

### □ PARTICULAR DATA

⇒ Probe with increased acoustic power (typical + 16 db) providing a better ratio signal / noise.

### □ GENERAL DATA

- ⇒ Probe for liquid flowmeters.
- ⇒ Not affected by pressure or corrosive fluids.
- ⇒ Suitable from DN 60 to DN 2500 (in Reflex mode) or DN 5000 (in Direct mode).
- ⇒ Pipe nature : steel, stainless steel, cast iron, cement lined..., plastic (PVC, PEHD...), composite (cast iron, asbestos, glass) concrete excluded.
- ⇒ Maximum temperature for continuous use : 120° C.
- ⇒ Associated to a converter and safety barrier BZ 01, these probes are EEx'ia' approved.

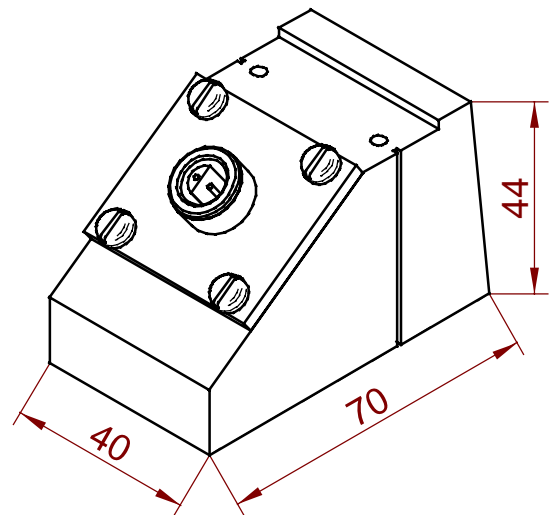
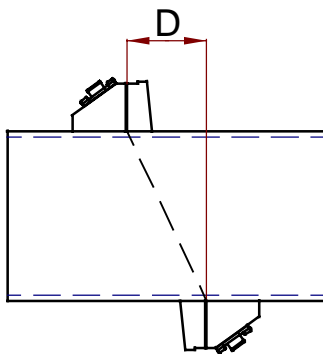


figure 1

### Direct mode



### Reflex mode

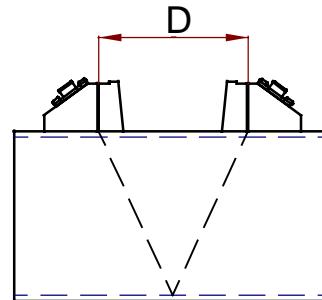


figure 2

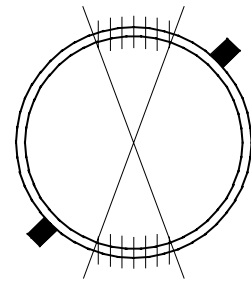
### □ CHOICE OF OPERATING MODES

- ⇒ **REFLEX** Recommended mode (accurate and easier to install).
- ⇒ **DIRECT** Less accurate mode : corroded pipe, absorbant fluid, multiproduct applications.

### □ PROBES LOCATION

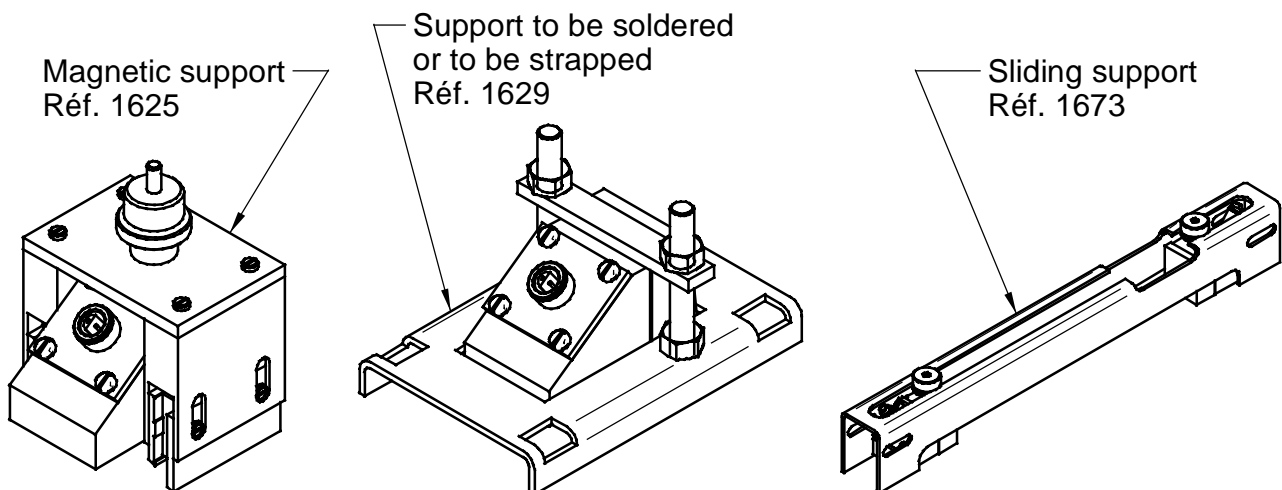
- ⇒ When possible, position probes upstream from an hydraulic disturbance.
- ⇒ When possible, respect minimum straight length : **10 Ø upstream**  
**3 Ø downstream**  
or Ø is diameter of the pipe

- ⇒ On an horizontal pipe, avoid to install probes on the upper generatrix (bubbles ) or lower generatrix (deposit).
- ⇒ On a vertical pipe, there is no restriction for probes location.
- ⇒ For both modes, distance **D** (cf. *fig.2*) is measured from the marks engraved on the probe.
- ⇒ Precision on interprobe distance :
  - Axial +/- 2 % x Ø
  - Angular +/- 2°
- ⇒ Our digital flowmeters calculate and display the value of **D**.
  - See user guide manual of the unit.



## □ PROBES INSTALLATION

- ⇒ Clean up duct prior to fitment of probes (rust ... ).  
A paint of good quality does not mind.
- ⇒ Temporary measurements :  
Apply plenty of coupling agent between probe and pipe surface.  
For lack of coupling gel, use grease for mechanics.
- ⇒ Permanent measurements :  
Perform the coupling with the recommended elastomer ribbon (**ACC\_KIT**). Firmly strap up with the supplied stainless steel belts or thanks on the support stirrup ref. **1629**.
  - A lubrication of each face of the elastomer makes easier the operation.
  - These probes can be used with the hereunder supports.



## □ CONNECTIONS

- ⇒ Standard probes are supplied with connectors for shielded twin conductor cable. **ULTRAFLUX** recommended cable is to be used upon request, probes can be equipped with waterproof gland and cable (length to be determined).

## □ COMMISSIONING

- ⇒ When commissioning, if the acoustic power transmitted appears poor, do as follow :
  - Check probe coupling and distance **D**.
  - Change probes location.
  - Change from **REFLEX** mode to **DIRECT** mode.

## □ MAINTENANCE

Each 6 months, check the coupling conditions. Refer to the associated converter information.