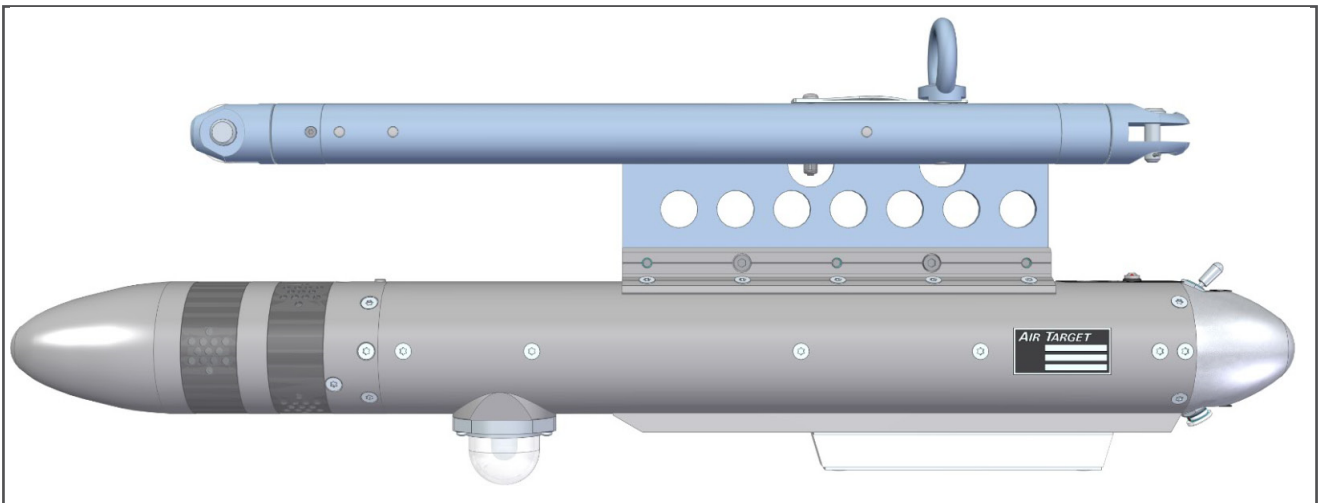


## MISS DISTANCE INDICATOR AS-131/12U/UL/TB/LT/TRU



The AS-131/12U/UL/TB/LT/TRU is an universal 12-sector miss distance indicator (MDI) equipped with an uplink command receiver and with a LED lamp equivalent to 20W halogen. 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, MDI measuring sensitivity and to switch ON and OFF the lamp. It is also possible to get the lamp to flash. The commands are transmitted from the uplink command unit UCU. The UCU is normally operated from ground. The possibil-

ity 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, i.e transmitter, uplink receiver, LED lamp, 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.

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

### MEASURING PRINCIPLES

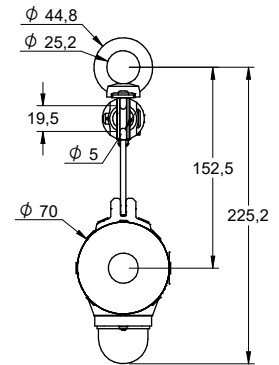
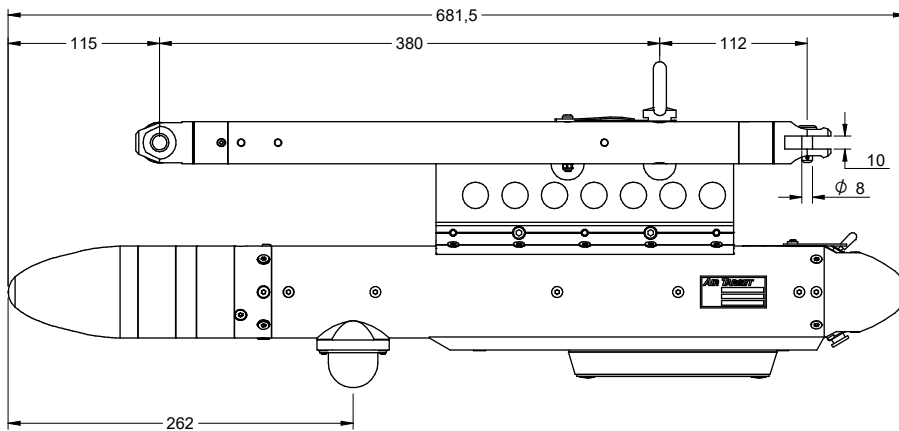
The miss distance indicator AS-131 detects acoustically the shock wave generated by the passing supersonic projectile. The miss distance is determined by the amplitude of the shock wave while the angular position is determined from the hit order between the different pressure sensors in the MDI nose.

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.

## TECHNICAL DATA



### 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                 | Approximately 5,6 kg incl. tow rod |

### TRANSCEIVER

|                    |                                    |
|--------------------|------------------------------------|
| Carrier frequency  | Fixed frequency within 330-473 MHz |
| Channel separation | 12 kHz                             |
| Radiated power     | typ. 1.0 W                         |
| Link type          | Half-Duplex                        |
| Data transfer rate | Radio 9600 bps                     |
| Optional           | Encryption AES128                  |

### 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 | Fixed frequency within 330-473 MHz |
|-----------|------------------------------------|