



Series 310/311

Tubular Capacitive Proximity Sensors

18mm, 30mm, 40mm



SIZE	18mm		30mm		40mm	
TYPE	4 Wire DC		4 Wire DC	2 Wire AC	4 Wire DC	2 Wire AC
Shielding And Housing Material	S - Shielded N - Non-Shielded		N or S	N or S	N	N
Max. Sensing Distance (Adjustable) mm	S=1-5; N=1-10		S=1-20; N=1-25		1-35	1-35
Switching Frequency Hz	10		10	8	10	8
Repeatability mm	<0.5 @ Constant Temp.		<1.0 @ Constant Temp.		<2.0 @ Constant Temp.	
Supply Voltage (Residual Ripple <10%)	10-30 VDC		10-30VDC	20-250VAC	10-30VDC	20-250VAC
Maximum Output Current mA	200		200	300	200	300
Minimum Output Current	—		—	5mA	—	5mA
Max. Peak Current for 20ms A	—		—	1.5	—	1.5
No Load Current at 24VDC mA	< 10		<10	—	<10	—
Leakage Current mA	—		—	<3	—	<3
Voltage Drop (ON State)	<1.8 VDC		<1.8VDC	<6VAC	<1.8VDC	<6VAC
Outputs	NPN-N.O. & N.C. PNP-N.O. & N.C.		NPN-N.O. & N.C. PNP-N.O. & N.C.	N.O. & N.C.	NPN-N.O. & N.C. PNP-N.O. & N.C.	N.O. & N.C.

SPECIFICATIONS

SHORT CIRCUIT PROTECTION

Yes (4 Wire DC Models Only)

REVERSE POLARITY PROTECTION

Yes (4 Wire DC Models Only)

LED INDICATOR

Yes

OPERATING TEMPERATURE

-20° To +70°C

STANDARD TERMINATION

2 Meter Cable, K Connector Optional on 30mm N/B Body Only

HOUSING MATERIAL

Non-Shielded Models:

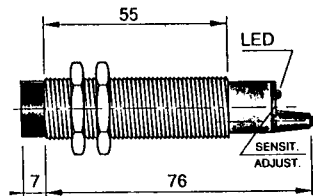
Plastic or Nickel Brass

Shielded Models:

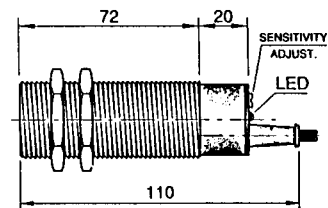
Nickel Brass

APPROVALS

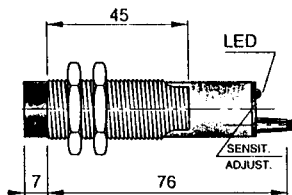
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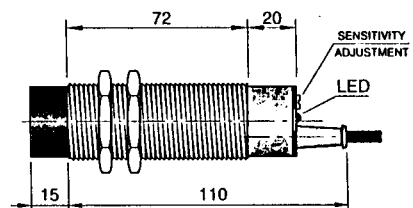
(18mm, 4-Wire, DC) 311-3-1810-XX



(30mm, 4-Wire, DC) 310-3-3010-XX



(18mm, 4-Wire, DC) 311-3-1910-XX

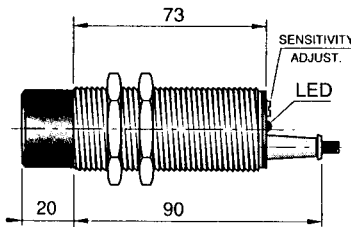


(30mm, 4-Wire, DC) 311-3-3010-XX

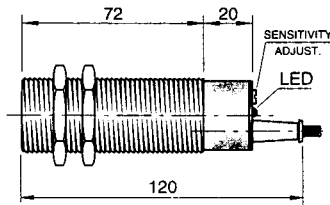
(18mm, 4-Wire, DC) 310-3-1810-XX

ORDERING INFORMATION

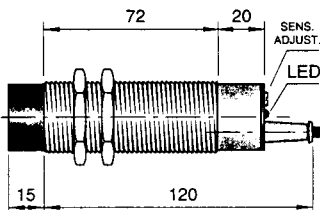
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TYPE				
Capacitive, Shielded..... 310				
Capacitive, Non-Shielded..... 311				
HOUSING				
18mm Nickel Brass..... 18				
18mm Plastic (311 Type Only)..... 19				
30mm Nickel Brass..... 30				
30mm Plastic (311 Type Only)..... 31				
40mm Plastic..... 41				
TERMINATION				
2 Meter Cable..... 10				
K Connector (Housing Type 30 Only)..... 30				
OUTPUT				
AC, 2 Wire, NO..... 11				
AC, 2 Wire, NC..... 12				
AC, 2 Wire, NO or NC				
Programmable (K-Conn Only)..... 13				
DC, 4 Wire, NPN, NO & NC..... 23				
DC, 4 Wire, PNP, NO & NC..... 26				



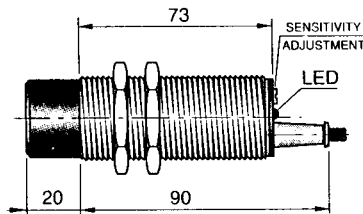
(30mm, 4-Wire, DC) 311-3-3110-XX



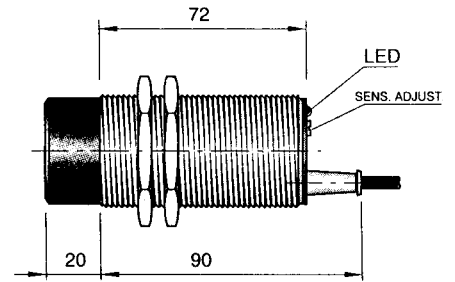
(30mm, 2-Wire, AC) 310-3-3010-XX



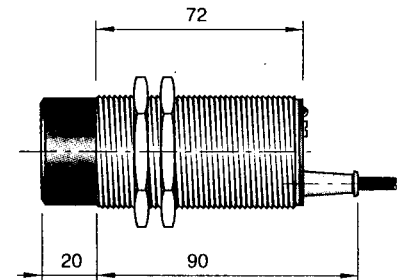
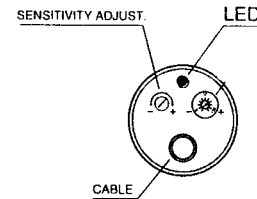
(30mm, 2-Wire, AC) 311-3-3010-XX



(30mm, 2-Wire, AC) 311-3-3110-XX



(40mm, 4-Wire, DC) 311-3-4110-XX



(40mm, 2-Wire, AC) 311-3-4110-XX