



TECHNICAL INFORMATION

Clamp-On Ultrasonic Flowmeter Selection Guide for Different Piping Specifications

UL330 / UL330R / UL350 / UL6300 V2

About the Selection Guide for Different Piping Specifications

By following this document, you can select clamp-on ultrasonic flowmeters that can be applied according to different specifications for metal, lined, and plastic piping.

The clamp-on ultrasonic flowmeters covered in this document include the following models and sensor types indicated as A to G:

Clamp-on ultrasonic flowmeter models:

- A:** UL330 / UL330R
[Detector: UFS330A (A Sensor, 2 MHz) + Converter: UFC330A/B]
- B:** UL330 / UL330R
[Detector: UFS330C (C Sensor, 1 MHz) + Converter: UFC330A/B]
- C:** UL350
[Detector: UFS330A (A Sensor, 2 MHz) + Converter: UFC350A]
- D:** UL350
[Detector: UFS350B (B Sensor, 1 MHz) + Converter: UFC350A]
- E:** UL6300 V2 Small Sensor
- F:** UL6300 V2 Medium Sensor
- G:** UL6300 V2 Large Sensor



UL330 / UL330R



UL350



UL6300 V2

■ Metal pipes

Nominal pipe diameter (A / mm)	Piping specification			Galvanized steel pipe for water supply SGPW [JIS G 3442]
	Stainless steel pipe [JIS G3459 / JIS G3468]		Carbon steel pipe *1 SGP [JIS G 3452]	
	Thickness ≤ Sch 20	Thickness = Sch 40		
15 to 20	E	E	E	Not applicable *2
25 to 32	A, C, E	C, E	C, E	
40				
50 to 100	A, C, F	D, F	D, F	
125				
150				
200		D, G	D, G	
250				
300				
350	B, D, G	D, G	D, G	
400				
450	D, G			
500				
550 to 1000				
1100 to 4000				

*1: If the inner surface of the pipe has rust, ultrasonic signals may undergo irregular reflection, resulting in abnormal measurements.

*2: SGPWs have a larger amount of zinc plating adhesion compared to white SGPs, and often, the zinc coating on the inner and outer surfaces of the pipes is rough. This can make it difficult to obtain accurate measurements because ultrasonic signals undergo irregular reflection.

■ Lined pipes

Nominal pipe diameter (A / mm)	Piping specification	
	Polyethylene (PE) lined steel pipe	PVC lined steel pipe
15 to 20	Not applicable	
25 to 32	C, E	Not applicable *3
40		
50 to 100	D, F	
125		
150		
200		
250		
300		
350	D, G	
400		
450		
500		
550 to 800	G	
850 to 4000		

Clamp-on ultrasonic flowmeter models:

- A:** UL330 / UL330R
[Detector: UFS330A (A Sensor, 2 MHz) + Converter: UFC330A/B]
- B:** UL330 / UL330R
[Detector: UFS330C (C Sensor, 1 MHz) + Converter: UFC330A/B]
- C:** UL350
[Detector: UFS330A (A Sensor, 2 MHz) + Converter: UFC350A]
- D:** UL350
[Detector: UFS350B (B Sensor, 1 MHz) + Converter: UFC350A]
- E:** UL6300 V2 Small Sensor
- F:** UL6300 V2 Medium Sensor
- G:** UL6300 V2 Large Sensor

*3: Normal measurement is difficult due to irregular reflection of ultrasonic signals in the gap between the steel pipe and lining (PVC).

■ Plastic pipes


Nominal pipe diameter (mm)	Piping specification							
	Rigid polyvinyl chloride (PVC) pipe VP, HIVP [JIS K 6741]	Polyethylene (PE) pipe *5		Polypropylene (PP) pipe *6		PVDF pipe *7		
		Thickness ≤ 10 mm	10 mm < Thickness ≤ 30 mm	Thickness ≤ 15 mm	Thickness > 15 mm	Thickness ≤ 9 mm	Thickness > 9 mm	
15 to 20	E	E	Not applicable	E	Not applicable	E	Not applicable	
25 to 32	A, C, E	A, C, E	C, E	C, E	D	C, E	C, D	
40								
50 to 100	A, C, F	A, C, F	D, F	D, F	D	D, F	D	
125								
150			D, G	D, G	D, G	D, G	D, G	
200								
250			D, G	D, G	D, G	D, G	D, G	
300								
350								
400								
450			*4	*4	*4	Not applicable	Not applicable	Not applicable
500								
550 to 800								
850 to 4000								

*4: A trial using a demonstration unit is recommended. Contact Tokyo Keiso for more information.

*5: Reference piping standard/product: JIS K 6761 / GF ecoFIT PE100

*6: Reference piping standard: DIN8077/8088

*7: Reference piping product: GF SDR33/SDR11

 Contact Tokyo Keiso for the piping specifications not listed in the table.

Specification is subject to change without notice.

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