



OIL SURGE RELAY (OSR)

Mercury Switch Type (Used on OLTC)

Pipe Bore Size: 25mm.

ISO 9001:2015 CERTIFIED

APPLICATION:

The method of operation is similar for double element relay (Alarm & Trip) as described in Buchholz Relay as per IS:3637 but here OSR is the single element relays are suitable for potential transformer and on load tap changers.

The single element Oil Surge Relay has been specifically designed for use with on load tap change equipment and it will by-pass normal amounts of gas which are generated by tap change operations and will only respond to oil surges and loss of oil.

CONSTRUCTION & WORKING:

A OSR is designed keeping in view the various aspects. The cast body must be to withstand 8kg/cm² pressure for 1 minute and when a complete assembled relay is tested at 1.5 kg/cm² pressure it must show no sign of leakage. High voltage and insulation resistance tests are also conducted. The relay has housing in which single float. These float may be bucket type and having one switch (mercury switch) mounted in such a way that the lowering of float activates can shown during calibration. The switch leads are brought out on the terminal box.

ELECTRICAL CONNECTION:

To allow installation open the terminal box cover comprising of the name plate and the instruction sticker on the backside. Then pass the wire through one of the conduit screwing into the terminal box. The upper two studs are terminal for the switch circuit connection.

INSTALLATION & MAINTENANCE:

Installation into pipeline: For installing the relay into pipe line proceed as follows:

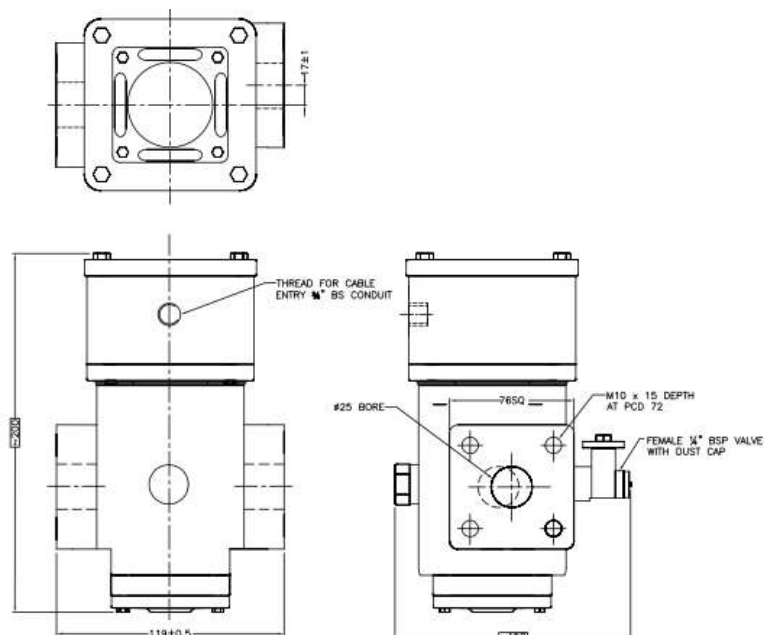
- ❖ Ensure that locking key remains in locked position during storage or loos transportation of the relay or in transit.
- ❖ Ensure that the locking key remains in the service position before commissioning of the relay.

FUNCTIONAL TEST:

Loosen the M10 nut of locking key with box wrench for checking the continuity of the switch. While checking the continuity ensure the relay is kept between 2° to 5° inclined position as in the pipe line of a transformer.

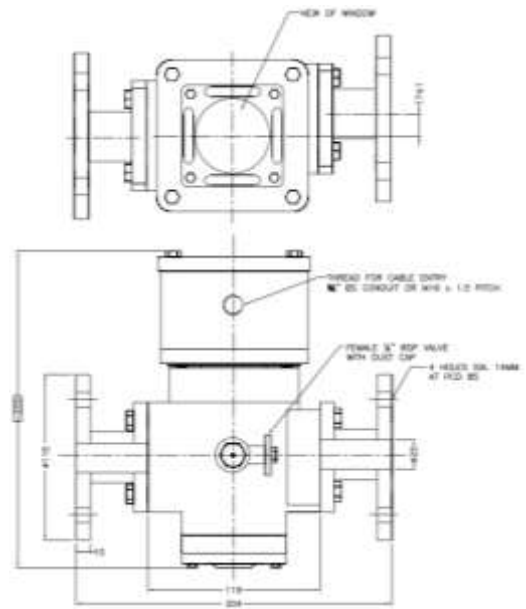


Model: OSR (SQUARE FLANGE TYPE)

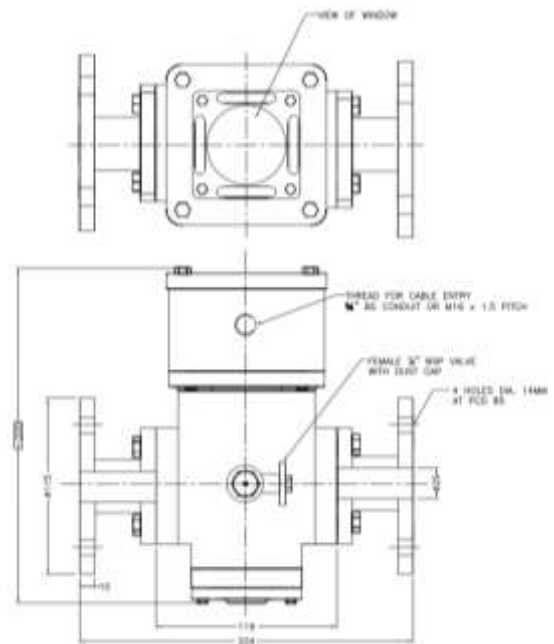




Model: OSR (ROUND FLANGE TYPE)



Model: OSR (WITH OUT OFFSET HOLE)



SPECIFICATIONS:

Parameter	OSR (SQ FLANGE TYPE)	OSR (ROUND FLANGE TYPE)	OSR (WITH OUT OFFSET HOLE)
Material	Graded C.I	Graded C.I	Graded Aluminium alloy
Surge test (cm/sec)	40-60	40-60	70-130
High voltage test	2KV at 50 Hz. for 60 Sec.		
Insulation Resistance Test	500V Meggar		
Porosity test	No leakage with air at 3kg/cm		
Current rating of switch	5/2Amp at 250V AC/DC Respectively applied (3amps 110V DC). Pressure test 3kg/cm ² for 72 hrs.		
Type of contacts	Normally open type		
Housing strength	8kg/cm ² for 2minutes		
Mounting position	2 ⁰ to 5 ⁰ ascending towards conservator		
Working temperature in oil	-25 ⁰ to +115 ⁰ C viscosity 1mm ² /sec to 100mm ² /sec		
Enclosure Protection	IP 67 x X7.		

D.K. INSTRUMENTS PVT. LTD.

76/2 Selimpur road, Dhakuria, Kolkata – 700031. India

Ph. No. : 91-33-2415 1310 / 2405 0944,

E-mail: info@dkinstruments.com

Website: www.dkinstruments.com