accenture

Air safety solutions

Cabin products

Cabin products

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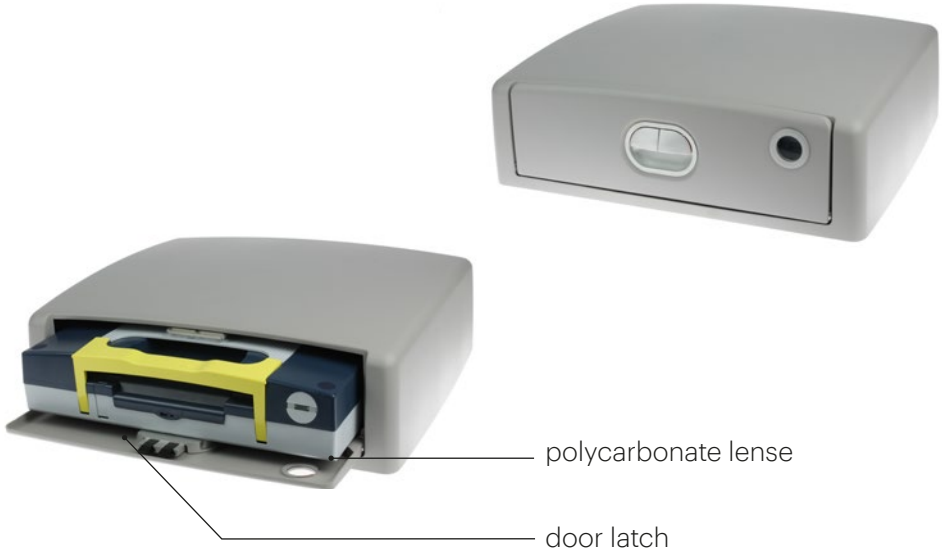
Adapter Plates Solutions

- In compliance with FAR/CS 25.853.
- In compliance with RTCA/DO-160G, environmental conditions and test procedures for airborne equipment.

Stowage box Protective Breathing Equipment (PBE)

P3APP000003_



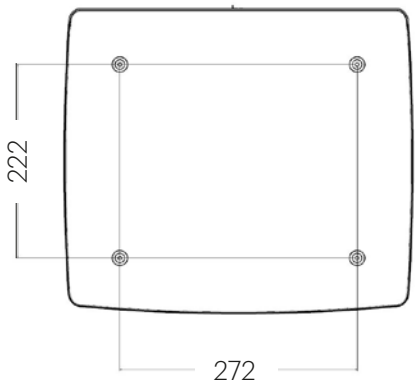
Technical features

- Lightweight composite stowage box
- Polycarbonate lense allows visual check of PBE status indicator
- Double latching door
- Fixable to any partition wall etc. with 4 screws
- Suitable for:
  B/E Aerospace E28180-20-0011 and Air Liquide 15-40F80

Main dimensions

Length: 400 mm
Width: 350 mm
Height: 125 mm
Weight (without equipment): 1,71 kg

Fixation points



Adapters for the Overhead Stowage Compartment

P3APP000070_ • P3APP000071_ • P3APP000072_

Technical features

- Composite stowage rack for emergency equipment
- Available in various options and sizes
- Any equipment fixable with straps and brackets inside the rack
- Adaptable for any overhead stowage compartment
- Suitable for:
  differrent equipment
  (e.g. First Aid Kit, Emergency Medical Kit, Fire Extinguisher, Megaphone)

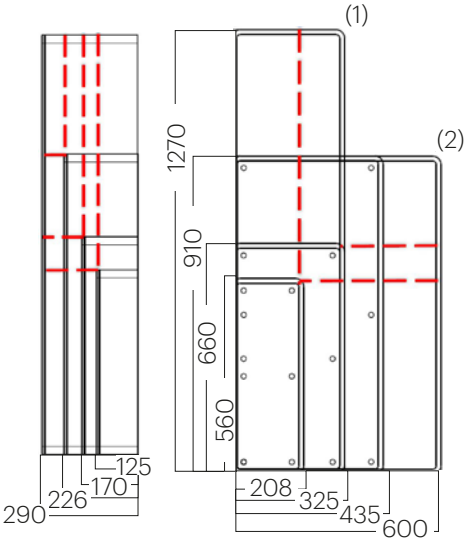
Fixation points

Rack and fixation points developed for AIRBUS A350XWB

Wallmounted Stowages

P3APP000100_ – P3APP000155_

Stowage dimensions



Technical features

- Modular composite stowage box
- Aluminium corner profile protects the stowage box against damage from trolleys
- Optional protective bumper on door available to protect the stowage box against damage from trolleys
- Optional polycarbonate window to allow visual check of equipment indicators i.e. pressure gauge on oxygen bottle
- Double latching door
- Suitable for: fire extinguisher, O2 bottle ...

Main dimensions

Minimum
Length: 125 mm
Width: 208 mm
Height: 560 mm
Weight*: 2,52 kg

Maximum 1
Length: 290 mm
Width: 325 mm
Height: 1270 mm
Weight*: 5,83 kg

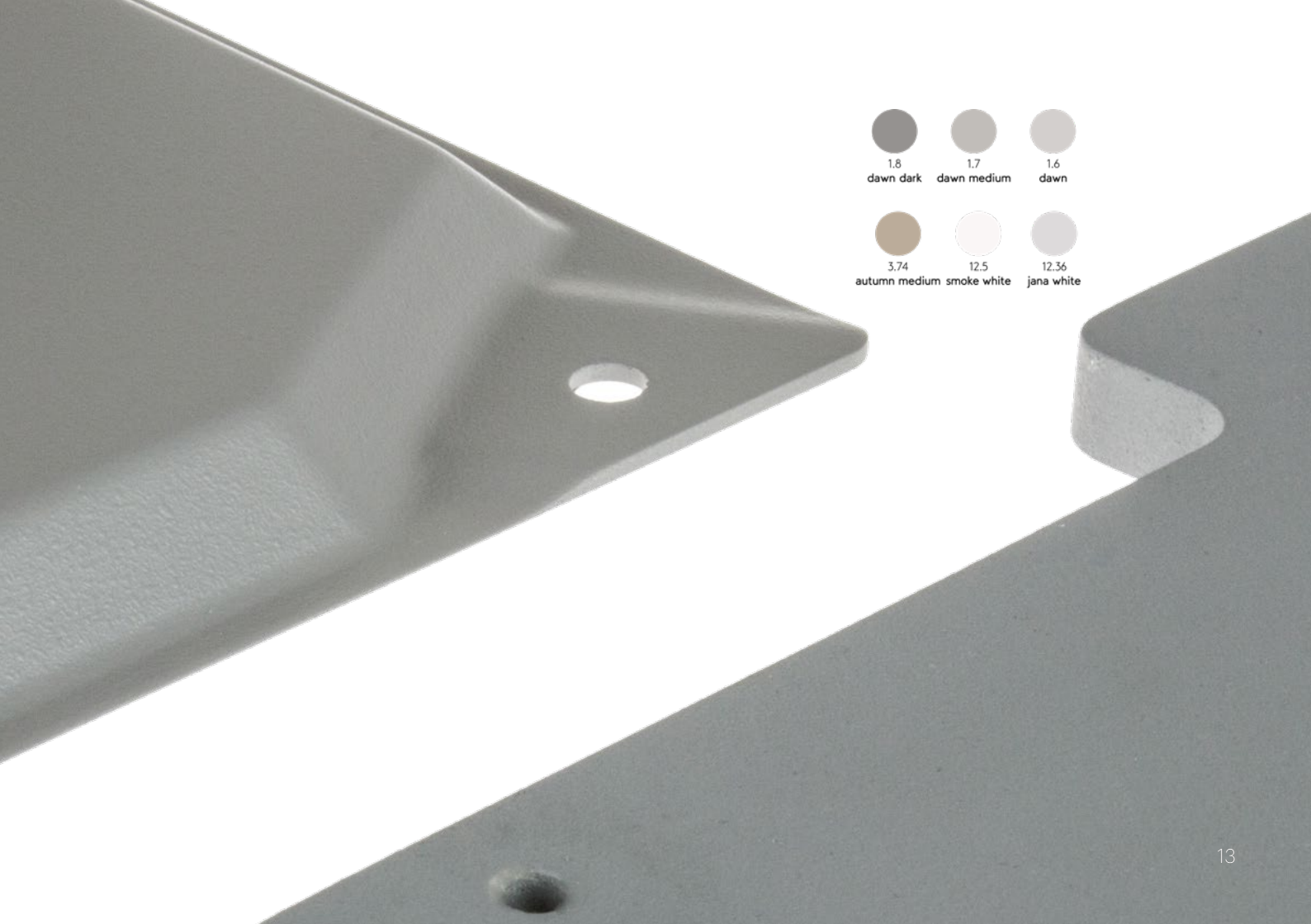
Maximum 2
Length: 290 mm
Width: 600 mm
Height: 910 mm
Weight*: 5,81 kg

*without equipment

Standard & Lightweight Design Adapters

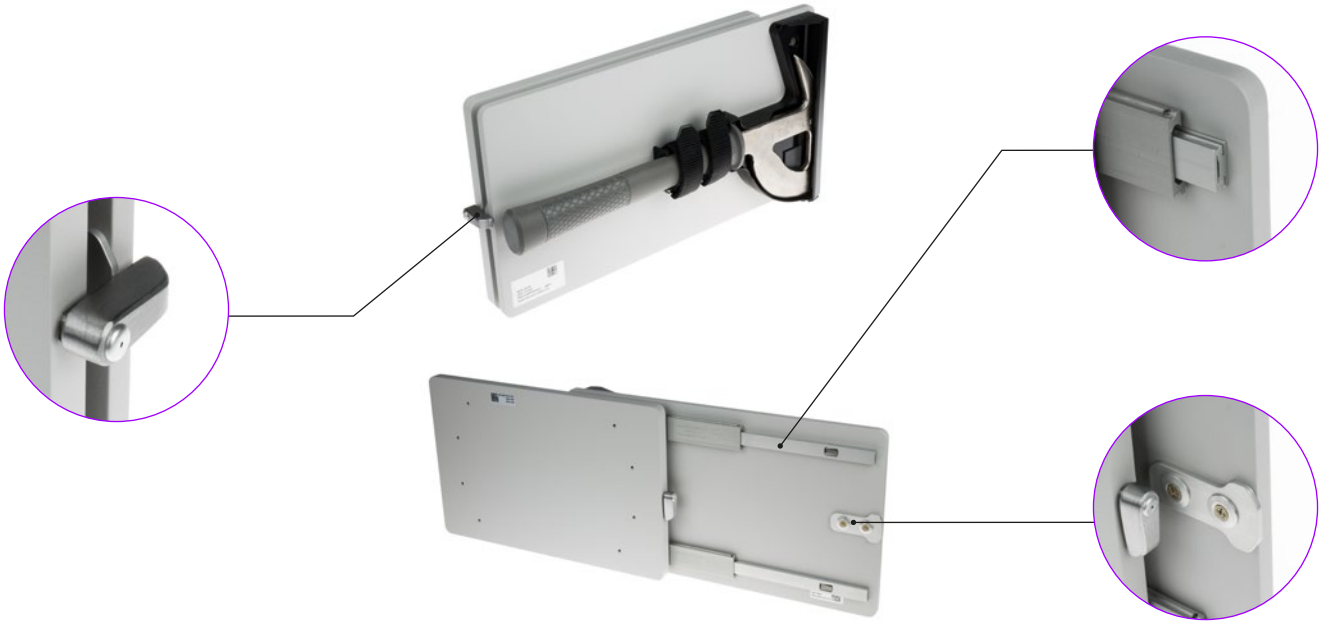
Technical features

- Lightweight composite adapter plate
- Up to 30% less weight compared to common composite adapter plates
- Different sizes and shapes for all purposes possible
- E.g. for doghouse, Cabin Attendant Seat and other compartments


1.8
dawn dark
1.7
dawn medium
1.6
dawn
3.74
autumn medium
12.5
smoke white
12.36
jana white

Sliding Adapter

P3APP000030_



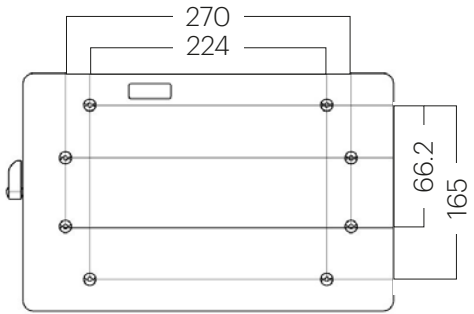
Technical features

- Sliding composite adapter plate assembly for easier removal of equipment from deep compartments
- Lockable with latch
- Stepless and noisless sliding
- Suitable for various aeronautic equipment

Main dimensions

Retracted
Length: 410 mm
Width: 225,3 mm
Height: 71,9 mm
Weight (without equipment): 1,39 kg

Fixation points



Brackets Solutions

- In compliance with FAR/CS 25.853
- In compliance with RTCA/DO-160G, environmental conditions and test procedures for airborne equipment

Bracket for Crash Axes

P3APP000005_

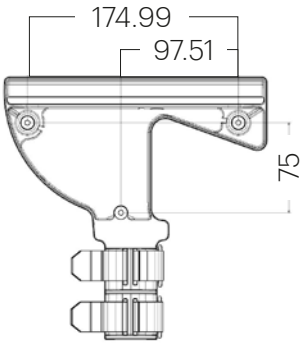
Technical features

- Lightweight injection moulded crash axe bracket
- Suitable for 4 crash axes, allowing a standard hole pattern whatever the OEM is
- Secure double latching
- Quick and easy release due to the use of hook and loop fastening straps
- Suitable for:
  Thales 680-0040-000
  Gemtor 42D8331 and 56D6221
  E.I.S Aircraft EIS76014-10000

Main dimensions

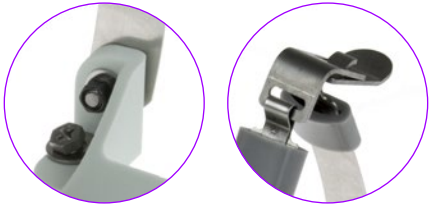
Length: 218,6 mm
Width: 218,1 mm
Height: 37 mm
Weight (without equipment): 0,154 kg

Fixation points



Brackets for Oxygen Cylinders

P3APP00008X_



Technical features

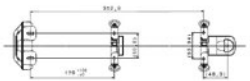
- Lightweight injection moulded oxygen bottle brackets
- Lowest installation height
- Upper bracket available with and without bottle neck support
- Variable clip postions possible
- Up to 35% lighter than competitor bracket
- Suitable for various aeronautic oxygen bottles

Bracket weights

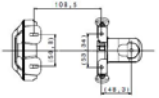
Lower: 0,032 kg
Center: 0,048 kg
Upper with NS*: 0,058 kg
Upper without NS*: 0,055 kg

*NS = Neck Support

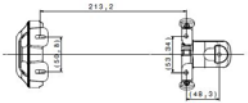
Fixation points



Holepattern for
11,0 cft oxygen bottle

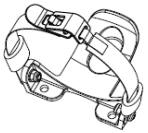
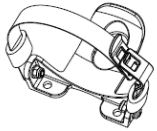
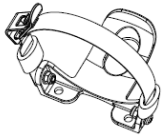
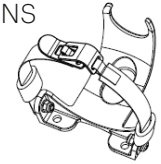
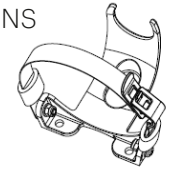
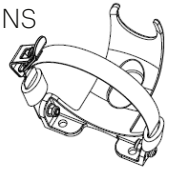
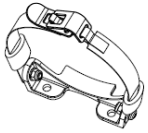
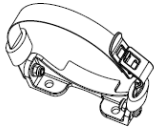
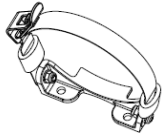


Holepattern for
4,25 cft oxygen bottle



Holepattern for
7,15 cft oxygen bottle

Clip positions

	clip center (c)	clip right (r)	clip left (l)
bracket oxygen upper	 P3APP0000080A	 P3APP0000081A	 P3APP0000082A
	NS  P3APP0000083A	NS  P3APP0000084A	NS  P3APP0000085A
bracket oxygen center	 P3APP0000086A	 P3APP0000087A	 P3APP0000088A
bracket oxygen lower	P3APP0000089A		

Bracket for Megaphones

P3APP0000093_

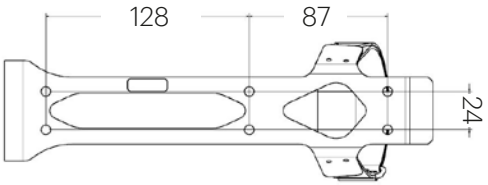
Technical features

- Aluminium bracket with hook and loop fastener
- Designed to accommodate various aeronautic megaphones

Main dimensions

Length: 269,5 mm
Width: 86,3 mm
Height: 91,4 mm
Weight (without equipment): 0,086 kg

Fixation points



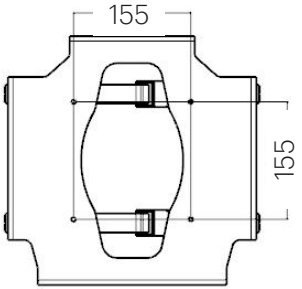
Bracket for Protective Breathing Equipment (PBE)

P3APP00000015_

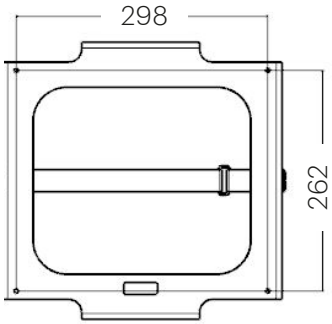
Technical features

- Aluminium bracket with strap
- Foam lined bracket ensures noiseless operation and snug fitting of equipment
- Suitable for:
  AVOX 802300-14
  BE Aerospace E28180-20-0001
  BE Aerospace E28180-20-0006
  BE Aerospace E28180-20-0011
  Air Liquide 15-40F11
  Air Liquide 15-40F80
  Puritan Bennett 119003-11

Fixation points



(Holepattern for all Airbus aircraft)



(Holepattern for Airbus A350)

Bracket PBE - Variants

P3APP000015C

Suitable for:
Air Liquide 15-40F11 & 15-40F80
B/E Aerospace E28180-20-0011
All Airbus Aircraft

Main dimensions:
Length: 337 mm
Width: 328,2 mm
Height: 88,3 mm
Weight (without equipment): 0,496 kg

P3APP000015D

Suitable for:
B/E Aerospace E28180-20-0001
B/E Aerospace E28180-20-0006
All Airbus Aircraft

Main dimensions:
Length: 272 mm
Width: 231,6 mm
Height: 138,3 mm
Weight (without equipment): 0,357 kg

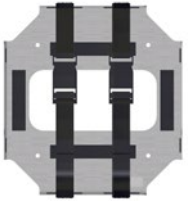
P3APP000015E

Suitable for:
AVOX 802300-14
All Airbus Aircraft

Main dimensions:
Length: 218,4 mm
Width: 246,5 mm
Height: 129,3 mm
Weight*: 0,287 kg

P3APP0000015P

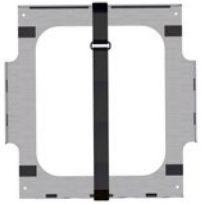
Suitable for:
Puritan Bennet 119003
All Airbus Aircraft



Main dimensions:
Length: 249,9 mm
Width: 274,5 mm
Height: 128,3 mm
Weight*: 0,374 kg

P3APP0000015J

Suitable for:
Air Liquide 15-40F11&15-40F80, B/E
Aerospace E28180-20-0011
All Airbus Aircraft

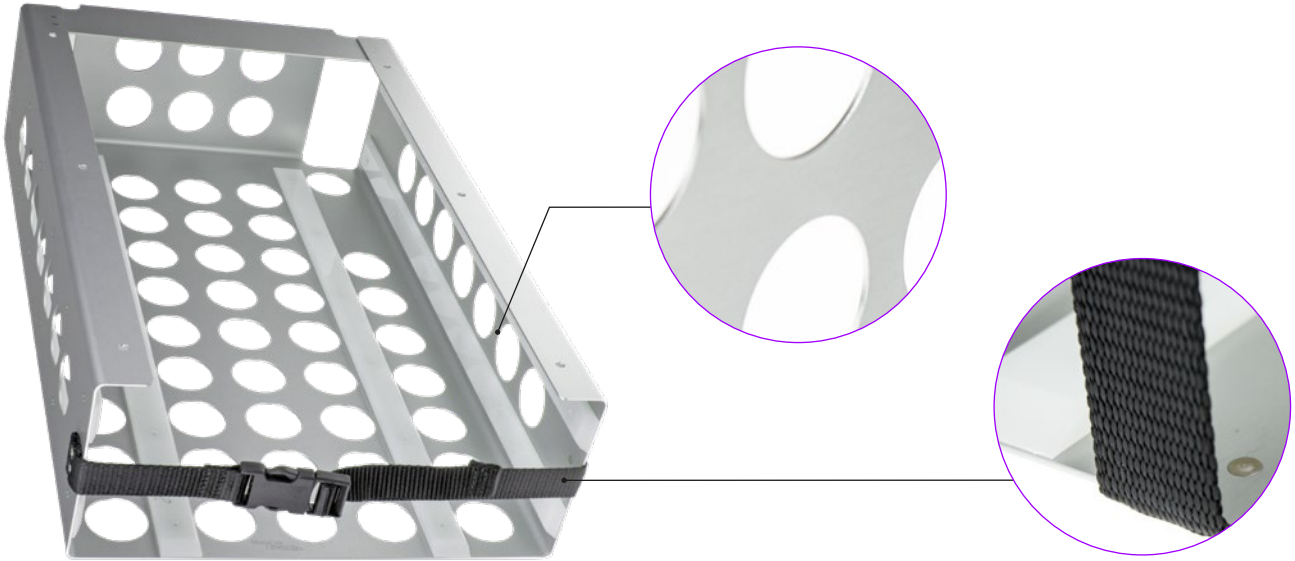


Main dimensions:
Length: 340,3 mm
Width: 329 mm
Height: 83,6 mm
Weight*: 0,497 kg

* without equipment

Bracket for Emergency Medical Kits

P3APP000175_



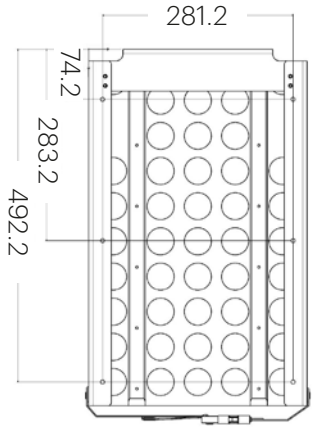
Technical features

- Aluminium casing to protect various equipment in overhead stowage compartment
- Attached sliding bars ensure easy removal of equipment
- Straps for varioux aeronautic equiment
- Suitable for various aeronautic equipment

Main dimensions

Length: 554,3 mm
Width: 328,8 mm
Height: 132,9 mm
Weight (without equipment): 1,82 kg

Fixation points



Fabric Solutions

- In compliance with FAR/CS 25.853
- In compliance with RTCA/DO-160G, environmental conditions and test procedures for airborne equipment

Pouch

P3PRT000006_ (3L) • P3PRT000018_ (6L) • P3PRT000024_ (12L)

Technical features

- High durable, non flamable material
- Organizes & protects loose (demo-) equipment
- Available in different sizes and printing

Straps

Strap with buckle female

P3PRT000042_

Strap with buckle male

P3PRT000041_

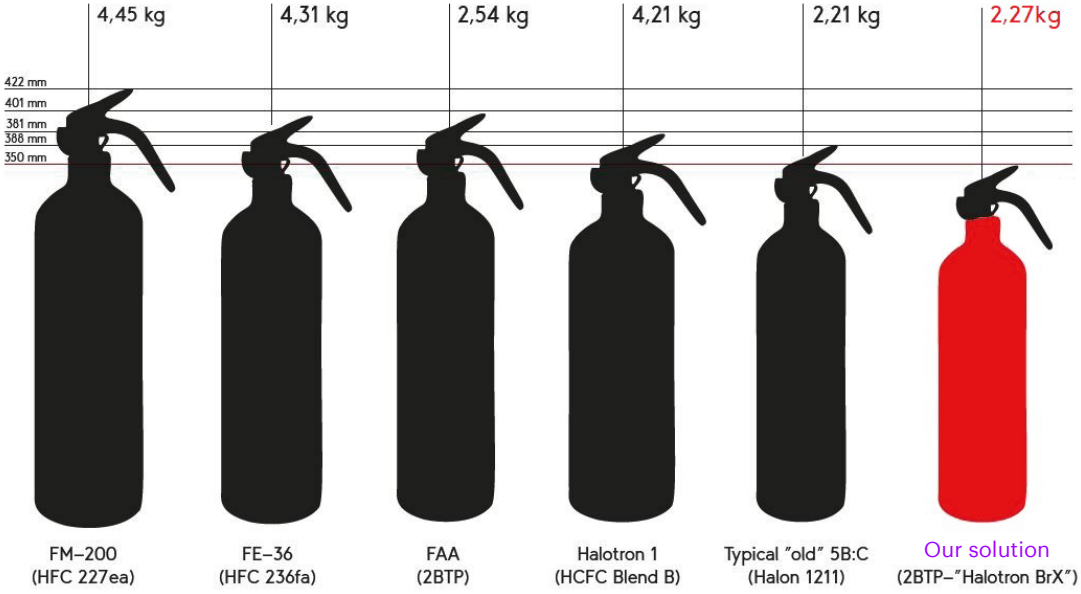
Straps available in different lenghts
with different screw kits.

Halon-free Fire Extinguisher

A minuscule, world first, custom fit, halon-free extinguisher for aircraft use.

Our solution

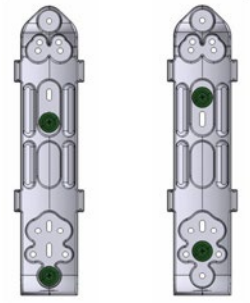
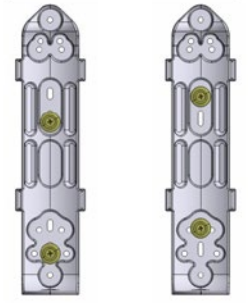
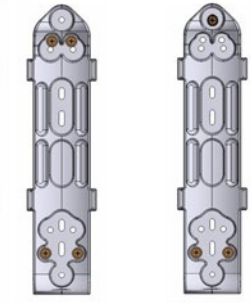
The smallest & lightest halon-free 5B:C aircraft use fire extinguisher



Easy retrofit

Easy retrofit due to different hole patterns and small size

Easy replacement of most actual available extinguishers due to different fixation possibilities and small space envelope.

TOTAL 74-20	FFE BA21741SR-5	SICLI MAIP H1-10 AIR	KIDDE 898052
			
Screw	NAS1102-08-xx / NAS1102-3-xx		NAS1802-03-xx
Washer	DAN125-4 / DAN 125-5		NAS1149D0332K

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Easy handling

01 Safety pin with seal, easy to identify if broken

02 Easy and intuitive one-handed operation (one control lever, no hose)

03 Easy to read UL-compliant pressure-gauge

04 RFID tag, easy to scan

05 Adjustable color coding for each country standard

06 Adjustable straps with rotable latch

07 Fast and intuitive to open latch-hooks

08 Easy retrofit bracket for multiple installation possibilities

09 Seamless deep drawn lightweight cylinder to ensure maximum pressure resistance

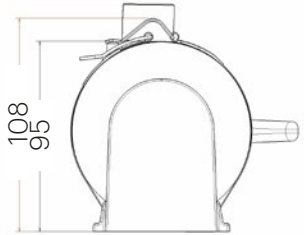
Fire extinguisher

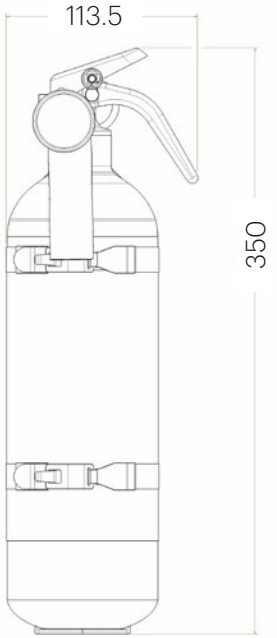
P3APP003010D

Customized brackets

Specification

Weight
Including 2-BTP
2,27kg
Including 2-BTP + Bracket
2,50kg





Change in extinguishing agent

Schedule for halon-free handheld fire extinguisher introduction on new large aircraft: Cut-off date new aircraft acc. to ICAO/EASA: 18. May 2019 Cut-off date retrofit acc. to EASA: 31. Dec 2025

Accenture solution
UL qualified

Qualification is in accordance with:
- UL 2129
- DOT/FAA/AR-01/37 MPS
- 2014/68/EU Pressure Equipment Directive

Fire classes:
- 5B:C as per UL 711
- 2B at -40°C
- Safely usable on fires of Personal Electronical Devices (PEDs) with Li-Ion batteries, allowed to be carried by passangers on board of an aircraft.

Fire Extinguisher Trainer

All airlines are obliged to train their crew for all new emergency equipment. We at Accenture can provide you with the newest training equipment for the widely installed halon-free fire extinguisher (P3APP003010D/E/F).

Our solution

- Our Fire Extinguisher Trainer has virtually an identical look and feel as our original halon-free fire extinguishers in order to simulate real usage and provide you with an optimal training experience.
- This is done by mostly using all original parts wherever possible. The Fire Extinguisher Trainer also has the identical geometric dimensions and a similar weight as the original halon-free fire extinguishers (P3APP003010D/E/F).
- Using compressed air, provided by a robust and easy to install filling station, we have replicated the discharge time, noise and feeling making your training experience as similar as possible to the real product.
- The stainless-steel design ensures longevity of the major parts so you can re-fill and reuse our trainer inside your classrooms or inside training mockups.
- Should something need replacing, we can easily provide you with the needed spare parts.

FIRE EXTINGUISHER
TRAINER
NOT FOR AC

Fire Extinguisher Trainer Air

P3APP007010B - FE Trainer Air UL

Filling Station Air

P3APP007100A - Filling Station Air

Technical features

- Extinguishing Agent:
  Compressed Air
- Operating pressure:
  ps = 130 psi (9 bar) at 20°C
- Test pressure:
  pT = 217 psi (15 bar)
- Burst resistance pressure:
  pr > 725 psi (50 bar)
- Operating temperature range:
  10°C ≤ T ≤ 50°C
  (50°F ≤ T ≤ 122°F)
- Survival temperature range:
  -20°C ≤ T ≤ 50°C
  (- 4°F ≤ T ≤ 122°F)

Main dimensions (FE Trainer Air UL)

Length: 112,7 mm
Width: 88 mm
Height: 344 mm
Weight: 2,70 kg

Main dimensions (Filling Station Air)

Length: 121 mm
Width: 118 mm
Height: 350 mm
Weight: 1,40 kg

01
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Product description

01 Pressure Gauge

02 Lever

03 Safety Pin

04 Neck Support

05 Bracket

06 Filling Station

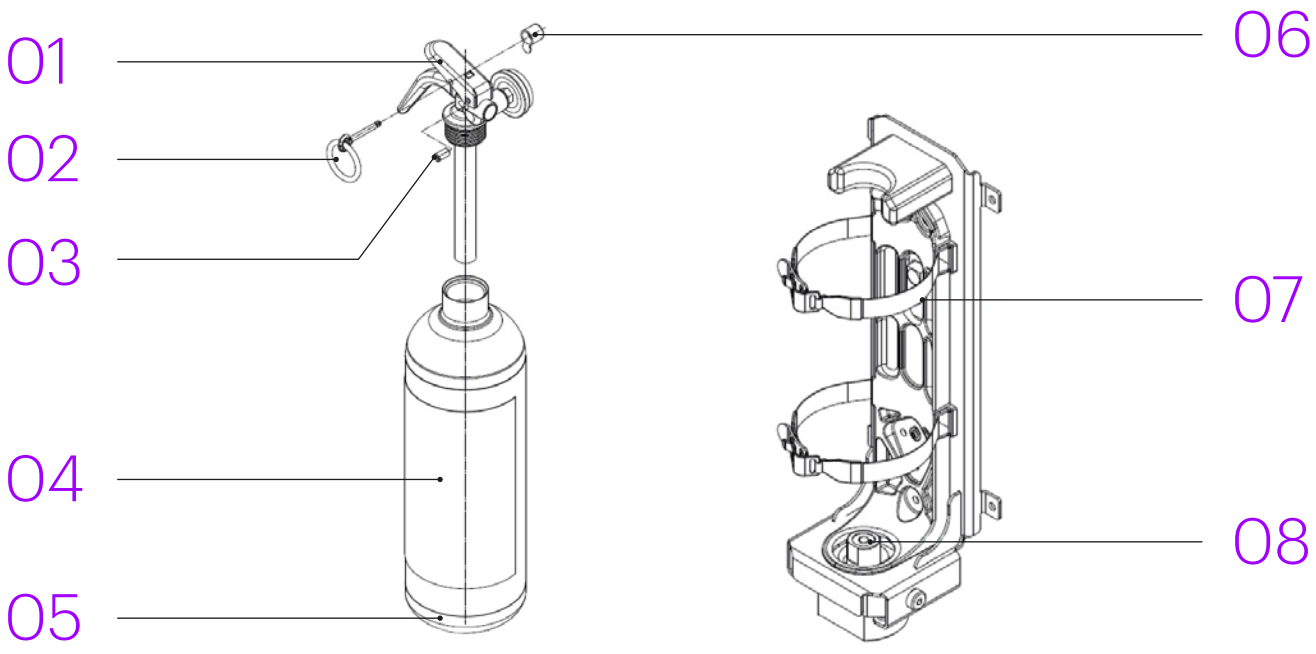
07 Straps

08 Label

09 Cylinder

10 Compressed air connection

Spare parts



01 Trainer Air Head UL
P3APP007011C

02 Safety Pin
P3PRT003090B

03 Set Screw
ISO 4766-M6x12

04 FE Trainer Main Label
P3PRT000003AC

05 Refilling Valve
FE Trainer Air UL

06 Safety Seal
P3PRT003091B

07 Strap
P3APP003041C

08 Refilling Valve
Filling Station Air

Seat to Seat Solutions

- In compliance with FAR/CS 25.853
- In compliance with RTCA/DO-160G, environmental conditions and test procedures for airborne equipment

Seat-to-Seat Cable Routing Provisions

Mini Raceway

Transversal Raceway

Technical features

- Enables flat floor concept for AIRBUS A350
- Light weight and high strength
- Easy installation and removal
- Cable routing directly under the seat
- Electrical and mechanical protection of cables against floor panels and seat fittings

Power Floor Disconnect Box Bridges

Emergency Light Floor Disconnect Box Bridges

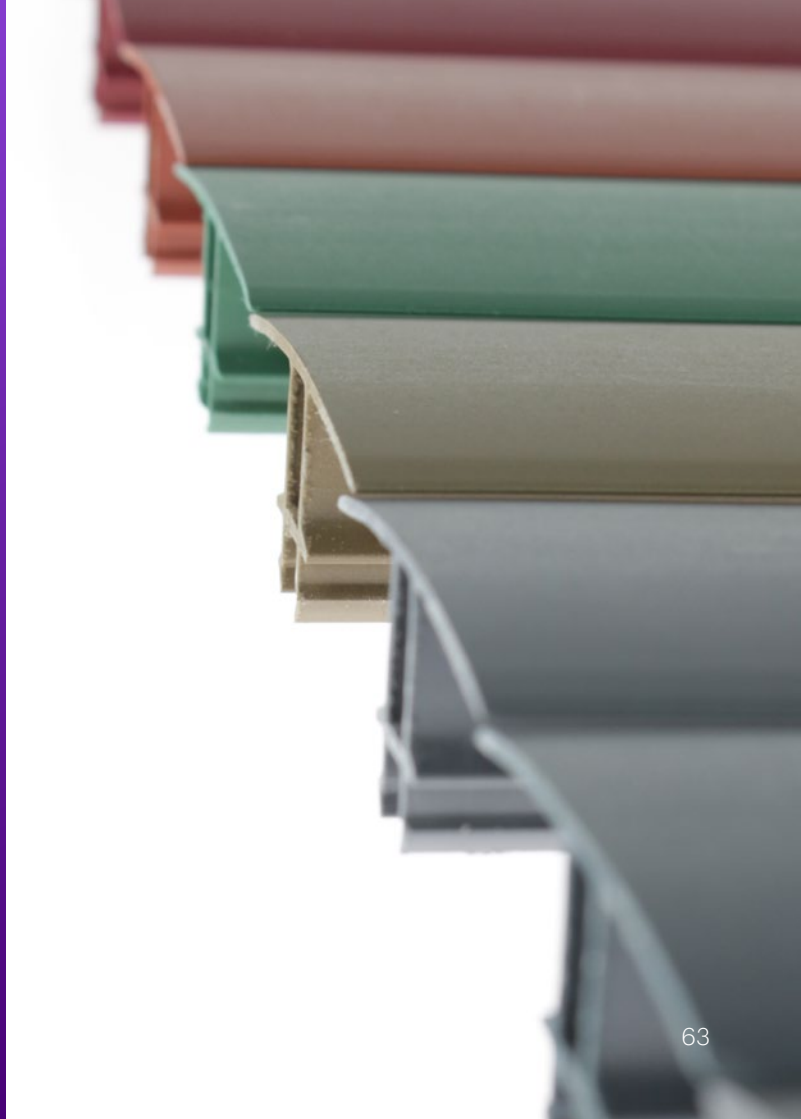
Floor Covering Parts

Seat Rail Cover Classic

Seat Rail Cover Flat

Technical features

- Enables flat floor concept
- Light weight and high strength
- Easy installation and removal
- Clip mechanism for fixation on seat rail



Supplementary Survival Kit (SSK)

A Supplementary Survival Kit is required according to Operational Requirements in CAA ANO Schedule 5, CAT.IDE.A.285 and CAT.IDE.A.305 if the airplane is operated over water or deserts in addition to the internal survival kit of the life raft.

It provides additional sugar, water, paddles and aerial flare accoording to the operated areas.

General unique selling points

Our SSK products are designed to satisfy all different aircraft programs' needs in the best way. All SSKs are assembled in Germany.

In general our products are designed for:

- Easy retrofit of existing fleet: 1:1 exchange possible (STC can also be provided by Accenture); same or less weight and dimensions
- Longer maintenance intervals (up to 5 years)
- Total cost of ownership reduction of up to 80% per aircraft
- Intuitive design of bag and contents for easy use indifficult situations

accenture
Supplementary Survival Kit
PLACE SUPPLEMENTARY SURVIVAL KIT AT DOOR
ATTACH SNAP HOOK TO SLIDE/RAFT
PRIOR TO RELEASING SLIDE/RAFT

Easy handling

01 The Label provides all information as readable information, QR-Code and RFID.

02 To ensure that all components are inside the SSK when needed, the bag is sealed by a tamper seal, which is destroyed when the bag is opened.

03 The bag provides two handles made of light weight and robust material. All attatchments to the bag are reinforced for all thinkable emergency scenarios.

04 The SSK must be attached to the life raft with a snap hook and a lanyard. This lanyard is attached to the bag and it is folded and tucked into a pocket. To simplify finding of the snap hook in an emergency case, we made this pocket transparent, so the snap hook is easily visible from the outside.

By selecting a wide lanyard, we added an extra function: the lanyard can be used as comfortable shoulder strap if it is necessary to carry the bag a longer distance.

A330 SSK Variants

Contents, weight and main dimensions

P3APP000510A
(Pump and Paddle Variant)
Length: 475 mm
Width: 190 mm
Height: 114 mm
Weight*: 5,7 kg

- Glucose Toffee Tablets (1,8 kg)
- Water Packs (1,3 Liters)
- Desalination Pump
- Telescopic Paddle
- Ground to Air Signal Card

Regulation: CAA UK compliant

P3APP000511A
(Desalination bag Variant)
Length: 280 mm
Width: 270 mm
Height: 70 mm
Weight*: 4,2 kg

- Glucose Tablets (1,6 kg)
- Water Packs (1,5 Liters)
- Desalination Bag
- Red Parachute Flare
- Ground to Air Signal Card

Regulation: EU OPS 1.830 compliant for standard flight route

P3APP000512A
(Pure Water Variant)
Length: 280 mm
Width: 255 mm
Height: 100 mm
Weight*: 5,4 kg

- Glucose Tablets (1,7 kg)
- Water Packs (2,7 Liters)
- Red Parachute Flare
- Ground to Air Signal Card

Regulation: EU OPS 1.830 & 1.835 compliant for standard flight route and flight route across desert areas

A350 SSK Variants

Contents, weight and main dimensions

P3APP000514A
(Dual Lane Variant)
Length: 310 mm
Width: 165 mm
Height: 115 mm
Weight (without equipment): 4,3 kg

- Glucose Toffee Tablets (1,7 kg)
- Water Packs (1,5 Liters)
- Desalination Bag
- Red Parachute Flare
- Ground to Air Signal Card

Regulation: EU OPS 1.830 & 1.835 compliant for standard flight route and flight route across desert areas

P3APP000515A
(Single Lane Variant)
Length: 280 mm
Width: 150 mm
Height: 100 mm
Weight (without equipment): 3,2 kg

- Glucose Tablets (0,8 kg)
- Water Packs (1,5 Liters)
- Desalination Bag
- Red Parachute Flare
- Ground to Air Signal Card

Regulation: EU OPS 1.830 & 1.835 compliant for standard flight route and flight route across desert areas

A380 SSK Variants

Contents, weight and main dimensions

P3APP000513A
(Light Variant)
Length: 260 mm
Width: 180 mm
Height: 100 mm
Weight*: 3,4 kg

- Glucose Tablets (1,6 kg)
- Water Packs (1 Liter)
- Desalination Bag
- Ground to Air Signal Card

Regulation: EU OPS 1.830 compliant for standard flight route

PED Safety Bag

Lithium-ion batteries are widely used in electronic devices carried by passengers on board your flights. However, in the event of a thermal runaway, these batteries can cause serious damage to the device and potentially lead to a fire and emergency landing.

That's where Accenture's solution comes in.

Some information upfront

The Portable Electronic Device (PED) Safety Bag is used to manage incidents caused by thermal runaway of lithium-ion batteries in PEDs like notebooks and smartphones to improve safety.

Lithium-ion battery thermal runaway occurs when a cell, or area within the cell, achieves elevated temperatures due to thermal / mechanical failure, internal / external short circuiting, and electrochemical abuse.

In case of a thermal runaway on a plane, the PED Safety Bag can be used to avoid delays or an emergency landing. It contains the heat and smoke and allows the flight to continue for six hours according to UL5800.

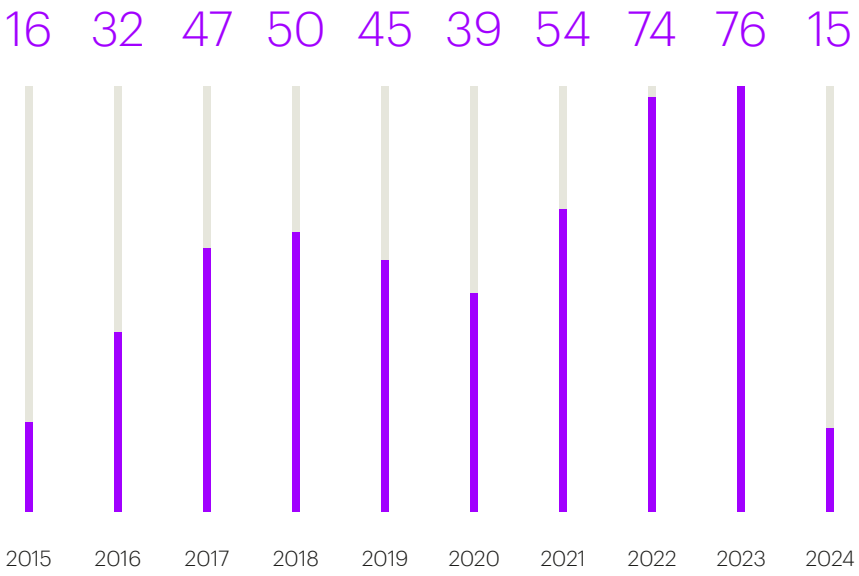
- Instructions by IATA, FAA, EASA for carriage of passenger's lithium-ion batteries onboard. Batteries of max. 160 Wh are allowed on board.
- Numbers of PEDs on board are increasing and so the risk of lithium-ion battery fires.
- UL Standard 5800 for PED Safety Devices was published in December 2020 to compare and categorize products and to define minimal standard safety requirements for PED Safety Devices.

522 total verified incidents

between March 2006 and April 2024 by the FAA.

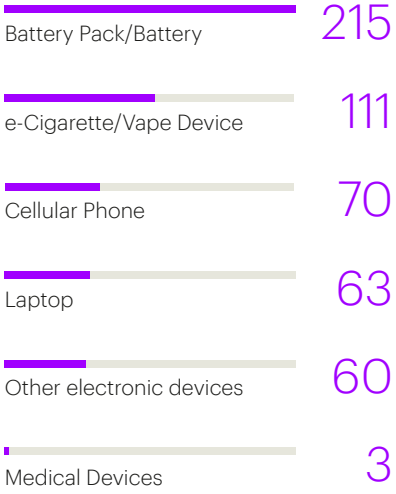
Verified incidents

Lithium battery incidents



Category

Since March 2006



Source: https://www.faa.gov/hazmat/resources/lithium_batteries/incidents

Overview of UL5800 classes

Standard for safety—Battery Fire & Smoke Containment Product

Many products are already on the market, but the quality and functionality are not comparable and not transparent for customers.

- UL Standard to compare and to categorize battery fire containment products
  Standard was published in December of 2020
- Members of the Committee:
  Airlines from the US and Canada,
  Boeing, and FAA representatives

Added value for Customers

due to standardized classification
comparison of products

UL Fire Classes	Representative capacity (Wh)	Number of cells (18650 format, 3300 mAh)	Examples for PEDs
Class 1	≤ 60	5	Laptop, mobile phone, e-cigarettes
Class 2	≤ 100	9	Large power banks and extra long-life workstation batteries
Class 3	≤ 160	14	Up to professional camera battery
Class 4	≤ 300	25	Batteries of mobility chair

Performance Level 1: all visible smoke is confined within the containment product

Performance Level 2: no more than 5m² of total smoke is released from the containment product

Example of a Lithium-ion Fire

The current procedures recommended by aviation authorities of handling the thermal runaway scenario

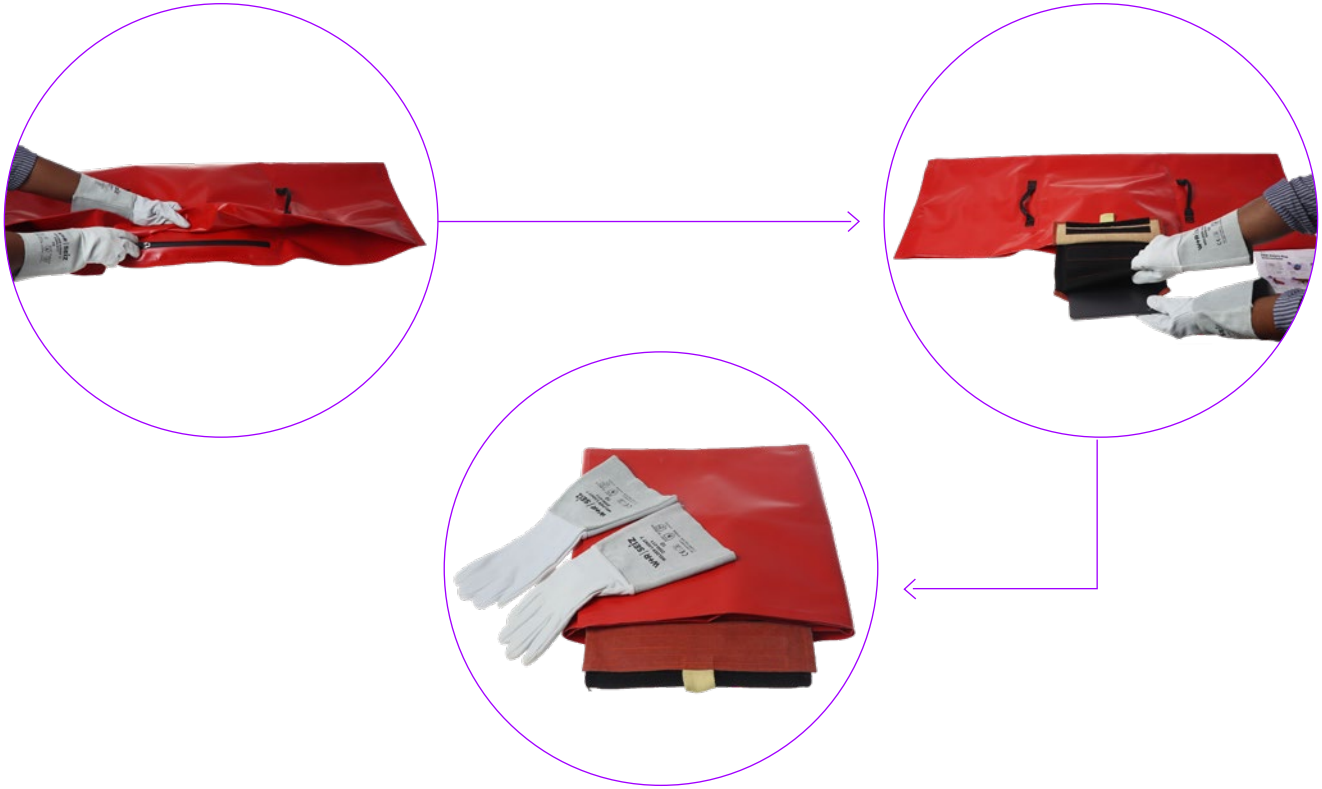
Risk of fire and smoke in the cabin, flight-safety not under control

The fire cannot be extinguished with water. Even when fully submerged, the fire keeps burning and smoke is released.

Our solution — The Accenture PED Safety Bag

Fire and smoke contained, flight-safety ensured

It contains the heat and smoke and allows the flight to continue for 6 hours according to UL5800.



Technical features

- UL5800 class 2 (100Wh) / UL5800 class 3 (160Wh)
- Performance level 1 compliant and qualified
- Fireproof up to 1200°C
- Explosion proof
- Total smoke and invincible gas containment
- Class 2: large enough for a 14-inch laptop
- Class 3: large enough for large power banks and power tool batteries
- Small enough to be able to store at standard stowage locations without additional fixation

Qualification and certification pending

- UL5800
- DO160
- Fireworthiness (CS/FAR25.853)

LED Flashlight

- Flashlight that meets all requirements of ARP1798 Rev B
- Utilizes commercially available battery cells in lieu of supplier specific custom battery cells
- Bracket with multiple interfaces, which fit different OEM / supplier interface points
- More efficient maintenance concept (longer interval + cheaper batteries)
- Battery indication integrated inside the flashlight

←出口 EXIT→

Design Features

Custom Colour Rings

Easily identifiable Battery Status and On-Off Button

Operates with three commercially available ‘AA’/LR6 Batteries

Bungy style wrist lanyard

RFID tag

- ATA Spec 2000 complaint RFID Tag
- Additional identification (no RFID) on bracket

Comparison with product of current market leader

Criteria	Accenture Flashlight	Competitor
SAE requirements	Yes	No
Maintenance costs (Battery Change)	Low	High
Maintenance interval	7 years	5 years
Battery indicator	In flashlight	In bracket

Criteria	Accenture Flashlight	Competitor
Energy source	Commercial off-the-shelf batteries	Supplier specific battery pack
Legacy cockpit support	Yes	No
Hole pattern support	Multi interface	Single interface
Operating temperature	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)
Candela	3000	2100
Operating time	5 hours	4 Hours
Operation	Manual On/Off Switch	Auto

Product Overview

Accenture Flashlight

Competitor

Size and Weight

240 g 260 g 650 g

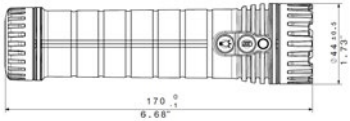
Industry / Government specifications

The following Industry and Government specifications that our Flashlight is compliant to:

Reference	Document	Document Title	Source
1	14 CFR Part 25	Airworthiness Standards: Transport Category Airplanes, Code of Federal Regulations	FAA
2	CS 25	Certification Specifications for Large Airplanes	EASA
3	ARP1798	Aerospace Recommended Practice for Portable Emergency Lighting Systems for Flight Crew Members	SAE Aerospace
4	RTCA-DO 160	Environmental Conditions and Test Procedures for Airborne Equipment	RTCA
5	MIL-STD-810	Environmental Engineering Considerations and Test Methods	DEPARTMENT OF DEFENCE

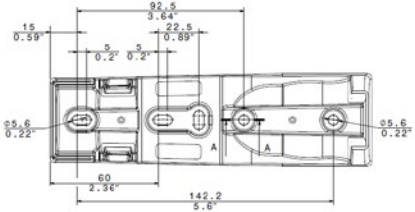
Technical Data

LED Flashlight



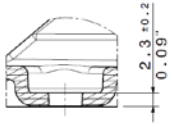
Part Number: P3APP005000A
Dimension: 170 x 44 mm
Weight: 180 g

LED Flashlight Bracket



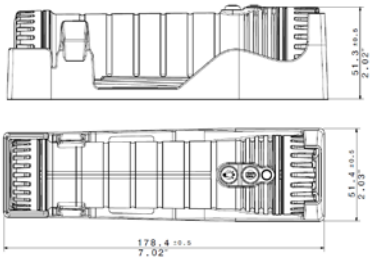
Part Number: P3APP005001A
Dimension: 178.4 x 51.4 mm
Weight: 60 g

Valid for all interface positions



Recommended Screw:
NAS 1801-08-*
NAS 1802-08-*
+ Washer:
NAS1149*N832

LED Flashlight
LED Flashlight Bracket



Part Number: P3APP005000A / P3APP005001A
Dimension: 178.4 x 51.4 x 51.3mm
Weight: 240 g

About Accenture

Accenture is a leading global professional services company that helps the world's leading businesses, governments and other organizations build their digital core, optimize their operations, accelerate revenue growth and enhance citizen services—creating tangible value at speed and scale. We are a talent and innovation led company with 738,000 people serving clients in more than 120 countries. Technology is at the core of change today, and we are one of the world's leaders in helping drive that change, with strong ecosystem relationships. We combine our strength in technology with unmatched industry experience, functional expertise and global delivery capability. We are uniquely able to deliver tangible outcomes because of our broad range of services, solutions and assets across Strategy & Consulting, Technology, Operations, Industry X and Accenture Song. These capabilities, together with our culture of shared success and commitment to creating 360° value, enable us to help our clients succeed and build trusted, lasting relationships. We measure our success by the 360° value we create for our clients, each other, our shareholders, partners and communities. **Visit us at accenture.com**.

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