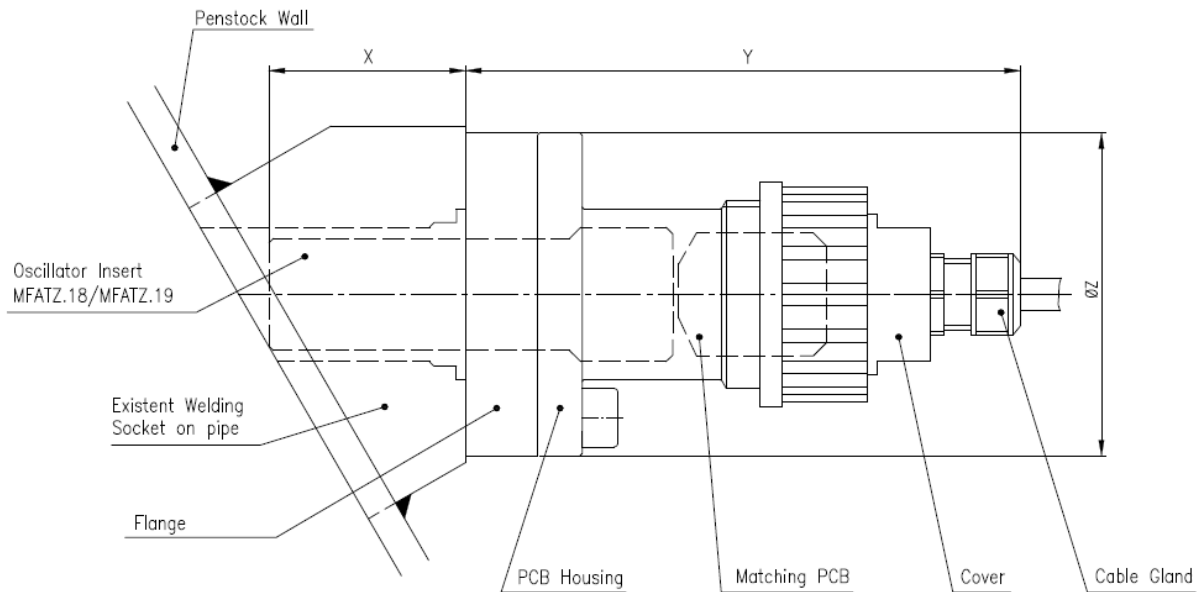


Dimensions [mm]



Type	X	Y	Z
MFATRT10	43.8	124	72
MFATRT11	101.3	126.5	120

Figure 1: Retrofit T2U

Short description

The Retrofit for T2U (MFATRT1x) consists of flange, support ring, suitable screws, oscillator insert, PCB housing, matching PCB, cover as well as cap nut and can be mounted in the existent T2U welding socket (see Figure 1).

The installation of the retrofit is only possible under dewatered conditions.

The cable length from transducer to the processing unit shall not exceed 300 m (984 ft.).

Design Versions

Pipe dimensions [mm]		T2U (old measurement)		Retrofit MFATRT1x		Spare oscillator	
Ø	Wall thickness	Type	Order No.	Type	Order No.	Type	Order No.
300 ... 1200*	≤ 20	DUE-2	4532402-I	MFATRT10	0066870.001	MFATZ.18	0066873.001
500 ... 1200	> 20	DUE-2S	3643321-I	MFATRT11	0066877.001	MFATZ.19	0066879.001
>1200	≤ 50	DUE-5S	4532401-I				

* Spool Pieces

Table 1: Design Versions

Geometry, measuring parameters, pipe parameters

The accuracy indications of the transducer electronics given in the data sheet are dependent on the dimension specifications of the on-site geometry and the pipe parameters being as precise as possible.

For the calculation of the flow velocity v , the following mechanical dimensions are relevant: the average inner diameter of the pipe D ; the length of the sound path L ; the parameter L_F (refer to assembly guide 22.710.0066870.xxx) and the length of the signal cable used in m. The values D , L and the cable length have to be taken from the existing measurement.

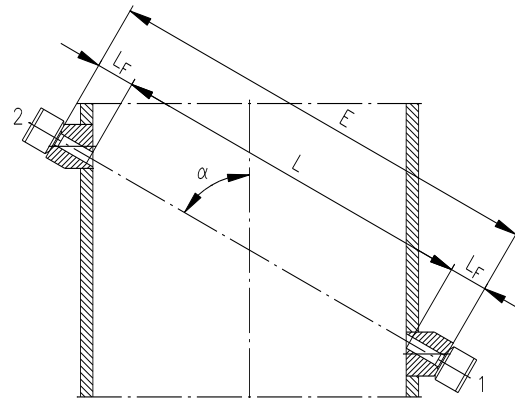
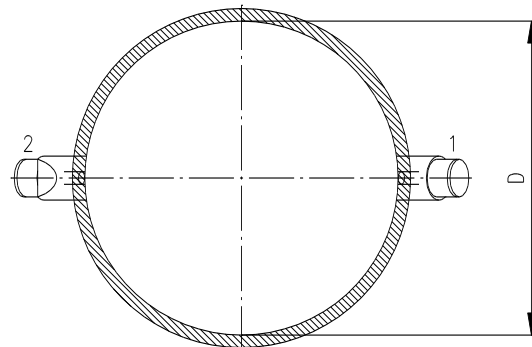


Figure 2: Parameters

- D** Average inner diameter of the pipe
- L** Length of the sound path between emitting surface of oscillator inserts
- E** Face distance between the 2 welding sockets
- L_F** Distance between emitting surface of oscillator insert and face of welding sockets
- α** Angle between sound path and flow velocity vector (approx. 60°)

Technical Data

- Protection class:..... IP67 (NEMA-4X)
- Material Transducer: Corrosion-resistant steel 316L
- Maximal allowed pressure:..... 80 bar (1160 psi), higher on request
- Operating temperature: -30 °C to +70 °C (-20 °F to +158 °F)

Application Notes

- The Retrofit MFATRT1x can be operated only with the RISONIC modular application.
- The liquid must be permeable to sound. It must not contain a too high concentration of air bubbles or entrained particles and sediments.
- The installation of the retrofit is only possible under dewatered conditions.
- The welding sockets, the existing cables as well as the mounting screws can be taken from the measuring site to retrofit.

Accessory (optional)

Description	Type	Order No.
Coaxial cable 75 ohm (Refer to data sheet 22.210.04649xx.001)	RIMOZKKxx	04 64 90x
Spare oscillators according to Table 1:	MFATZ.18	0066873.001
	MFATZ.19	0066879.001

Table 2: Accessory