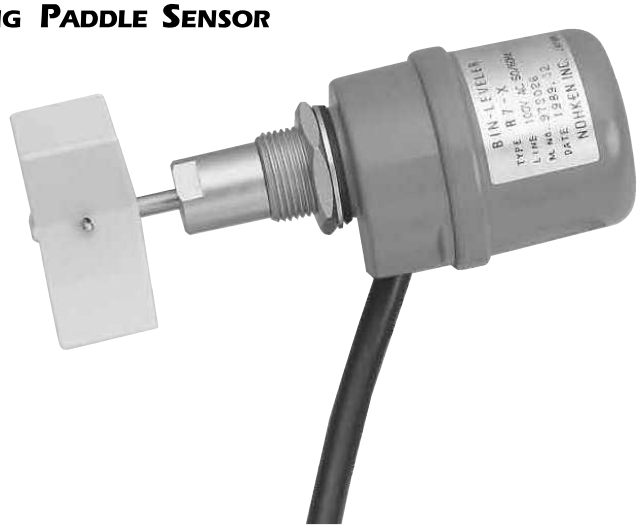
MODEL R7 ROTATING PADDLE SENSOR





Features

- Miniature size
- Simple torque adjustment
- Reliable design
- Easy maintenance and repair
- Low cost

Conformity

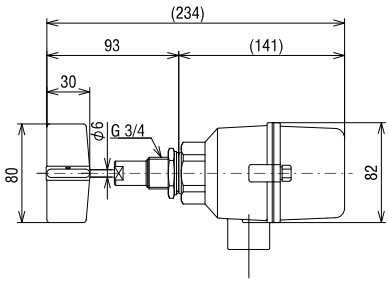
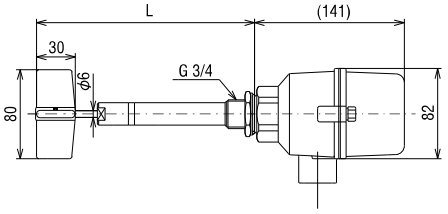
CE marking for R7-Z standard type

General Description

The R7 series of miniature rotating paddle sensors are designed for use with plastic molding or injection machines and extruders. It can also be designed into equipment such as grain processing machines and granulating equipment. These products are the most compact units of their type and are deigned to provide reliable services.

There are two standard versions of the R7, the R7-X series for indoor use, and the R7-Z for outdoor use. The R7-XL/ZL is a custom made long shaft version up to 1000mm. The R7-XT is designed to resist temperatures up to 120°C.

Specifications

Model		R7-Z	R7-ZL
Description		CE marked	Extension, CE marked
Drawing			
Mounting		G3/4	
Supply Power		24,100,110,120,200,220,230,240V AC 50/60Hz	
Power Consumption		Approx. 1.5VA Max.	
Contact Rating		1 SPDT, 250V 3A AC/30V 4A DC (Resistive) C-NO: Normally Open contact C-NC: Normally Closed contact	
Operating Temperature	Housing	−10 to 45˚C	
	Detection part	−10 to 70˚C	
Material	Housing	ADC12 and ABS	
	Mounting part	Brass (galvanized)	
	Spindle	304SS	
	Paddle	PC or 304SS	
	Seal Part	NBR, PTFE	
Cable entry		G1/2	
Cable		−	
Protection		IP65	
Motor Rotation		1rpm (50Hz) or 1.2rpm (60Hz)	
Life Expectancy		1×10^5 Operations (Micro switch)	

Operational Description

When the power is applied to an R7 sensor, a motor powers a revolving shaft to which a paddle is mounted. When the material level inside the container reaches the revolving paddle, the paddle rotation is halted then the motor itself starts rotating around the shaft and activates an isolated SPDT micro switch. This removes power from the motor so that it stops rotating and an alarm signal is provided. When the material level falls below the paddle, the motor resets and the micro switch restores the revolving action.

Technical Note

Detection torque can be easily adjusted on site by changing the spring position. The R7 has four torque setting (see chart below). The standard setting is "B". Adjust to "A", if there is a slight vibration on the hopper. Adjust to "C" or "D", if the load is small.

	A	B	C	D (N·cm)
R7-X	6.2	5.5	4.6	3.8
R7-Z	5.0	3.8	3.09	2.6

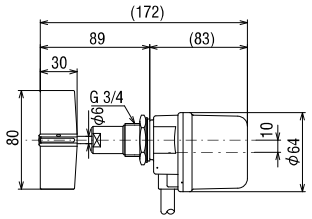
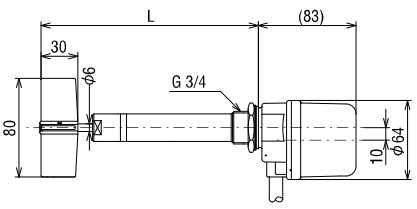
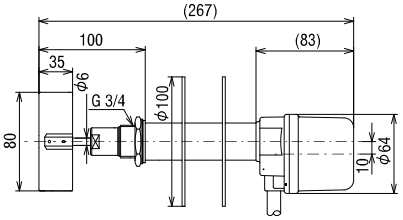
Ordering Information

R7-X		Indoor use, IP40 Cable length 300mm
R7-Z		Outdoor use, IP65, CE marking
	(Null)	Standard
	L	Extended spindle up to 199mm Extended pipe from 200mm to 1000mm
		(Null) Standard: 70˚C Max.
		T Option: 120˚C Max. (R7-X only)
		0 24V AC ± 5%, 50/60Hz
		1 100V AC ± 5%, 50/60Hz
		2 110V AC ± 5%, 50/60Hz
		3 120V AC ± 5%, 50/60Hz
		4 200V AC ± 5%, 50/60Hz
		5 220V AC ± 5%, 50/60Hz
		6 240V AC ± 5%, 50/60Hz
		0 Four-PC vane, 30×80mm
		1 Single-304SS vane, 30×60mm
		2 Two-304SS vane, 35×80mm
		3 Special Two-304SS vane, 60×150mm
		300 Standard cable length (R7-X only)
		▪▪▪▪ Specify desired length.

R7-X | | | 0 | 0 | 300 = R7-X-00-300

* The insertion length should be specified in mm if required.

* Power supply can be 230V AC ±5%, 50/60Hz as special non-standard option upon your request.

R7-X	R7-XL	R7-XT
Standard	Extension	Heat Resistive
		
G3/4		
24, 100, 110, 120, 200, 220, 230, 240V AC 50/60Hz		
Approx. 1.5VA Max.		
1 SPDT, 250V 3A AC/30V 4A DC (Resistive) Yellow-Red: Normally Open contact Yellow-Blue: Normally Closed contact		
-10 to 45˚C		
-10 to 70˚C		-10 to 120˚C
ADC12 and PC		
Brass (galvanized)		
304SS		
PC or 304SS		
NBR, PTFE		
-		
5-core cable, 300mm (ϕ 10.5 VCTF, 0.5mm^2)		
IP40		
1rpm (50Hz) or 1.2rpm (60Hz)		
1×10^5 Operations (Micro switch)		