAT 3000 on a belt clip, the slip guard carabiner can be hooked onto the belt loop and in case the unit dislodges from the belt, it remains attached to the user. The slip guard carabiner can be assembled on the belt clip of the PARAT 3000.</p> <p><u>Hand strap:</u></p> <p>The hand strap carrying option is optimal for short-term applications when a device needs to be accessed quickly. It allows users to carry the unit on their wrist. This option is especially popular among visitors who are on-site only for a short time. The hand strap can be assembled on the belt clip of the PARAT 3000.</p> <p><u>Shoulder strap:</u></p> <p>The shoulder strap is suitable for recurring operations where a device is quickly carried along and the user does not have a belt. The shoulder strap can be assembled on the belt clip of the PARAT 3000.</p> <p><u>Grip clip:</u></p> <p>The grip clip carrying option is intended for applications when a securely fastened clip is needed. With the grip clip, the device can be attached to work clothes or pockets. The grip clip can easily be assembled to the PARAT 3000 after removing the belt clip.</p>
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5.2 Training units

Dräger PARAT® 3100 (Training unit):

This training unit is designed for users who want to practice the use of the PARAT 3100 half mask escape device. The training unit includes an empty filter dummy, which can be hygienically cleaned after use. Additionally, the training unit is clearly marked as “For Training Only”.

Dräger PARAT® 3200 (Training unit):

This training unit is designed for users who want to practice the use of the PARAT 3200 mouthpiece escape device. The training unit includes an empty filter dummy, which can be hygienically cleaned after use. Additionally, the training unit is clearly marked as “For Training Only”.

6.0 Notes of the manufacturer and limitations

The devices conform 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.

Dräger Safety AG & Co. KGaA