

## Oil-Resistant IP67G Sensors

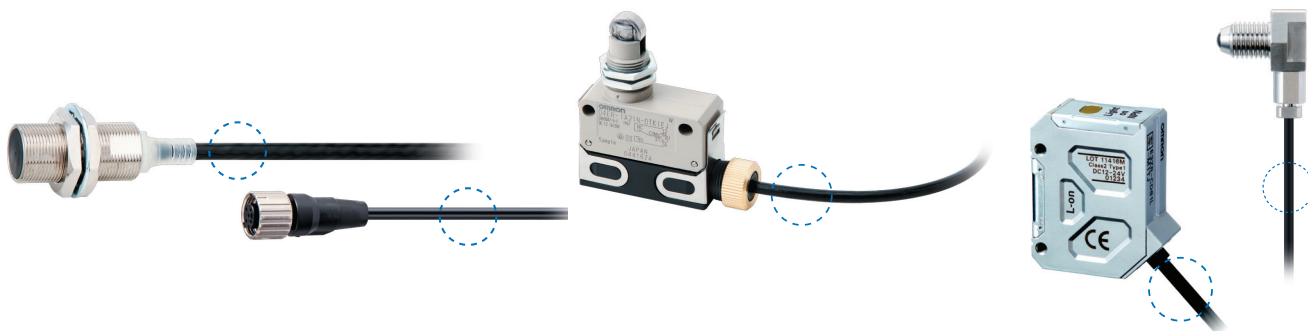
Rugged durability for harsh environments



- Minimize unexpected downtime
- Eliminate oil ingress by any path
- Lower overall cost of ownership

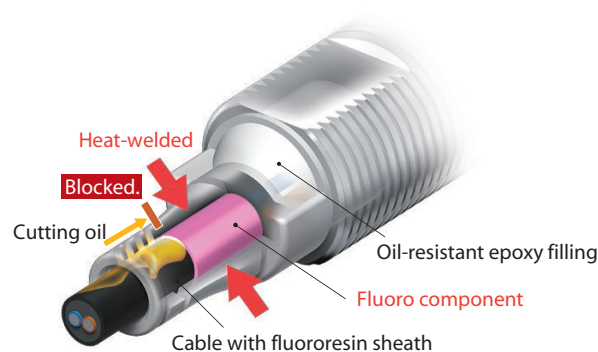
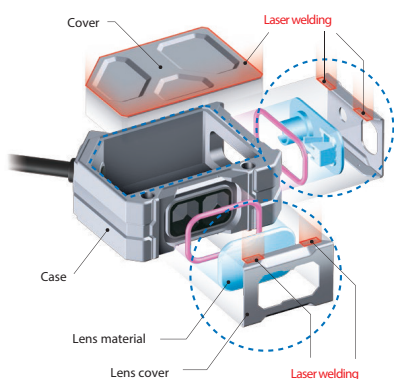
# Eliminate oil ingress by any path

## Fluororesin cable sheaths provide stronger resistance to deterioration



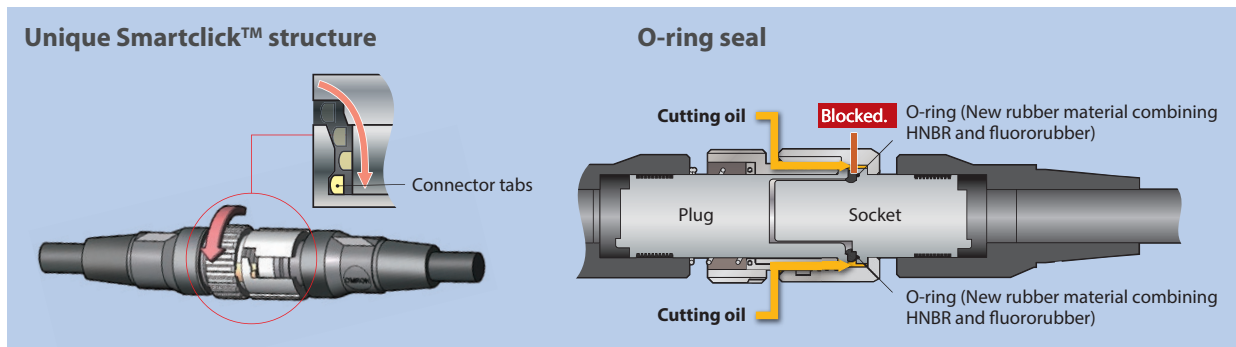
## Omron-developed rubber provides more protection at joints and moving sections

- No oil ingress at gaps between dissimilar materials
- No oil penetration at joint surfaces
- Patented laser welding without adhesives



## Patented Smartclick™ structure + O-ring seal

- Eliminates screw torque tightening
- Eliminates screw loosening due to vibration
- Single-motion locking seals and blocks oil ingress



## New IP67G\* industrial rating provides long life oil-resistant sensor solutions

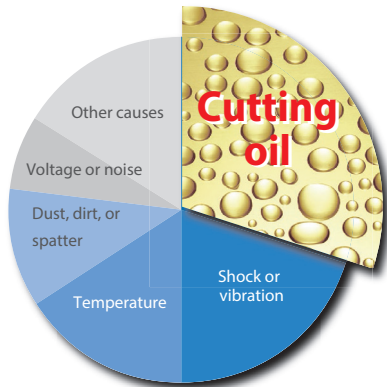
We thoroughly analyzed the ingress paths of water-soluble cutting oils to develop our unique, oil-resistant sensor series.

- Exceeds IP67G\* of JIS C0920
- Passed Omron oil-immersion testing
- Resists oil ingress for up to 4 years

### IP67G\* standard oil-drop test



### Omron extended life test



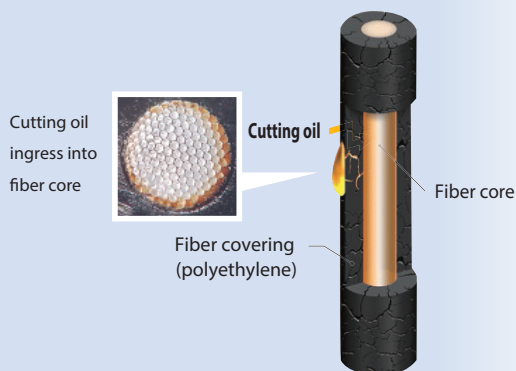
~30% of component failures are caused by cutting oil ingress

\*IP67G indicates protection against dust and water immersion up to 1m. The G indicates a resistance to oil.

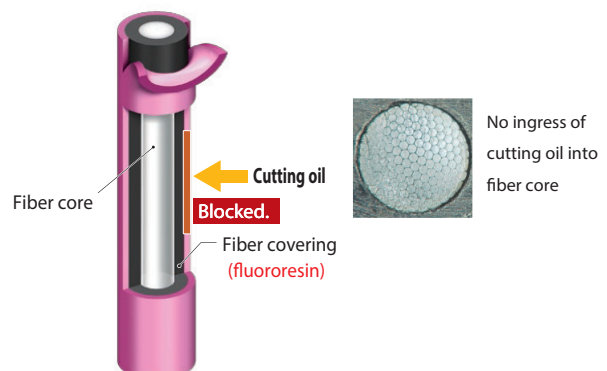
## Patent pending fluoro-resin materials provide maximum protection

- HNBR (hydrogenated nitrile butadiene rubber) protects against damage caused by swelling
- Fluororubber protects against damage caused by deterioration or cracking
- Omron's unique, patented compound combines HNBR and fluororubber
- Provides best-in-class resistance to both swelling and deterioration caused by cutting oils

### Cable sheath: PVC or PUR



### Cable sheath: fluoro-resin



# Product Lineup

## IP67G Oil-resistant Photoelectric Sensors – Model E3ZR-C

- Fluororesin outer cable sheath
- Patented compound combining HNBR and fluororubber
- Laser sealing without adhesive



## IP67G Oil-resistant Proximity Sensors – Models E2ER and E2ERZ

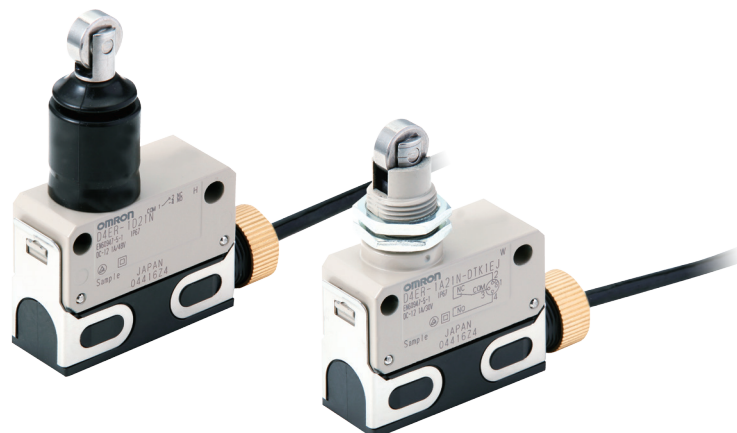
- Fluororesin outer cable sheath
- Heat-welded with a fluoro component
- Standard and chip-immune models available





## IP67G Oil-resistant Limit Switches – Model D4ER-□N

- Fluororesin outer cable sheath
- Patented compound combining HNBR and fluororubber
- Same mounting pitch as D4E-N switches



## IP67G Oil-resistant Fiber Unit – Model E32-T11NF

- Fluororesin outer cable sheath
- Mechanical seal combines set screw and fluororesin
- Resists cutting chips



## IP67G Oil-resistant Connectors – Model XS5-□R

- Fluororesin outer cable sheath
- Smartclick™ structure + O-ring
- Omron technology combines forming and sealing methods with surface bonding techniques



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