

Vertical Speed Indicator

- 3 inch Vertical Speed Indicator
Type 4A16



General

The Vertical Speed Indicators (VSI) measure the rate of climb of the aircraft in terms of feet per minute (FPM) or meters per second (m/s). It is used to maintain level flight and to determine the rate of climb or descent. A high performance mechanism transmits the pressure differential to a pointer deflection. All instruments are offered customer-specific (see type designation) and are mounted for easy servicing.

Application

The 3 inch Vertical Speed Indicators are installed as primary instruments in civil and military aircraft. Users benefit from a high level of precision and reliability.

Characteristics

Indication

A pointer indicates vertical speed on a fixed dial.

Zero Adjustment

Zero adjustment, used to compensate internal stresses in the mechanism, is operated by turning the whole mechanism frame in relation to the case/dial assembly.

Case

The SATHOM Vertical Speed Indicators are installed in lightweight aluminum ARINC, Square or Round plastic cases.

Lighting

Lighting is offered in different voltages and different colors. All instruments are available in NVG-compatible lighting.

Glass

All instruments with lighting are equipped with antireflective coated glass in compliance with MIL-C-14806.

Static Pressure Connector

Static pressure connectors are in compliance with MS 33649.

Electrical Connector

A 3-pin connector is installed in all lighted indicators. The standard connectors meet all the requirements of MIL-E-5400.

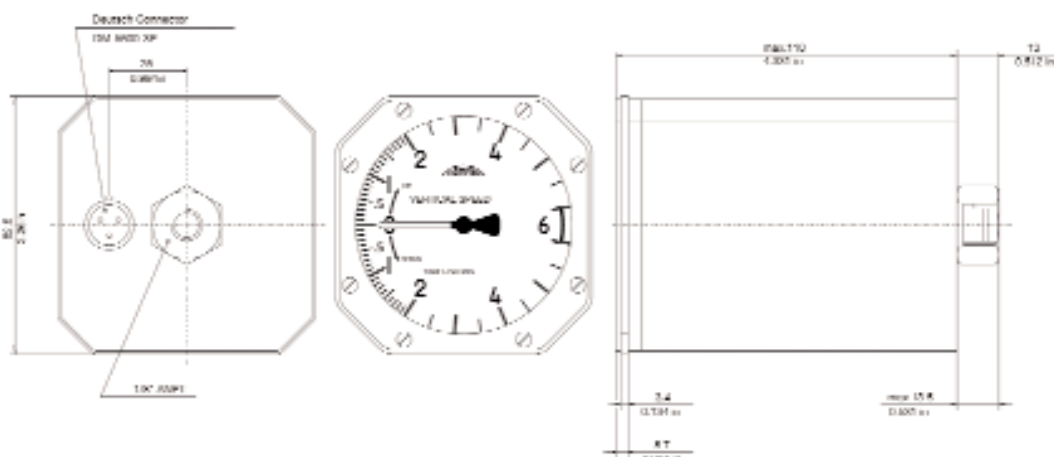
Type Designation

4A16.	Vertical Speed Indicator (VSI)
.10.	Round Case Black, Bezel with Lip
.30.	ARINC Case 408 3ATI Black
.40.	ARINC Case 408 3ATI Grey
.50.	Square Case Black
.60.	Square Case Grey
.70.	Round Case Black, Bezel without Lip
.01.	Dial Markings are Fluorescent White
.02.	Dial Markings are Lusterless White
.03.	Dial Markings are Fluorescent Yellow
.04.	Dial Markings are Luminescent Green
.05.	Dial Markings are Day Glow Yellow (Saturne)
.20F.	Measuring Range $\pm 2,000$ FPM
.30F.	Measuring Range $\pm 3,000$ FPM
.40F.	Measuring Range $\pm 4,000$ FPM
.60F.	Measuring Range $\pm 6,000$ FPM
.11F.	Measuring Range $\pm 10,000$ FPM
.21F.	Measuring Range $\pm 20,000$ FPM
.10M.	Measuring Range ± 10 m/s
.15M.	Measuring Range ± 15 m/s
.20M.	Measuring Range ± 20 m/s
.30M.	Measuring Range ± 30 m/s
.50M.	Measuring Range ± 50 m/s
.11M.	Measuring Range ± 100 m/s
.00.0.	Without Lighting
.05.	Lighting 5V AC/DC
.28.	Lighting 28V AC/DC
.1.	Lighting White Only
.2.	Lighting Red and White
.3.	Lighting Red Only
.4.	Lighting NVIS Green
.XX.	Customer Code

Technical Data

General	
-Vertical Speed Indicator	Acc. TSO-C8b and DO160
-Case (Bezel)	
ARINC	Acc. ARINC 408 3ATI
Square	Acc. MS 33556
Round	Acc. MS 33638
-Lighting NVIS Green	Nightvision Goggle Compatibility
	Acc. MIL-STD-3009 (MIL-L-85762)
-Temperature	Acc. TSO-C8b
Operating	-30° to +50°C
Non-Derangement	-65° to +70°C
-Pneumatic Connector	7/16"-20UNJF-3B (MS 33649-4)
-Weight in Standard Configuration	Less than 530 gr
-Colors White and Black	Acc. FED-STD-595a
-Glass, Anti-Reflective Coated	Acc. MIL-C-14806A
Options	
-Temperature	
Operating	-55° to +70°C
Non-Derangement	-60° to +90°C
-Further Pneumatic Connectors	Acc. MS 33649

Drawing



Specifications are subject to change without notice.

SATHOM
Manufacturer of
mechanical aircraft
instruments used
in business, commercial
and military aviation.

SATHOM is a
certified company.

EASA Part 21 G+O
EASA Part 145

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