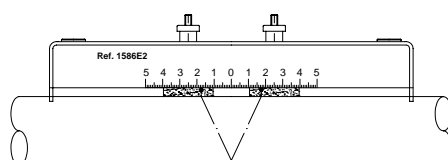


### □ GENERAL CHARACTERISTICS

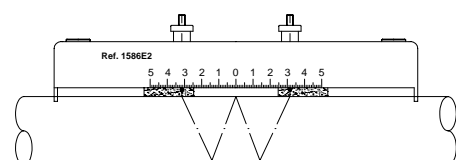
- The **SE\_1586E2** set includes 2 probes placed in a graduated slide or ruler (central zero) .
- Connected to a device from **MINISONIC/ DigiSonic / UF 322** families, it permits to measure actual flow of pure liquids (demineralised water, hydraulic oil ...) or few loaded liquids as cooling or heating water, petrochemical products ...
- This 1586E2 set doesn't bring any pressure drop and is not affected by the pressure or the aggressivity of the fluid .
- An accurate flow measurement is available and displayed in both directions .
- SE\_1586E2 can be used on pipes from 12 mm (\*) up to 114,3 mm (4") with its support .  
(\* ) This limit depends on the pipe material , thickness and condition.  
Pipe materials : steel (not corroded) , stainless steel, copper , plastics ...
- Maximum temperature for a continuous use :120°C (above : please refer to Ultraflux ) .

### □ OPERATION MODE

- Both probes are placed on a same generatrice and dialog in "**réflex**" (V) mode. It results a good accuracy and low sensivity to hydraulic disturbances.
- For very small pipes , the "**W**" mode can offer a better result.



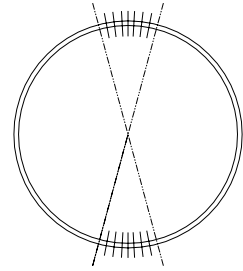
Mode reflex V



Mode W

## ❑ PROBE LOCATION

- When possible, locate probes upstream from a hydraulic disturbance..
- When possible, respect following minimum straight length :  
**10 Ø upstream**  
**3 Ø downstream**, Ø means diameter of the pipe .



- In the case of an horizontal pipe, avoid installing the probes on the top or the bottom part of the pipe because the risk of bubbles or deposits  
On a vertical pipe, there is no restriction for probe location.
- Requested accuracy on distance inter-probes : +/- 0,5 mm
- The converter calculates and displays this distance **D.S** to be adjusted between probes around the central zero (**see fig 1**).

## ❑ PROBES INSTALLATION

- Clean up the pipe (rust, roughness). In most cases, the paint doesn't matter .
- Apply plenty of coupling agent on probes face and on the pipe wall at the location .
  - Standard coupling gel for temperatures lower than **60°C** (during a few hours).
  - High temperature special grease for temperatures up to **120°C** or long term use .
  - Coupling elastomer, coated on both faces with special grease, for very long term use. It must be hardly tight.
- The fixing is done by stretching the elastic around the pipe, or with stainless steel straps for fixed installation (**see fig 1**).

## ❑ CONNECTIONS

- The probe holder is equipped of two *push-pull* connectors for twinax shielded cables.
- Use the cables recommended by **ULTRAFLUX**.
- Connect upstream and downstream transducers to converter using corresponding inputs .

## ❑ COMMISSIONING

- A good installation in good site condition must give a good echo signal and a reliable measurement result.
- If the acoustic transmission result through the pipe is too poor (no echo or too high amplification gain), proceed as follows :
  - Check the distance **D.S** .between probes .
  - Check the coupling agent between the probes and the pipe .
  - If fault persists, try at another location (pipe internally corroded ?).
  - If no result, try with lower frequency transducers .
  - If liquid is flowing bubbles, try to improve these conditions.