

	FIRE PROTECTION		1.26.50	P 1
	CARGO COMPARTMENTS		SEQ 001	REV 17

SMOKE DETECTION

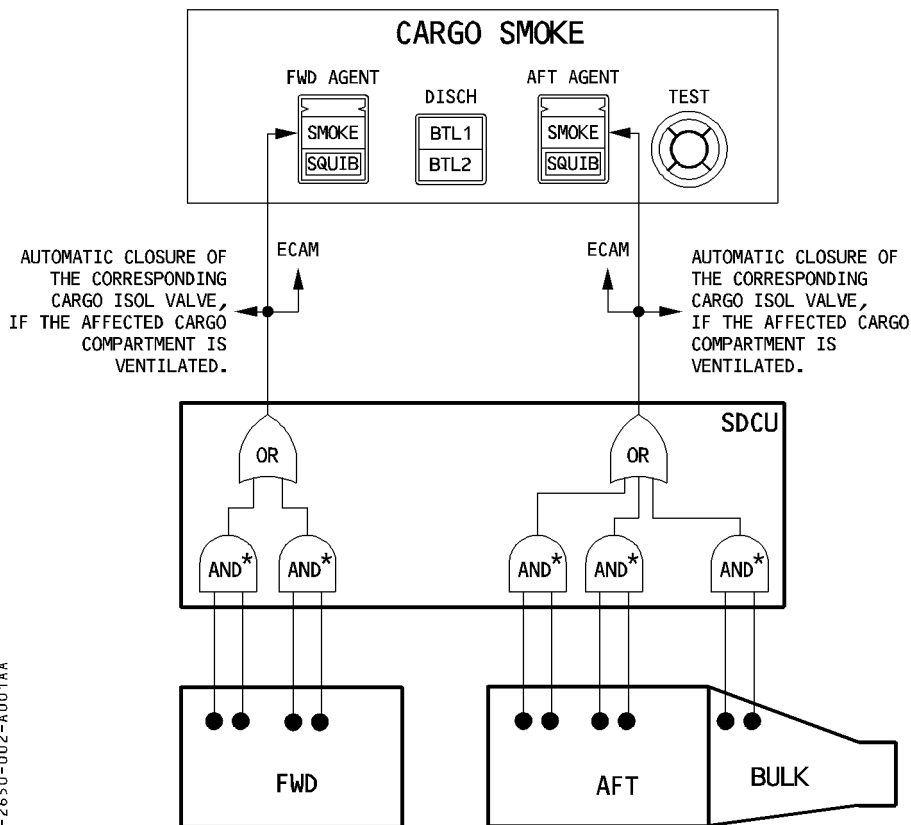
The cargo compartments have a smoke detection system.

- Cavities in the cargo compartment ceiling panels hold smoke detectors (ionization type). Each cavity has two smoke detectors, and each detector is linked to one of the two detection loops (dual loop principle).
- The forward cargo compartment has two cavities.
- The bulk cargo compartment has one cavity.
- The aft cargo compartment has two cavities.
- The Smoke Detection Control Unit (SDCU) receives signals from the detectors and transmits them to ECAM, which displays a warning in the cockpit. The SDCU has two identical channels.

Smoke in one cavity activates the cargo smoke warning, if :

- Both smoke detectors detect it, or
- One smoke detector detects it, and the other is inoperative.

When the cargo smoke warning is activated, the isolation valves of this compartment close automatically and the extraction fan stops, if the affected compartment is ventilated.



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* { "AND" LOGIC, IF BOTH DETECTORS ARE OPERATIVE
"OR" LOGIC, IF EITHER DETECTOR IS INOPERATIVE

FIRE EXTINGUISHING

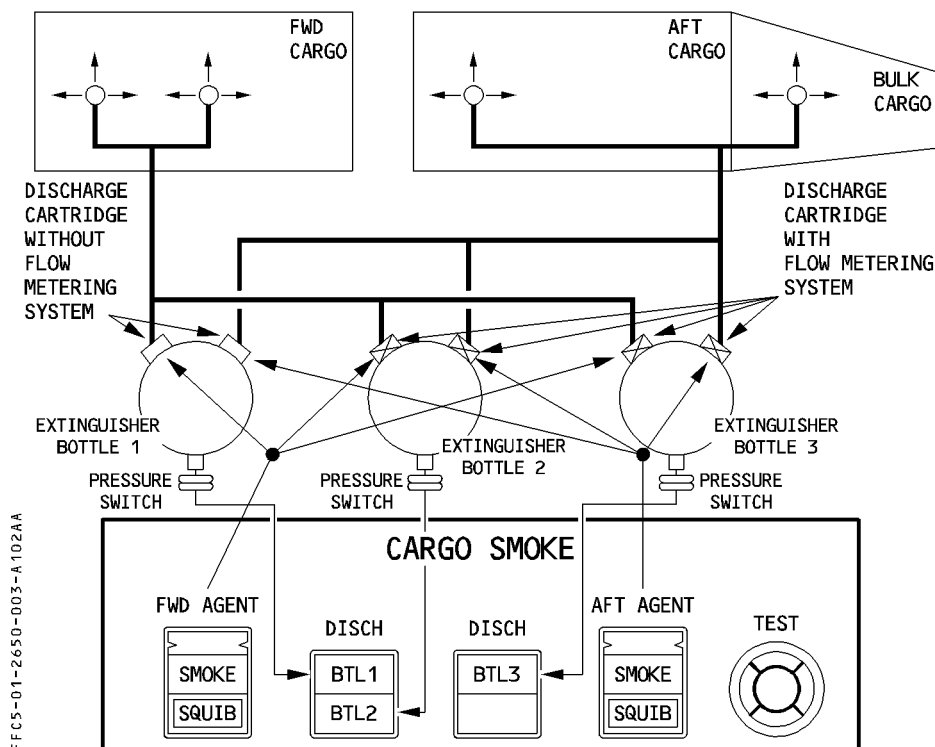
A fire extinguishing system protects the cargo compartments. Three fire extinguishing bottles are installed, and their contents can either be discharged into the FWD or the AFT (including BULK) cargo compartment. Each bottle has two discharge heads, one for each compartment.

Pressing the AGENT pushbutton, associated with the FWD (AFT / BULK) compartment, ignites the squib of the three bottles, and Bottle 1 discharges the extinguishing agent into that compartment, which takes about 60 seconds.

As the discharge cartridge of Bottles 2 and 3 is comprised of a flow metering system, the fire extinguishing agent slowly discharges in the compartment, to ensure sufficient agent concentration for 120 minutes.

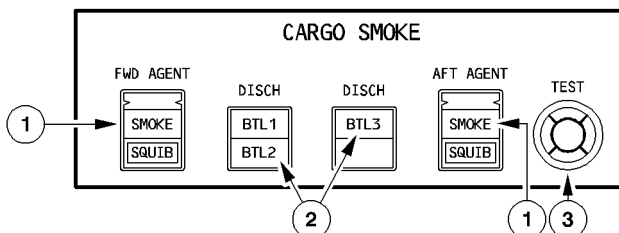
The SDCU monitors squib integrity and bottle pressure.

When Bottle 1 (2) (3) are discharged, BTL 1 (BTL 2) (BLT 3) lights come on white.



CONTROLS AND INDICATORS

OVERHEAD PANEL



① FWD (AFT) AGENT pb

Pressing this pushbutton ignites the associated squib to discharge the extinguishing agent in the respective compartment (FWD or AFT).

The SMOKE light comes on red, and the ECAM displays a warning, when the system detects smoke in the indicated compartment.

In case of a positive test, the SQUIB light comes on white.

② DISCH Lt

The BTL1, BTL2, or BTL 3 light comes on amber, when the associated bottle has discharged.

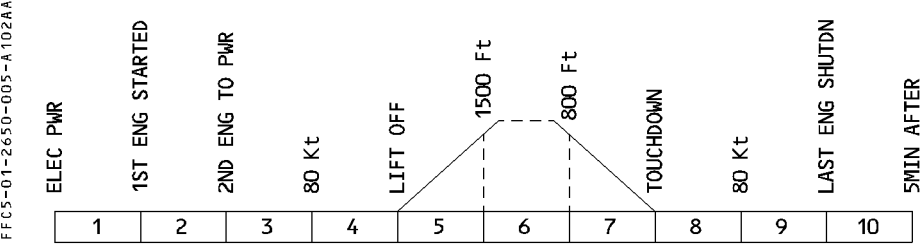
③ TEST pb

Pressing this pushbutton for at least 3 seconds, and until it is released :

- Tests the smoke detectors in sequence,
- Turns on the amber BTL lights,
- Closes the ventilation system's isolation valves.
- Turns on the white SQUIB lights, if one of the two SQUIB filaments is serviceable,
- Turns on the red SMOKE lights (AFT, FWD, CARGO and AVNCS), displays the ECAM warnings, and a continuous respective chime sounds.

Note : Each SDCU channel sounds its own warning, which lasts about 25 seconds, with a delay of about 30 seconds in between.

WARNINGS AND CAUTIONS



E / WD: FAILURE TITLE conditions	AURAL WARNING	MASTER LIGHT	SD PAGE CALLED	LOCAL WARNING	FLT PHASE INHIB	
FWD (AFT/BULK) CARGO SMOKE Smoke detected in the corresponding cargo.	CRC	MASTER WARN	NIL	SMOKE lit on CARGO SMOKE	4, 5, 7, 8	
DET FAULT Both SDCU channels fail or Loss of all smoke detectors.	SINGLE CHIME	MASTER CAUT		NIL	NIL	3, 4, 5, 7, 8
FWD (AFT) CRG BTL 1 (2)(3) FAULT Loss of FWD or AFT bottle 1(2)(3).						4, 5, 7, 8
FWD (AFT/BULK) CRG DET FAULT Loss of smoke detection in the corresponding cargo.	NIL	NIL				3, 4, 5, 7, 8