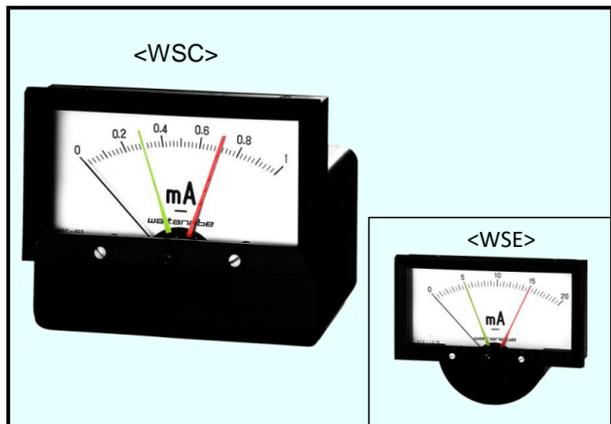


Insulated cover-type Non-contact Meter Relay

WSC/WSE-102FD/FS



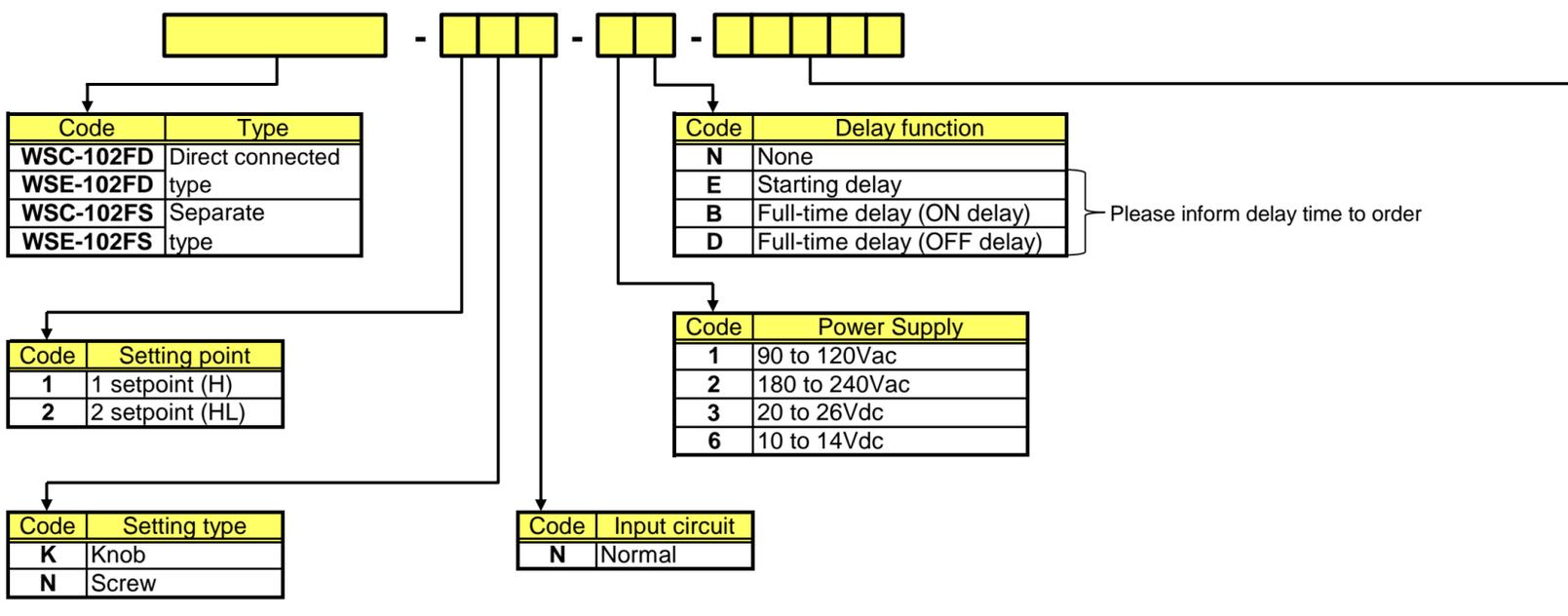
This insulated cover-type non-contact meter relay (Voltmeter/Ammeter) is a typical model of LED-type non-contact meter relays, which is used most widely.

- ★ Reduces mounting man-hour by integrated relay box
- ★ Panel size 59.5(H) x 102(W) mm

When you order

- ★ Please inform below when you order
 - 1) Model code (Refer below : 'Ordering code')
 - 2) Scale (Refer page 2 : 'Standard scale list')
 - 3) Unit (Refer page 3 : 'Unit list')

Ordering code



Input range

1) Input range for WSC-102FD/FS (All up type)

*Refer page 2 for WSE-102FD/FS (Separate type)

Input Range (Voltage)	DC		AC	
	Range code	Accessories	Range code	Accessories
0 to 10mV	11VDA	None		
0 to 30mV	13VDA	None		
0 to 50mV	15VDN	None		
0 to 60mV	16VDN	None		
0 to 100mV	21VDN	None		
0 to 200mV	22VDN	None		
0 to 300mV	23VDN	None		
0 to 500mV	25VDN	None		
0 to 1V	31VDN	None		
0 to 3V	33VDN	None		
0 to 5V	35VDN	None		
0 to 10V	41VDN	None	41EAN	None
0 to 15V	4FVDN	None	4FEAN	None
0 to 20V	42VDN	None	42EAN	None
0 to 30V	43VDN	None	43EAN	None
0 to 50V	45VDN	None	45EAN	None
0 to 75V	4WVDN	None	4WEAN	None
0 to 100V	51VDN	None	51EAN	None
0 to 150V	5FVDN	None	5FEAN	None
0 to 200V	52VDN	None	52EAN	None
0 to 300V	53VDN	None	53EAN	None
0 to 500V	55VDN	None	55EAN	None
0 to 750V	5WVM2	M-2 (Multiplier)	5WEB2	M-2 (Multiplier)
1 to 5V (1MΩ)	2222A	None		
1 to 5V	2222N	None		
Other than above				
10mV to less than 50mV	99VDA	None		
50mV to less than 100mV				
100mV to less than 10V	99VDN	None	99EAN	None
10V to less than 500V				
500V to less than 750mV	99VM2	M-2 (Multiplier)	99EB2	M-2 (Multiplier)

Input Range (Current)	DC		AC	
	Range code	Accessories	Range code	Accessories
0 to 10μA	11ADA	None		
0 to 50μA	15ADA	None		
0 to 100μA	21ADN	None	21CAN	None
0 to 200μA	22ADN	None	22CAN	None
0 to 500μA	25ADN	None	25CAN	None
0 to 1mA	31ADN	None	31CAN	None
0 to 3mA	33ADN	None	33CAN	None
0 to 5mA	35ADN	None	35CAN	None
0 to 10mA	41ADN	None	41CAN	None
0 to 20mA	42ADN	None	42CAN	None
0 to 30mA	43ADN	None	43CAN	None
0 to 50mA	45ADN	None	45CTN	None (CT built-in)
0 to 100mA	51ADN	None	51CTN	None (CT built-in)
0 to 300mA	53ADN	None	53CTN	None (CT built-in)
0 to 500mA	55ADN	None	55CTN	None (CT built-in)
0 to 1A	61ADN	None	61CTN	None (CT built-in)
0 to 2A	62ADN	None	62CTN	None (CT built-in)
0 to 3A	63ADN	None	63CTN	None (CT built-in)
0 to 5A	65ADN	None	65CTN	None (CT built-in)
0 to 10A	71AS2	WS-2 (Shunt)	71CT2	WCT-2CR (CT)
0 to 15A	7FAS2	WS-2 (Shunt)	7FCT2	WCT-2CR (CT)
0 to 20A	72AS2	WS-2 (Shunt)	72CT2	WCT-2CR (CT)
0 to 30A	73AS2	WS-2 (Shunt)	73CT2	WCT-2CR (CT)
0 to 50A	75AS2	WS-2 (Shunt)	75CT2	WCT-2CR (CT)
0 to 75A	7WAS2	WS-2 (Shunt)	7WCT2	WCT-2CR (CT)
0 to 100A	81AS2	WS-2 (Shunt)	81CT2	WCT-2CR (CT)
0 to 150A	8FAS2	WS-2 (Shunt)	8FCT2	WCT-2CR (CT)
0 to 200A	82AS2	WS-2 (Shunt)	82CT2	WCT-2CR (CT)
0 to 250A			8RCT2	WCT-2CR (CT)
0 to 300A	83AS3	WS-300 (Shunt)	83CT5	WCT-2CR (CT)
0 to 400A			84CT5	WCT-2CR (CT)
0 to 500A	85AS5	WS-500 (Shunt)	85CT5	WCT-2MRN (CT)
0 to 600A			86CT5	WCT-2MRN (CT)
0 to 750A			8WCT5	WCT-2CR (CT)
4 to 20mA	1111N	None		
Other than above				
10μA to less than 100μA	99ADA	None		
100μA to less than 50mA	99ADN	None	99CAN	None
50mA to less than 5A			99CTN	None
5A to less than 150A	99AS2	WS-2 (Shunt)	99CT2	WCT-2CR (CT)

★ Regarding the range code of extended scale and zero center scale

Scale	Range code	Remarks
Double extended scale	OOOVO	Only for AC current input
Triple extended scale	OOOWO	
Zero center	OOOZO	Only for DC input

*Example : Input range code is "41VZN", if input range is +/-10V (zero center)

2) Input range for WSE-102FD/FS (Separate type)

*Refer page 1 for WSC-102FD/FS (All up type)

Input Range (Voltage)	DC		AC			
	Range code	Accessories	Range code	Accessories		
0 to 50mV	15VDN	None				
0 to 60mV	16VDN	None				
0 to 100mV	21VDN	None				
0 to 200mV	22VDN	None				
0 to 300mV	23VDN	None				
0 to 500mV	25VDN	None				
0 to 1V	31VDN	None				
0 to 3V	33VDN	None				
0 to 5V	35VDN	None				
0 to 10V	41VDN	None				
0 to 15V	4FVDN	None	41EAN	None		
0 to 20V	42VDN	None	4FEAN	None		
0 to 30V	43VDN	None	42EAN	None		
0 to 50V	45VDN	None	43EAN	None		
0 to 75V	4WVDN	None	45EAN	None		
0 to 100V	51VDN	None	4WEAN	None		
0 to 150V	5FVDN	None	51EAN	None		
0 to 200V	52VDN	None	5FEAN	None		
0 to 300V	53VDN	None	52EAN	None		
0 to 500V	55VDN	M-2 (Multiplier)	53EAN	None		
0 to 750V	5WVM2	M-2 (Multiplier)	55EAN	M-2 (Multiplier)		
1 to 5V (1MΩ)	2222A	None	5WEB2	M-2 (Multiplier)		
1 to 5V	2222N	None				
80 to 120V	812DN	None				
Other than above						
50mV to less than 100mV	99VDN	None				
100mV to less than 10V						
10V to less than 300V					99EAN	None
300V to less than 750V					99VM2	M-2 (Multiplier)

Input Range (Current)	DC		AC						
	Range code	Accessories	Range code	Accessories					
0 to 100μA	21ADN	None	21CAN	None					
0 to 200μA	22ADN	None	22CAN	None					
0 to 500μA	25ADN	None	25CAN	None					
0 to 1mA	31ADN	None	31CAN	None					
0 to 3mA	33ADN	None	33CAN	None					
0 to 5mA	35ADN	None	35CAN	None					
0 to 10mA	41ADN	None	41CAN	None					
0 to 20mA	42ADN	None	42CAN	None					
0 to 30mA	43ADN	None	43CAN	None					
0 to 50mA	45ADN	None							
0 to 100mA	51ADN	None							
0 to 300mA	53ADN	None							
0 to 500mA	55ADN	None							
0 to 1A	61ADN	None							
0 to 2A	62ADN	None							
0 to 3A	63AS2	WS-2 (Shunt)							
0 to 5A	65AS2	WS-2 (Shunt)							
0 to 10A	71AS2	WS-2 (Shunt)			71CT1	WCT-1 (CT)			
0 to 15A	7FAS2	WS-2 (Shunt)			7FCT1	WCT-1 (CT)			
0 to 20A	72AS2	WS-2 (Shunt)	72CT1	WCT-1 (CT)					
0 to 30A	73AS2	WS-2 (Shunt)	73CT1	WCT-1 (CT)					
0 to 50A	75AS2	WS-2 (Shunt)	75CT1	WCT-1 (CT)					
0 to 75A	7WAS2	WS-2 (Shunt)	7WCT1	WCT-1 (CT)					
0 to 100A	81AS2	WS-2 (Shunt)	81CT1	WCT-1 (CT)					
0 to 150A	8FAS2	WS-2 (Shunt)	8FCT1	WCT-1 (CT)					
0 to 200A	82AS2	WS-2 (Shunt)							
0 to 250A									
0 to 300A	83AS3	WS-300 (Shunt)							
0 to 400A									
0 to 500A	85AS5	WS-500 (Shunt)							
0 to 600A									
0 to 750A									
4 to 20mA	1111N	None							
Other than above									
100μA to less than 30mA	99ADA	None		99CAN	None				
50mA to less than 3A									
3A to less than 5A						99AS2	WS-2 (Shunt)	99CT1	WCT-1 (CT)
5A to less than 150A									

Specifications

Input signal	DC voltage / DC current / AC voltage / AC current
Input rating	10mV to 750Vdc 10μA to 500Adc
Output	Relay contact output (1 point or 2 point)
Setting range	0 to 100% of scale
Accuracy	±2.5%
Dead band	±1%
Contact capacity	Maximum : 125Vac 1A, Minimum : 10mVdc 10μA
Relay operating time	At startup : 0.5 seconds Normal operation : 0.1 seconds
Operating temperature range	-10 to +60°C
Effects of ambient temperature	±0.01% FS per °C
Insulation resistance	100MΩ or more with 1000Vdc megger
Dielectric strength	2000Vac for 1 minute
Weight	Approx. 420 to 480g
Power supply voltage	100Vac / 110Vac / 200Vac / 220Vac / 24Vdc / 12Vdc
Power consumption	Approx. 2VA (100Vac), Approx. 2.5VA (200Vac), Approx. 1VA (12Vdc), Approx. 2VA (24Vdc)
Panel size	59.5 (H) x 102(W)mm

Standard scale list

Max Scale Value	Scale (Zero left or bottom)
1, 10, 100, 1000	
1.5, 15, 150, 1500	
2, 20, 200	
3, 30, 300	
4, 40, 400	
5, 50, 500	
7.5, 75, 750	

Max Scale Value	Scale (Zero center)
±1, ±10, ±100, ±1000	
±1.5, ±15, ±150, ±1500	
±2, ±20, ±200	
±3, ±30, ±300	
±4, ±40, ±400	
±5, ±50, ±500	
±7.5, ±75, ±750	

Notes : Contact us for special scale other than the above.

- 1) Color scale / letter / digit / band
- 2) Double / Triple extended scale etc.

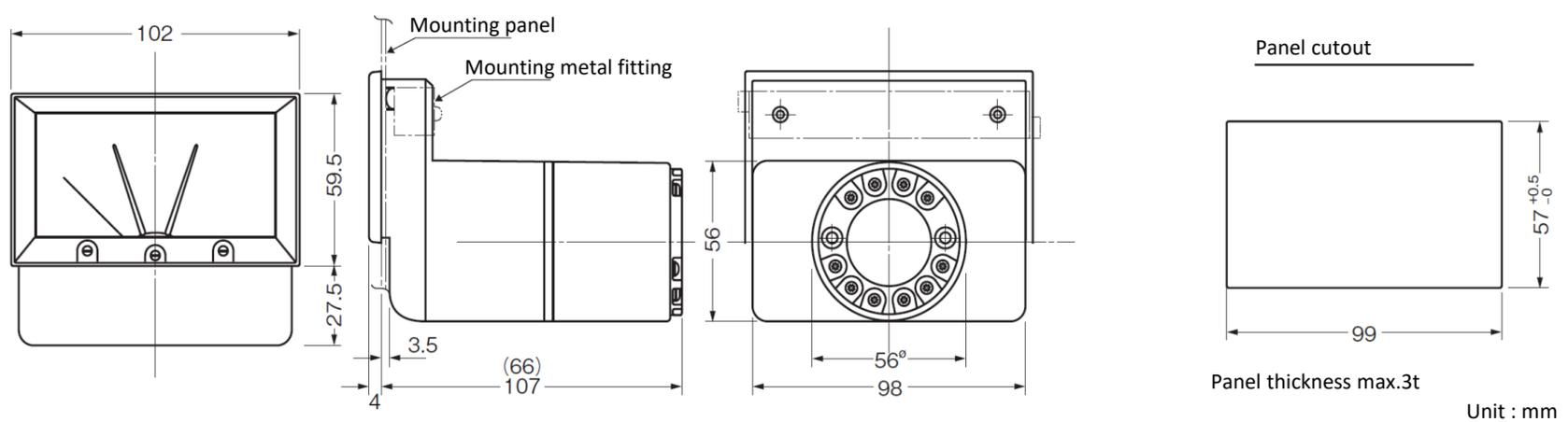
Unit list

mA	cc	kΩ	mm	t/h
<u>mA</u>	cm/min	l	mm ³	μA
<u>mA</u>	cpm	l/h	mm/min	μm
A	deg	l/min	mm/s	μs
<u>A</u>	g	l/s	mN	VA
<u>A</u>	Hz	lx	m/h	W
mV	kA	MPa	m/s	<u>W</u>
<u>mV</u>	kg	MW	N	<u>W</u>
<u>mV</u>	kg/cm ²	MΩ	Pa	Ω
V	kHz	m	pH	%
<u>V</u>	kl	m ²	ppm	°C
<u>V</u>	km	m ³	rpm	°F
kV	km/h	mg	s	
<u>kV</u>	kPa	mg/l	t	
<u>kV</u>	kW	ml	ton	

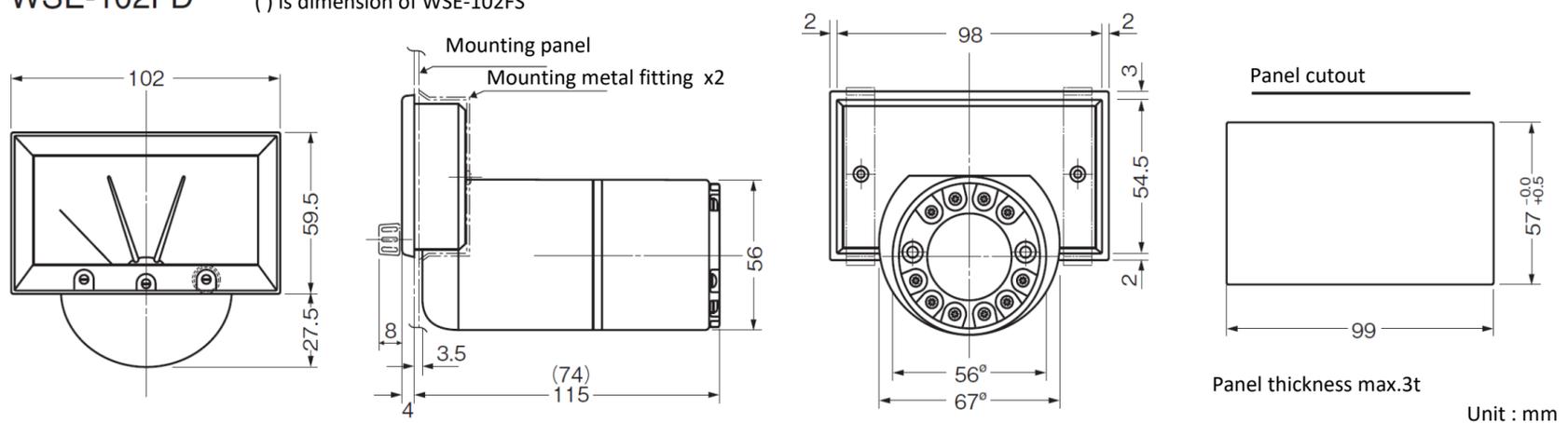
Notes : Contact us for other than the above.

Dimensions

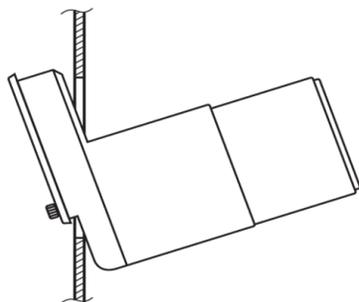
WSC-102FD () is dimension of WSC-102FS



WSE-102FD () is dimension of WSE-102FS



Mounting



- 1) Insert the instrument into the mounting hole from diagonally above the front of the mounting panel.
- 2) From the back of the mounting panel, apply the instrument mounting bracket and screw it in.

* Specification is subject to change without notice