Sigma-2 – Self Contained Breathing Apparatus

Technical Datasheet

Description

The Scott Sigma-2 is an open circuit, self-contained, compressed air breathing apparatus. It consists of a back plate, carrying harness and pneumatic system, consisting of a reducer with integrated cylinder connector, pressure gauge, whistle and demand valve.

The Sigma can be configured in a number of different ways with various sized single cylinders and the choice of Vision 3, Panaseal, Panavisor or Promask PP facemask.

Applications

The Sigma-2 is specifically designed as a Marine/Industrial Fire Fighting SCBA, but is also suitable for providing respiratory protection for any IDLH environment.

Approval Information

- CE marked in accordance with EN137:1998
- MED

Customer Services
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Materials

Pressure Reducing Valve	Nickel Plated Brass
Rust Tube (Sabre Cyls)	Brass
Reducing Valve Seat	Polyamide (Nylon)
O-Rings	Nitrile, Silicone, EPDM
Reducing Valve Springs	Stainless Steel
HP Pressure Gauge	Stainless Steel, Polycarbonate Lens
HP Pressure Gauge Cover	Neoprene
MP Air Supply Hose Fittings	Nickel Plated Brass
Facemask	Neoprene, Silicone or Procomp
Facemask Visor	Polycarbonate
MP Air Supply Hose	Chlorinated Polyethylene, fabric braid reinforcement, Nitrile liner
HP Air Hose	PTCFE liner, stainless steel braiding, Estane sleeve
Valve Handwheel (Sabre Cyls)	Glass filled Polyamide
Harness	Flame retardant polyester
Backplate	Glass & Carbon filled Nylon composite
Backpad	Flame retardant polyamide and closed cell Polyethylene foam
Cylinder Band	100% Kevlar
Strap Buckles	Flame retardant polyamide
Cylinder	Steel or Composite
Cylinder Valve	Nickel Plated Brass
Demand Valve Casing	Glass filled Polyacetal and Polyamide

Maintenance/Servicing/Cleaning

N.B. - Cleaning should only be carried out as specified in the user instructions.
Maintenance and Servicing must only be performed by trained personnel following the procedures in the Service and Maintenance manual.

Technical Specifications

Tempest Demand Valve

Compact positive pressure demand valve featuring servo-assisted, tilting diaphragm mechanism with low inspiratory resistance and responsive dynamic performance, automatic first breath actuation and hands free bypass facility. Components injection moulded from Polyamide and Acetyl with rubber seals and diaphragms.

First breath activation	-20 to -30 mbar
Peak flow performance	In excess of 500 litres/minute
Bypass flow	150 litres/minute nominal

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Static positive pressure	1.0 – 4.0 mbar

Reducing Valve

First stage pressure reducing valve featuring non-adjustable, spring loaded piston mechanism and outlet supply protected by pressure relief valve. Valve body and cap machined from nickel-plated brass with stainless steel spring and hose retainer U-clips.

Outlet pressure	
200 bar inlet	5.5 to 9.5 bar
300 bar inlet	6.0 to 11.0 bar
Pressure relief valve protected	Approx. 13.5 bar
Flow restrictor to gauge supply hose	<25 litres minute

Pressure Indicator & Warning Whistle

Bourdon tube type dial indicator
Heat and Impact resistant Polycarbonate lens
Safety blow-out vent in rear of gauge:-
Accuracy:- +/- 10 bar between 40-300 bar

Hoses

Stainless steel swivel hose fittings

Medium pressure hose	
Maximum working pressure	16 bar
Minimum burst pressure	80 bar
High pressure hose	
Maximum working pressure	450 bar
Minimum burst pressure	800 bar

Packing Specifications

Single	69x41x28cm	5kg

Weight/Dimensions

Single configuration (less cylinder)	2.3kg
Single configuration & facemask (less cylinder)	3.0kg
Length	600mm
Width	278mm
Depth (with 6.0 litre 200 bar cylinder)	200mm

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