



Specification Sheet

Battery-Powered Electromagnetic Water Meter 40 – 300 mm (with Remote Display)	Model	SU40-KF, SU50-KF, 65-KF, SU80-KF, SU100-KF, SU125-KF, SU150-KF, SU200-KF, SU250-KF, SU300-KF
	Aichi Reference No.	SU40-300-KF-C

1. General

This is a battery built-in type electromagnetic water meter that M. Faraday's Electromagnetic Induction Law is applied. This meter demonstrates its wide measuring range and high durability as there is no mechanical moving part in the flow measurement tube of the meter. This meter has the external output corresponding to the remote monitoring / the remote control.

2. Specifications

2-1. Main Materials

- Outer Casing Stainless Steel
- Flow Measurement Tube Stainless Steel (Tube Liner: Epoxy Resin Powder Painting)
- Electrode Stainless Steel
- Register Unit Stainless Steel, Glass
- Electronic Unit Electronic Component, PC Board

2-2. Performance & Function

Flow Performance to ISO 4064, OIML R49/2013			
Meter Size (mm)	40		
Max. Flowrate	Q ₄ [±2%] (m ³ /h)	31.3	
Permanent Flowrate	Q ₃ [±2%] (m ³ /h)	25	
Transitional Flowrate	Q ₂ [±2%] (m ³ /h)	0.16	
Min. Flowrate	Q ₁ [±5%] (m ³ /h)	0.1	
Measuring Range	Q ₃ /Q ₁ (R)	250	
Low Flow Cut (m ³ /h)	0.05		
Pressure Loss at Permanent Flowrate (Q ₃) (MPa)	0.063 or less		
Maximum Permissible Working Pressure (MPa)	1.0		
Measurable Fluid	Applicable Working Fluid Temperature (°C)	+0.1 to +30	
	Fluid Conductivity (μ S/cm)	50 or more	
Ambient Temperature (°C)	-10 to +55		
Waterproof	IP68		
Registration	Integrating Flow	Max. Registration (m ³)	999999.9999
		Smallest Scale Unit (L)	0.1
	Others	Instantaneous Flowrate (m ³ /h) No-Water Warning Low-Battery Alarm	
Power Supply	Built-in Lithium Battery Estimated Battery Life: 10 years at 30°C ambient temperature (including storage time)		
Weight (Meter with Pulse Output inc. 10m cable) (kg)	Approx. 7.8		
Weight (Meter with Pulse Output inc. 30m cable) (kg)	Approx. 8.8		
Piping Connection	Flange Connection Method		

Remarks: Specifications are subject to change without notice.



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		Aichi Reference No.		SU40-300-KF-C	
Flow Performance to ISO 4064, OIML R49/2013					
Meter Size (mm)		50	65	80	100
Max. Flowrate	Q ₄ [±2%] (m ³ /h)	50	78.8	125	200
Permanent Flowrate	Q ₃ [±2%] (m ³ /h)	40	63	100	160
Transitional Flowrate	Q ₂ [±2%] (m ³ /h)	0.16	0.252	0.4	0.64
Min. Flowrate	Q ₁ [±5%] (m ³ /h)	0.1	0.158	0.25	0.4
Measuring Range Q ₃ /Q ₁ (R)		400			
Low Flow Cut (m ³ /h)		0.08	0.126	0.2	0.32
Pressure Loss at Permanent Flowrate (Q ₃) (MPa)		0.063 or less			
Maximum Permissible Working Pressure (MPa)		1.0			
Measurable Fluid	Applicable Working Fluid Temperature (°C)	+0.1 to +30			
	Fluid Conductivity (μ S/cm)	50 or more			
Ambient Temperature (°C)		-10 to +55			
Waterproof		IP68			
Registration	Integrating Flow	Max. Registration (m ³)	999999.9999		999999.999
		Smallest Scale Unit (L)	0.1		1
	Others	Instantaneous Flowrate (m ³ /h) No-Water Warning Low-Battery Alarm			
Power Supply		Built-in Lithium Battery Estimated Battery Life: 10 years at 30°C ambient temperature (including storage time)			
Weight (Meter with 10m cable and Remote Display) (kg)		Approx. 8.8	Approx. 9.8	Approx. 11.8	Approx. 14.8
Weight (Meter with 30m cable and Remote Display) (kg)		Approx. 9.8	Approx. 10.8	Approx. 12.8	Approx. 15.8
Piping Connection		Flange Connection Method			

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		Aichi Reference No.	SU40-300-KF-C	
Flow Performance to ISO 4064, OIML R49/2013				
Meter Size (mm)		125	150	200
Max. Flowrate	Q ₄ [±2%] (m ³ /h)	313	500	788
Permanent Flowrate	Q ₃ [±2%] (m ³ /h)	250	400	630
Transitional Flowrate	Q ₂ [±2%] (m ³ /h)	1	1.6	2.52
Min. Flowrate	Q ₁ [±5%] (m ³ /h)	0.625	1	1.58
Measuring Range Q ₃ /Q ₁ (R)		400		
Low Flow Cut (m ³ /h)		0.5	0.8	1.26
Pressure Loss at Permanent Flowrate (Q ₃) (MPa)		0.063 or less		
Maximum Permissible Working Pressure (MPa)		1.0		
Measurable Fluid	Applicable Working Fluid Temperature (°C)	+0.1 to +30		
	Fluid Conductivity (μ S/cm)	50 or more		
Ambient Temperature (°C)		-10 to +55		
Waterproof		IP68		
Registration	Integrating Flow	Max. Registration (m ³)	999999.999	9999999.999
		Smallest Scale Unit (L)	1	
	Others	Instantaneous Flowrate (m ³ /h) No-Water Warning Low-Battery Alarm		
Power Supply		Built-in Lithium Battery Estimated Battery Life: 10 years at 30°C ambient temperature (including storage time)		
Weight (Meter with 10m cable and Remote Display) (kg)		Approx. 18.8	Approx. 24.8	Approx. 32.8
Weight (Meter with 30m cable and Remote Display) (kg)		Approx. 19.8	Approx. 25.8	Approx. 33.8
Piping Connection		Flange Connection Method		

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	Aichi Reference No.	SU40-300-KF-C	
Flow Performance to ISO 4064, OIML R49/2013			
Meter Size (mm)	250	300	
Max. Flowrate $Q_4 [\pm 2\%]$ (m ³ /h)	1250		
Permanent Flowrate $Q_3 [\pm 2\%]$ (m ³ /h)	1000		
Transitional Flowrate $Q_2 [\pm 2\%]$ (m ³ /h)	4		
Min. Flowrate $Q_1 [\pm 5\%]$ (m ³ /h)	2.5		
Measuring Range Q_3/Q_1 (R)	400		
Low Flow Cut (m ³ /h)	2		
Pressure Loss at Permanent Flowrate (Q_3) (MPa)	0.063 or less		
Maximum Permissible Working Pressure (MPa)	1.0		
Measurable Fluid	Applicable Working Fluid Temperature (°C)	+0.1 to +30	
	Fluid Conductivity (μ S/cm)	50 or more	
Ambient Temperature (°C)	-10 to +55		
Waterproof	IP68		
Registration	Integrating Flow	Max. Registration (m ³)	9999999.99
		Smallest Scale Unit (L)	10
	Others	Instantaneous Flowrate (m ³ /h) No-Water Warning Low-Battery Alarm	
Power Supply	Built-in Lithium Battery Estimated Battery Life: 10 years at 30°C ambient temperature (including storage time)		
Weight (Meter with 10m cable and Remote Display) (kg)	Approx. 54.8	Approx. 70.8	
Weight (Meter with 30m cable and Remote Display) (kg)	Approx. 55.8	Approx. 71.8	
Piping Connection	Flange Connection Method		
Remarks: Specifications are subject to change without notice			



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	Aichi Reference No.	SU40-300-KF-C
Transmitter (to SR-4DPAM)	MX35-2	
Input	Receives the optical code from SU	
Output	Outputs “SS” electronic statement to SR-4DPAM	
Signal Cable	2-Wire (black & white)	
	Polyvinyl Chloride Insulated Flexible Cords (VCTF)	
	Finished Outside Diameter: ϕ 6mm	
	Nominal Section Area: 0.75mm ²	
	Maximum Conductor Resistance: 25.1 Ω /km (at 20°C)	
	Color of Sheath: Grey	
Maximum Transmission Distance Between MX35-2 And SR-4DP	10m/30m	
Color	Blue	
Weight (including 10m cable)	Approx. 530g	
Weight (including 30m cable)	Approx. 1500g	

Remarks: Specifications are subject to change without notice.

Note1:

- The optical communication between the main meter and the remote transmitter MX35-2 is conducted.

Note2:

- The communication between the MX35-2 and the remote display SR-4DPAM is conducted via cable.



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	Aichi Reference No.	SU40-300-KF-C

Meter Size (mm)			40
Remote Display			SR-4DPAM
Aichi Reference No.			SR-4DPAM-A
Input			Receives “SS format electronic statement signal from MX35-2
Output	Pulse	Output Form	Normally open
		Pulse on Time	300ms
		Number of Contact	2
		Pulse Weight (CH1 and CH2) (L)	10/100/1000/10000
		Kind of Pulse	Option0 Forward Net (Forward Pulse – Reverse Pulse) for CH1 and CH2 Option1 CH1: Forward Pulse CH2: Reverse Pulse Option2 CH1: D. Flag (Direction Flag) CH2: Forward Pulse + Reverse Pulse
		Maximum Load Current	10mA
		Maximum Load Voltage	24V
		Interval to Update Pulse	1.8sec
		Maximum Transmission Distance	200m (When the cable with 0.01 μ F/100m or less is used.)
		Color of Case	
Weight			Approx. 320g

Remarks: Specifications are subject to change without notice.

Note3:

- The communication between the SR-4DPAM and other device (e. g. data logger) is conducted via cable.



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		Aichi Reference No.	SU40-300-KF-C				
Meter Size (mm)		50	65	80	100	125	
Remote Display		SR-4DPAM					
Aichi Reference No.		SR-4DPAM-A					
Input		Receives “SS format electronic statement signal from MX35-2					
Output	Pulse	Output Form	Normally open				
		Pulse on Time	300ms				
		Number of Contact	2				
		Pulse Weight (CH1 and CH2) (L)	10/100/1000/ 10000	(10)*/100/ 1000/10000 * For Meter Size 65mm, the flow-rate must not exceed 60m ³ /h when the pulse weight is 10L/pulse.	100/1000/10000		
		Kind of Pulse	Option0 Forward Net (Forward Pulse – Reverse Pulse) for CH1 and CH2 Option1 CH1: Forward Pulse CH2: Reverse Pulse Option2 CH1: D. Flag (Direction Flag) CH2: Forward Pulse + Reverse Pulse				
		Maximum Load Current	10mA				
		Maximum Load Voltage	24V				
		Interval to Update Pulse	1.8sec				
Maximum Transmission Distance		200m (When the cable with 0.01 μ F/100m or less is used.)					
Color of Case		Beige					
Weight		Approx. 320g					

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	Aichi Reference No.	SU40-300-KF-C

Meter Size (mm)	150	200	250	300	
Remote Display	SR-4DPAM				
Aichi Reference No.	SR-4DPAM-B				
Input	Receives “SS format electronic statement signal from MX35-2				
Output	Pulse	Output Form	Normally open		
		Pulse on Time	300ms		
		Number of Contact	2		
		Pulse Weight (CH1 and CH2) (L)	100/1000/ 10000	(100)*/1000/10000 * For Meter Size 200mm, 250mm and 300mm, the flow-rate must not exceed 600m ³ /h when the pulse weight is 100L/pulse.	
		Kind of Pulse	Option0 Forward Net (Forward Pulse – Reverse Pulse) for CH1 and CH2 Option1 CH1: Forward Pulse CH2: Reverse Pulse Option2 CH1: D. Flag (Direction Flag) CH2: Forward Pulse + Reverse Pulse		
		Maximum Load Current	10mA		
		Maximum Load Voltage	24V		
		Interval to Update Pulse	1.8sec		
		Maximum Transmission Distance	200m (When the cable with 0.01 μ F/100m or less is used.)		
		Color of Case	Beige		
Weight	Approx. 320g				

Remarks: Specifications are subject to change without notice.