

Switch

Micro Switch Series

KLS7-KW3-OZ Micro Switch Series

Features

- Small contact clearance, high sensitivity
- Snap action, high precision and high repeat accuracy
- Flexible operating travel, wide range of operating force
- Wide variety of terminal types
- Wide variety of actuator forms
- Adopt flame-retarded and fiber enhanced thermoplastics
- Long life cycles, high reliability
- Various approvals

Application

Widely applied in home appliances, medical devices, office facility, instrument and apparatus, electric motion tools, packing machinery, auto electronics etc.
 Examples: vending machines, gaming machines, coffee machines, dishwashers, dryers, washing machines, microwave ovens, Central water heating, vacuum cleaners, water pump, projecting apparatus, industrial automations etc.



Specifications

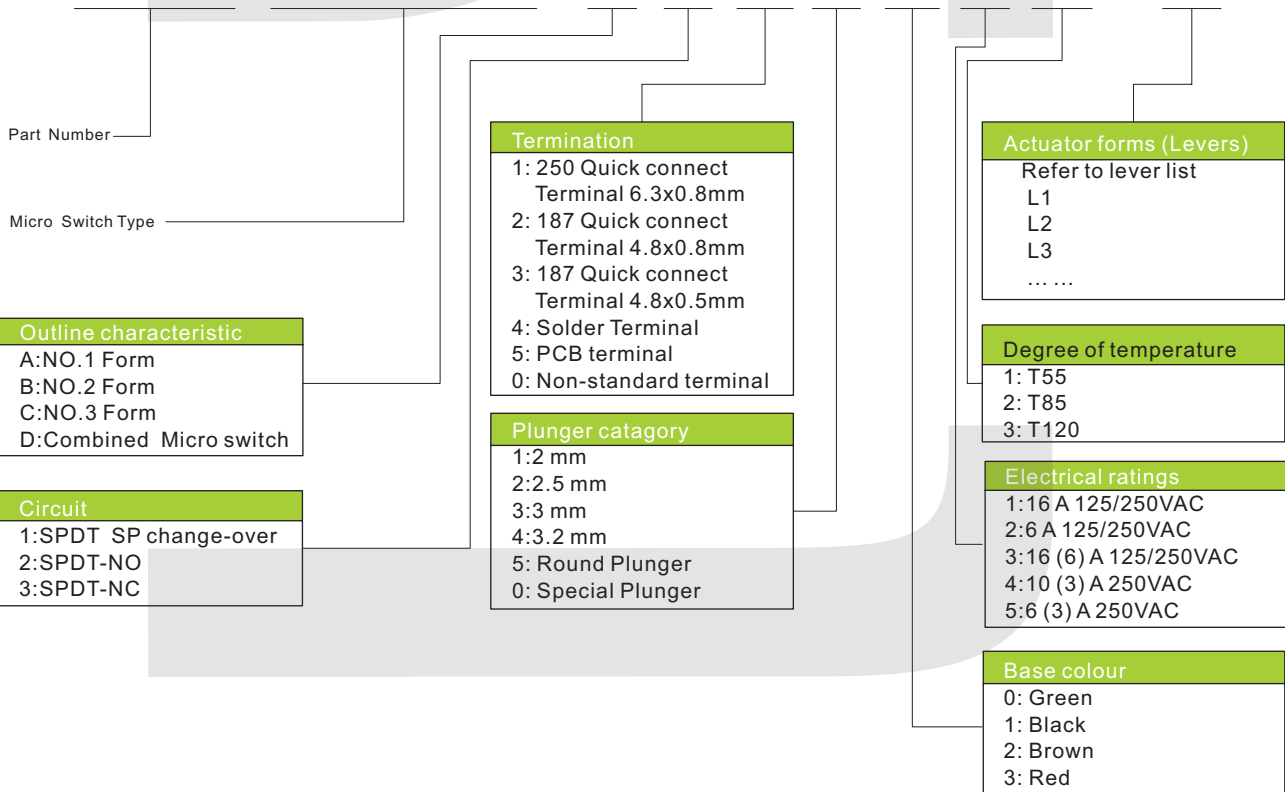
Items		Value
Operating speed		0.1mm~1m/S
Operating Frequency		Mechanical 60cycles/min; Electrical 25cycles/min
Insulation resistance		≥100MΩ (DC500V)
Contact resistance		≤30mΩ (Initial value)
Test voltage	Between terminals of same polarity	AC1500V 50/60HZ
	Between current-carrying metal parts and ground (case)	AC3750V 50/60HZ
Vibration resistance		10~55 HZ 1.5mm Double amplitude
Shock resistance		Destruction: OF>0.5N: 1000m/S ² (approx. 100G) Max OF≤0.5N: 400m/S ² (approx. 40G) Max Malfunction: OF>0.5N: 200m/S ² (approx. 20G) Max OF≤0.5N: 100m/S ² (approx. 10G) Max
Life expectancy		Mechanical ≥2000000cycles Electrical ≥50000cycles
Degree of protection against electric		Class I /Class II
PTI		175
Approvals		UL CUL VDE TUV CE DEMKO CQC

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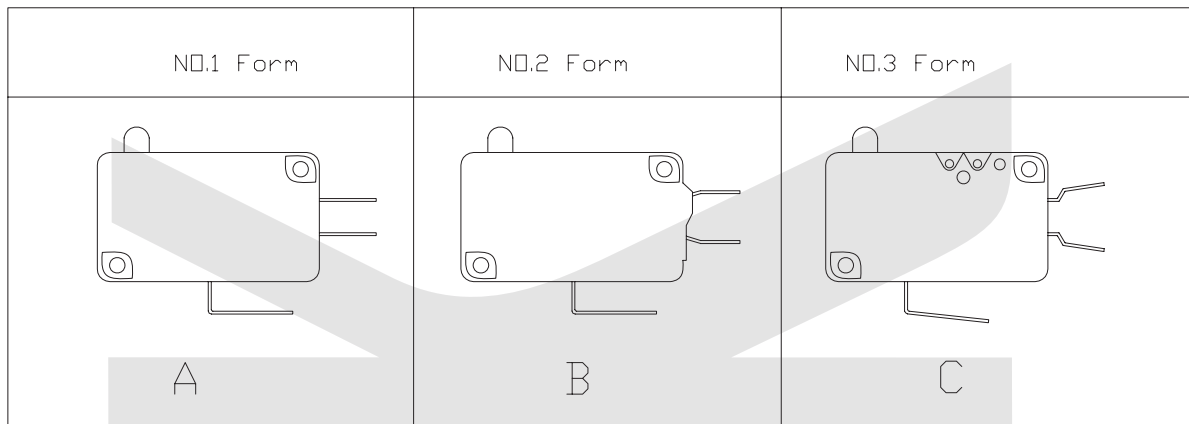
KLS7-KW3-OZ Micro Switch Series

ORDER INFORMATION

KLS7-KW3-OZ- X X X X X X X - X



Outline Characteristic



Micro Switch Series

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Circuit Illustration

	SPDT 1	SPST-NO 2	SPST-NC 3
Bottom common terminal			
Side common terminal			

Termination

	250 standard terminal 6.3x0.8	250 standard terminal 4.8x0.8	250 standard terminal 4.8x0.5
1		2	
3			

Actuator Forms (Levers)

L1		L10		L19	
L2		L11		L20	

Micro Switch Series

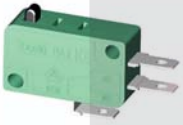
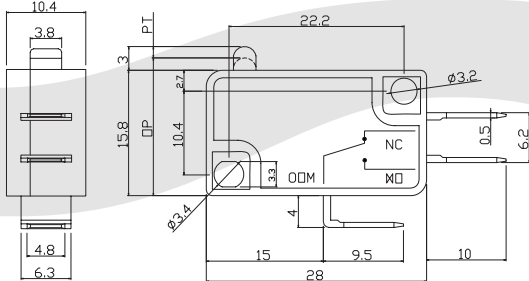
KLS7-KW3-OZ Micro Switch Series

<p>L3</p>	<p>L12</p>	<p>L21</p>
<p>L4</p>	<p>L13</p>	<p>L22</p>
<p>L5</p>	<p>L14</p>	<p>L23</p>
<p>L6</p>	<p>L15</p>	<p>L24</p>
<p>L7</p>	<p>L16</p>	<p>L25</p>
<p>L8</p>	<p>L17</p>	<p>L26</p>
<p>L9</p>	<p>L18</p>	<p>L27</p>

Micro Switch Series


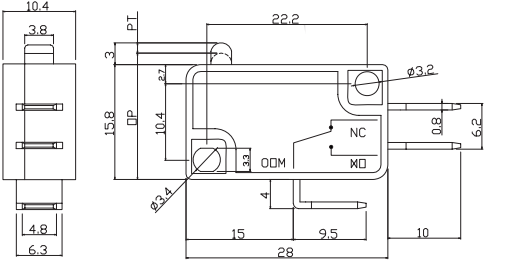
KLS7-KW3-OZ Micro Switch Series

KLS7-KW3-OZ-A133013L

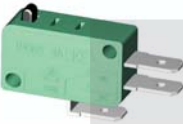
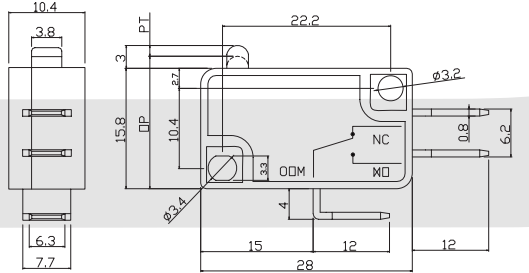
Model	KLS7-KW3-OZ-A133013L
DF (N)	0.3~4.5
MD Max(mm)	0.2
PT Max(mm)	2.3
DP Min(mm)	16.5

KLS7-KW3-OZ-A123013L


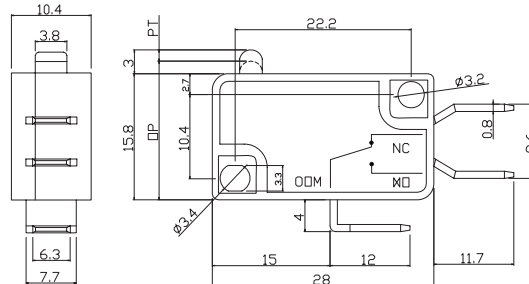
Model	KLS7-KW3-OZ-A123013L
DF (N)	0.3~4.5
MD Max(mm)	0.2
PT Max(mm)	2.3
DP Min(mm)	16.5

KLS7-KW3-OZ-A113013L

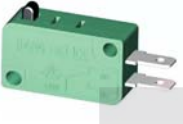
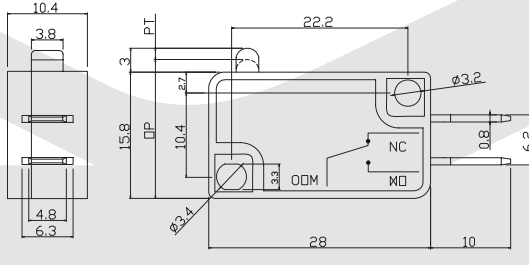
Model	KLS7-KW3-OZ-A113013L
DF (N)	0.3~4.5
MD Max(mm)	0.2
PT Max(mm)	2.3
DP Min(mm)	16.5

KLS7-KW3-OZ-A113013

Model	KLS7-KW3-OZ-A113013
DF (N)	0.3~4.5
MD Max(mm)	0.2
PT Max(mm)	2.3
DP Min(mm)	16.5

KLS7-KW3-OZ-A223013L

Model	KLS7-KW3-OZ-A223013L
DF (N)	0.3~4.5
MD Max(mm)	0.2
PT Max(mm)	2.3
DP Min(mm)	16.5

Micro Switch Series

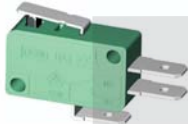
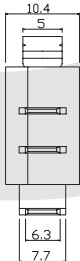
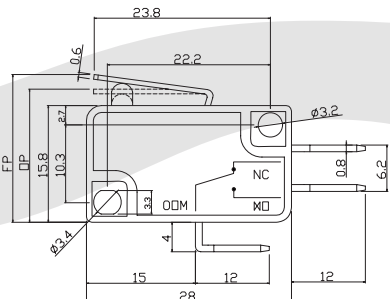
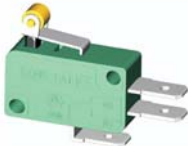
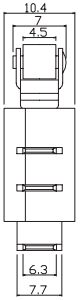
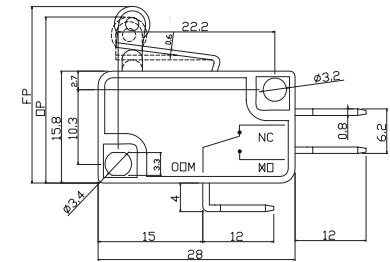

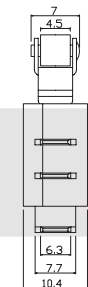
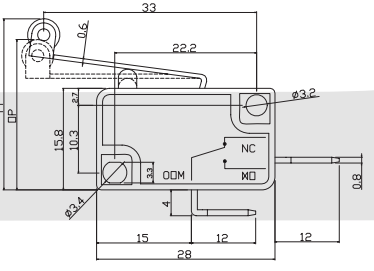

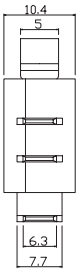
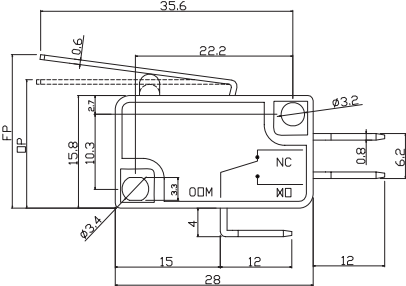

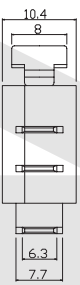
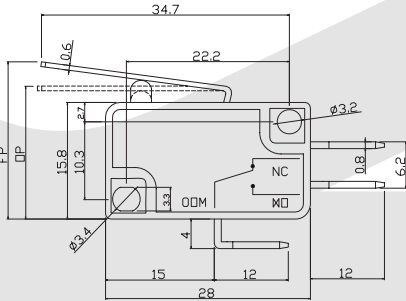
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	Model	KLS7-KW3-OZ-A143013L											
DF (N)	0.3~4.5												
MD Max(mm)	0.2												
PT Max(mm)	2.3												
DP Min(mm)	16.5												
KLS7-KW3-OZ-A143013L													
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	Model	KLS7-KW3-OZ-A103013L											
DF (N)	0.3~4.5												
MD Max(mm)	0.2												
PT Max(mm)	2.3												
DP Min(mm)	16.5												
KLS7-KW3-OZ-A103013L													
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DF (N)	0.3~4.5												
MD Max(mm)	0.4												
PT Max(mm)	25.3												
DP Min(mm)	21.0												
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DF (N)	0.3~4.5												
MD Max(mm)	0.5												
PT Max(mm)	26.0												
DP Min(mm)	21.0												
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	Model	KLS7-KW3-OZ-A123013L2											
DF (N)	0.3~4.5												
MD Max(mm)	0.5												
PT Max(mm)	25.3												
DP Min(mm)	21.0												
KLS7-KW3-OZ-A123013L2													

Switch


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KLS7-KW3-OZ Micro Switch Series

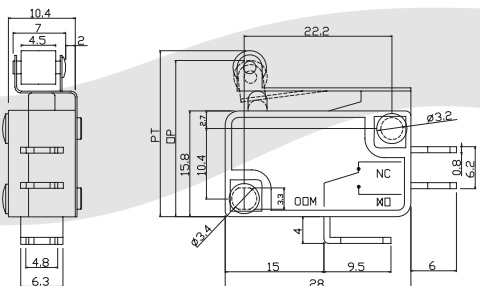
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			Model	KLS7-KW3-OZ-A113013L4									
DF <N>	0.3~4.5												
MD Max(mm)	0.3												
PT Max(mm)	19.8												
DP Min(mm)	17.0												
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			Model	KLS7-KW3-OZ-A113033L6									
DF <N>	0.3~4.5												
MD Max(mm)	0.3												
PT Max(mm)	25.0												
DP Min(mm)	22.8												
KLS7-KW3-OZ-A113033L6													
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			Model	KLS7-KW3-OZ-A213013L1									
DF <N>	0.3~4.5												
MD Max(mm)	0.5												
PT Max(mm)	26.0												
DP Min(mm)	21.0												
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DF <N>	0.3~4.5												
MD Max(mm)	0.5												
PT Max(mm)	22.5												
DP Min(mm)	16.5												
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DF <N>	0.3~4.5												
MD Max(mm)	0.5												
PT Max(mm)	21.0												
DP Min(mm)	16.5												
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Micro Switch Series


KLS7-KW3-OZ Micro Switch Series



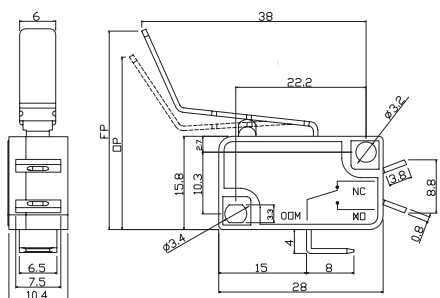
KLS7-KW3-OZ-A143013L26




Model	KLS7-KW3-OZ-A143013L26
DF (N)	0.3~4.5
MD Max(mm)	0.3
PT Max(mm)	25.0
DP Min(mm)	22.0



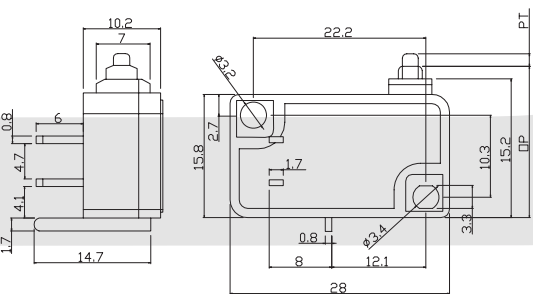
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Model	KLS7-KW3-OZ-A103013L10
DF (N)	0.3~4.5
MD Max(mm)	0.8
PT Max(mm)	38.0
DP Min(mm)	22.8



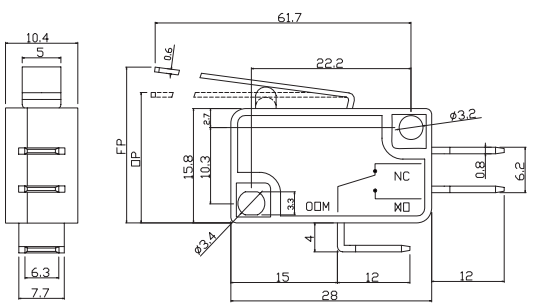
KLS7-KW3-OZ-A150013L




Model	KLS7-KW3-OZ-A150013L
DF (N)	0.3~4.5
MD Max(mm)	0.2
PT Max(mm)	1.8
DP Min(mm)	19.5



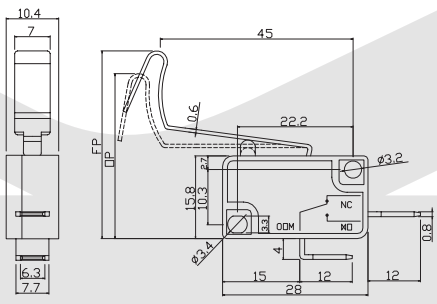
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Model	KLS7-KW3-OZ-A113013L7
DF (N)	0.3~4.5
MD Max(mm)	1.2
PT Max(mm)	25
DP Min(mm)	14.3



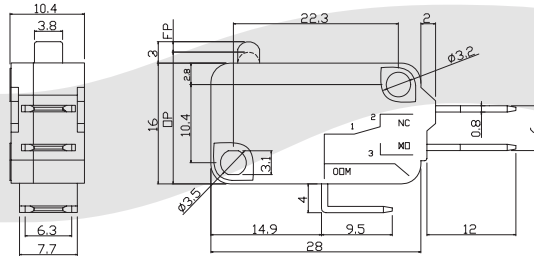
KLS7-KW3-OZ-A213013L12



Model	KLS7-KW3-OZ-A213013L12
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MD Max(mm)	1.0
PT Max(mm)	44.6
DP Min(mm)	38.0

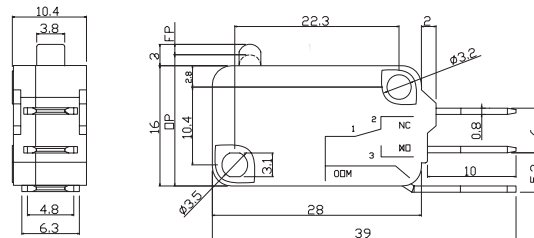
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KLS7-KW3-OZ Micro Switch Series



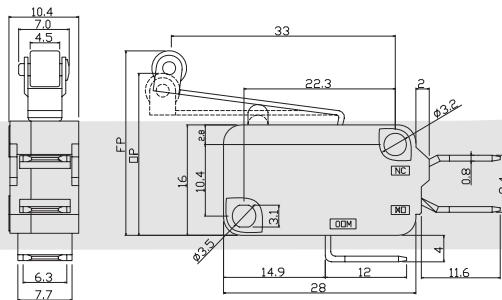
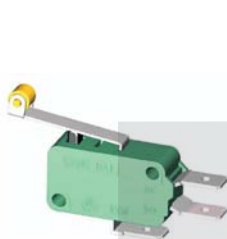
Model	KLS7-KW3-OZ-B133013L
DF (N)	0.3~4.5
MD Max(mm)	0.2
PT Max(mm)	2.0
DP Min(mm)	17.0

KLS7-KW3-OZ-B133013L



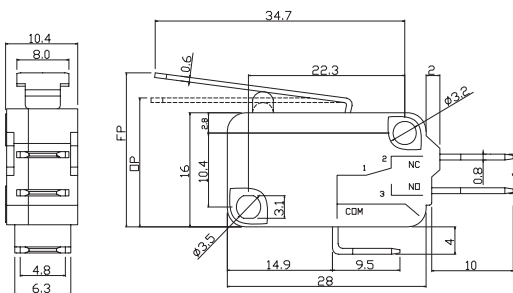
Model	KLS7-KW3-OZ-B123013L
DF (N)	0.3~4.5
MD Max(mm)	0.2
PT Max(mm)	2.0
DP Min(mm)	17.0

KLS7-KW3-OZ-B123013L



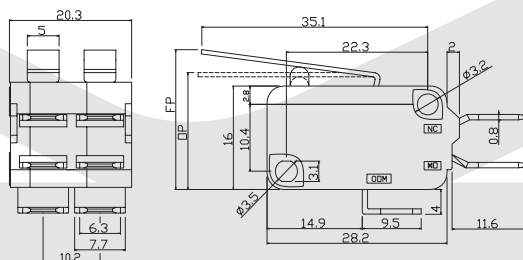
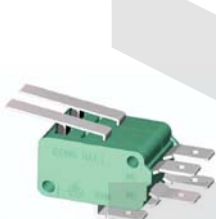
Model	KLS7-KW3-OZ-B113013L1
DF (N)	0.3~4.5
MD Max(mm)	0.3
PT Max(mm)	26.0
DP Min(mm)	21.0

KLS7-KW3-OZ-B113013L1



Model	KLS7-KW3-OZ-B123013L5
DF (N)	0.3~4.5
MD Max(mm)	0.3
PT Max(mm)	21.0
DP Min(mm)	16.5

KLS7-KW3-OZ-B123013L5



Model	KLS7-KW3-OZ-D113013L3
DF (N)	0.3~4.5
MD Max(mm)	0.8
PT Max(mm)	24.5
DP Min(mm)	21.0

KLS7-KW3-OZ-D113013L3

Micro Switch Series

KLS7-KW4-3Z Micro Switch Series

Features

- Small contact clearance, high sensitivity
- Snap action, high precision and high repeat accuracy
- Flexible operating travel, wide range of operating force
- Wide variety of terminal types
- Wide variety of actuator forms
- Adopt flame-retarded and fiber enhanced thermoplastics
- Long life cycles, high reliability
- Various approvals

Application

- Widely applied in home appliances, medical devices, office facility, instrument and apparatus, electric motion tools, packing machinery, auto electronics etc.
- Examples: vending machines, gaming machines, coffee machines, dishwashers, dryers, washing machines, microwave ovens, Central water heating, vacuum cleaners, water pump, projecting apparatus, industrial automations etc.



Specifications

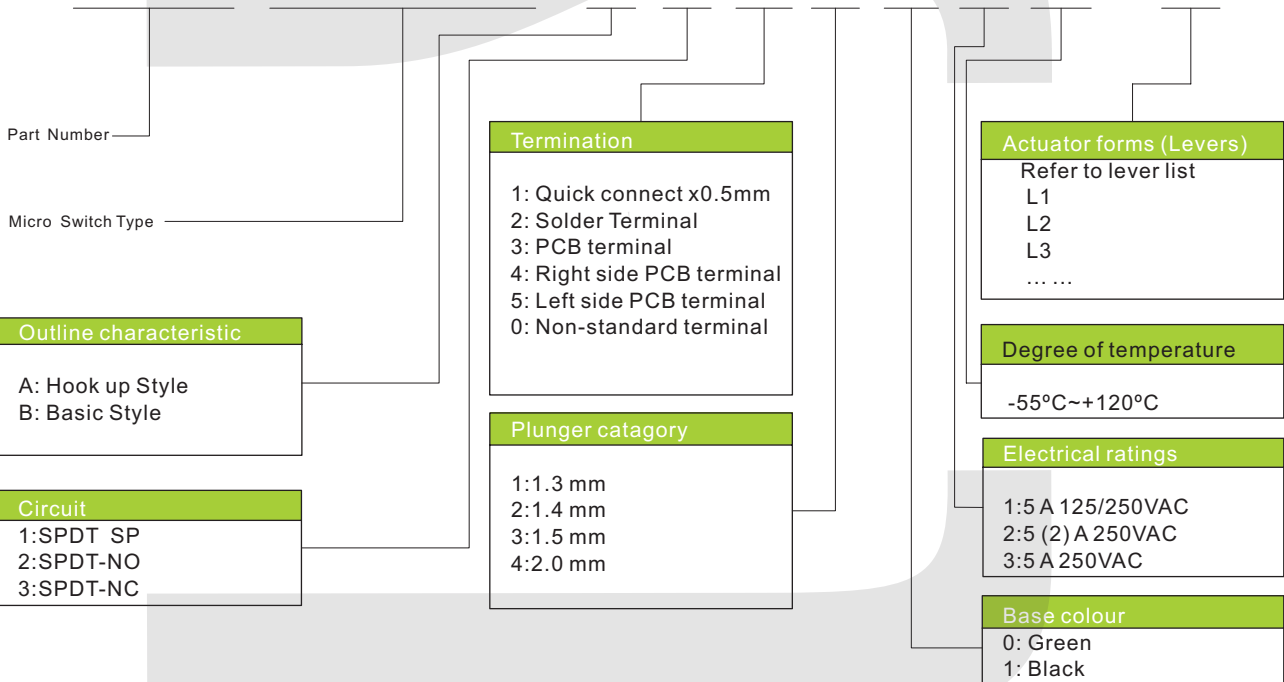
Items		Value
Operating speed		0.1mm~1m/S
Operating Frequency		Mechanical 60cycles/min; Electrical 25cycles/min
Insulation resistance		≥100MΩ (DC500V)
Contact resistance		≤30mΩ (Initial value)
Test voltage	Between terminals of same polarity	AC1500V 50/60HZ
	Between current-carrying metal parts and ground (case)	AC3750V 50/60HZ
Vibration resistance		10~55 HZ 1.5mm Double amplitude
Shock resistance		Destruction: OF>0.5N: 1000m/S2 (approx. 100G) Max OF≤0.5N: 400m/S2 (approx. 40G) Max
		Malfunction: OF>0.5N: 200m/S2 (approx. 20G) Max OF≤0.5N: 100m/S2 (approx. 10G) Max
Life expectancy		Mechanical ≥2000000cycles
		Electrical ≥50000cycles
Degree of protection against electric		Class I /Class II
PTI		175
Approvals		UL CUL VDE TUV CE DEMKO CQC

Micro Switch Series

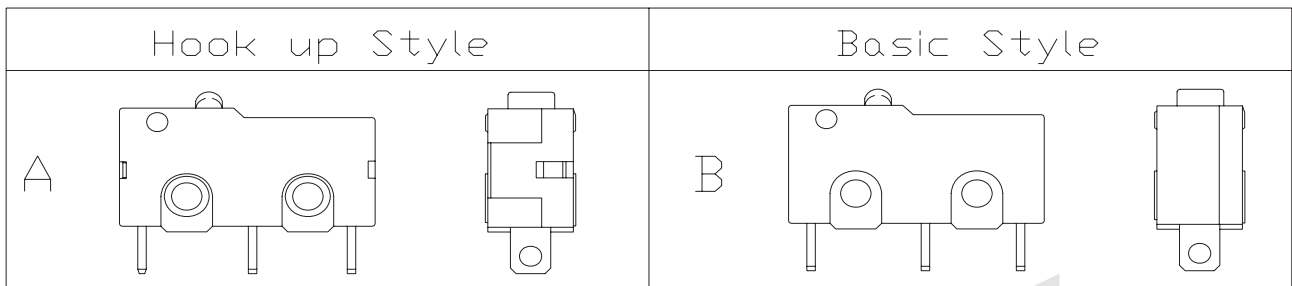
KLS7-KW4-3Z Micro Switch Series

ORDER INFORMATION

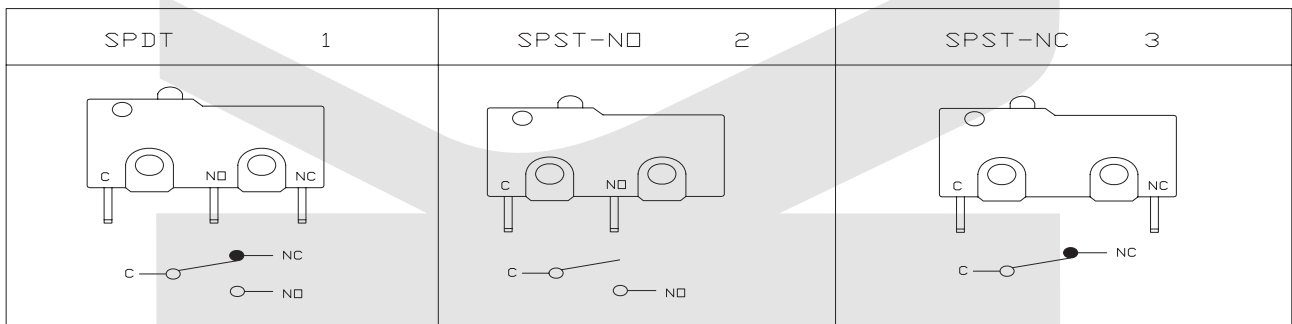
KLS7-KW4-3Z- X X X X X X X - X



Outline Characteristic



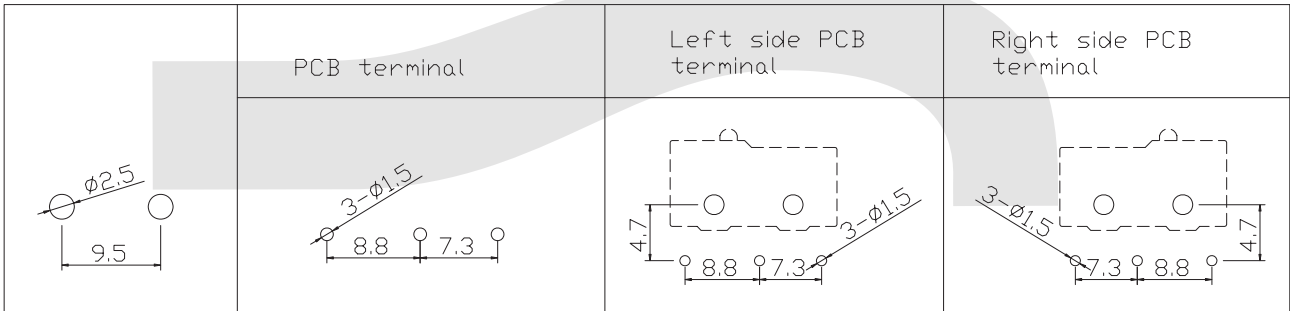
Circuit Illustration



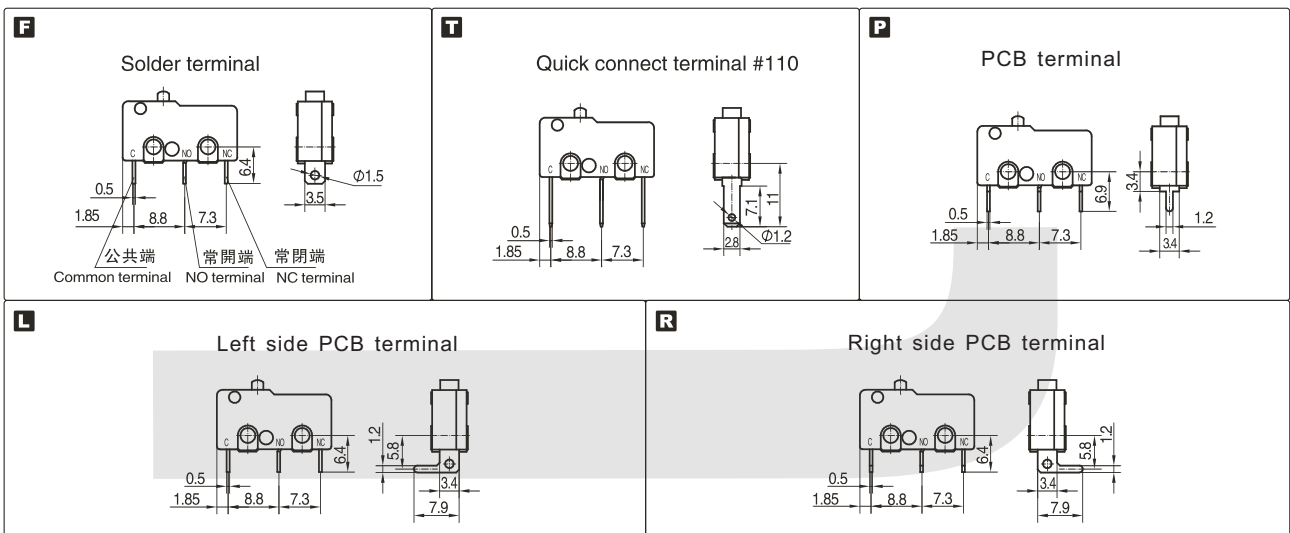
Micro Switch Series

KLS7-KW4-3Z Micro Switch Series

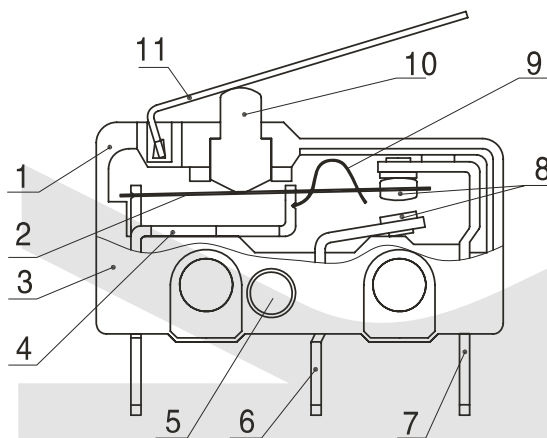
Mounting Hole Dimensions



Terminal dimensions




Internal configuration drawing

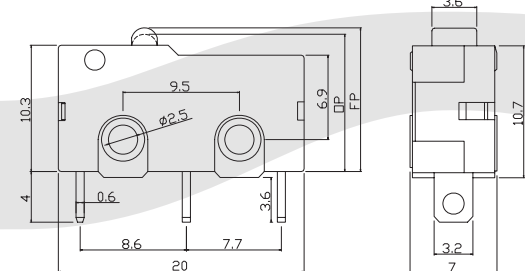


- 1 Case
- 2 Moving piece
- 3 Cover
- 4 Support
- 5 Rivet
- 6 NO terminal
- 7 NC terminal
- 8 Contact
- 9 Spring
- 10 Plunger
- 11 Moving arm(Lever)


Micro Switch Series

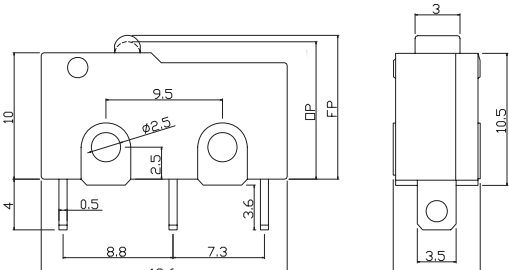
KLS7-KW4-3Z Micro Switch Series

 KLS7-KW4-3Z-A122013L




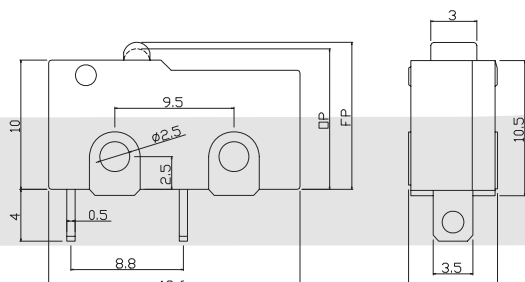
Model	KLS7-KW4-3Z-A122013L
DF (N)	0.2~3.0
MD Max(mm)	0.2
PT Max(mm)	12.2
DP Min(mm)	11.0

 KLS7-KW4-3Z-B122013L




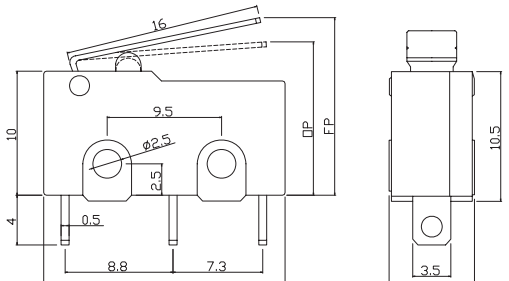
Model	KLS7-KW4-3Z-B122013L
DF (N)	0.2~3.0
MD Max(mm)	0.2
PT Max(mm)	12.2
DP Min(mm)	11.0

 KLS7-KW4-3Z-B222013L




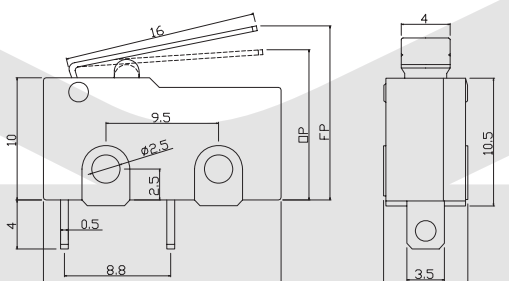
Model	KLS7-KW4-3Z-B222013L
DF (N)	0.2~3.0
MD Max(mm)	0.2
PT Max(mm)	12.2
DP Min(mm)	11.0

 KLS7-KW4-3Z-B122013L1



Model	KLS7-KW4-3Z-B122013L1
DF (N)	0.2~3.0
MD Max(mm)	1.2
PT Max(mm)	14.5
DP Min(mm)	10.5

 KLS7-KW4-3Z-B222013L1



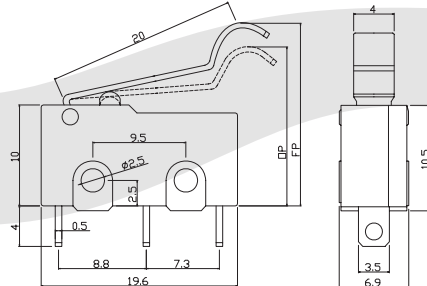
Model	KLS7-KW4-3Z-B222013L1
DF (N)	0.2~3.0
MD Max(mm)	1.2
PT Max(mm)	14.5
DP Min(mm)	10.5

Micro Switch Series

KLS7-KW4-3Z Micro Switch Series



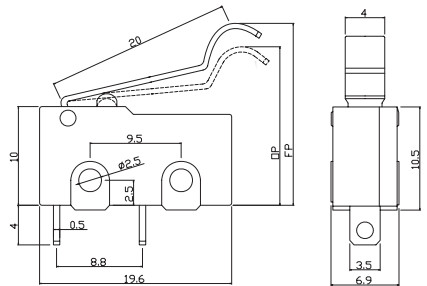
KLS7-KW4-3Z-B122013L2



Model	KLS7-KW4-3Z-B122013L2
DF (N)	0.2~3.0
MD Max(mm)	1.2
PT Max(mm)	17.0
DP Min(mm)	13.0



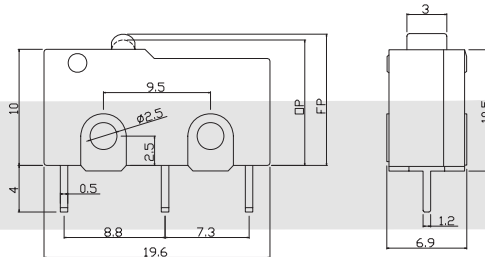
KLS7-KW4-3Z-B222013L2



Model	KLS7-KW4-3Z-B222013L2
DF (N)	0.2~3.0
MD Max(mm)	1.2
PT Max(mm)	17.0
DP Min(mm)	13.0



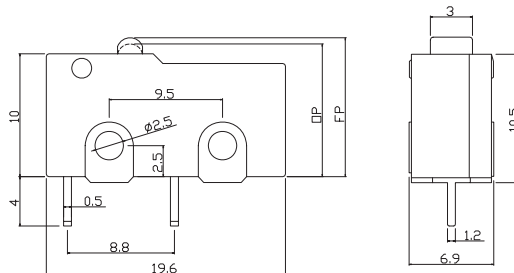
KLS7-KW4-3Z-B132013L



Model	KLS7-KW4-3Z-B132013L
DF (N)	0.2~3.0
MD Max(mm)	0.2
PT Max(mm)	12.0
DP Min(mm)	11.0



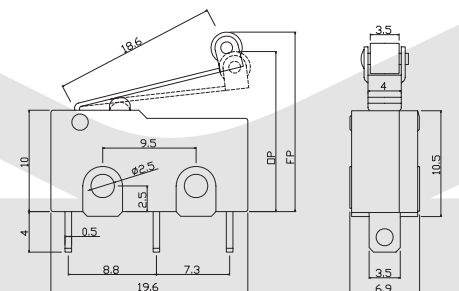
KLS7-KW4-3Z-B232013L



Model	KLS7-KW4-3Z-B232013L
DF (N)	0.2~3.0
MD Max(mm)	0.2
PT Max(mm)	12.0
DP Min(mm)	11.0



KLS7-KW4-3Z-B122013L3

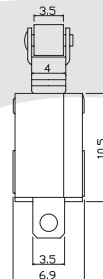
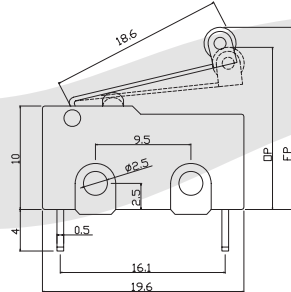


Model	KLS7-KW4-3Z-B122013L3
DF (N)	0.2~3.0
MD Max(mm)	1.2
PT Max(mm)	19.5
DP Min(mm)	16.0

Micro Switch Series

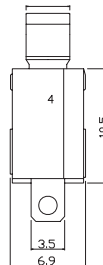
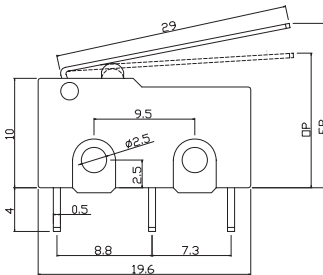
KLS7-KW4-3Z Micro Switch Series

KLS7-KW4-3Z-B322013L3



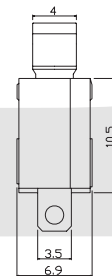
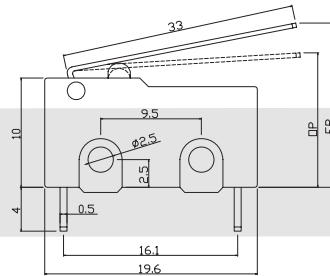
Model	KLS7-KW4-3Z-B322013L3
DF <N>	0.2~3.0
MD Max<mm>	1.2
PT Max<mm>	19.5
DP Min<mm>	16.0

KLS7-KW4-3Z-B122013L4



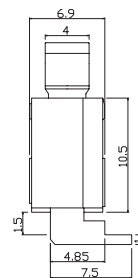
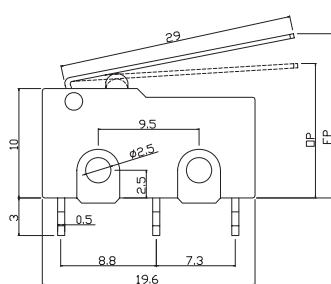
Model	KLS7-KW4-3Z-B122013L4
DF <N>	0.2~3.0
MD Max<mm>	1.5
PT Max<mm>	18.0
DP Min<mm>	14.5

KLS7-KW4-3Z-B322013L4



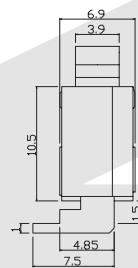
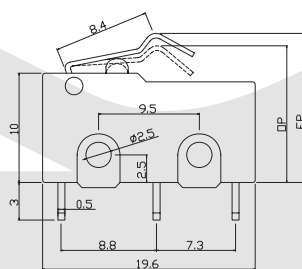
Model	KLS7-KW4-3Z-B322013L4
DF <N>	0.2~3.0
MD Max<mm>	1.5
PT Max<mm>	18.0
DP Min<mm>	14.5

KLS7-KW4-3Z-B152013L4



Model	KLS7-KW4-3Z-B152013L4
DF <N>	0.2~3.0
MD Max<mm>	1.5
PT Max<mm>	18.0
DP Min<mm>	14.5

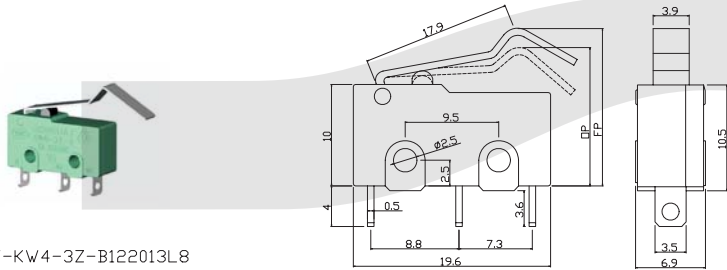
KLS7-KW4-3Z-B142013L5



Model	KLS7-KW4-3Z-B142013L5
DF <N>	0.2~3.0
MD Max<mm>	0.5
PT Max<mm>	15.5
DP Min<mm>	14.1

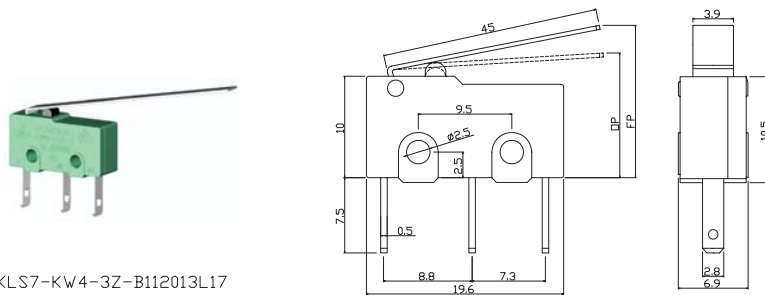
Micro Switch Series

KLS7-KW4-3Z Micro Switch Series



KLS7-KW4-3Z-B122013L8

Model	KLS7-KW4-3Z-B122013L8
DF (N)	0.2~3.0
MD Max(mm)	1.0
PT Max(mm)	18.0
DP Min(mm)	13.5



KLS7-KW4-3Z-B112013L17

Model	KLS7-KW4-3Z-B112013L17
DF (N)	0.2~3.0
MD Max(mm)	2.0
PT Max(mm)	20.0
DP Min(mm)	14.0