

TECHNICAL DATASHEET

SIGMA ACSm SELF CONTAINED BREATHING APPARATUS



DESCRIPTION

The Scott Safety Sigma ACSm is an open circuit, self contained, compressed air breathing apparatus. It consists of a backplate, carrying harness and pneumatic system with a cylinder connector, reducer, pressure gauge, whistle and demand valve.

The Sigma ACSm can be configured in a number of different ways with various size single cylinders.

There are also a range of attachments available including Airline (AC), split demand valve coupling (SDC).

The Sigma ACSm is used in conjunction with a range of composite or steel cylinders and the choice of Vision 3 or Promask PP full face masks.

APPLICATIONS

The Sigma ACSm is designed as an Industrial SCBA, but is also suitable for providing respiratory protection

in any IDLH (Immediately Dangerous to Life and Health) environments.

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TECHNICAL SPECIFICATIONS

COMPONENTS	MATERIALS
Pressure Reducing Valve	Nickel Plated Brass
Rust Tube (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
Face mask	Neoprene, Silicone or Procomp
Face mask Visor	Polycarbonate
MP Air Supply Hose	EPDM Cover, Fabric braid reinforcement, EPDM Liner
HP Air Hose	PTCFE Liner, Stainless Steel braiding, Estane sleeve
Valve Handwheel (Sabre Cyls)	Glass filled Polyamide/TPE
Harness	Flame retardant Polyester
Backplate	Fabric covered Polyamide
Backpad	Flame retardant cross linked Polyolefin closed cell foam covered in a viscose aramid fabric
Cylinder Band	Flame retardant Polyester with velcro
Strap Buckles	Glass filled Polyamide
Cylinder	Steel or Composite
Cylinder Valve	Nickel Plated Brass
Demand Valve Casing	Glass Filled Polyamide

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 activation and hands free bypass facility components injection moulded from Polyamide with rubber seals and diaphragms.

TEMPEST DEMAND VALVE	
First Breath Activation	-20 to -30 mbar
Peak Flow Performance	In excess of 500 litres/minute
Bypass Flow	150 litres/minute nominal
Static Positive Pressure	10 - 4.0 mbar

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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 per minute

PRESSURE INDICATOR & WARNING WHISTLE

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

WEIGHTS

SCBA WEIGHT	
Single configuration (less cylinder)	2.08 kg
Single configuration with face mask (less cylinder)	2.70 kg
Length	565 mm
Width	260 mm
Depth (with 6.8 litre 200 bar cylinder)	230 mm

HOSE FITTINGS

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

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APPROVAL INFORMATION

The Sigma ACSm by Scott Safety is certified to AS/NZS 1716:2012.

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
2018412	Sigma ACSm SCBA - backplate, harness & pneumatics
013190	Promask PP Left Quick Fit (LQF) Full Face Mask
1118245RAV	Cylinder 6.8L 300 Bar Carbon Fibre (Right Angle Valve)
SCBACOMP6	Compliance Set Sigma ACSm with 6.8L 300 Bar Carbon Fibre Cylinder & Promask PP

* Hose, Cylinders and Face Masks sold separately

MAINTENANCE/CLEANING

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.

The ACS backplate is designed to be washed in a washing machine, please follow instruction on the care label.

STORAGE

The apparatus must be stored in a clean dry environment away from direct heat and sunlight. Storage temperature should not exceed -10°C to +40°C.

DISPOSAL

Decontaminated equipment should be dismantled and disposed of as solid waste. Empty cylinders should be treated as special waste and disposed of according to local and state guidelines.