

MACH Airspeed Indicator

- 3-inch MACH Airspeed Indicators
Types 5C15/5C18/5C25/5C28/5C35/5C38/5C45/5C48



General

The 3 inch MACH Airspeed Indicators (MAI) are pneumatically operated instruments deriving indicated airspeed and MACH information from the pitot-static sources. The combined displacements of the airspeed pointer and the MACH-disk determine the MACH number, which is indicated simultaneously with airspeed by the airspeed pointer. The control relays for the outside warning system (Vmo and Mmo) are actuated by optical detection devices. All instruments are offered customer-specific (see type designation) and are mounted for easy servicing.

Application

The 3-Inch MAI are installed as primary or standby instruments in civil and military aircraft. Users benefit from a high level of precision and reliability.

Characteristics

Indication

A pointer indicates airspeed against a fixed dial with numerals and graduations. A disk indicates MACH.

Internal Setting Mark

A ref bug (5C15, 5C28, 5C38, 5C48 only), controlled by a knob at the lower left front of the unit, can be set by the pilot for any desired airspeed.

Vmo- and Mmo-Switches

Each switch is independent and has no mechanical connection with the indicator for conventional speed and MACH number.

1 to 3 Vmo-switches operating at pre-set indicated airspeed values and/or 1 Mmo-switch operating at a pre-set MACH value.

Case

The SATHOM MACH Airspeed Indicators are installed in lightweight aluminum ARINC and Square 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 glasses in compliance with MIL-C-14806.

Pneumatic Connector

Pitot- and Static-connectors comply with MS 33649.

Electrical Connector

3-pin connector for all 5C15 and 5C18 indicators with lighting, 10-pin connector for 5C25, 5C28, 5C35, 5C38, 5C45 and 5C48 indicators. The standard connectors meet all the requirements of MIL-E-5400.

Type Designation

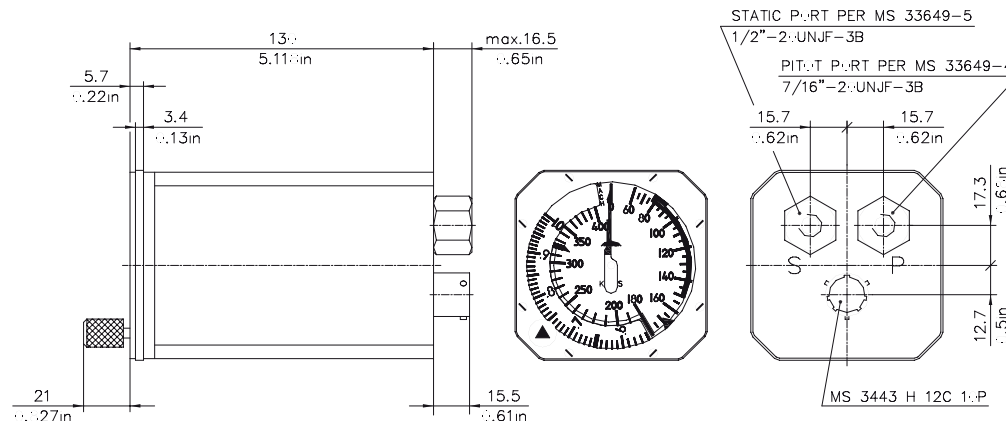
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|--------|-------------------------------------------------------|
| 5C. | MACH Airspeed Indicator (MAI) |
| .15. | MAI |
| .18. | MAI with Setting Mark internal |
| .25. | MAI with Mmo-Switch |
| .28. | MAI with Mmo-Switch and Setting Mark internal |
| .35. | MAI with Vmo-Switch |
| .38. | MAI with Vmo-Switch and Setting Mark internal |
| .45. | MAI with Mmo and Vmo-Switch |
| .48. | MAI with Mmo and Vmo-Switch and Setting Mark internal |
| .30. | ARINC Case 408 3ATI black |
| .40. | ARINC Case 408 3ATI grey |
| .50. | Square Case black MS 33556 |
| .60. | Square Case grey MS 33556 |
| .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 |
| .35K. | Measuring Range 40...350 KN / 0.3...1.0 MACH |
| .40K. | Measuring Range 60...400 KN / 0.3...1.0 MACH |
| .50K. | Measuring Range 50...500 KN / 0.3...1.0 MACH |
| .65K. | Measuring Range 60...650 KN / 0.3...1.8 MACH |
| .65M. | Measuring Range 70...650 km/h / 0.3...1.0 MACH |
| .75M. | Measuring Range 100...750 km/h / 0.3...1.0 MACH |
| .12M. | Measuring Range 100...1200 km/h / 0.3...1.8 MACH |
| .00.0. | Without Lighting |
| .05. | Lighting 5V AC/DC |
| .28. | Lighting 28V AC/DC |
| .1. | Lighting white only MIL-L-27160 |
| .2. | Lighting red and white |
| .3. | Lighting red only MIL-L-25467 |
| .4. | Lighting NVIS green MIL-L-85762 |
| .XX | Customer Code |

Technical Data

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| General | |
| -MACH Airspeed Indicator | acc. to TSO-C46a, scale range in knots and MACH |
| -Environmental Conditions | acc. to TSO-C46a |
| -Temperature Operating | -30° C to +50° C |
| -Non-Derangement | -65° C to +70° C |
| -Indication | a pointer indicates airspeed against a fixed dial, a disc indicates MACH |
| -Case (Bezel) | ARINC 408 3ATI Square acc. to MS 33556 |
| -Pneumatic Connector "S" | 1/2"-20UNJF-3B |
| "P" | 7/16"-20UNJF-3B |
| -Weight in Standard Configuration | less than 620 grams |
| -Glass Antireflective Coated | acc. to MIL-C-14806A |
| -All Colours | acc. to FED-STD-595a |
| -Measuring Range | see Type Designation |
| -Lighting 5 or 28 V AC/DC | in colour white |

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| Options | |
| -Scale Ranges | in km/h and MACH |
| -Environmental Conditions | acc. to RTCA DO-160 |
| -Temperature Operating | -55° C to +70° C |
| -Lighting | red only or red and white Nightvision Goggle Compatibility (MIL-L-85762) |
| -Further Pneumatic Connectors | acc. to MS 33649 |

Drawing



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

SATHOM 07 /18 Material No.:70794163