

Vortex flow meter (Pulse / Analog output)

VK-T

- Low pressure drop due to simple flow design
- High durability with no moving parts
- No restriction on installation orientations
- All-plastic wetted material type available (VK-TR05/10)



To ensure flow accuracy, pipes and fittings you use must be greater than or equal to ID of your instrument with a minimum of five diameters (5D) of straight run length upstream and a minimum of two diameters (2D) of straight run length downstream. To prevent cavitation, back pressure should be applied by installing something like a valve at the outlet side of your instrument.

Model number selection

Base model	Output type	Fluid name	Flow range	Connection size	Option	Specialized item(s)
VK-T	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Display	Paired with Display / Converter (Optional symbol required) * 1
01	Rc1/4
02	Rc3/8
03	Rc1/2
04	Rc3/4
R2	R3/8
R3	R1/2
R4	R3/4
RR3	R1/2

Metal fitting

Plastic fitting

Flow range	Connection size	Specialized item(s)
5	0.5 – 5L/min	20
10	1 – 10L/min	60
120	10 – 120L/min	

Option	Description
1	Water or equivalent
9	Specialized fluid * Specify fluid name at the end of model number
P	Pulse
A	4 – 20 mA + Pulse
AN	1 – 5 V DC + Pulse
AT	1 – 10 V DC + Pulse
AV	0 – 5 V + Pulse
AW	0 – 10 V + Pulse

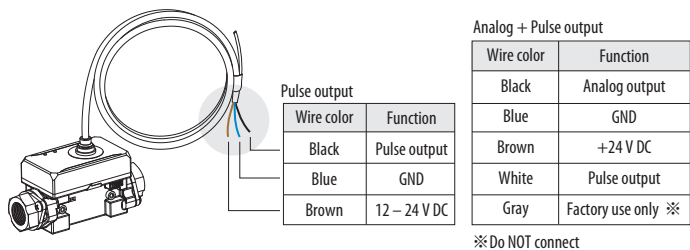
* 1: Display is paired with this product
Refer to Digital meter / Converter for symbol(s).

Base model	Flow range	Connection size
R05	0.5 – 5L/min	Rc1/4 to 1/2, R3/8 to 1/2
R10	1 – 10, 2 – 20L/min	Rc3/8 to 1/2, R3/8 to 1/2
M20	5 – 60L/min	Rc1/2 to 3/4, R3/4
M25	10 – 120L/min	Rc1

Specifications

Base model	VK-TR05	VK-TR10	VK-TM20	VK-TM25
Flow range	0.5 – 5L/min	1 – 10L/min 2 – 20L/min	5 – 60L/min	10 – 120L/min
Fluid name	Water or equivalent			
Flow accuracy	±3% of F.S.			
Fluid temperatures	0 – 70°C			
Operating temperatures	0 – 50°C (Non condensing / freezing)			
Pressure limit	1MPa(G) / Withstand pressure 1.5MPa(G)			
Pulse output	NPN open collector, Max. 35 V DC / 100 mA			
Current output	4 – 20 mA Load resistance: ≤ 300 Ω			
Voltage output	1 – 5 V / 1 – 10 V / 0 – 5 V / 0 – 10 V DC Load resistance: ≥ 5 kΩ			
Power source / Current consumption	Pulse output	12 – 24 V DC ±10% / Max. 6 mA		
	Current + Pulse output	24 V DC ±10% / Max. 43 mA		
	Voltage + Pulse output	24 V DC ±10% / Max. 24 mA		
Cable length	2 m (standard) AWG 26			
Wetted materials	PPS, FKM, SCS13 (PPS, FKM for Plastic fitting version)			

Electrical connections



LED

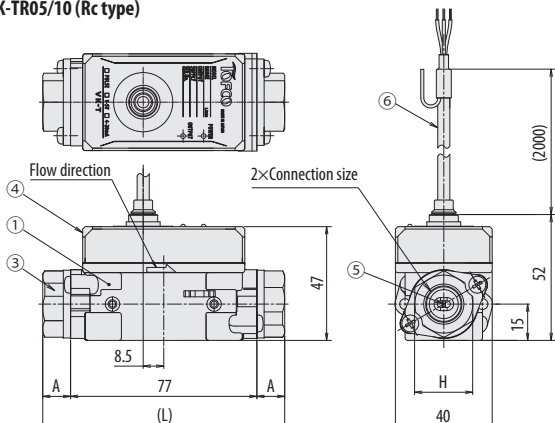
2 types of LED available

- Power indicator
 - ON: Power ON
 - OFF: Power OFF
- Flow indicator
 - ON or Blinking: In operation
 - OFF: Out of flow range, flow error

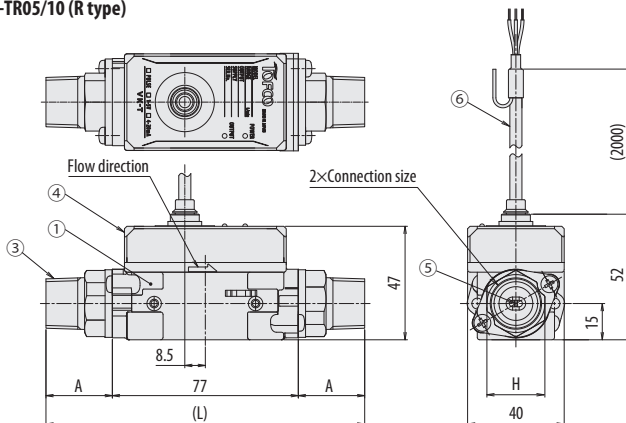


Outline drawing

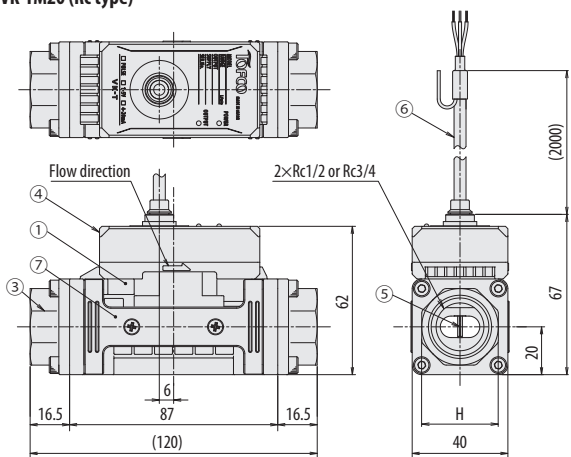
VK-TR05/10 (Rc type)



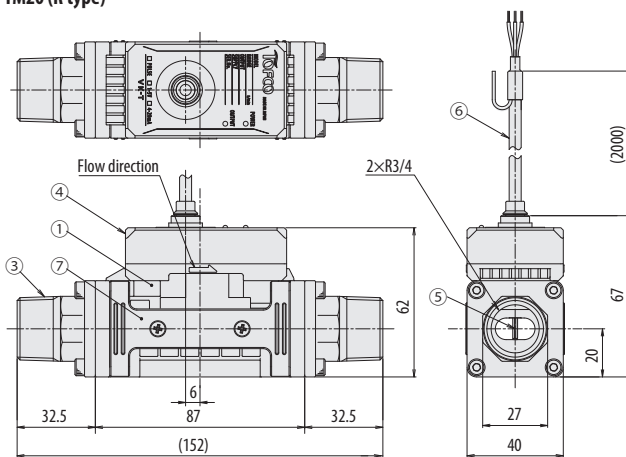
VK-TR05/10 (R type)



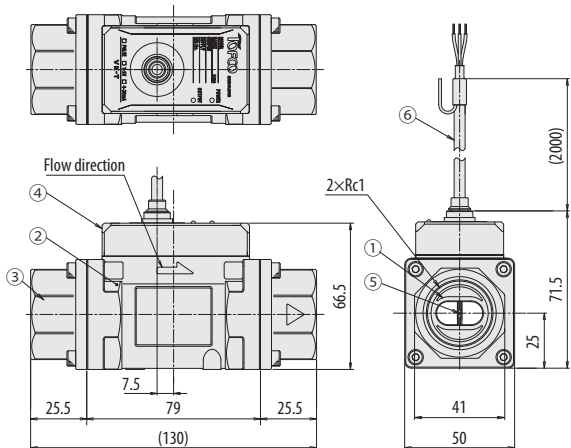
VK-TM20 (Rc type)



VK-TM20 (R type)



VK-TM25 (Rc type)



Dimensions

Model	Connection size	L	A	H
VK-TR	Rc1/4, 3/8	100	11.5	24
	Rc1/2	112	17.5	26
	R3/8	129	26	19
	R1/2	132	27.5	24

Model	Connection size	H
VK-TM20	Rc1/2	27
	Rc3/4	32

Materials

No.	Part name	Material	Remark
1	Body	PPS	Bluff body included
2	Case	ADC12	
3	Fitting	SCS13 / PPS *	* Plastic fitting version
4	Cover	PPS	
5	Sensor holder	PPS	
6	Cable	-	AWG 26
7	Plate	ADC12	
-	O-ring	FKM	