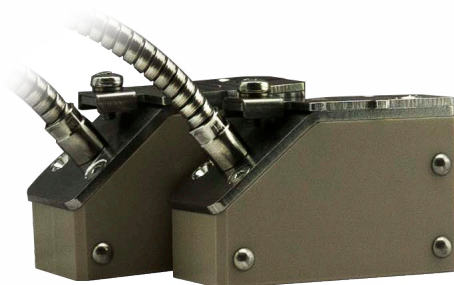


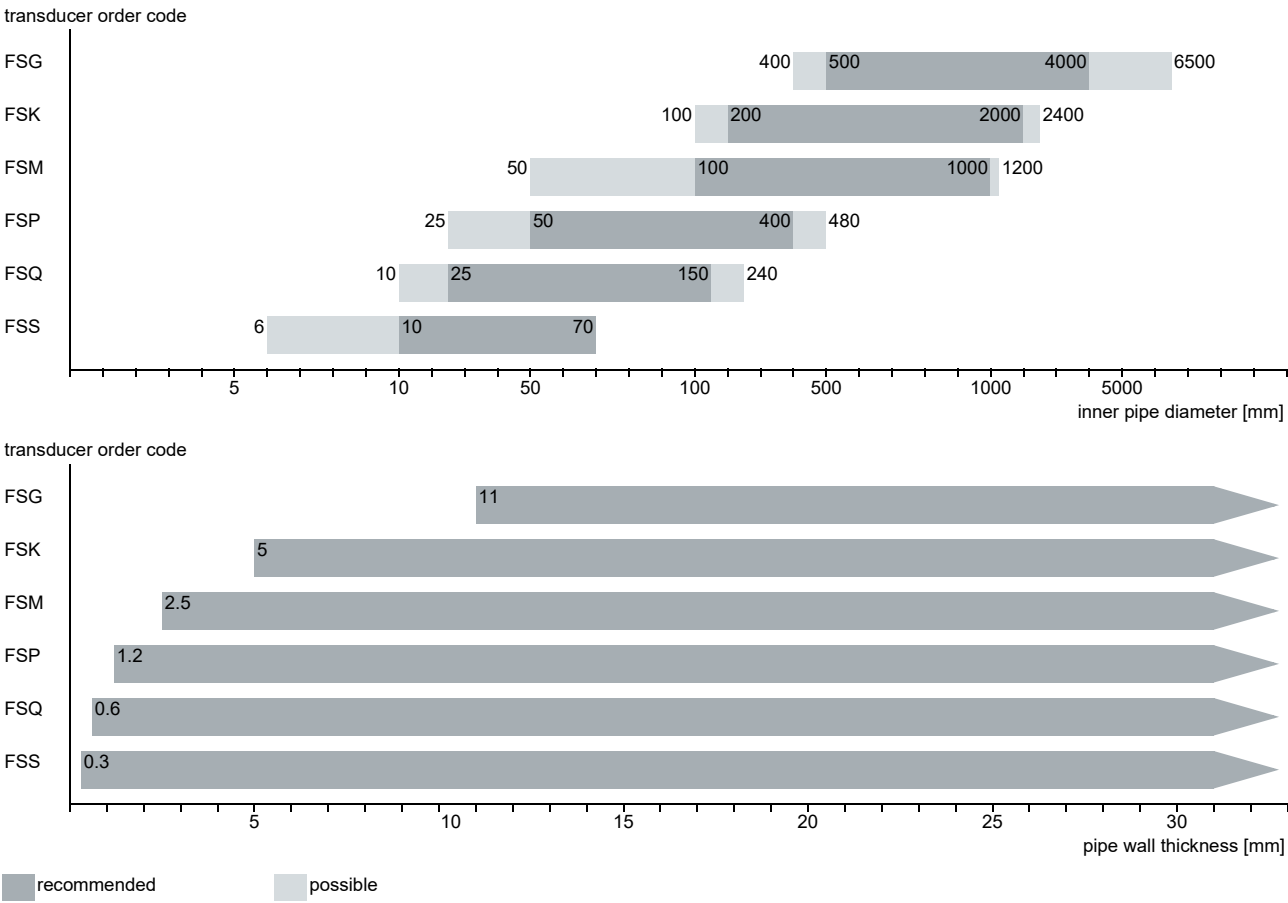
Flexim Clamp-on Ultrasonic Transducers for FLUXUS F7, H7**, PLOX S7****



Transducer selection	3
Shear wave transducers	3
Lamb wave transducers	4
Transducer order code	5
Technical data	6
Transducer mounting fixture	23
Coupling materials for transducers	26
Connection systems	27
Junction box	29
Technical data	29
Dimensions	30
2" pipe mounting kit	31

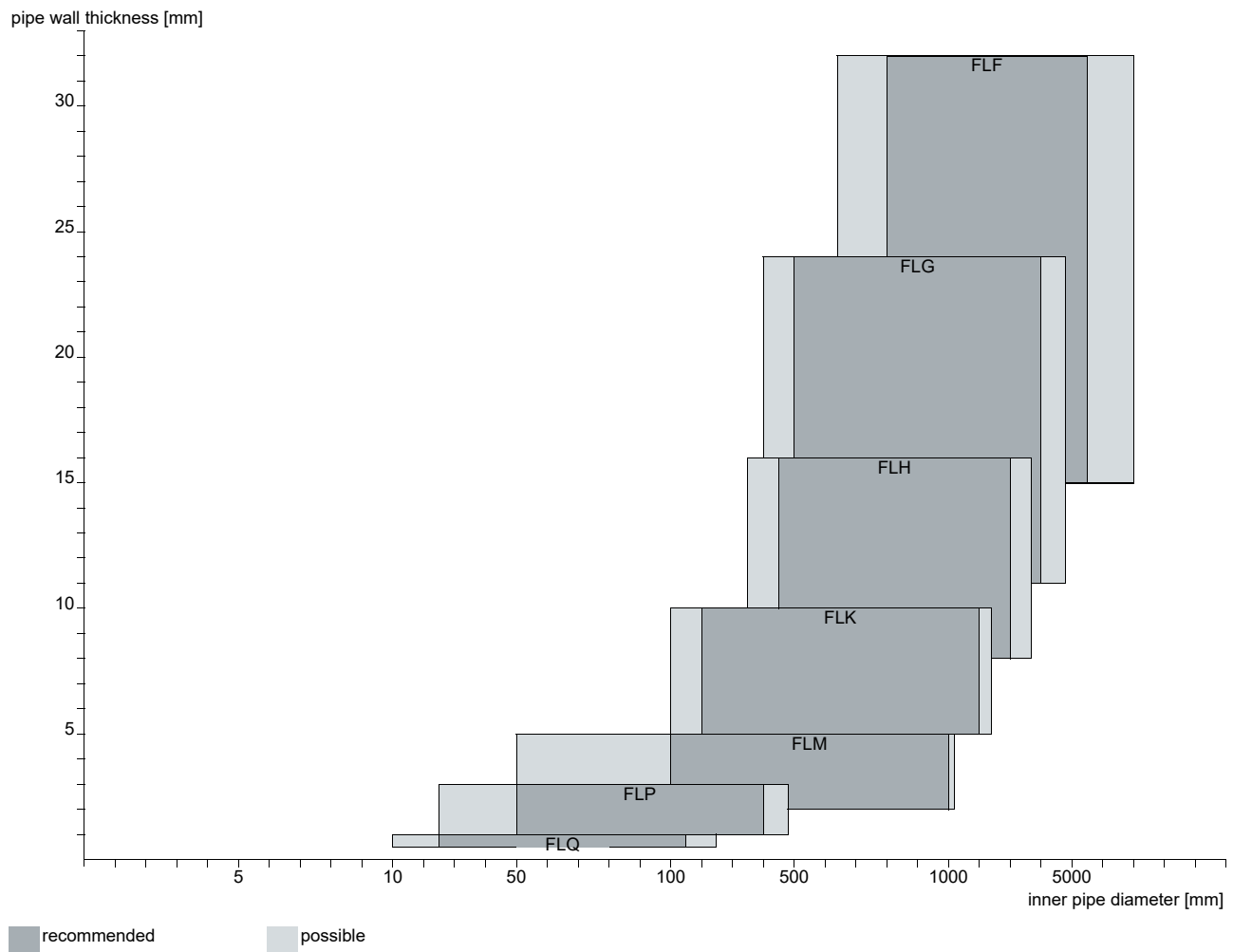
Transducer selection

Shear wave transducers



Lamb wave transducers

If the damping of the fluid is high or the sound velocity fluctuates strongly, Lamb wave transducers might be preferred. Please contact FLEXIM.

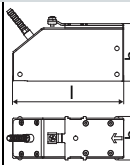
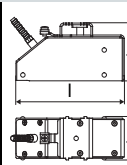
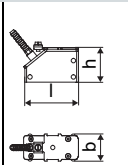
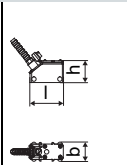
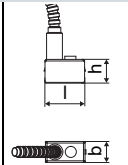



Transducer order code

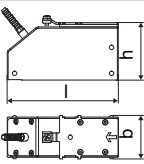
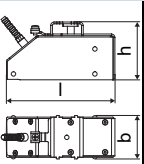
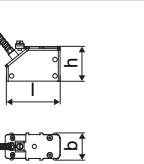
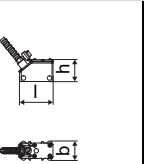
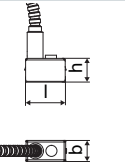

1, 2	3	4	5...7	8, 9	10, 11	12...14	no. of character					
transducer	transducer frequency	-	ambient temperature	explosion protection	-	certification	connection system	-	cable length	/	option	description
FS												set of ultrasonic flow transducers for Measurement of Liquids, shear wave
FL												set of ultrasonic flow transducers for Measurement of Liquids, Lamb wave
	F											0.15 MHz
	G											0.2 MHz
	H											0.3 MHz
	K											0.5 MHz
	M											1 MHz
	P											2 MHz
	Q											4 MHz
	S											8 MHz
		L										low temperature range
		N										normal temperature range
		E										extended temperature range
		S										higher temperatures
			NNN									not explosion-proof
			A2N									ATEX zone 2/IECEx zone 2
			A1N									ATEX zone 1/IECEx zone 1
			F2N									FM Class I Div. 2
				**								
					TS							with SMB connector
					T1							with stripped cable ends
						***						in m
							H68					degree of protection IP68

Technical data

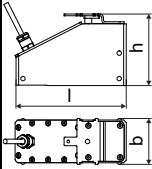
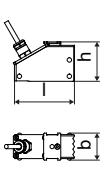

Shear wave transducers (zone 2 - FM Class I Div. 2 - nonEx, TS)

order code		FSG-N***-**TS	FSK-N***-**TS	FSM-N***-**TS	FSP-N***-**TS	FSQ-N***-**TS	FSS-N***-**TS
technical type		C(DL)G1N52	C(DL)K1N52	C(DL)M2N52	C(DL)P2N52	C(DL)Q2N52	CDS1N52
transducer frequency	MHz	0.2	0.5	1	2	4	8
inner pipe diameter d							
min. extended	mm	400	100	50	25	10	6
min. recommended	mm	500	200	100	50	25	10
max. recommended	mm	4000	2000	1000	400	150	70
max. extended	mm	6500	2400	1200	480	240	70
pipe wall thickness							
min.	mm	11	5	2.5	1.2	0.6	0.3
material							
housing		PEEK with stainless steel cover 316L (1.4404)					stainless steel 304 (1.4301)
contact surface		PEEK					PEI
degree of protection		IP66			IP66/IP67		IP66
transducer cable							
type		1699					
length	m	5			4	3	2
dimensions							
length l	mm	129.5	126.5	64		40	25
width b	mm	51	51	32		22	13
height h	mm	67	67.5	40.5		25.5	17
dimensional drawing							
weight (without cable)	kg	0.47	0.36	0.066		0.016	0.004
pipe surface temperature	°C	-40...+130					-30...+130
ambient temperature	°C	-40...+130					-30...+130
temperature compensation		x					
explosion protection							
• ATEX/IECEx							
order code		FSG-NA2N-**TS	FSK-NA2N-**TS	FSM-NA2N-**TS	FSP-NA2N-**TS	FSQ-NA2N-**TS	-
pipe surface temperature (Ex)							-
• min.	°C	-55					-
• max.	°C	gas: +190, dust: +180					-
marking		CE 0637 Ex II3G II2D Ex nA IIC T6...T3 Gc Ex tb IIIC T80 °C...T185 °C Db					-
certification		IBExU10ATEX1163 X, IECEx IBE 12.0005X					-
• FM							
order code		FSG-NF2N-**TS	FSK-NF2N-**TS	FSM-NF2N-**TS	FSP-NF2N-**TS	FSQ-NF2N-**TS	FSS-NF2N-**TS
pipe surface temperature (Ex)							-
• min.	°C	-40					-
• max.	°C	+125		+190		+125	
degree of protection		IP66					
marking		 NI/CI. I,II,III/Div. 2 / GP A,B,C,D,E,F,G/ Temp. Codes dwg 3860					

Shear wave transducers (FM Class I Div. 2, T1)

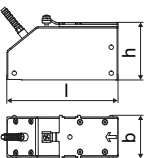
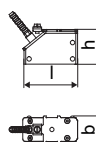
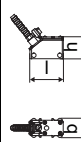

order code		FSG-N***-**T1	FSK-N***-**T1	FSM-N***-**T1	FSP-N***-**T1	FSQ-N***-**T1	FSS-N***-**T1
technical type		C(DL)G1N53	C(DL)K1N53	C(DL)M2N53	C(DL)P2N53	C(DL)Q2N53	CDS1N53
transducer frequency	MHz	0.2	0.5	1	2	4	8
inner pipe diameter d							
min. extended	mm	400	100	50	25	10	6
min. recommended	mm	500	200	100	50	25	10
max. recommended	mm	4000	2000	1000	400	150	70
max. extended	mm	6500	2400	1200	480	240	70
pipe wall thickness							
min.	mm	11	5	2.5	1.2	0.6	0.3
material							
housing		PEEK with stainless steel cover 316L (1.4404)					stainless steel 304 (1.4301)
contact surface		PEEK					PEI
degree of protection		IP66			IP66/IP67		IP66
transducer cable							
type		1699					
length	m	5			4	3	2
dimensions							
length l	mm	129.5	126.5	64		40	25
width b	mm	51	51	32		22	13
height h	mm	67	67.5	40.5		25.5	17
dimensional drawing							
weight (without cable)	kg	0.47	0.36	0.066		0.016	0.004
pipe surface temperature	°C	-40...+130					-30...+130
ambient temperature	°C	-40...+130					-30...+130
temperature compensation	x						-
explosion protection							
• ATEX/IECEx							
order code		FSG-NA2*-**T1	FSK-NA2*-**T1	FSM-NA2*-**T1	FSP-NA2*-**T1	FSQ-NA2*-**T1	-
pipe surface temperature (Ex)	°C	gas: -55...+190 dust: -55...+180					-
marking		CE 0637 Ex II 3G II 2D Ex nA IIC T6...T3 Gc Ex tb IIIC T80 °C...T185 °C Db					-
certification		IBExU10ATEX1163 X, IECEx IBE 12.0005X					-
• FM							
order code		FSG-NF2*-**T1	FSK-NF2*-**T1	FSM-NF2*-**T1	FSP-NF2*-**T1	FSQ-NF2*-**T1	FSS-NF2*-**T1
pipe surface temperature (Ex)	°C	-40...+125			-40...+190		-40...+125
degree of protection		IP66					
marking		 NI/Cl. I,II,III/Div. 2 / GP A,B,C,D,E,F,G/ Temp. Codes dwg 3860					

Shear wave transducers (zone 2 - nonEx, T1, IP68)

order code		FSG-L***_**T1/H68	FSK-L***_**T1/H68	FSM-L***_**T1/H68	FSP-L***_**T1/H68
technical type		CDG1LI8	CDK1LI8	CDM2LI8	CDP2LI8
transducer frequency	MHz	0.2	0.5	1	2
inner pipe diameter d					
min. extended	mm	400	100	50	25
min. recommended	mm	500	200	100	50
max. recommended	mm	4000	2000	1000	400
max. extended	mm	6500	2400	1200	480
pipe wall thickness					
min.	mm	11	5	2.5	1.2
material					
housing		PEEK with stainless steel cover 316Ti (1.4571)			
contact surface		PEEK			
degree of protection		IP68 ¹			
transducer cable					
type		2550			
length	m	12			
dimensions					
length l	mm	130		72	
width b	mm	54		32	
height h	mm	83.5		46	
dimensional drawing					
weight (without cable)	kg	0.43		0.085	
pipe surface temperature	°C	-40...+100			
ambient temperature	°C	-40...+100			
temperature compensation		x			
explosion protection					
• ATEX/IECEx					
order code		FSG-LA2N-**T1/H68	FSK-LA2N-**T1/H68	FSM-LA2N-**T1/H68	FSP-LA2N-**T1/H68
pipe surface temperature (Ex)	°C	gas: -40...+90 dust: -40...+80			
marking		CE0637  II3G II2D Ex nA IIC T6...T5 Gc Ex tb IIIC T80 °C...T85 °C Db			
certification		IBExU10ATEX1163 X, IECEx IBE 12.0005X			

¹ test conditions: 3 months/2 bar (20 m)/20 °C

Shear wave transducers (zone 2 - FM Class I Div. 2 - nonEx, TS, extended temperature range)

order code		FSG-E***-**TS	FSK-E***-**TS	FSM-E***-**TS	FSP-E***-**TS	FSQ-E***-**TS
technical type		C(DL)G1E52	C(DL)K1E52	C(DL)M2E52	C(DL)P2E52	C(DL)Q2E52
transducer frequency	MHz	0.2	0.5	1	2	4
inner pipe diameter d						
min. extended	mm	400	100	50	25	10
min. recommended	mm	500	200	100	50	25
max. recommended	mm	4000	2000	1000	400	150
max. extended	mm	6500	2400	1200	480	240
pipe wall thickness						
min.	mm	11	5	2.5	1.2	0.6
material						
housing		PPSU with stainless steel cover 316L (1.4404)		PI with stainless steel cover 316L (1.4404)		
contact surface		PPSU		PI		
degree of protection		IP66		IP66/IP67		
transducer cable						
type		1699		6111		
length	m	5		4		3
dimensions						
length l	mm	129.5		64		40
width b	mm	51		32		22
height h	mm	67		40.5		25.5
dimensional drawing						
weight (without cable)	kg	0.82		0.066		0.017
pipe surface temperature	°C	-40...+180		-30...+240 ¹		-30...+200
ambient temperature	°C	-40...+180		-30...+40 -30...+60 ² -30...+200 ³		-30...+200
temperature compensation		x		x		
explosion protection						
• ATEX/IECEx						
order code		-	-	FSM-EA2*-**TS	FSP-EA2*-**TS	FSQ-EA2*-**TS
pipe surface temperature (Ex)	°C	-	-	gas: -45...+235 dust: -45...+225		
marking		-	-	CE 0637 Ex II 3G II 2D Ex nA IIC T6...T2 Gc Ex tb IIIA T80 °C...T230 °C Db IBExU10ATEX1163 X, IECEx IBE 12.0005X		
certification		-	-	IBExU10ATEX1163 X, IECEx IBE 12.0005X		
• FM						
order code		FSG-EF2*-**TS	FSK-EF2*-**TS	FSM-EF2*-**TS	FSP-EF2*-**TS	FSQ-EF2*-**TS
pipe surface temperature (Ex)	°C	-40...+165		-40...+235		
degree of protection		IP66				
marking		 NI/CI, I,II,III/Div. 2 / GP A,B,C,D,E,F,G/ Temp. Codes dwg 3860				

¹ > +200 °C:

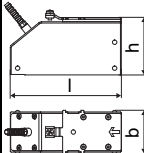
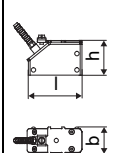
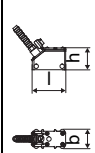

nonEx: Variotix C without cover or Variotix L

Ex: Variotix C or Variotix L, ambient temperature max. +40 °C

observe the insulation instruction

² nonEx: pipe surface temperature +200...+240 °C: Variotix C without cover³ nonEx: pipe surface temperature max. +200 °C

Shear wave transducers (FM Class I Div. 2 - nonEx, T1, extended temperature range)

order code		FSG-E***-**T1	FSK-E***-**T1	FSM-E***-**T1	FSP-E***-**T1	FSQ-E***-**T1
technical type		C(DL)G1E53	C(DL)K1E53	C(DL)M2E53	C(DL)P2E53	C(DL)Q2E53
transducer frequency	MHz	0.2	0.5	1	2	4
inner pipe diameter d						
min. extended	mm	400	100	50	25	10
min. recommended	mm	500	200	100	50	25
max. recommended	mm	4000	2000	1000	400	150
max. extended	mm	6500	2400	1200	480	240
pipe wall thickness						
min.	mm	11	5	2.5	1.2	0.6
material						
housing		PPSU with stainless steel cover 316L (1.4404)		PI with stainless steel cover 316L (1.4404)		
contact surface		PPSU		PI		
degree of protection		IP66		IP66/IP67		
transducer cable						
type		1699		6111		
length	m	5		4		3
dimensions						
length l	mm	129.5		64		40
width b	mm	51		32		22
height h	mm	67		40.5		25.5
dimensional drawing						
weight (without cable)	kg	0.82		0.066		0.017
pipe surface temperature	°C	-40...+180		-30...+240 ¹		-30...+200
ambient temperature	°C	-40...+180		-30...+40 -30...+60 ² -30...+200 ³		-30...+200
temperature compensation		x		x		
explosion protection						
• ATEX/IECEx						
order code		-	-	FSM-EA2*-**T1	FSP-EA2*-**T1	FSQ-EA2*-**T1
pipe surface temperature (Ex)	°C	-	-	gas: -45...+235 dust: -45...+225		
marking		-	-	CE 0637 Ex II 3G II 2D Ex nA IIC T6...T2 Gc Ex tb IIIA T80 °C...T230 °C Db		
certification		-	-	IBExU10ATEX1163 X, IECEx IBE 12.0005X		
• FM						
order code		FSG-EF2*-**T1	FSK-EF2*-**T1	FSM-EF2*-**T1	FSP-EF2*-**T1	FSQ-EF2*-**T1
pipe surface temperature (Ex)	°C	-40...+165		-40...+235		
degree of protection		IP66				
marking		 NI/CI. I,II,III/Div. 2 / GP A,B,C,D,E,F,G/ Temp. Codes dwg 3860				

¹ > +200 °C:

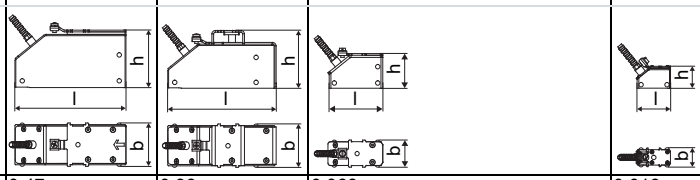

nonEx: Variotix C without cover or Variotix L

Ex: Variotix C or Variotix L, ambient temperature max. +40 °C

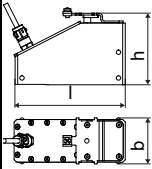
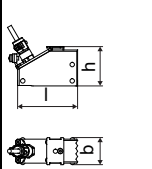

observe the insulation instruction

² nonEx: pipe surface temperature +200...+240 °C: Variotix C without cover³ nonEx: pipe surface temperature max. +200 °C

Shear wave transducers (zone 1, T1)

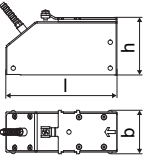
order code		FSG-N*1*-**T1	FSK-N*1*-**T1	FSM-N*1*-**T1	FSP-N*1*-**T1	FSQ-N*1*-**T1
technical type		C(DL)G1N81	C(DL)K1N81	C(DL)M2N81	C(DL)P2N81	C(DL)Q2N81
transducer frequency	MHz	0.2	0.5	1	2	4
inner pipe diameter d						
min. extended	mm	400	100	50	25	10
min. recommended	mm	500	200	100	50	25
max. recommended	mm	4000	2000	1000	400	150
max. extended	mm	6500	2400	1200	480	240
pipe wall thickness						
min.	mm	11	5	2.5	1.2	0.6
material						
housing		PEEK with stainless steel cover 316L (1.4404)				
contact surface		PEEK				
degree of protection		IP66		IP66/IP67		
transducer cable						
type		1699				
length	m	5			4	3
dimensions						
length l	mm	129.5	126.5	64	40	
width b	mm	51	51	32	22	
height h	mm	67	67.5	40.5	25.5	
dimensional drawing						
weight (without cable)	kg	0.47	0.36	0.066	0.016	
pipe surface temperature	°C	-40...+130				
ambient temperature	°C	-40...+130				
temperature compensation		x				
explosion protection						
• ATEX/IECEx						
order code		FSG-NA1*-**T1	FSK-NA1*-**T1	FSM-NA1*-**T1	FSP-NA1*-**T1	FSQ-NA1*-**T1
pipe surface temperature (Ex)	°C	-55...+180				
marking		CE 0637  II2G II2D Ex q IIC T6...T3 Gb Ex tb IIIC T80 °C...T185 °C Db				
certification		IBExU07ATEX1168 X, IECEx IBE 08.0007X				

Shear wave transducers (zone 1, T1, IP68)

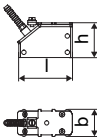
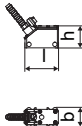

order code		FSG-L*1*-**T1/H68	FSK-L*1*-**T1/H68	FSM-L*1*-**T1/H68	FSP-L*1*-**T1/H68
technical type		CDG1LI1	CDK1LI1	CDM2LI1	CDP2LI1
transducer frequency	MHz	0.2	0.5	1	2
inner pipe diameter d					
min. extended	mm	400	100	50	25
min. recommended	mm	500	200	100	50
max. recommended	mm	4000	2000	1000	400
max. extended	mm	6500	2400	1200	480
pipe wall thickness					
min.	mm	11	5	2.5	1.2
material					
housing		PEEK with stainless steel cover 316Ti (1.4571)			
contact surface		PEEK			
degree of protection		IP68 ¹			
transducer cable					
type		2550			
length	m	12			
dimensions					
length l	mm	130		72	
width b	mm	54		32	
height h	mm	83.5		46	
dimensional drawing					
weight (without cable)	kg	0.43		0.085	
pipe surface temperature	°C	-40...+80			
ambient temperature	°C	-40...+80			
temperature compensation		x			
explosion protection					
• ATEX/IECEx					
order code		FSG-LA1*-**T1/H68	FSK-LA1*-**T1/H68	FSM-LA1*-**T1/H68	FSP-LA1*-**T1/H68
pipe surface temperature (Ex)	°C	-40...+80			
marking		CE0637  II2G II2D Ex q IIC T6...T5 Gb Ex tb IIIC T80 °C...T85 °C Db			
certification		IBExU07ATEX1168 X, IECEx IBE 08.0007X			

¹ test conditions: 3 months/2 bar (20 m)/20 °C

Shear wave transducers (zone 1, T1, extended temperature range)

order code		FSG-E*1*-**T1	FSK-E*1*-**T1
technical type		C(DL)G1E83	C(DL)K1E83
transducer frequency	MHz	0.2	0.5
inner pipe diameter d			
min. extended	mm	400	100
min. recommended	mm	500	200
max. recommended	mm	4000	2000
max. extended	mm	6500	2400
pipe wall thickness			
min.	mm	11	5
material			
housing		PPSU with stainless steel cover 316L (1.4404)	
contact surface		PPSU	
degree of protection		IP66	
transducer cable			
type		1699	
length	m	5	
dimensions			
length l	mm	129.5	
width b	mm	51	
height h	mm	67	
dimensional drawing			
weight (without cable)	kg	0.82	
pipe surface temperature	°C	-40...+155	
ambient temperature	°C	-40...+155	
temperature compensation		x	
explosion protection			
• ATEX/IECEX			
order code		FSG-EA1*-**T1	FSK-EA1*-**T1
pipe surface temperature (Ex)	°C	-50...+155	
marking		CE 0637 Ex II2G II2D Ex q IIC T6...T3 Gb Ex tb IIIC T80 °C...T160 °C Db	
certification		IBExU07ATEX1168 X, IECEx IBE 08.0007X	

Shear wave transducers (zone 1, T1, extended temperature range)

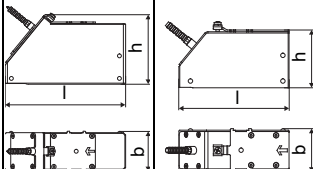
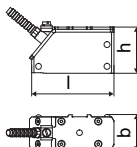
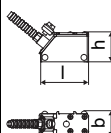
order code		FSM-E*1*-**T1	FSP-E*1*-**T1	FSQ-E*1*-**T1
technical type		C(DL)M2E85	C(DL)P2E85	C(DL)Q2E85
transducer frequency	MHz	1	2	4
inner pipe diameter d				
min. extended	mm	50	25	10
min. recommended	mm	100	50	25
max. recommended	mm	1000	400	150
max. extended	mm	1200	480	240
pipe wall thickness				
min.	mm	2.5	1.2	0.6
material				
housing		PI with stainless steel cover 316L (1.4404)		
contact surface		PI		
degree of protection		IP66/IP67		
transducer cable				
type		6111		
length	m	4		3
dimensions				
length l	mm	64		40
width b	mm	32		22
height h	mm	40.5		25.5
dimensional drawing				
weight (without cable)	kg	0.066		0.017
pipe surface temperature	°C	-30...+225 ¹		-30...+200
ambient temperature	°C	-30...+40 -30...+200 ²		-30...+200
temperature compensation		x		
explosion protection				
• ATEX/IECEx				
order code		FSM-EA1*-**T1	FSP-EA1*-**T1	FSQ-EA1*-**T1
pipe surface temperature (Ex)	°C	-45...+225		
marking		CE 0637  II2G II2D Ex q IIC T6...T2 Gb Ex tb IIIA T80 °C...T230 °C Db		
certification		IBExU07ATEX1168 X, IECEx IBE 08.0007X		

¹ > +200 °C :

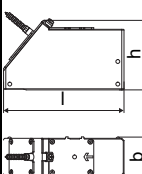
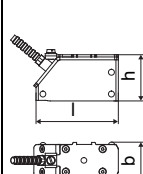
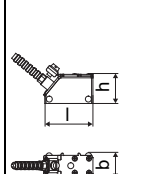
Variofix L or Variofix C
 observe the insulation instruction
 ambient temperature max. +40 °C

² pipe surface temperature max. +200 °C

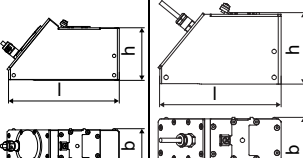
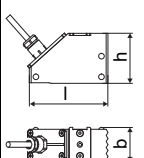

Lamb wave transducers (zone 2 - FM Class I Div. 2 - nonEx, TS)

order code		FLF-N***-**TS	FLG-N***-**TS	FLH-N***-**TS	FLK-N***-**TS	FLM-N***-**TS	FLP-N***-**TS	FLQ-N***-**TS
technical type		C(RT)F1N52	C(RT)G1N52	C(RT)H1N52	C(RT)K1N52	C(RT)M1N52	C(RT)P1N52	C(RT)Q1N52
transducer frequency	MHz	0.15	0.2	0.3	0.5	1	2	4
inner pipe diameter d ¹								
min. extended	mm	640	400	350	100	50	25	10
min. recommended	mm	800	500	450	200	100	50	25
max. recommended	mm	5500	4000	3000	2000	1000	400	150
max. extended	mm	6600	4800	3600	2400	1200	480	240
pipe wall thickness								
min.	mm	15	11	8	5	2.5	1.2	0.6
max.	mm	32	24	16	10	5	3	1.2
material								
housing		PPSU with stainless steel cover 316Ti (1.4571)	PPSU with stainless steel cover 316L (1.4404)					
contact surface		PPSU						
degree of protection		IP66/IP67	IP66					
transducer cable								
type		1699						
length	m	5				4		3
dimensions								
length l	mm	163	128.5			74		42
width b	mm	54	51			32		22
height h	mm	91.3	67.5			40.5		25.5
dimensional drawing								
weight (without cable)	kg	0.935	0.471			0.077		0.019
pipe surface temperature	°C	-40...+130						
ambient temperature	°C	-40...+130						
temperature compensation		x						
explosion protection								
• ATEX/IECEx								
order code		FLF-NA2N-**TS	FLG-NA2N-**TS	FLH-NA2N-**TS	FLK-NA2N-**TS	FLM-NA2N-**TS	FLP-NA2N-**TS	FLQ-NA2N-**TS
pipe surface temperature (Ex)	°C	gas: -50...+165 dust: -50...+155						
marking		<div><div>CE0637ExII3GII2D Ex nA IIC T6...T3 Gc Ex tb IIIA T80 °C...T160 °C Db</div><div>CE0637ExII3GII2D Ex nA IIC T6...T3 Gc Ex tb IIIC T80 °C...T160 °C Db</div></div>						
certification		IBExU10ATEX1163 X, IECEx IBE 12.0005X						
• FM								
order code		FLF-NF2N-**TS	FLG-NF2N-**TS	FLH-NF2N-**TS	FLK-NF2N-**TS	FLM-NF2N-**TS	FLP-NF2N-**TS	FLQ-NF2N-**TS
pipe surface temperature (Ex)	°C	-40...+165						
degree of protection		IP66						
marking		<div><div>FVI APPROVED</div><div>NI/Cl. I,II,III/Div. 2 / GP A,B,C,D,E,F,G/ Temp. Codes dwg 3860</div></div>						

Lamb wave transducers (zone 2 - FM Class I Div. 2 - nonEx, T1)

order code		FLF-N***-**T1	FLG-N***-**T1	FLH-N***-**T1	FLK-N***-**T1	FLM-N***-**T1	FLP-N***-**T1	FLQ-N***-**T1
technical type		C(RT)F1N53	C(RT)G1N53	C(RT)H1N53	C(RT)K1N53	C(RT)M1N53	C(RT)P1N53	C(RT)Q1N53
transducer frequency	MHz	0.15	0.2	0.3	0.5	1	2	4
inner pipe diameter d¹								
min. extended	mm	640	400	350	100	50	25	10
min. recommended	mm	800	500	450	200	100	50	25
max. recommended	mm	5500	4000	3000	2000	1000	400	150
max. extended	mm	6600	4800	3600	2400	1200	480	240
pipe wall thickness								
min.	mm	15	11	8	5	2.5	1.2	0.6
max.	mm	32	24	16	10	5	3	1.2
material								
housing		PPSU with stainless steel cover 316Ti (1.4571)	PPSU with stainless steel cover 316L (1.4404)					
contact surface		PPSU						
degree of protection		IP66/IP67	IP66					
transducer cable								
type		1699						
length	m	5	4				3	
dimensions								
length l	mm	163	128.5			74	42	
width b	mm	54	51			32	22	
height h	mm	91.3	67.5			40.5	25.5	
dimensional drawing								
weight (without cable)	kg	0.935	0.471			0.077	0.019	
pipe surface temperature	°C	-40...+130						
ambient temperature	°C	-40...+130						
temperature compensation		x						
explosion protection								
• ATEX/IECEx								
order code		FLF-NA2*-**T1	FLG-NA2*-**T1	FLH-NA2*-**T1	FLK-NA2*-**T1	FLM-NA2*-**T1	FLP-NA2*-**T1	FLQ-NA2*-**T1
pipe surface temperature (Ex)	°C	gas: -50...+165 dust: -50...+155						
marking		CE 0637 Ex II 3G II 2D Ex nA IIC T6...T3 Gc Ex tb IIIA T80 °C...T160 °C Db						
certification		IBExU10ATEX1163 X, IECEx IBE 12.0005X						
• FM								
order code		FLF-NF2*-**T1	FLG-NF2*-**T1	FLH-NF2*-**T1	FLK-NF2*-**T1	FLM-NF2*-**T1	FLP-NF2*-**T1	FLQ-NF2*-**T1
pipe surface temperature (Ex)	°C	-40...+165						
degree of protection		IP66						
marking		FM APPROVED NI/CI. I,II,III/Div. 2 / GP A,B,C,D,E,F,G/ Temp. Codes dwg 3860						

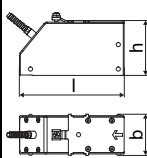
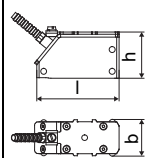

Lamb wave transducers (zone 2 - nonEx, T1, IP68)

order code		FLF-L***-**T1/ H68	FLG-L***-**T1/ H68	FLH-L***-**T1/ H68	FLK-L***-**T1/ H68	FLM-L***-**T1/ H68	FLP-L***-**T1/ H68
technical type		CRF1LI8	CRG1LI8	CRH1LI8	CRK1LI8	CRM1LI8	CRP1LI8
transducer frequency	MHz	0.15	0.2	0.3	0.5	1	2
inner pipe diameter d ¹							
min. extended	mm	640	400	350	100	50	25
min. recommended	mm	800	500	450	200	100	50
max. recommended	mm	5500	4000	3000	2000	1000	400
max. extended	mm	6600	4800	3600	2400	1200	480
pipe wall thickness							
min.	mm	15	11	8	5	2.5	1.2
max.	mm	32	24	16	10	5	3
material							
housing		PPSU with stainless steel cover 316Ti (1.4571)					
contact surface		PPSU					
degree of protection		IP68 ²					
transducer cable							
type		2550					
length	m	12					
dimensions							
length l	mm	173	143.5			73	
width b	mm	54	54			31.6	
height h	mm	91.5	83.5			46	
dimensional drawing							
weight (without cable)	kg	1.36	0.639			0.093	
pipe surface temperature	°C	-40...+100					
ambient temperature	°C	-40...+100					
temperature compensation		x					
explosion protection							
• ATEX/IECEx							
order code		FLF-LA2N-**T1/ H68	FLG-LA2N-**T1/ H68	FLH-LA2N-**T1/ H68	FLK-LA2N-**T1/ H68	FLM-LA2N-**T1/ H68	FLP-LA2N-**T1/ H68
pipe surface temperature (Ex)	°C	gas: -40...+90 dust: -40...+80					
marking		CE 0637  II 3G II 2D Ex nA IIC T6...T5 Gc Ex tb IIIC T80 °C...T85 °C Db					
certification		IBExU10ATEX1163 X, IECEx IBE 12.0005X					

¹ Lamb wave transducer:
typical values for water; pipe diameters for other fluids on request
inner pipe diameter max. recommended: in reflection arrangement (diagonal arrangement) and for a flow velocity of 7 m/s (14 m/s)
inner pipe diameter max. extended: in reflection arrangement (diagonal arrangement) and for a flow velocity of 5 m/s (10 m/s)

² test conditions: 3 months/2 bar (20 m)/20 °C

Lamb wave transducers (zone 2 - FM Class I Div. 2 - nonEx, TS, higher temperatures)

order code		FLG-S***-**TS	FLH-S***-**TS	FLK-S***-**TS	FLM-S***-**TS	FLP-SNNN-**TS
technical type		C(RT)G1S52	C(RT)H1S52	C(RT)K1S52	C(RT)M1S52	C(RT)P1S52
transducer frequency	MHz	0.2	0.3	0.5	1	2
inner pipe diameter d ¹						
min. extended	mm	400	350	100	50	25
min. recommended	mm	500	450	200	100	50
max. recommended	mm	4000	3000	2000	1000	400
max. extended	mm	4800	3600	2400	1200	480
pipe wall thickness						
min.	mm	10.6	7.1	4.2	2.1	1.1
max.	mm	23.7	15.8	9.5	4.7	2.4
material						
housing		PPSU with stainless steel cover 316Ti (1.4571)				
contact surface		PPSU				
degree of protection		IP66				
transducer cable						
type		1699				
length	m	5				4
dimensions						
length l	mm	128.5			74	
width b	mm	51			32	
height h	mm	67.5			40.5	
dimensional drawing						
weight (without cable)	kg	0.8			0.16	
storing temperature	°C	-40...+165				
operating temperature	°C	100...180				
warm-up time	h	3			1	
temperature compensation		x				
explosion protection						
• ATEX/IECEx						
order code		FLG-SA2N-**TS	FLH-SA2N-**TS	FLK-SA2N-**TS	FLM-SA2N-**TS	-
pipe surface temperature (Ex)	°C	gas: -50...+165 dust: -50...+155				
marking		CE 0637 Ex II3G II2D Ex nA IIC T6...T3 Gc Ex tb IIIC T80 °C...T160 °C Db				
certification		IBExU10ATEX1163 X, IECEx IBE 12.0005X				
• FM						
order code		FLG-SF2N-**TS	FLH-SF2N-**TS	FLK-SF2N-**TS	FLM-SF2N-**TS	-
pipe surface temperature (Ex)	°C	-40...+165				
degree of protection		IP66				
marking		 NI/CI, I,II,III/Div. 2 / GP A,B,C,D,E,F,G/ Temp. Codes dwg 3860				

completely thermically insulated transducer installation necessary

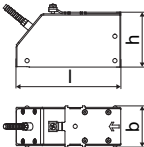
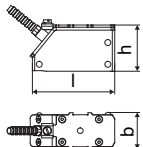

¹ Lamb wave transducer:

typical values for water; pipe diameters for other fluids on request

inner pipe diameter max. recommended: in reflection arrangement (diagonal arrangement) and for a flow velocity of 7 m/s (14 m/s)

inner pipe diameter max. extended: in reflection arrangement (diagonal arrangement) and for a flow velocity of 5 m/s (10 m/s)

Lamb wave transducers (zone 2 - FM Class I Div. 2 - nonEx, T1, higher temperatures)

order code		FLG-S***-**T1	FLH-S***-**T1	FLK-S***-**T1	FLM-S***-**T1	FLP-S***-**T1
technical type		C(RT)G1S53	C(RT)H1S53	C(RT)K1S53	C(RT)M1S53	C(RT)P1S53
transducer frequency	MHz	0.2	0.3	0.5	1	2
inner pipe diameter d ¹						
min. extended	mm	400	350	100	50	25
min. recommended	mm	500	450	200	100	50
max. recommended	mm	4000	3000	2000	1000	400
max. extended	mm	4800	3600	2400	1200	480
pipe wall thickness						
min.	mm	10.6	7.1	4.2	2.1	1.1
max.	mm	23.7	15.8	9.5	4.7	2.4
material						
housing		PPSU with stainless steel cover 316Ti (1.4571)				
contact surface		PPSU				
degree of protection		IP66				
transducer cable						
type		1699				
length	m	5			4	
dimensions						
length l	mm	128.5			74	
width b	mm	51			32	
height h	mm	67.5			40.5	
dimensional drawing						
weight (without cable)	kg	0.8			0.16	
storing temperature	°C	-40...+165				
operating temperature	°C	100...180				
warm-up time	h	3			1	
temperature compensation		x				
explosion protection						
• ATEX/IECEx						
order code		FLG-SA2*-**T1	FLH-SA2*-**T1	FLK-SA2*-**T1	FLM-SA2*-**T1	-
pipe surface temperature (Ex)	°C	gas: -50...+165 dust: -50...+155				
marking		CE 0637 Ex II3G II2D Ex nA IIC T6...T3 Gc Ex tb IIIC T80 °C...T160 °C Db				
certification		IBExU10ATEX1163 X, IECEx IBE 12.0005X				
• FM						
order code		FLG-SF2*-**T1	FLH-SF2*-**T1	FLK-SF2*-**T1	FLM-SF2*-**T1	-
pipe surface temperature (Ex)	°C	-40...+165				
degree of protection		IP66				
marking		 NI/CI, I,II,III/Div. 2 / GP A,B,C,D,E,F,G/ Temp. Codes dwg 3860				

completely thermally insulated transducer installation necessary

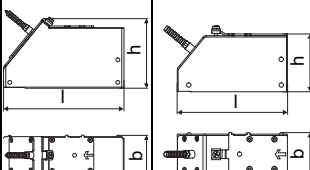
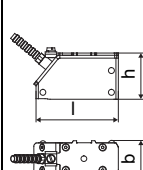
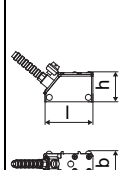
¹ Lamb wave transducer:

typical values for water; pipe diameters for other fluids on request

inner pipe diameter max. recommended: in reflection arrangement (diagonal arrangement) and for a flow velocity of 7 m/s (14 m/s)

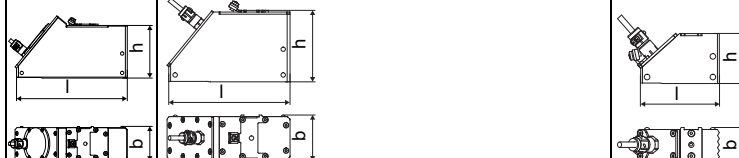
inner pipe diameter max. extended: in reflection arrangement (diagonal arrangement) and for a flow velocity of 5 m/s (10 m/s)

Lamb wave transducers (zone 1, T1)

order code		FLF-N*1*-**T1	FLG-N*1*-**T1	FLH-N*1*-**T1	FLK-N*1*-**T1	FLM-N*1*-**T1	FLP-N*1*-**T1	FLQ-N*1*-**T1	
technical type		C(RT)F1N83	C(RT)G1N83	C(RT)H1N83	C(RT)K1N83	C(RT)M1N83	C(RT)P1N83	C(RT)Q1N83	
transducer frequency	MHz	0.15	0.2	0.3	0.5	1	2	4	
inner pipe diameter d¹									
min. extended	mm	640	400	350	100	50	25	10	
min. recommended	mm	800	500	450	200	100	50	25	
max. recommended	mm	5500	4000	3000	2000	1000	400	150	
max. extended	mm	6600	4800	3600	2400	1200	480	240	
pipe wall thickness									
min.	mm	15	11	8	5	2.5	1.2	0.6	
max.	mm	32	24	16	10	5	3	1.2	
material									
housing		PPSU with stainless steel cover 316L, 316Ti (1.4404, 1.4571)				PPSU with stainless steel cover 316L (1.4404)			
contact surface		PPSU							
degree of protection		IP66/IP67		IP66					
transducer cable									
type		1699							
length	m	5				4		3	
dimensions									
length l	mm	163	128.5			74	42		
width b	mm	54	51			32	22		
height h	mm	91.3	67.5			40.5	25.5		
dimensional drawing									
weight (without cable)	kg	0.935	0.471			0.077	0.019		
pipe surface temperature	°C	-40...+130							
ambient temperature	°C	-40...+130							
temperature compensation		x							
explosion protection									
• ATEX/IECEx									
order code		FLF-NA1N-**T1	FLG-NA1N-**T1	FLH-NA1N-**T1	FLK-NA1N-**T1	FLM-NA1N-**T1	FLP-NA1N-**T1	FLQ-NA1N-**T1	
pipe surface temperature (Ex)	°C	-50...+155							
marking		CE0637 Ex II2G II2D Ex q IIC T6...T3 Gb Ex tb IIIA T80 °C...T160 °C Db							
certification		IBExU07ATEX1168 X, IECEx IBE 08.0007X							

¹ Lamb wave transducer:
typical values for water; pipe diameters for other fluids on request
inner pipe diameter max. recommended: in reflection arrangement (diagonal arrangement) and for a flow velocity of 7 m/s (14 m/s)
inner pipe diameter max. extended: in reflection arrangement (diagonal arrangement) and for a flow velocity of 5 m/s (10 m/s)

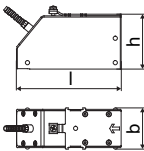
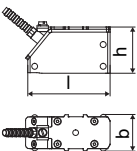
Lamb wave transducers (zone 1, T1, IP68)

order code		FLF-L*1*~**T1/ H68	FLG-L*1*~**T1/ H68	FLH-L*1*~**T1/ H68	FLK-L*1*~**T1/ H68	FLM-L*1*~**T1/ H68	FLP-L*1*~**T1/ H68
technical type		CRF1LI3	CRG1LI3	CRH1LI3	CRK1LI3	CRM1LI3	CRP1LI3
transducer frequency	MHz	0.15	0.2	0.3	0.5	1	2
inner pipe diameter d ¹							
min. extended	mm	640	400	350	100	50	25
min. recommended	mm	800	500	450	200	100	50
max. recommended	mm	5500	4000	3000	2000	1000	400
max. extended	mm	6600	4800	3600	2400	1200	480
pipe wall thickness							
min.	mm	15	11	8	5	2.5	1.2
max.	mm	32	24	16	10	5	3
material							
housing		PPSU with stain- less steel cover 316Ti (1.4571)	PPSU with stainless steel cover 316Ti (1.4571)				
contact surface		PPSU	PPSU				
degree of protection		IP68 ²	IP68 ²				
transducer cable							
type		2550	2550				
length	m	12	12				
dimensions							
length l	mm	173	143.5			73	
width b	mm	54	54			31.6	
height h	mm	91.5	83.5			46	
dimensional drawing							
weight (without cable)	kg	1.36	0.639			0.093	
pipe surface temperature	°C	-40...+80	-40...+80				
ambient temperature	°C	-40...+80	-40...+80				
temperature compensation		x	x				
explosion protection							
• ATEX/IECEX							
order code		FLF-LA1N~**T1/ H68	FLG-LA1N~**T1/ H68	FLH-LA1N~**T1/ H68	FLK-LA1N~**T1/ H68	FLM-LA1N~**T1/ H68	FLP-LA1N~**T1/ H68
pipe surface temperature (Ex)	°C	-40...+80					
marking		CE 0637 Ex II2G II2D Ex q IIC T6...T5 Gb Ex tb IIIC T80 °C...T85 °C Db					
certification		IBExU07ATEX1168 X, IECEx IBE 08.0007X					

¹ Lamb wave transducer:
 typical values for water; pipe diameters for other fluids on request
 inner pipe diameter max. recommended: in reflection arrangement (diagonal arrangement) and for a flow velocity of 7 m/s (14 m/s)
 inner pipe diameter max. extended: in reflection arrangement (diagonal arrangement) and for a flow velocity of 5 m/s (10 m/s)

² test conditions: 3 months/2 bar (20 m)/20 °C

Lamb wave transducers (zone 1, higher temperatures, T1)

order code		FLG-S*1N-**T1	FLH-S*1N-**T1	FLK-S*1N-**T1	FLM-S*1N-**T1
technical type		C(RT)G1S83	C(RT)H1S83	C(RT)K1S83	C(RT)M1S83
transducer frequency	MHz	0.2	0.3	0.5	1
inner pipe diameter d ¹					
min. extended	mm	400	350	100	50
min. recommended	mm	500	450	200	100
max. recommended	mm	4000	3000	2000	1000
max. extended	mm	4800	3600	2400	1200
pipe wall thickness					
min.	mm	10.6	7.1	4.2	2.1
max.	mm	23.7	15.8	9.5	4.7
material					
housing		PPSU with stainless steel cover 316Ti (1.4571)			
contact surface		PPSU			
degree of protection		IP66			
transducer cable					
type		1699			
length	m	5			4
dimensions					
length l	mm	128.5			74
width b	mm	51			32
height h	mm	67.5			40.5
dimensional drawing					
weight (without cable)	kg	0.8			0.16
storing temperature	°C	-40...+155			
operating temperature	°C	100...155			
warm-up time	h	3			1
temperature compensation		x			
explosion protection					
• ATEX/IECEx					
order code		FLG-SA1N-**T1	FLH-SA1N-**T1	FLK-SA1N-**T1	FLM-SA1N-**T1
pipe surface temperature (Ex)	°C	-50...+155			
marking		CE0637 Ex II2G II2D Ex q IIC T6...T3 Gb Ex tb IIIC T80 °C...T160 °C Db			
certification		IBExU07ATEX1168 X, IECEx IBE 08.0007X			

completely thermally insulated transducer installation necessary

¹ Lamb wave transducer:

typical values for water; pipe diameters for other fluids on request

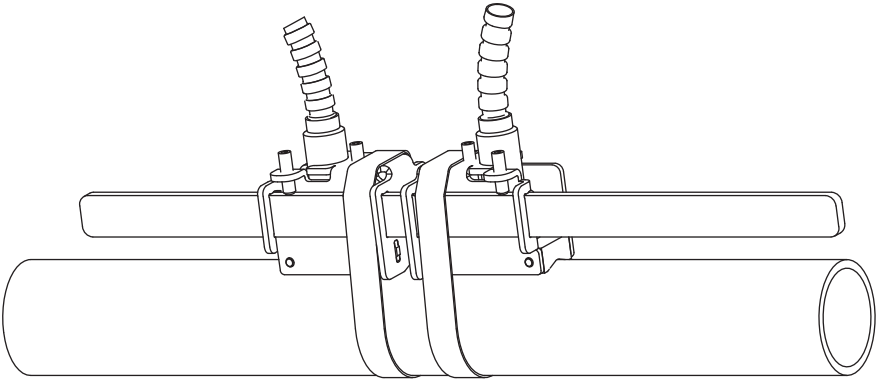
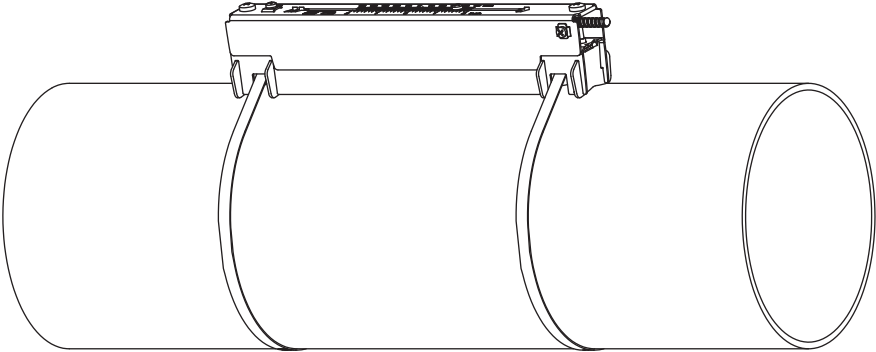
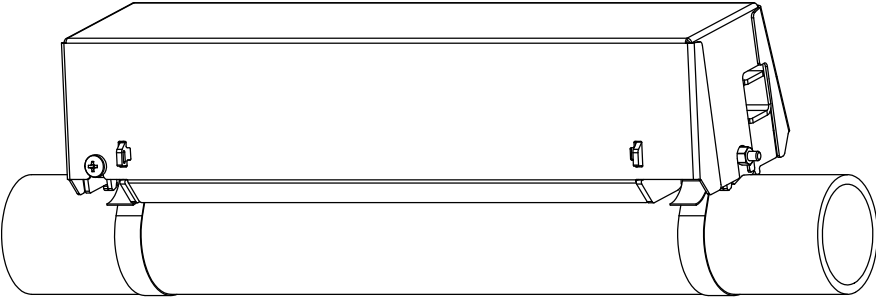
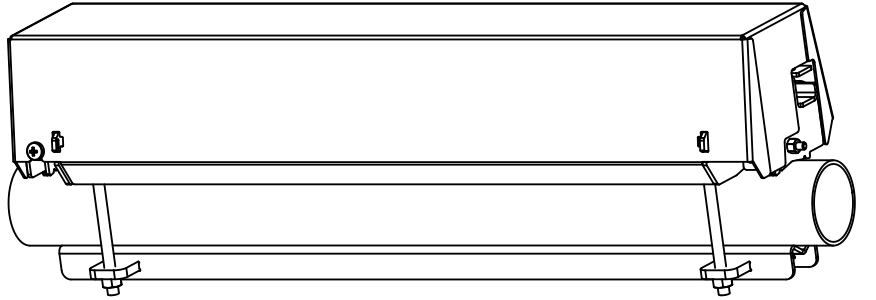
inner pipe diameter max. recommended: in reflection arrangement (diagonal arrangement) and for a flow velocity of 7 m/s (14 m/s)

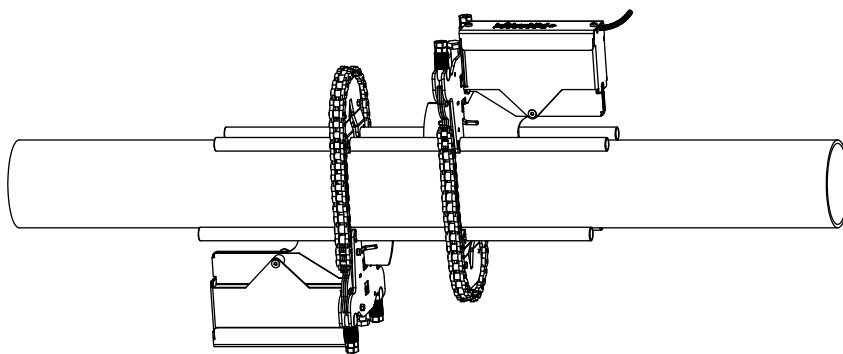
inner pipe diameter max. extended: in reflection arrangement (diagonal arrangement) and for a flow velocity of 5 m/s (10 m/s)

Transducer mounting fixture

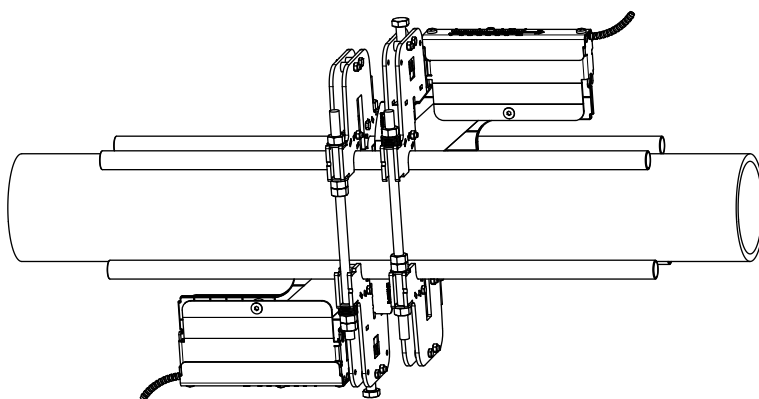
Order code

1, 2	3	4	5	6	7...10	no. of character
transducer mounting fixture	transducer	measurement arrangement	size	fixation	outer pipe diameter	description
VL						Variofix L
VC						Variofix C
WN						WaveInjector WI-550
WH						WaveInjector WI-630
	F					transducers with transducer frequency F
	G					transducers with transducer frequency G
	H					transducers with transducer frequency H
	K					transducers with transducer frequency K
	M					transducers with transducer frequency M
	P					transducers with transducer frequency P
	Q					transducers with transducer frequency Q
	S					transducers with transducer frequency S
		D				reflection arrangement or diagonal arrangement
		R				reflection arrangement
			S			small
			M			medium
			L			large
				B		bolts
				S		tension straps
				W		welding
				N		without fixation
					0020	10...20 mm
					0040	20...40 mm
					T360	40...360 mm
					0130	10...130 mm
					0360	130...360 mm
					0920	360...920 mm
					2000	920...2000 mm
					4500	2000...4500 mm
					9400	4500...9400 mm
					NODR	any
					H68	for transducers with degree of protection IP68

Variofix L (VLS) 	transducer frequency: S material: stainless steel 304 (1.4301), 303 (1.4305)
Variofix L (VL) 	material: stainless steel 316Ti (1.4571), 316L (1.4404), 17-7PH (1.4568) inner length: VL(GHK) : 348 mm, option H68: 368 mm VL(MP) : 234 mm VLQ : 176 mm dimensions: VL(GHK) : 423 x 90 x 93 mm option H68: 443 x 94 x 105 mm VL(MP) : 309 x 57 x 63 mm VLQ : 247 x 43 x 47 mm
Variofix C (VC) 	material: stainless steel 316Ti (1.4571) inner length: VC(GK)-*L : 500 mm VC(GK)-*S : 350 mm VC(M) : 400 mm VCQ : 250 mm dimensions: VC(GK)-*L : 560 x 126 x 125 mm VC(GK)-*S : 410 x 126 x 125 mm VC(MP) : 460 x 96 x 82 mm VCQ : 310 x 85 x 71 mm
Variofix C (VC) with bolt mounting plates (VC*-**B) 	material: stainless steel 316Ti (1.4571) inner length: VC(MP) : 400 mm VCQ : 250 mm dimensions: VC(MP) : 460 x 96 x 82 mm VCQ : 310 x 85 x 71 mm outer pipe diameter: VC(MP) : max. 46 mm VCQ : max. 36 mm

WaveInjector with chains

see Technical specification
TSWaveInjectorVx-x

WaveInjector with threaded rods

outer pipe diameter:
35...380 mm
see Technical specification
TSWaveInjectorVx-x

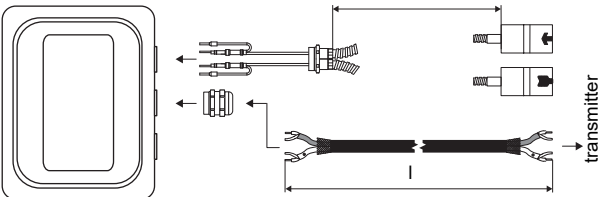
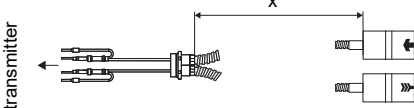
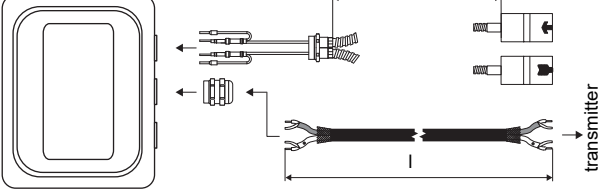
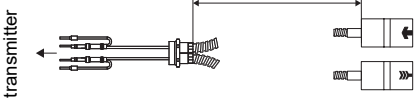
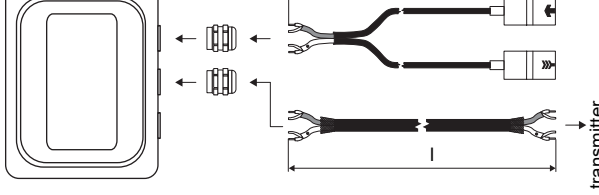
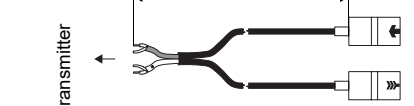
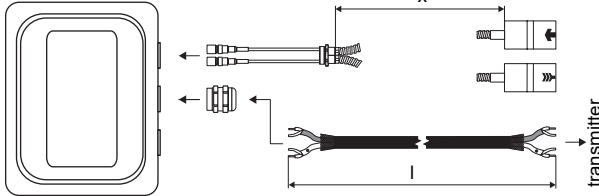
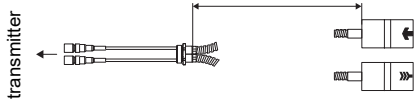
Coupling materials for transducers

	normal temperature range (4th character of transducer order code = N)		extended temperature range higher temperatures (4th character of transducer order code = E, S)			WaveInjector	
	< 100 °C	< 130 °C	< 180 °C	< 200 °C	200...240 °C	< 280 °C	280...630 °C
< 24 h	coupling compound type N or coupling foil type VT	coupling compound type type N or E or coupling foil type VT	coupling compound type E or coupling foil type VT	coupling compound type E or coupling foil type VT	coupling compound type H or coupling foil type TF	coupling foil type A and coupling foil type VT	coupling foil type B and coupling foil type VT
long time measurement	coupling foil type VT	coupling foil type VT	coupling foil type VT	coupling foil type VT	coupling foil type TF	coupling foil type A and coupling foil type VT	coupling foil type B and coupling foil type VT

Technical data

type	ambient temperature °C	remark
coupling compound type N	-30...+130	
coupling compound type E	-30...+200	
coupling compound type H	-30...+250	
coupling foil type A	max. 280	
coupling foil type B	280...630	
coupling foil type VT	-10...+200	fluid temperature 200 °C: min. 2 years
coupling foil type TF	200...240	

Connection systems

connection system T1		
connection with extension cable	direct connection	transducers technical type
<p>JBP2, JBP3, JB06</p> 		*****53
<p>JB01</p> 		*****8*
<p>JB01, JBP2, JBP3</p> 		*****L*
connection system TS		
connection with extension cable	direct connection	transducers technical type
<p>JB02, JB03, JB04</p> 		*****52

Cable

transducer cable				
type		1699	2550	6111
weight	kg/m	0.094	0.035	0.092
ambient temperature	°C	-55...+200	-40...+100	-100...+225
properties			longitudinal watertight	
cable jacket				
material		PTFE	PUR	PFA
outer diameter	mm	2.9	5.2 ±0.2	2.7
thickness	mm	0.3	0.9	0.5
colour		brown	grey	white
shield		x	x	x
sheath				
material		stainless steel 316Ti (1.4571)	-	stainless steel 316Ti (1.4571)
outer diameter	mm	8	-	8

extension cable			
type		2615	5245
weight	kg/m	0.18	0.38
ambient temperature	°C	-30...+70	-30...+70
properties		halogen-free fire propagation test according to IEC 60332-1 combustion test according to IEC 60754-2	halogen-free fire propagation test according to IEC 60332-1 combustion test according to IEC 60754-2
cable jacket			
material		PUR	PUR
outer diameter	mm	max. 12	max. 12
thickness	mm	2	2
colour		black	black
shield		x	x
sheath			
material		-	steel wire braid with copolymer sheath
outer diameter	mm	-	max. 15.5

Cable length

transducer frequency		F, G, H, K		M, P		Q		S	
transducers technical type		x	l	x	l	x	l	x	l
*(DR)***5*	m	5	≤ 300	4	≤ 300	3	≤ 90	2	≤ 40
*(LT)***5*	m	9	≤ 300	9	≤ 300	9	≤ 90	-	-
transducers technical type		x	l	x	l	x	l	x	l
*(DR)***8*	m	5	≤ 300	4	≤ 300	3	≤ 90	-	-
*(LT)***8*	m	9	≤ 300	9	≤ 300	9	≤ 90	-	-
option H68: ****L*	m	12	≤ 300	12	≤ 300	-	-	-	-

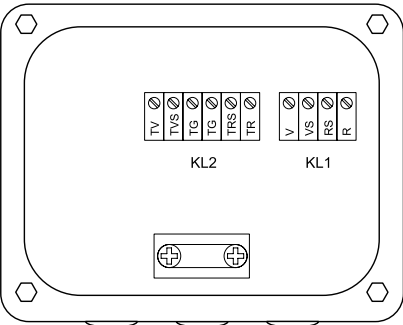
x - transducer cable length

l - max. length of extension cable (depending on the application)

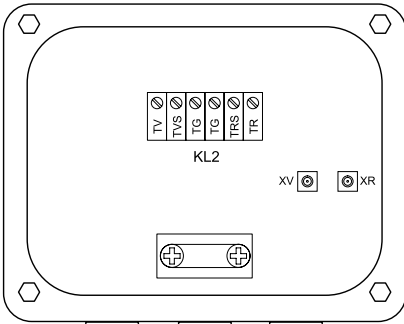
Junction box

Technical data

JB01S4E3M		
weight	kg	1.2 kg
fixation		wall mounting optional: 2" pipe mounting
material		
housing		stainless steel 316L (1.4404)
gasket		silicone
degree of protection		IP66/IP67
ambient temperature °C		-40...+80
explosion protection		
• ATEX/IECEX		
marking		CE 0637 Ex II2G II2D Ex eb mb IIC T6...T4 Gb Ex tb IIIC T100 °C Db Ta -40...+70/80 °C
certification		IBExU06ATEX1161 IECEX IBE 08.0006
type of protection		gas: increased safety decoupling network: encapsulation dust: protection by enclosure

Connection			
			
Transducers			
terminal strip	terminal	connection	transducer
KL1	V	signal	↑
	VS	internal shield	
	RS	internal shield	⌋
	R	signal	
Extension cable			
terminal strip	terminal	connection	
KL2	TV	signal	
	TVS	internal shield	
	TRS	internal shield	
	TR	signal	

JB02, JB03, JB04		
weight	kg	1.2 kg
fixation		wall mounting optional: 2" pipe mounting
material		
housing		stainless steel 316L (1.4404)
gasket		silicone
degree of protection		JB02, JB03: IP66/IP67 JB04: Type 4X, IP66
ambient temperature °C		-40...+80
explosion protection		
• ATEX/UKCA		
junction box		JB02
marking		CE UKCA Ex II3G Ex nA IIC T6...T4 Gc II3D Ex tc IIIC T 100 °C Dc -40 ≤ Ta ≤ +70 °C/+80 °C
• FM		
junction box		JB04
certification type		JBC24
marking		FM APPROVED NI/CI. I,II,III/Div. 2 / GP A,B,C,D,E,F,G/ T6 Ta = -40...+60 °C

Connection			
			
Transducers			
	terminal	connection	transducer
	XV	SMB connector	↑
	XR	SMB connector	⌋
Extension cable			
terminal strip	terminal	connection	
KL2	TV	signal	
	TVS	internal shield	
	TRS	internal shield	
	TR	signal	

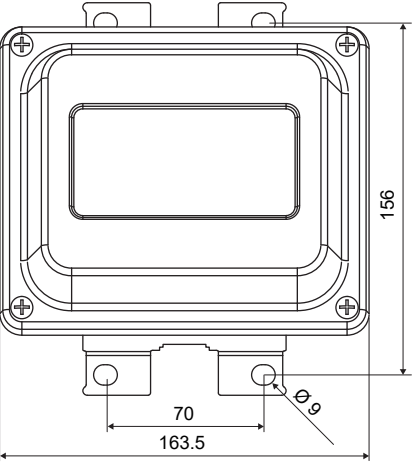
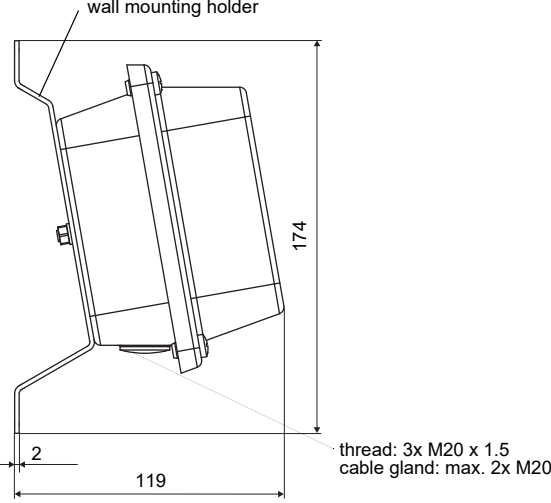
JBP2, JBP3, JB06		
weight	kg	1.2 kg
fixation		wall mounting optional: 2" pipe mounting
material		
housing		stainless steel 316L (1.4404)
gasket		silicone
degree of protection		JBP2, JBP3: IP66/IP67 JB06: Type 4X, IP66
ambient temperature °C		-40...+80
explosion protection		
• ATEX/UKCA		
junction box		JBP2
marking		<div><div><div>CE</div><div>UKCA</div><div>Ex</div></div><div>II3G Ex nA IIC T6...T4 Gc II3D Ex tc IIIC T 100 °C Dc -40 ≤ Ta ≤ +70 °C/+80 °C</div></div>
• FM		
junction box		JB06
certification type		JBC23
marking		<div><div><div>FIM</div><div>APPROVED</div></div><div>NI/CI. I,II,III/Div. 2 / GP A,B,C,D,E,F,G/ T6 Ta = -40...+60 °C</div></div>

Connection			

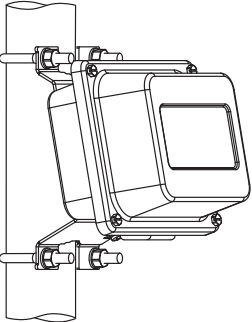
Transducers			
terminal strip	terminal	connection	transducer
KL1	V	signal	↑
	VS	internal shield	
	RS	internal shield	↗
	R	signal	

Extension cable		
terminal strip	terminal	connection
KL2	TV	signal
	TVS	internal shield
	TRS	internal shield
	TR	signal

Dimensions

JB0*, JBP*	
	
in mm	

2" pipe mounting kit

<div>JB**</div> <div></div>	<div>item number: 751035-2</div>
--	----------------------------------

For more information: **Emerson.com**

© 2024 Emerson. All rights reserved.

Emerson Terms and Conditions of Sale are available upon request.
The Emerson logo is a trademark and service mark of Emerson Electric Co. Flexim is a mark of one of the Emerson family of companies. All other marks are the property of their respective owners.