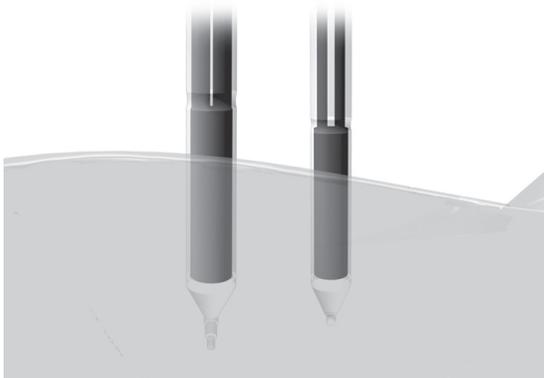


# Contact-Type Liquid Level Fiber Units

**HPF-D027**  
**HPF-D033**

All-resin structure ensures no metal contamination.



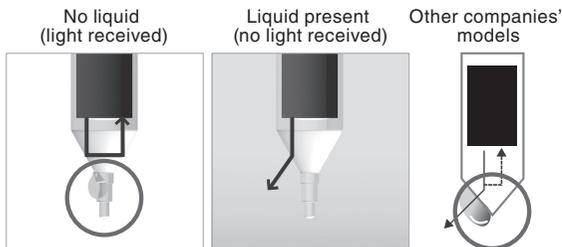
■ Problems due to liquid accumulation are reduced by Azbil corporation's innovative front end structure.

■ Product lineup includes a small-diameter model (Φ4) for easier cable routing.

## PRINCIPLE OF DETECTION

Reliable detection is achieved by the proprietary structure of the fiber tip

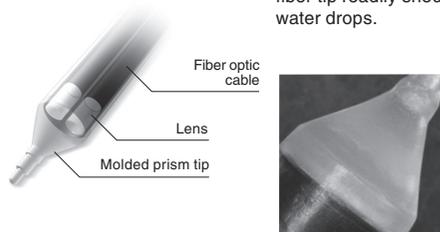
The proprietary structure provided at the tip of the fiber reduces malfunction due to liquid clinging. The lens built into the tip of the fiber ensures a large difference in light quantity between the conditions when liquid is present and absent.



The principle uses the difference in the reflective index due to the presence of liquid.

## Tip and internal structure

The molded prism fiber tip readily sheds water drops.



## RECOMMENDED COMPATIBLE AMPLIFIER UNIT

### HPX-EG Series

<Exterior view>



<Operation panel>

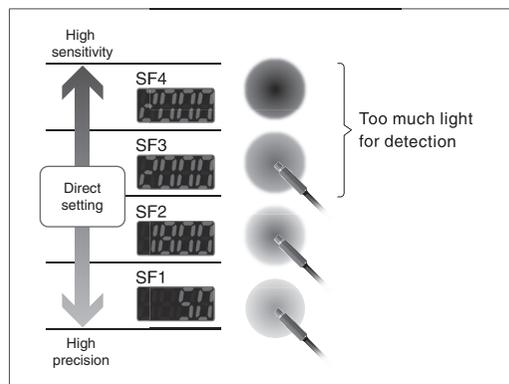


<Typical models>

Model No.	Output
HPX-EG00-1S	NPN
HPX-EG00-2S	PNP

### Auto sensitivity switch function

This function automatically optimizes the sensitivity setting during auto tuning, affording easy operation while delivering the highest detection performance.

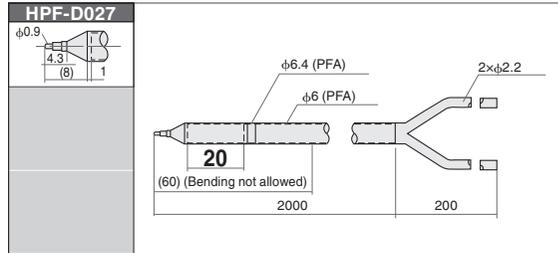
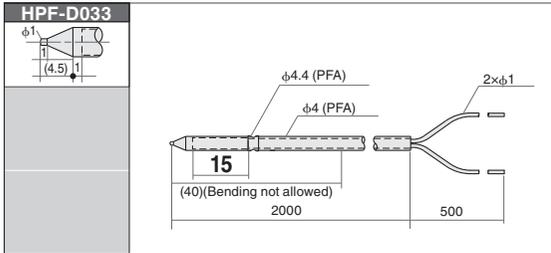


●Diffuse scan

Type	Shape	Cable		Model No.
		Bend radius	Length	
φ4	 -30 to +105°C	PFA area: R30 Cable area: R15	2 m Free cut	HPF-D033
φ6	 -30 to +105°C	PFA area: R40 Cable area: R25	2 m Free cut	HPF-D027

OUTER DIMENSIONS

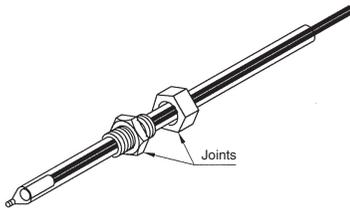
(unit: mm)



USAGE NOTES (TYPE-SPECIFIC)

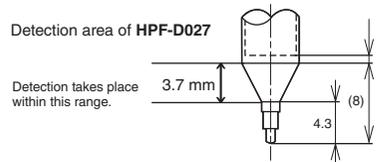
Contact-type liquid level detection

When installing the unit, use commercially available fluorine-resin joint that matches the outside diameter of the PFA tube.



- Operation may be unstable with the following conditions:
  - (1) Air bubbles adhering to the conical part of the sensing head
  - (2) Chemical precipitate on the conical part of the sensing head
  - (3) Liquids of high viscosity

- Some liquid properties, such as milky white color, may make the liquid undetectable.
- Be careful not to bump the fiber unit tip (especially the conical part). Operation may be unstable due to scratches on or deformation of the sensing head.
- If chattering occurs due to liquid dripping or bubbles, use a timer.



Liquid level detection positions vary depending on the surface tension of the liquid and the wet condition of the fiber unit's detection area.

Before use, thoroughly read the "Precautions for use" and "Precautions for handling" in the Technical Guide on pages A-141 to A-156 as well as the instruction manual and product specification for this switch.