

Dimensions [mm]

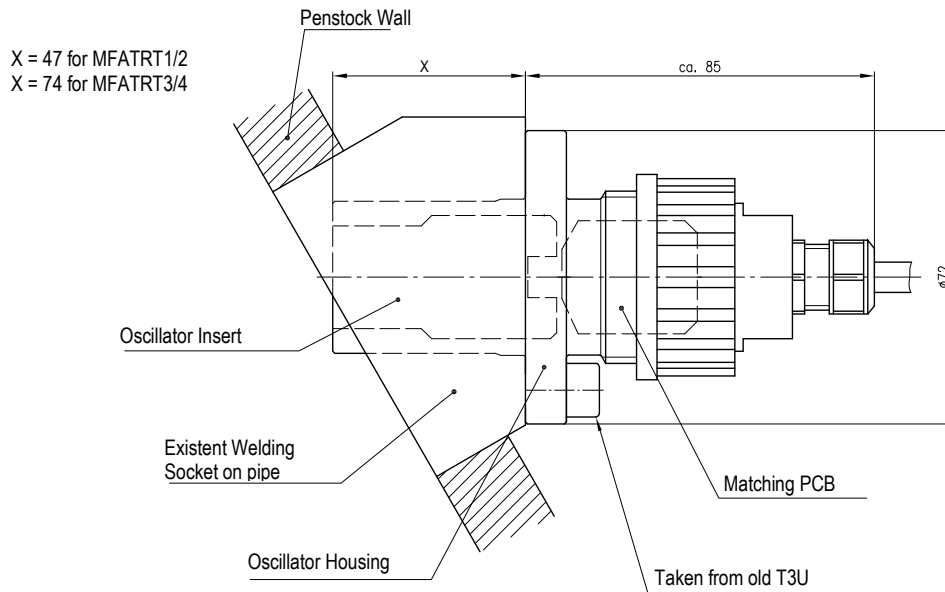


Figure 1: Retrofit T3U

Short description

The Retrofit for T3U (MFATRTx) consists of oscillator housing, oscillator insert, matching PCB, cover as well as cap nut and can be mounted in the existent T3U 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]		T3U (old measurement)		Retrofit MFATRTx		Spare oscillator	
∅	Wall thickness	Type	Order No. T3U	Type	Order No. MFATRTx	Type	Order No.
150 ... 250	< 20	T3U.MRS20D1	0032434.001	MFATRT1	0066860.001	MFATZ.15	0066863.001
250 ... 400		T3U.MRS20D2	0032434.002				
400 ... 700		T3U.MRS20D3	0032434.003				
700 ... 2000		T3U.MRS20D4	0032434.004				
1000...6000							
150 ... 250	> 20 < 30	T3U.MRS30D1	0032434.005	MFATRT1	0066860.001	MFATZ.15	0066863.001
250 ... 350		T3U.MRS30D2	0032434.006				
350 ... 500		T3U.MRS30D3	0032434.007				
500 ... 900		T3U.MRS30D4	0032434.008				
900 ... 2000		T3U.MRS30D5	0032434.009				
1000...6000							
900 ... 2000	> 30 < 50	T3U.MS50xx	0032953.001	MFATRT3	0066860.003	MFATZ.13	0066863.002
1000-10000		T3U.MS50xx		MFATRT4	0066860.004	MFATZ.14	0066864.002
150 ... 1200	div.	T3U.MTxxxx*	0032435.xxx	MFATRT1	0066860.001	MFATZ.15	0066863.001

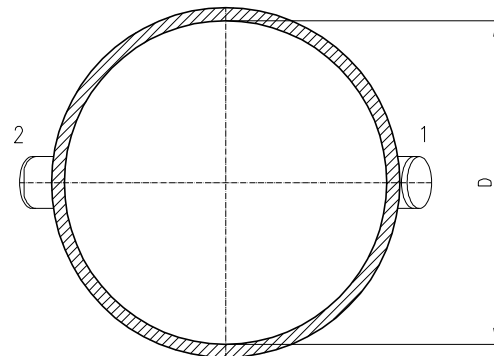
* Spool Pieces

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_T (refer to assembly guide 22.710.0066860.xxx) and the length of the coaxial/triaxial cable used in m. The values D , L and the cable length have to be taken from the existing measurement.



- 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°)

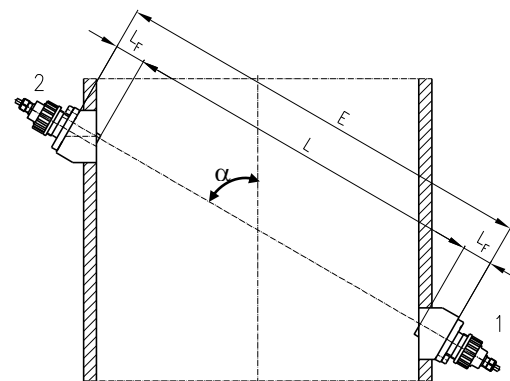


Figure 2: Parameters

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 MFATRTx 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 oscillator according to Table 1	MFATZ.1x	00 66 854.00x

Table 2: Accessory