

INDUCTIVE PROXIMITY SWITCHES

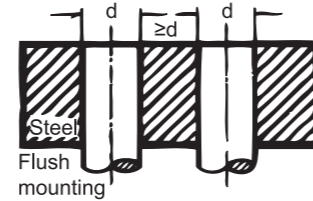


RECOGNITION OF *Quality Plus*

INDUCTIVE PROXIMITY SWITCHES

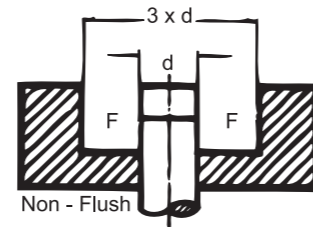
FLUSH MOUNTING IN METAL:

A proximity switch can be flush mounted in metal if it can be surrounded by metal up to the level of the active face, without changing its present characteristics. In order to avoid interference when mounting side by side, a spacing distance, corresponding to the diameter of the switch must be maintained.



NON FLUSH MOUNTING:

A proximity switch can be flush mounted in metal if zone is required for maintaining the characteristic values of the switch. A clear zone of 3x the diameter of the sensing surface should be maintained.



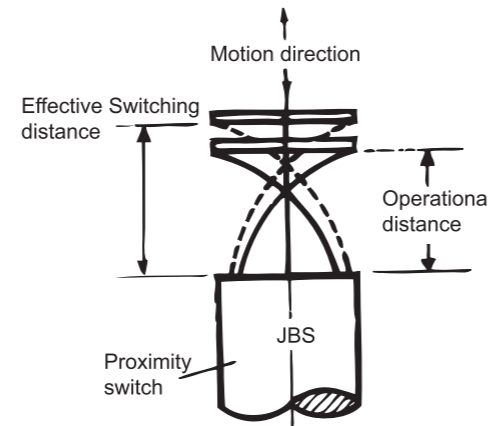
F - Clear zone containing only material that is non-conducting and has no magnetic properties

EFFECTIVE SWITCHING DISTANCE:

It is the switching distance when voltage and temperature can be at any value within the rating of the switch and this will be between 81 & 121% of switching distance.

OPERATIONAL DISTANCE:

It is the distance at which the operation of the proximity switch, under stated temperature and voltage conditions is guaranteed within 0 and 81% of the nominal switching distance.

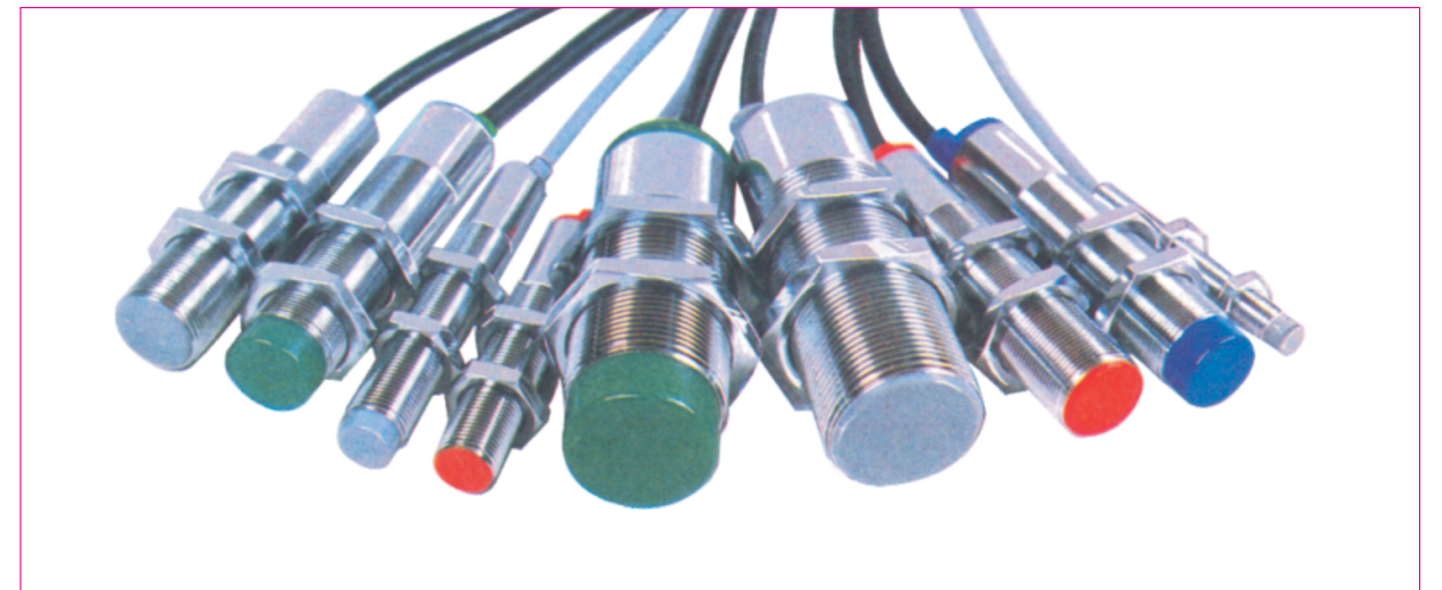


SOME IMPORTANT CORRECTION FACTORS:

WHEN TARGET MATERIAL IS NOT STEEL

Chrome - nickel	approx. 0.9 x Sn
Brass	approx. 0.5 x Sn
Aluminium	approx. 0.4 x Sn
Copper	approx. 0.4 x Sn

Our other products include Photo Electronic Sensors, Capacitive Proximity Switches, Reed Magnetic Switches, Limit Switches, Rotary Switches & Telescopic Brush Plugs.
Special types of switches available on request.



FEATURES:

- * REF : STANDARD IEC 947-5-2
- * REVERSE POLARITY PROTECTION
- * SHORT CIRCUIT PROTECTION
- * OVERLOAD PROTECTION
- * FALSE PULSE DURING
- * POWER ON/OFF PROTECTION
- * NOISE SUPPRESSION



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JAIBALAJI India's ONLY manufacturers of ISI
Limit Switches has another range of high quality
Inductive Proximity sensors with

INDUCTIVE PROXIMITY SWITCHES

REF : STANDARD : IEC 947-5-2

INDUCTIVE PROXIMITY SWITCHES

Inductive Proximity switches are used to identify the presence of metal objects, speed measurements, position sensing, counting etc., without any physical contact with the objects. It enhances the durability of the switch and ensures maintenance free work.

Inductive Proximity switch generates high frequency alternating field at the active face by the oscillator circuit. When any metal object is brought into the field it causes oscillation to stop. Hence the demodulated voltage feeding the trigger disappears.

DC Inductive Proximity Switches:

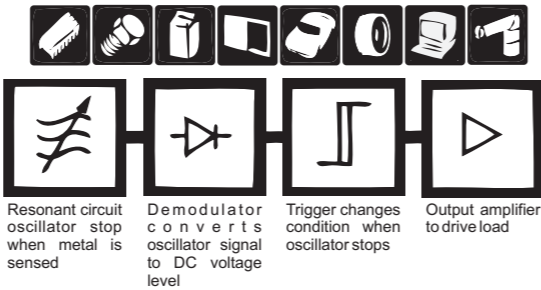
For DC switches the trigger operates rapidly when oscillation stops. This trigger switches the O/P, NPN/PNP transistor to drive an electronic circuit or relay.

AC Inductive Proximity Switches:

For AC switches a thyristor is triggered when oscillation stops. This thyristor is connected in series with a bridge and this series combination is connected to the AC load.

APPLICATIONS:

- AUTOMOBILE INDUSTRIES
- STEEL INDUSTRIES
- PACKAGING INDUSTRIES
- METAL HANDLING EQUIPMENT
- PROCESS AUTOMATION
- CNC / NC MACHINES
- CONVEYOR EQUIPMENT ETC.,

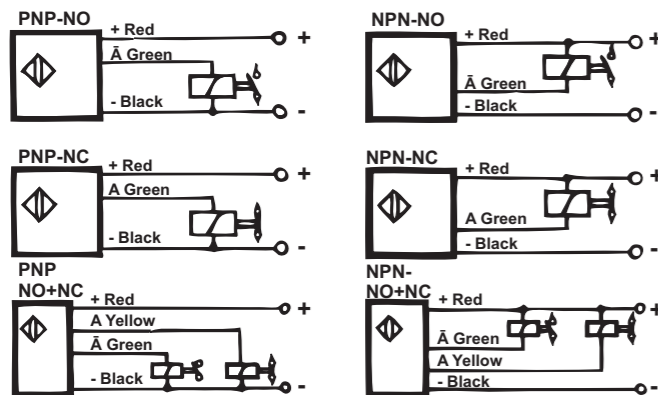


DC SWITCHES SPECIFICATIONS	
Reference: STANDARD : IEC 947-5-2	
Nominal Voltage	10 - 30 VDC
Voltage Drop	0.8 - 7 V*
Load Current	300 mA *
No Load Current	10 - 20 mA *
Switching Frequency	200 HZ **
Ambient Temperature	-25° C To +60° C
Hysteresis	≤15%
Sensing Distance Tolerance	±10%

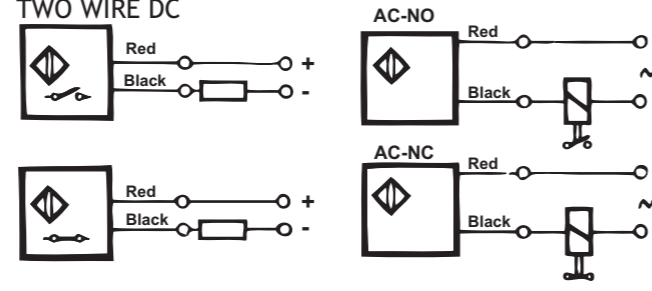
AC SWITCHES SPECIFICATIONS	
Reference: STANDARD : IEC 947-5-2	
Nominal Voltage	90 - 250 VAC
Voltage Drop	8 V
Load Current	500 mA Max
No Load Current	5 mA
Switching Frequency	15 HZ Max **
Ambient Temperature	-25° C To +60° C
Hysteresis	≤15%
Sensing Distance Tolerance	±10%

. Specification Varies depending on Switch Type.
 .. Specification Varies depending on Switch Size & Range.

Connection Diagram for DC Switches



Connection Diagram for AC Switches



TECHNICAL SPECIFICATIONS

DIMENSIONS in mm

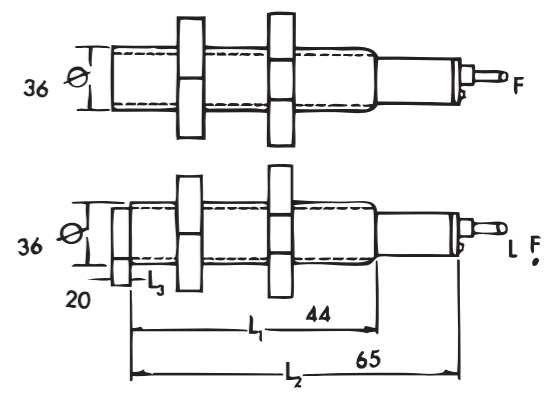
MODEL	HOUSING	FLUSH / NON-FLUSH	MOUNTING THREAD	L1	L2	L3	NUT	ELECTRICAL TYPE	LED	SENSING DISTANCE Sn	TYPE OF PROTECTION
JB 8	M	F	8X1	35	60		14	PN	-	1	IP 67
JB 8	S	L	8X1	40	65		14	PN	-	1.5	IP 67
JB 12	M	L	12X1	45	65	5	17	PN	✓	4	IP 67
JB 12	M	F	12X1	55	75		17	PN	✓	2	IP 67
JB 12	S	L	12X1	50	70	3	17	PN	✓	4	IP 67
JB 18	S	L	18X1	55	75	7	24	TPNBA	✓	8	IP 67
JB 18	M	L	18X1	50	70	7	24	TPNBA	✓	8	IP 67
JB 18	M	F	18X1	55	75		24	TPNBA	✓	5	IP 67
JB 30	S	L	30X1.5	55	75	12	36	TPNBA	✓	15	IP 67
JB 30	M	L	30X1.5	45	65	12	36	TPNBA	✓	15	IP 67
JB 30	M	F	30X1.5	55	75		36	TPNBA	✓	10	IP 67
JB 36	M	L	36X1.5	45	65	20	44	TPNBA	✓	20	IP 67
JB 36	M	F	36X1.5	45	65		44	TPNBA	✓	15	IP 67
JB 50	M	L	50X1.5	40	60	16	57	TPNBA	✓	25	IP 67
JB 50	M	F	50X1.5	40	60		57	TPNBA	✓	20	IP 67

(NOTE :- STANDARD WIRE LENGTH PROVIDED - 2 MTS ONLY)

- M-METAL
- S-SYNTHETIC
- F-FLUSH
- L-NON-FLUSH
- P-PNP
- N-NPN
- PN-THREE WIRE DC
- T-TWO WIRE DC
- B-FOUR WIRE DC (NO + NC)
- A-TWO WIRE AC

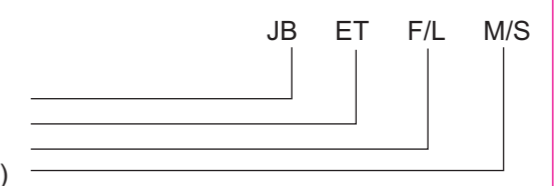
- P₁ - PNP NO
- P₂ - PNP NC
- N₁ - NPN NO
- N₂ - NPN NC
- T₁ - 2 WIRE NO
- T₂ - 2 WIRE NC
- B₁ - PNP NO + NC
- B₂ - NPN NO + NC
- A₁ - AC NO
- A₂ - AC NC

DIMENSIONS in mm



ORDERING CODE

Model.
 Electrical Type T.P.N.B.A
 Flush - F/ Non Flush - L
 Housing (Metal-M / Synthetic-S)



Eg.: JB 18 T1 L S
 JB 18 T2 FL M

Model denotes the size