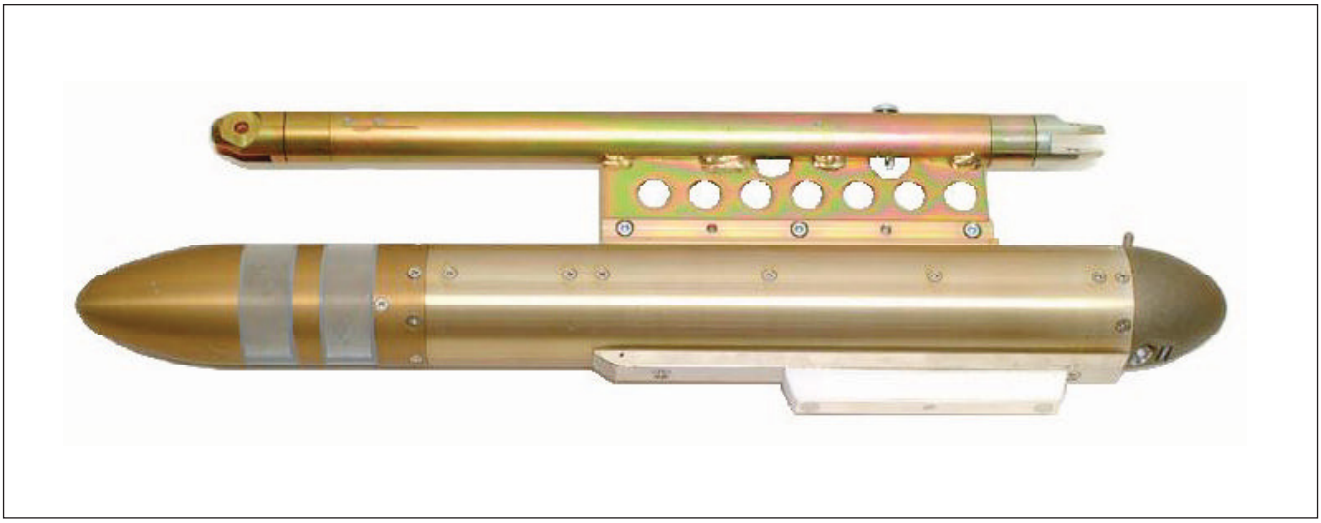
AIR TARGET

MISS DISTANCE INDICATOR AS-131 / 12U / UL / TB



The AS-131/12U/UL/TB is an universal 12-sector miss distance indicator (MDI) with an uplink command receiver. The MDI is intended to be used with sleeve or banner targets.

The MDI is designed for simultaneous indication of miss distance and the angular position in 12 sectors of a passing supersonic projectile.

The MDI is a universal type, i.e. it handles all target courses relative the firing gun or missile, i.e. all types of attacking and passing courses.

The uplink command receiver is used for changing the MDI identity, down link frequency and MDI measuring sensitivity. The commands are transmitted from the uplink command unit UCU-1. The UCU-1 is normally operated from ground. The possibility to communicate with the MDI is important in the multi target situation and when different calibers are used during the same mission.

The MDI consists of a microphone nose containing six pressure sensors, and a cylindrical body containing the electronics, the transmitter, the uplink receiver and a rechargeable NIMH accumulator.

The MDI can be equipped with a range of tow line connections in order to facilitate connection to most target towing systems.

For hard target or UAV applications the universal 12-sector models AS-133/12U/UL, AS-134/12U/UL or AS-135/12U/UL are recommended.

MEASURING PRINCIPLES

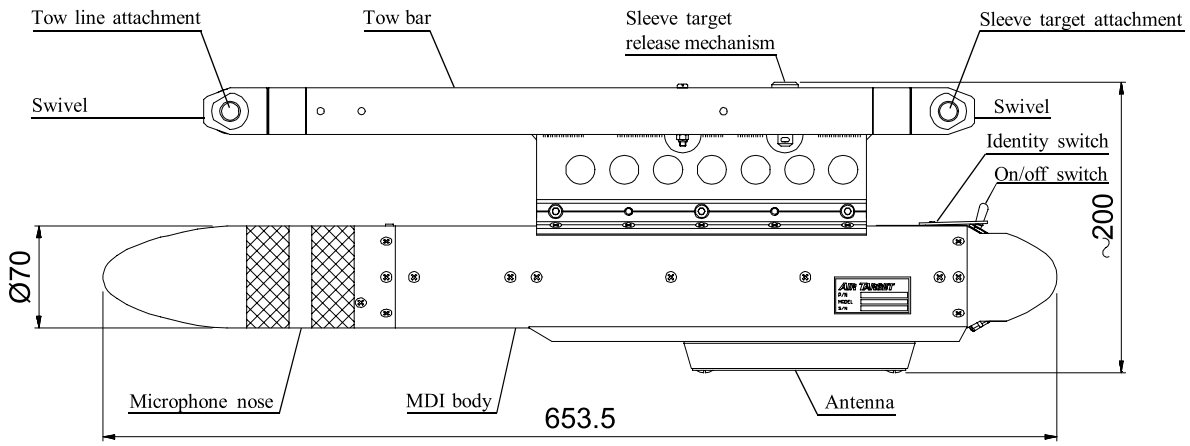
The miss distance indicator AS-131 detects acoustically the shock wave generated by the passing supersonic projectile. The miss distance is determined by the amplitude of the shock wave while the angular position is determined from the hit order between the different pressure sensors in the MDI nose.

The miss distance and the angular position of the projectiles are measured in real time and the data is transmitted as raw data signals via the special designed transmitter to the scoring station. Since raw data is used, all calculations are made in the scoring station.

A recalculation of the scoring result, with later more accurate parameters, can easily be made in the scoring station for further improved accuracy.

- 12U = 12 sector universal
- UL = Uplink receiver
- TB = Towbar

TECHNICAL DATA



All dimensions in millimeters

GENERAL

Power supply	Rechargeable NIMH battery pack
Battery operation time	min. 4 h at +25°C
Supply voltage	+12 VDC
Operation temperature	-30°C to +55°C
Storage temperature	-40°C to +70°C
Weight	5,6 kg incl. tow rod

TRANSMITTER

Carrier frequency	Fixed frequency within 400-470 MHz
Channel separation	50 kHz
Radiated power	Min. 0,8 W
Carrier frequency deviation	2.5 kHz ±0.5 kHz
Modulation	2-level FSK 4800 baud
CRC	Cyclic Redundancy Checksum, a method for ensuring data quality

DATA

Scoring capacity	6000 rounds per minute, momentarily more
Scoring calibers	5.56 mm to 5"+ and missiles
Distance accuracy	±1 m or max ±15 % (on the average) of the actual miss distance, whichever is the greatest
Angular accuracy	±15°
Sensitivity (S), Identity (ID) and (frequency)	6 ranges (S & ID), selectable via the uplink command unit UCU-1. (Option: 2 frequencies selectable)

UPLINK RECEIVER

Frequency	400-470 MHz band, others optional

Air Target Sweden AB
Österögatan 1B
SE-164 40 Kista | Sweden

Tel: +46 8 730 2233 | Fax: +46 8 730 3424
E-mail: info@airtarget.se | Web: www.airtarget.com
VAT Reg. No. SE556097313201