



## RD

### Rotary Paddle Level Switch

Rotary Paddle Level Switch utilizes micro motor as drive device, transmission shaft contact with clutch. When it doesn't contact with material, the motor runs normally; when the blade contacts with material, the motor stops running; testing device outputs a contact signal and cuts the power and it stops rotary in the meantime. The pressure to blade is disappear when the material gradually fall down, and the testing device recovered to the original state by torsion spring. Torsion could be regulated according to different gravity of material. Feejoy RD series of Rotary Paddle Level Switch specially used for detecting material level of warehouse, vessel and tank. The material level switch can prevent warehouse flooding, tank jam and warehouse empty so as to reduce flooding, material waste and standby time. Rotary Paddle Level Switch is also suitable for plastic, food, chemical industry, mineral iron, material and other solid matter. Feejoy Rotary Paddle Level Switch can eliminate the normal fault of common Rotary Paddle Level Switch. When adding

material, it would not go to stop though the motor stops by cutting power. This can reduce fraction, operating temperature and extend the lifetime of motor. The switch contains little moving parts, three sets of drive bearing and sealed, lubricated driving gear assembly. That is why the RD series of Rotary Paddle Level Switch gains reliable control force in the market.

#### Product Series



RD-10



RD-11T



RD-11F



RD-80-AM



RD-20



RD-40

## Operation principle

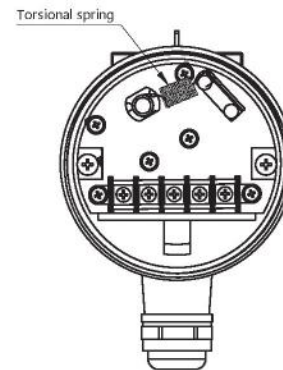
Rotary Paddle Level Switch utilizes micro motor as drive device, transmission shaft contact with clutch. When it doesn't contact with material, the motor runs normally; when the blade contacts with material, the motor stops running; testing device outputs a contact signal and cuts the power and it stops rotary in the meantime. The pressure to blade disappears when the material gradually fall down, and the testing device recovered to the original state by torsional spring.

### Application

Suitable to be applied in chemistry, pharmacy, fodder, cement, food and metallurgical industry.

## Product Features

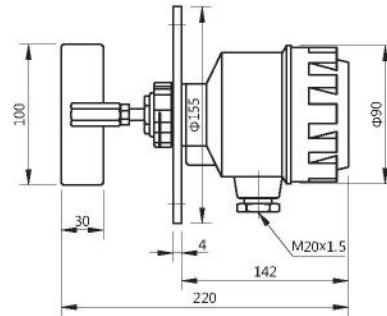
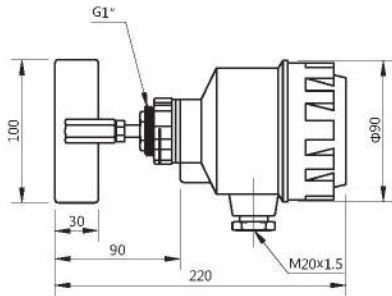
1. The motor imported motor has reliable performance which is able to run for long time;
2. Special design of sealed oil can prevent powder dust enter along with the axis;
3. Torsion is stable and reliable, also could be regulated;
4. When the blade bears too much load, motor turning system will skid automatically to prevent from damage.;
5. Contact specification, blade, length could be custom made.



## Electrical parameter

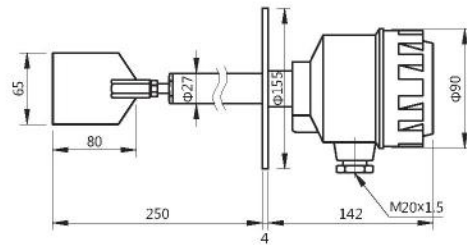
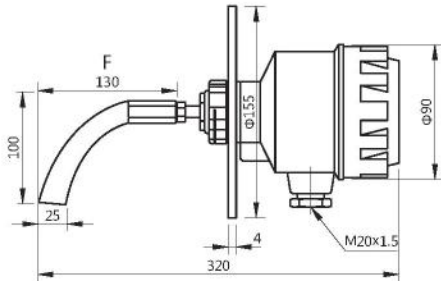
Large type		Small type	
Power supply :	220VAC/110VAC/24VDC	Power supply :	220VAC/110VAC/24VDC
Contact rating :	5A/250VAC, SPDT	Contact rating :	5A/250VAC, SPDT
Power :	5W	Power :	5W
Protection level :	IP65	Protection level :	IP65
Suitable smallest density :	0.5g/cm <sup>3</sup>	Suitable smallest density :	0.5g/cm <sup>3</sup>

## Product size&parameter



Model :	RD-10 Thread type
Voltage using :	220VAC
Power :	3W
Contact rating :	SPDT 5A/250VAC
Process connecting :	G1" thread (OEM)
Rotor speed :	1RPM
Moment of force :	10kg-cm
Voltage resistance :	1500VAC×1min
Suitable density :	≥ 0.4g/cm <sup>3</sup>
Temperature :	-20~80°C
Electrical specification :	M20×1.5
Junction box :	Aluminium alloy junction box
Protection level :	IP65
Way to install :	Vertical or horizontal

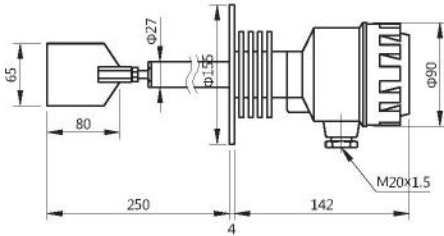
Model :	RD-11 Flang type
Voltage using :	220VAC
Power :	3W
Contact rating :	SPDT 5A/250VAC
Process connecting :	2-1/2"×5kg Flang (OEM)
Rotor speed :	1RPM
Moment of force :	10kg-cm
Voltage resistance :	1500VAC×1min
Suitable density :	≥ 0.4g/cm <sup>3</sup>
Temperature :	-20~80°C
Electrical specification :	M20×1.5
Junction box :	Aluminium alloy junction box
Protection level :	IP65
Way to install :	Vertical or horizontal



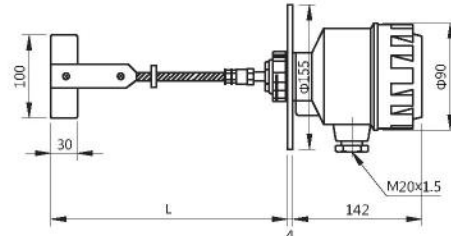
Model :	RD-11F Flange Sickle Type
Voltage using :	220VAC
Power :	3W
Contact rating :	SPDT 5A/250VAC
Process connecting :	2-1/2"×5kg Flang (OEM)
Rotor speed :	1RPM
Moment of force :	10kg-cm
Voltage resistance :	1500VAC×1min
Suitable density :	≥ 0.4g/cm <sup>3</sup>
Temperature :	-20~80°C
Electrical specification :	M20×1.5
Junction box :	Aluminium alloy junction box
Protection level :	IP65
Way to install :	Vertical or horizontal

Model :	RD-20 Axis Protection Type
Voltage using :	220VAC
Power :	3W
Contact rating :	SPDT 5A/250VAC
Process connecting :	2-1/2"×5kg Flang (OEM)
Rotor speed :	1RPM
Moment of force :	10kg-cm
Voltage resistance :	1500VAC×1min
Suitable density :	≥ 0.4g/cm <sup>3</sup>
Temperature :	-20~80°C
Electrical specification :	M20×1.5
Junction box :	Aluminium alloy junction box
Protection level :	IP65
Way to install :	Vertical or horizontal

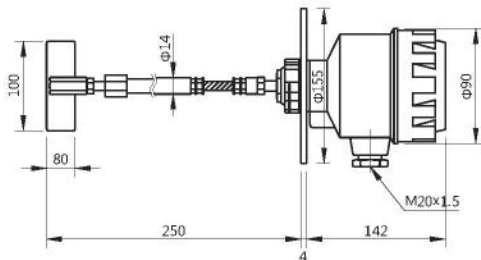
## Product size&parameter



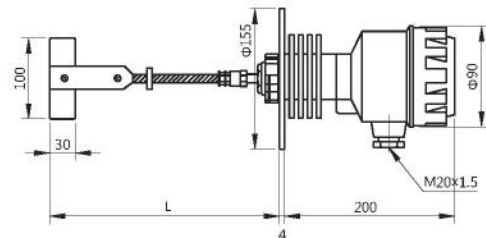
Model :	RD-20T High Temp. Axis Protection Type
Voltage using :	220VAC
Power :	3W
Contact rating :	SPDT 5A/250VAC
Process connecting :	2-1/2"×5kg Flang (OEM)
Rotor speed :	1RPM
Moment of force :	10kg-cm
Voltage resistance :	1500VAC×1min
Suitable density :	≥ 0.4g/cm <sup>3</sup>
Temperature :	-20~200°C (Max is 350°C)
Electrical specification :	M20×1.5
Junction box :	Aluminium alloy junction box
Protection level :	IP65
Way to install :	Vertical or horizontal



Model :	RD-30 Steel Rope Type
Voltage using :	220VAC
Power :	3W
Contact rating :	SPDT 5A/250VAC
Process connecting :	2-1/2"×5kg Flang (OEM)
Rotor speed :	1RPM
Moment of force :	10kg-cm
Voltage resistance :	1500VAC×1min
Suitable density :	≥ 0.4g/cm <sup>3</sup>
Temperature :	-20~80°C
Electrical specification :	M20×1.5
Junction box :	Aluminium alloy junction box
Protection level :	IP65
Way to install :	Vertical



Model :	RD-40 Adjustable Axis Type
Voltage using :	220VAC
Power :	3W
Contact rating :	SPDT 5A/250VAC
Process connecting :	2-1/2"×5kg Flang (OEM)
Rotor speed :	1RPM
Moment of force :	10kg-cm
Voltage resistance :	1500VAC×1min
Suitable density :	≥ 0.4g/cm <sup>3</sup>
Temperature :	-20~80°C
Electrical specification :	M20×1.5
Junction box :	Aluminium alloy junction box
Protection level :	IP65
Way to install :	Vertical

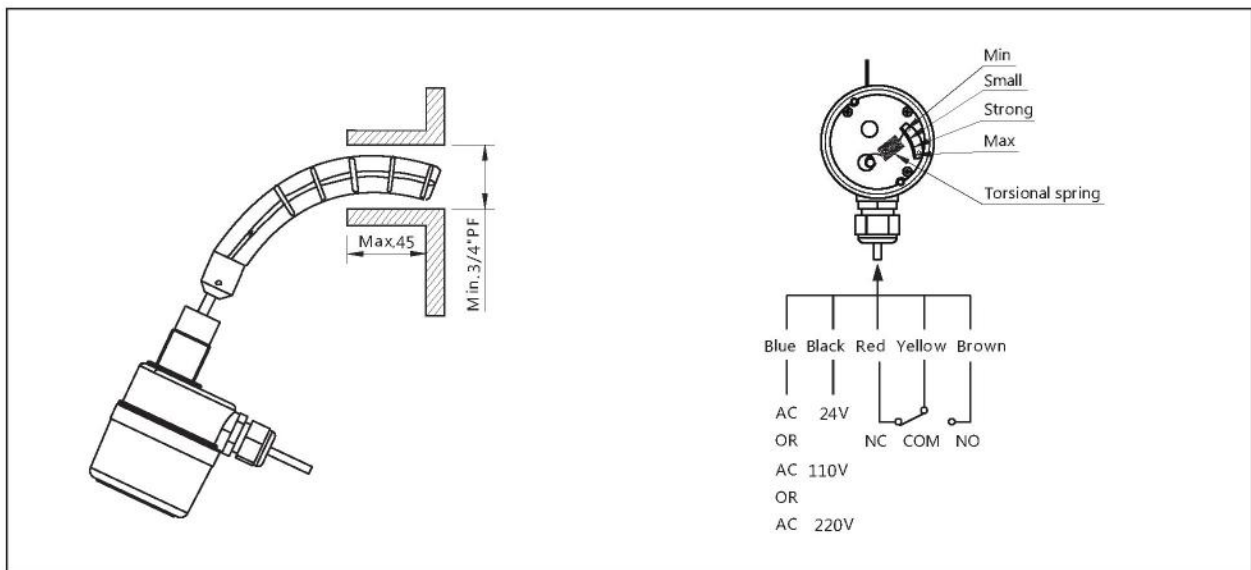
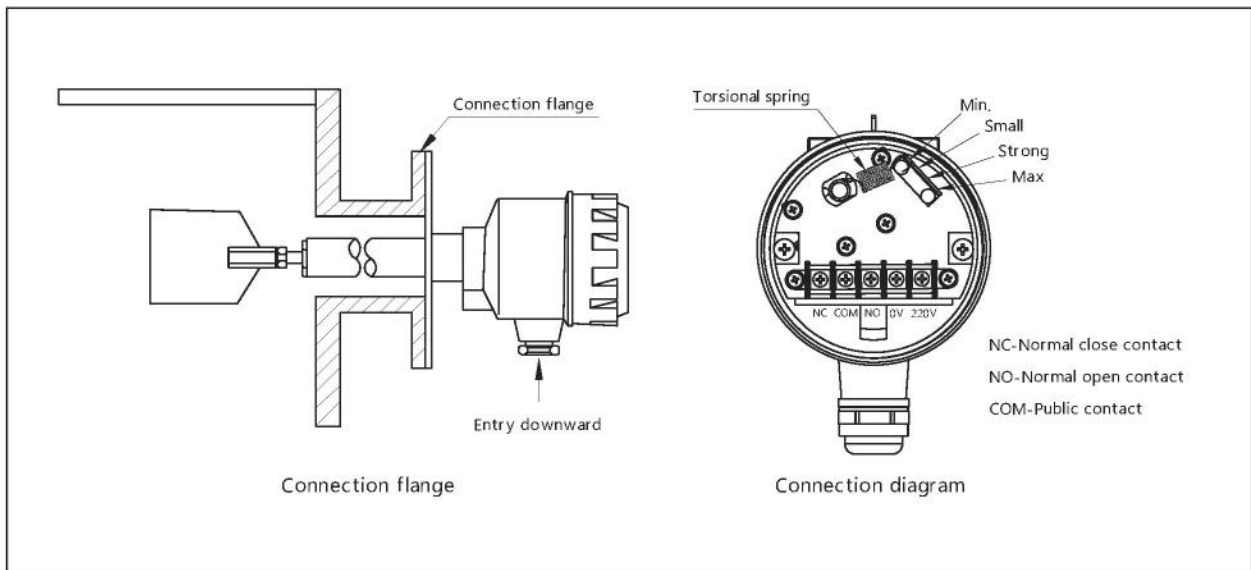


Model :	RD-40T High Temp. Steel Rope
Voltage using :	220VAC
Power :	3W
Contact rating :	SPDT 5A/250VAC
Process connecting :	2-1/2"×5kg Flang (OEM)
Rotor speed :	1RPM
Moment of force :	10kg-cm
Voltage resistance :	1500VAC×1min
Suitable density :	≥ 0.4g/cm <sup>3</sup>
Temperature :	-20~200°C (Max is 350°C)
Electrical specification :	M20×1.5
Junction box :	Aluminium alloy junction box
Protection level :	IP65
Way to install :	Vertical



## Installation Instruction

- As below picture, rotary paddle switch should not be installed under the blanking mouth, if it's unavoidable, a protection plate should be installed above the blade, in case the blade is damaged and caused wrong action by materials.
- In case the outdoor water and rain water get into junction box, the electrical entry should be vertically installed and downward when it's installed horizontally. Cable retaining nuts should be locked tight and consider to install appentice if possible.
- If feeling holes is smaller than the width of blade, blade could be removed and reassembled, and coating with thread-locking fluid before assembling, in case the blade is falling apart while working.
- Make sure the power voltage is the same as it displays on marking of switch.
- Please make sure the way of installation is vertical or horizontal.



## Selection Tables

### Rotary paddle solid level switch

10 : Thread type ; 11 : Flange type ; 20 : Axis protection type ; 30 : Steel rope type ;  
 40 : Adjustable axis type ; 80 : Mini small type

flange/thread size		flange/thread specification	
C: 3/4" (20A)	I: 4" (100A)	L: 5kg/cm <sup>2</sup>	U: PNO.6 (6Bar)
D: 1"(25A)	J: 5" (125A)	M: 10kg/cm <sup>2</sup>	V: PN1.0 (10Bar)
E: 1-1/2" (40A)	K: 6" (150A)	N: 150Lbs	W: PN1.6 (16Bar)
F: 2" (50A)	S: special size	O: 300Lbs	X: PN2.5 (25Bar)
G: 2-1/2"(65A)	3: 1-1/4" (32A)	P: PT	Y: PN4.0 (40Bar)
H: 3" (80A)		Q: PF	Z: PN6.3 (63Bar)
		P: NPT	S: special specification
		T: GAS	

T : -30~200°C ; H : -30~350°C ; Normal temperature or small than 100°C please stay vacant

D: 24VDC; A: 220VAC; B: 110VAC; C: 24VAC

S : Standard junction box ; E : Explosion-proof junction box

A : T type blade ; B/C/D : Square type blade ; E : Ltype blade ;  
 F : Arc-shaped blade ; G : Cross blade ; H : Sickle type blade

Unit(mm)

Product series	Structure	Process connection	Temperature range	Power	Configuration	Blade type	Insertion depth
RD	-□□	□□	□	□	□	□	-□□□□

#### selection table

- A : 100×30 ( W×H)
- B : 65×80 ( W×H)
- C : 65×120 ( W×H)
- D : 80×80 ( W×H)
- E : 50×30 ( W×H)
- F: Sickle type
- X: Scissor type

