

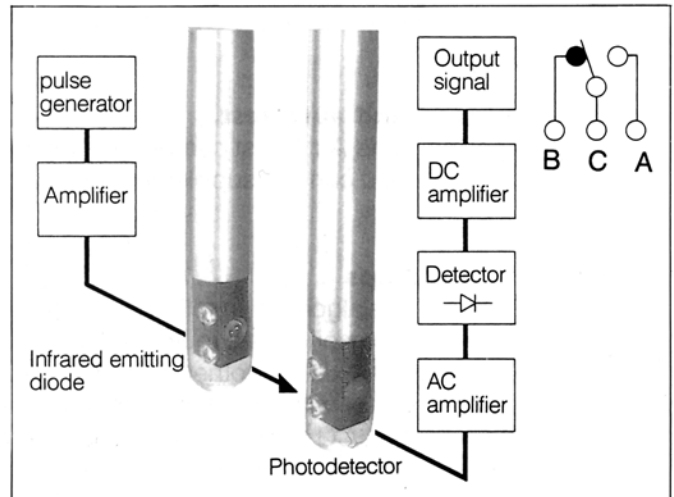
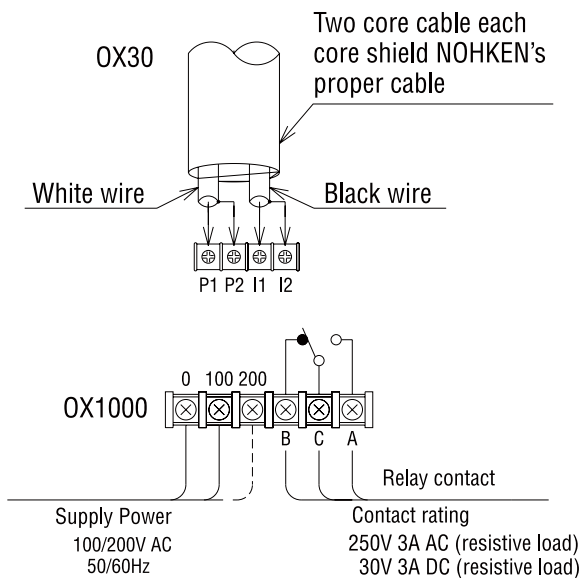
MODEL OX OPTICAL INTERFACE SENSOR



Features

- Optimizes sludge discharge control
- No influence from ambient light
- Eliminates build up and fouling of probes
- Durable construction
- Ideal for corrosive liquids

Wiring



General Description

Model OX optical interface sensor consists of a sensing probe and a separate electronic converter. Sediments, suspended solids, and interface of immiscible liquids are detected by using an infrared transmission operating principle. By transmitting the infrared light with pulse modulation, a strong beam goes through build up and fouling on the probe surfaces. Ambient light is electrically disregarded by using a special frequency.

The sensing probe is submersible and the PVC housing, PP sealing connector, and FEP covered probes are compatible with a wide range of liquids. Special PVC cable lengths are 20 meters. The detecting level can be easily adjusted by altering the height of the cable fixing point.

The electronic converter has a switch selectable High or Low fail-safe mode for relay safety. An adjustable 0.5 to 10 seconds switching delay is provided in order to avoid transient on/off signals.

Operational Description

The OX consists of two element probes. A beam transmits from one which has a built in infrared emitting diode to the other which has a built in photo detector. When the probes are immersed into medium, the infrared beam transmission is decreased. This damping is detected and converted into an electric relay output.

Specifications

Sensor

Model	OX-10		OX-30	OX-40
Description	Separation			Integral
Drawing				
Mounting	JIS5K65A			JIS5K65A
Supply Power				100/200V AC 50/60Hz
Power Consumption				Approx. 2.5VA Max.
Relay Output				1 SPDT, 250V 3A AC, 30V 3A DC (Resistive) C-A: Normally Open contact C-B: Normally Closed contact
Detection Time Delay				Adjustable between 0.5 to 10 seconds
Operating Temperature	Housing	-10°C to 55°C		-10°C to 55°C
Temperature	Wetted parts	-10°C to 70°C	-10°C to 50°C	-10°C to 70°C
Maximum Pressure	100kPa /1bar			
Material	Housing	AC		ADC12
	Seal Pipe	FEP		
	Cable		PVC	
Cable Entry	G1/2			G3/4
Protection	IP54		IP68	IP65
Fail Safe				High or Low by switch

Amplifier

Model	OX1000-0		OX1000-1
Drawing			
Supply Power	100/200, 110/220, 120/240V AC 50/60Hz		
Power Consumption	Approx. 2.5VA Max.		
Relay Output	1 SPDT, 250V 3A AC, 30V 3A DC (Resistive) C-A: Normally Open contact C-B: Normally Closed contact		
Detection Time Delay	Adjustable between 0.5 to 10 seconds		
Operating Temperature	-10°C to 55°C		
Material	Housing	AC	SPC (Carbon steel)
Cable Entry	3-G1/2		2-φ14mm holes
Protection	IP54		IP10
Fail Safe	High or Low by switch		

Options available

To facilitate cleaning of probes, the cleaning section is fitted with a spray nozzle and hose.