

CE



Product Catalogue

- ★ **SENSORs**
- ★ **SSRs**
- ★ **SMPS**
- ★ **LIGHT CURTAIN**



Appreciating Quality Automation

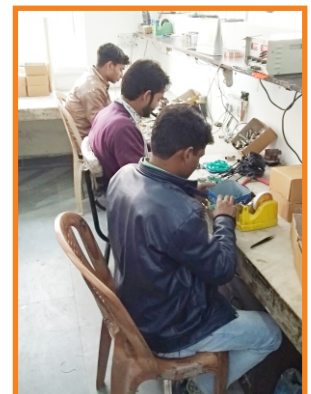
About Us

Dolphin Automation is a rapidly growing organization established with a vision to offer the best quality automation products and reliable sensors to customers across the globe. Our durable and dependable products are available at the most competitive prices. A large scale manufacturing capability has helped us establish our competitiveness in the global market.

The company owns well equipped manufacturing and research facilities. It is home to some of the most sophisticated technology. The state-of-the-art machinery and research facilities speak volumes of the quality and efficiency maintained in the products and the manufacturing process. This ensures, our customers get quality products at the lowest prices.

Motto

'Quality in every nut & bolt of our products. Reliability, dependability and trustworthy products and services that speak for themselves.' Our Objective 'We endeavor to offer the best quality products and the most competitive products. We ascertain that each products is the recipe of smart and powerful engineering.'



- ★ INDUCTIVE SENSORS
- ★ PHOTO ELECTRIC SENSORS
- ★ CAPACITIVE SENSORS
- ★ MARK SENSORS
- ★ FLOAT SWITCHES
- ★ RELAY UNITS
- ★ PLUG IN LEADS
- ★ SMPS POWER SUPPLIES
- ★ LIGHT CURTAIN/AREA SENSORS
- ★ SSRs - SINGLE PHASE/THREE PHASE

Inductive Proximity Switches

Inductive Proximity Switches are used for non contact detection of ferrous (metallic objects) which find a very wide application in industrial process control. They are the preferred choice for the majority of applications requiring accurate, non contact detections of metallic objects in machinery or automatic equipment. They work on electro Magnetic Principle and are resistant to atmospheric conditions like humidity, dust, oil, paint, etc. Low power consumption, availability in wide range of packages and low unit price has made them very popular in industry.

Types

Standard Cylindrical Type

Inductive Sensors are available from M-5 to M-80 Diameters.

M-5- Input Voltage DC (3 Wire)

Order Code	Range (mm)	Logic	O/P	Mounting	
N1AS1	1 mm	PNP	NO	FLUSH	Voltage 5-40 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <8mA@12 V DC Switching Freq 1000Hz LED Indication, Reverse Polarity Protected,, Switching Impulse Suppression, PVC Cable,
N1AS2			NC		
N1AR1		NPN	NO		
N1AR2			NC		

M-6.5- Input Voltage DC (3 Wire)

Order Code	Range (mm)	Logic	O/P	Mounting	Common Specs
N1.5 BS1	1.5 mm	PNP	NO	FLUSH	Voltage 5-40 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <8mA@12 V DC Switching Freq 1000Hz LED Indication, Reverse Polarity Protected, Over Load Protected Short Circuit Proof, Switching Impulse Suppression, PVC Cable,
N1.5 BS2			NC		
N1.5 BR1		NPN	NO		
N1.5 BR2			NC		

M-8 (Input DC Voltage DC 3 Wire)

Order Code	Range (mm)	Logic	O/P	Mounting	
N1.5 CS1	1.5 mm	PNP	NO	FLUSH	Voltage 5-40 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <8mA@12 V DC Switching Freq 1000Hz LED Indication, Reverse Polarity Protected, Over Load Protected Short Circuit Proof, Switching Impulse Suppression, PVC Cable,
N1.5 CS2			NC		
N1.5 CR1		NPN	NO		
N1.5 CR2			NC		

All the above models are also available in connector type version with suffix "P" to the model number, Example **N1.5CS1P**

M-12 (Input DC Voltage 3 Wire) STANDARD RANGE

Order Code	Range (mm)	Logic	O/P	Mounting	Frequency	Common Specs
N2ES1	02 mm	PNP	NO	FLUSH	1000Hz	Voltage 5-40 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <8mA- @12 V DC Switching Freq 2000Hz LED Indication, Reverse Polarity, Protected, Over Load Protected, Short Circuit Proof, Switching Impulse Suppression, PVC Cable,
N4ES1	04 mm			NON FLUSH	800Hz	
N2ES2	02 mm		NC	FLUSH	1000Hz	
N4ES2	04 mm			NON FLUSH	800Hz	
N2ER1	02 mm	NPN	NO	FLUSH	1000Hz	
N4ER1	04 mm			NON FLUSH	800Hz	
N2ER2	02 mm		NC	FLUSH	1000Hz	
N4ER2	04 mm			NON FLUSH	800Hz	

All the above models are available in connector type version with suffix "P" to the model number, Example **N4ES1P**

M-12 (Input DC Voltage 3 Wire) LONG RANGE



Order Code	Range (mm)	Logic	O/P	Mounting	Frequency	Common Specs
N4LRES1	04 mm	PNP	NO	FLUSH	500Hz	Voltage 10-35 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <8mA- @12 V DC Switching Freq 500Hz LED Indication, Reverse Polarity, Protected, Over Load Protected, Short Circuit Proof, Switching Impulse Suppression, PVC Cable,
N8LRES1	08 mm			NON FLUSH	300Hz	
N4LRES2	04 mm		NC	FLUSH	500Hz	
N8LRES2	08 mm			NON FLUSH	300Hz	
N4LRER1	04 mm	NPN	NO	FLUSH	500Hz	
N8LRER1	08 mm			NON FLUSH	300Hz	
N4LRER2	04 mm		NC	FLUSH	500Hz	
N8LRER2	08 mm			NON FLUSH	300Hz	
All the above models are available in connector type version with suffix “P” to the model number, Example N4LRES1P						

M-12 (Input AC Voltage 2 Wire) STANDARD RANGE



Order Code	Range (mm)	O/P	Mounting	Frequency	Common Specs
N2EW1	02 mm	NO	FLUSH	25Hz	Voltage 20-250 V AC Max Load Current <500mA Voltage Drop <5V AC Leakage Current <1.5mA LED Indication, Switching Impulse - Suppression, PVC Cable,
N4EW1	04 mm		NON FLUSH		
N2EW2	02 mm	NC	FLUSH		
N4EW2	04 mm		NON FLUSH		
N2EW1P	02 mm	NO	FLUSH		
N4EW1P	04 mm		NON FLUSH		
N2EW2P	02 mm	NC	FLUSH		
N4EW2P	04 mm		NON FLUSH		
All the above models are available in connector type version with suffix “P” to the model number, Example N4EW1P					

M-18 (Input DC Voltage 3 Wire O/P) STANDARD RANGE



Order Code	Range (mm)	Logic	O/P	Mounting	Frequency	Common Specs
N5GS1	05 mm	PNP	NO	FLUSH	800Hz	Voltage 5-40 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <8mA- @12 V DC Switching Freq 2000Hz LED Indication, Reverse Polarity, Protected, Over Load Protected, Short Circuit Proof, Switching Impulse Suppression, PVC Cable,
N8GS1	08 mm			NON FLUSH	600Hz	
N5GS2	05 mm		NC	FLUSH	800Hz	
N8GS2	08 mm			NON FLUSH	600Hz	
N5GR1	05 mm	NPN	NO	FLUSH	800Hz	
N8GR1	08 mm			NON FLUSH	600Hz	
N5GR2	05 mm		NC	FLUSH	800Hz	
N8GR2	08 mm			NON FLUSH	600Hz	
All the above models are available in connector type version with suffix “P” to the model number, Example N5GS2P						

M-18 (Input DC Voltage 3 Wire) LONG RANGE



Order Code	Range (mm)	Logic	O/P	Mounting	Frequency	Common Specs
N8LRGS1	08 mm	PNP	NO	FLUSH	400Hz	Voltage 10-35 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <8mA- @12 V DC Switching Freq 500Hz LED Indication, Reverse Polarity, Protected, Over Load Protected, Short Circuit Proof, Switching Impulse Suppression, PVC Cable,
N16LRGS1	16 mm			NON FLUSH	200Hz	
N8LRGS2	08 mm		NC	FLUSH	400Hz	
N16LRGS2	16 mm			NON FLUSH	200Hz	
N8LRGR1	08 mm	NPN	NO	FLUSH	400Hz	
N16LRGR1	16 mm			NON FLUSH	200Hz	
N8LRGR2	08 mm		NC	FLUSH	400Hz	
N16LRGR2	16 mm			NON FLUSH	200Hz	
All the above models are available in connector type version with suffix “P” to the model number, Example N8LRGS1P						

M-18 (Input AC Voltage 2 Wire) STANDARD RANGE



Order Code	Range (mm)	O/P	Mounting	Frequency	Common Specs
N5GW1	05 mm	NO	FLUSH	25Hz	Voltage 20-250 V AC Max Load Current <500mA Voltage Drop <5V AC Leakage Current <1.5mA LED Indication, Switching Impulse - Suppression, PVC Cable,
N8GW1	08 mm		NON FLUSH		
N5GW2	05 mm	NC	FLUSH		
N8GW2	08 mm		NON FLUSH		
All the above models are available in connector type version with suffix “P” to the model number, Example N5GW1P					



M-18 (Input AC Voltage 2 Wire) LONG RANGE



Order Code	Range (mm)	O/P	Mounting	Frequency	Common Specs
N8LRGW1		NO	FLUSH	25Hz	Voltage 20-250 V AC Max Load Current <500mA Voltage Drop <5V AC Leakage Current <1.5mA LED Indication, Switching Impulse - Suppression, PVC Cable,
N14LRGW1	14 mm		NON FLUSH		
N8LRGW2	08 mm	NC	FLUSH		
N14LRGW2	14 mm		NON FLUSH		
All the above models are available in connector type version with suffix “P” to the model number, Example N8LRGW1P					

M-18 (Input DC Voltage DC 2 Wire)



Order Code	Range (mm)	O/P	Mounting	Frequency	Common Specs
N5GA1	05 mm	NO	FLUSH	25Hz	Voltage 20-110 V DC Max Load Current <400mA Voltage Drop <7V DC Leakage Current <1.5mA LED Indication, Switching Impulse Suppression, PVC Cable,
N8GA1	08 mm		NON FLUSH		
N5GA2	05 mm	NC	FLUSH		
N8GA2	08 mm		NON FLUSH		
All the above models are available in connector type version with suffix “P” to the model number, Example N5GA1P					

M-30 (Input DC Voltage 3 Wire O/P) STANDARD RANGE

Order Code	Range (mm)	Logic	O/P	Mounting	Frequency	Common Specs
N10HS1	10 mm	PNP	NO	FLUSH	600Hz	Voltage 5-40 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <8mA- @12 V DC Switching Freq 2000Hz LED Indication, Reverse Polarity, Protected, Over Load Protected, Short Circuit Proof, Switching Impulse Suppression, PVC Cable,
N15HS1	15 mm			NON FLUSH	500Hz	
N10HS2	10 mm		NC	FLUSH	600Hz	
N15HS2	15 mm			NON FLUSH	500Hz	
N10HR1	10 mm	NPN	NO	FLUSH	600Hz	
N15HR1	15 mm			NON FLUSH	500Hz	
N10HR2	10 mm		NC	FLUSH	600Hz	
N15HR2	15 mm			NON FLUSH	500Hz	

All the above models are available in connector type version with suffix "P" to the model number, Example **N15HS1P**

M-30 (Input DC Voltage 3 Wire) LONG RANGE

Order Code	Range (mm)	Logic	O/P	Mounting	Frequency	Common Specs
N20LRHS1	20 mm	PNP	NO	FLUSH	200Hz	Voltage 10-35 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <8mA- @12 V DC Switching Freq 200Hz LED Indication, Reverse Polarity, Protected, Over Load Protected, Short Circuit Proof, Switching Impulse Suppression, PVC Cable,
N30LRHS1	30 mm			NON FLUSH	100Hz	
N10LRHS2	20 mm		NC	FLUSH	200Hz	
N30LRHS2	30 mm			NON FLUSH	100Hz	
N20LRHR1	20 mm	NPN	NO	FLUSH	200Hz	
N30LRHR1	30 mm			NON FLUSH	100Hz	
N20LRHR2	20 mm		NC	FLUSH	200Hz	
N30LRHR2	30 mm			NON FLUSH	100Hz	

All the above models are available in connector type version with suffix "P" to the model number, Example **N20LRHS1P**

M-30 (Input DC Voltage 2 Wire O/P)

Order Code	Range (mm)	O/P	Mounting	Frequency	Common Specs
N10HA1	10 mm	NO	FLUSH	25Hz	Voltage 20-110 V DC Max Load Current <400mA Voltage Drop <7V DC Leakage Current <1.5mA LED Indication, Switching Impulse Suppression, PVC Cable,
N15HA1	15 mm		NON FLUSH		
N10HA2	10 mm	NC	FLUSH		
N15HA2	15 mm		NON FLUSH		
N10HA1	10 mm	NO	FLUSH		
N15HA1	15 mm		NON FLUSH		
N10HA2	10 mm	NC	FLUSH		
N15HA2	15 mm		NON FLUSH		

All the above models are available in connector type version with suffix "P" to the model number Example **N15HA1P**

M-30 Input Voltage (2 Wire) AC - STANDARD RANGE



Order Code	Range (mm)	O/P	Mounting	Frequency	Common Specs
N10HW1	10 mm	NO	FLUSH	25Hz	Voltage 20-250 V AC Max Load Current <500mA Voltage Drop <5V AC Leakage Current <1.5mA LED Indication, Switching Impulse Suppression, PVC Cable,
N15HW1	15 mm		NON FLUSH		
N10HW2	10 mm	NC	FLUSH		
N15HW2	15 mm		NON FLUSH		
All the above models are available in connector type version with suffix “P” to the model number, Example N10HW1P					

M-30 (Input AC Voltage 2 Wire) LONG RANGE



Order Code	Range (mm)	O/P	Mounting	Frequency	Common Specs
N15LRHW1	15 mm	NO	FLUSH	25Hz	Voltage 20-250 V AC Max Load Current <500mA Voltage Drop <5V AC Leakage Current <1.5mA LED Indication, Switching Impulse - Suppression, PVC Cable,
N25LRHW1	25 mm		NON FLUSH		
N15LRHW2	15 mm	NC	FLUSH		
N25LRHW2	25 mm		NON FLUSH		
All the above models are available in connector type version with suffix “P” to the model number, Example N15LRGW1P					

M-50 Input DC Voltage (3 Wire O/P) - STANDARD RANGE



Order Code	Range (mm)	Logic	O/P	Mounting	Frequency	Common Specs
N25KS1	25 mm	PNP	NO	NON FLUSH	300Hz	Voltage 05-40 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <8mA LED Indication, Reverse Polarity Protected, Over Load Protected Short Circuit Proof, Switching Impulse Suppression, PVC Cable,
N25KS2			NC			
N25KR1		NPN	NO			
N25KR2			NC			

M-50 Input DC Voltage (3 Wire O/P) - LONG RANGE



Order Code	Range (mm)	Logic	O/P	Mounting	Frequency	Common Specs
N50LRKS1	50 mm	PNP	NO	NON FLUSH	300Hz	Voltage 10-35 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <8mA LED Indication, Reverse Polarity Protected, Over Load Protected Short Circuit Proof, Switching Impulse Suppression, PVC Cable,
N50LRKS2			NC			
N50LRKR1		NPN	NO			
N50LRKR2			NC			

M-50 Input AC Voltage (2 Wire O/P) - STANDARD RANGE

Order Code	Range (mm)	O/P	Mounting	Frequency	Common Specs
N25KW1	25 mm	NO	NON FLUSH	25Hz	Voltage 20-250 V AC Max Load Current <500mA Voltage Drop <5V AC Leakage Current <1.5mA LED Indication, Switching Impulse Suppression, PVC Cable,
N25KW2		NC			



M-50 Input AC Voltage (2 Wire O/P) - LONG RANGE

Order Code	Range (mm)	O/P	Mounting	Frequency	Common Specs
N40KW1	40 mm	NO	NON FLUSH	25Hz	Voltage 20-250 V AC Max Load Current <500mA Voltage Drop <5V AC Leakage Current <1.5mA LED Indication, Switching Impulse Suppression, PVC Cable,
N40KW2		NC			
All the above models are available in connector type version with suffix “P” to the model number, Example N40KW1P					



M-50 Input DC Voltage (2 Wire O/P)

Order Code	Range (mm)	O/P	Mounting	Frequency	Common Specs
N25KA1	25 mm	NO	NON FLUSH	25Hz	Voltage 20-110 V DC Max Load Current <400mA Voltage Drop <7V DC Leakage Current <1.5mA LED Indication, Switching Impulse Suppression, PVC Cable,
N25KA2		NC			
All the above models are available in connector type version with suffix “P” to the model number, Example N25KA1P					



Micro Switch Type

Order Code	Dimensions	Logic	Range	O/P	Common Specs
N4MBS1	50x20x18 mm	PNP	4mm	NO	Voltage 05-40 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <8mA Frequency <600 Hz Reverse Polarity Protected, Switching Impulse, Suppression, PVC Cable,
N4MBS2				NC	
N4MBR1		NPN		NO	
N4MBR2				NC	
N2MSS1	10x15x28 mm	PNP	2mm	NO	
N2MSS2				NC	
N2MSR1		NPN		NO	
N2MSR2				NC	



Slot Type - Inductive

Order Code	Slot Width	Slot Depth	Logic	O/P	Common Specs
N5SLS1	05 mm	16 mm	PNP	NO	Voltage 10-35 V DC Max Load Current <200mA Voltage Drop <2V DC Leakage Current <8mA Frequency <800 Hz Reverse Polarity Protected, Switching Impulse, Suppression, PVC Cable,
N5SLS2			PNP	NC	
N5SLR1			NPN	NO	
N5SLR2			NPN	NC	
N10SLS1	10 mm	32 mm	PNP	NO	
N10SLS2			PNP	NC	
N10SLR1			NPN	NO	
N10SLR2			NPN	NC	



Analogue - Output

Order Code	Range	OD	O/P	Common Specs
N10GAV	10 mm	M18	0-10 VDC	Voltage 15-40 VDC Linear Output Reverse polarity protected Low Leakage Current 3 Wire PVC Cable Mounting Non Flush
N10GAI	10 mm		0-20 mA	
N20HAV	20 mm	M30	0-10 VDC	
N20HAI	20 mm		0-20 mA	

Inductive- Block (Rectangular)

Order Code	Dimensions	Logic	O/P	Sn Range	Common Specs
N8G36S1K	18x18x36 mm	PNP	NO	08 mm	Voltage 05-40 V DC, Max Load Current <200mA, Voltage Drop <2V DC, Leakage Current <8mA, Frequency <600 Hz, Reverse Polarity Protected, Switching Impulse Suppression PVC Cable
N8G36S2K			NC		
N8G36R1K		NPN	NO		
N8G36R2K			NC		
N5G25S1K	18x18x25 mm	PNP	NO	05 mm	
N5G25S2K			NC		
N5G25R1K		NPN	NO		
N5G25R2K			NC		
N8K50S1K	10x25x50 mm	PNP	NO	08 mm	
N8K50S2K			NC		
N8K50R1K		NPN	NO		
N8K50R2K			NC		
N15H54S1K	30x30x54 mm	PNP	NO	15 mm	
N15H54S2K			NC		
N15H54R1K		NPN	NO		
N15H54R2K			NC		
N8RK36S1K	18x18x36 mm	PNP	NO	08 mm	
N8RK36S2K			NC		
N8RK36R1K		NPN	NO		
N8RK36R2K			NC		
N8K56S1K	18x18x56 mm	PNP	NO	8 mm	
N8K56S2K			NC		
N8K56R1K		NPN	NO		
N8K56R2K			NC		
N4E40S1K	12x27x40 mm	PNP	NO	04 mm	
N4E40S2K			NC		
N4E40R1K		NPN	NO		
N4E40R2K			NC		

Inductive Proximity Switches



Type- NAMUR

Order Code	Dimensions	Sn Range	Mounting	Freq	Common Specs
N1.5BN	M-6.5	1.5 mm	FLUSH	1.5 KHz	Voltage 05-25 V DC Nominal Voltage 08 VDC I max (Damp) <1mA I max (Undamp) >3.5mA Max Load >1k ohms
N1.5CN	M-8		FLUSH		
N2EN	M-12		02 mm		
N4EN		04 mm	NON FLUSH		
N5GN	M-18	05 mm	FLUSH	800 Hz	
N8GN		08 mm	NON FLUSH		
N10HN	M-30	10 mm	FLUSH	500 Hz	
N15HN		15 mm	NON FLUSH		
All above models are available in Connector type version with suffix “P” to the Model No. Example N15HNP					

Plugin / Connector Leads - M-8, M-12, M-18



Peripheral / Relay Units

<p>(1) Namur Amplifier Relay Unit - NAU-1</p> <p>(a) Supply Voltage - 220 VAC / 110VAC \pm 10%</p> <p>(b) Supply Consumption - 2.3 VA</p> <p>(c) Sensor Supply - 8 VDC</p> <p>(d) Short Ckt Current - 8 mA</p>	<p>Common Specs</p> <p>(a) Relay O/P Single change over</p> <p>(b) Contact Rating - 7 Amp / 230 VAC</p> <p>(c) Mounting - DIN RAIL or Holes for screw fixing</p> <p>(d) Housing - ABS Plastic Enclosure</p>
<p>(2) Power Supply Relay Unit PSU-1</p> <p>(a) Supply Voltage - 220 VAC / 110VAC \pm 10%</p> <p>(b) DC O/P Voltage - 24V DC 12 V DC (Per Order)</p> <p>(c) LOAD I max - 200mA @ 12 VDC 100mA @ 24 VDC</p> <p>(d) Sensor - PNP or NPN</p>	
<p>(3) On-Off Delay Timer with Relay Unit DPSU-1</p> <p>(a) Supply Voltage - 230 VAC / 110VAC \pm 10%</p> <p>(b) Power Consumption 3.5 VA</p> <p>(c) ON / OFF Delay Time - 30 Sec (Max) Adjustable</p> <p>(d) O/P Voltage for sensors - 24 VDC / 100mA</p>	
<p>(4) Liquid level controller Relay Unit LLC - 1</p> <p>(a) Supply Voltage - 220 VAC / 110VAC \pm 10%</p> <p>(b) Supply Consumption - 2.3 VA</p> <p>(c) Sensor - Float Switch/Probes</p> <p>(d) For High Level & Low Level Sensing</p>	

Photoelectric Sensors

Type- Diffuse Scan

Transmitter and receiver are in the same housing. The IR beam emitted by the transmitter is Received by the receiver and an output pulse is achieved.

M-12 (Input DC Voltage 3 Wire)

Order Code	Range (mm)	Logic	O/P	Frequency	Common Specs
KD100ES1	100 mm	PNP	NO	400Hz	Voltage 10-35 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <12mA- @12 V DC Switching Impulse Suppression Reverse Polarity & Over Load Protected
KD100ES2			NC		
KD100ER1		NPN	NO		
KD100ER2			NC		

All the above models are available in connector type version with suffix "P" to the model number, Example **KD100ES1P**

M-18 (Input DC Voltage 4 Wire) - STANDARD RANGE

Order Code	Range (mm)	Logic	O/P	Freq.	Common Specs
KD400GS3	400 mm	PNP	NO+NC	400Hz	Voltage 10-35 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <12mA @12 V DC Switching Impulse Suppression Reverse Polarity & Over Load Protected PVC Cable
KD400GR3		NPN			

All the above models are available in connector type version with suffix "P" to the model number, Example **KD400GS3P**

M-18 (Input DC Voltage 4 Wire) - LONG RANGE

Order Code	Range (mm)	Logic	O/P	Freq.	Common Specs
KD1000LRGS3	1000 mm	PNP	NO+NC	400Hz	Voltage 10-35 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <12mA @12 V DC Switching Impulse Suppression Reverse Polarity & Over Load Protected PVC Cable
KD1000LRGR3		NPN			

All the above models are available in connector type version with suffix "P" to the model number, Example **KD1000LRGS3P**

M-18 (Input AC Voltage 2 Wire)

Order Code	Range (mm)	O/P	Freq.	Common Specs
KD200GW1	200 mm	NO	25Hz	Voltage 90-250 V AC Max Load Current <400mA Voltage Drop <5V AC Leakage Current <4.5mA Switching Impulse Suppression PVC Cable
KD200GW2		NC		

All the above models are available in connector type version with suffix "P" to the model number, Example **KD200GW1P**

M-30 (Input DC Voltage 4 Wire) - STANDARD RANGE

Order Code	Range (mm)	Logic	O/P	Freq.	Common Specs
KD1000HS3	1000 mm	PNP	NO+NC	300Hz	Voltage 10-35 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <12mA @12 V DC Switching Impulse Suppression Reverse Polarity & Over Load Protected PVC Cable
KD1000HR3		NPN			

All the above models are available in connector type version with suffix "P" to the model number, Example **KD1000LRGS3P**

M-30 (Input DC Voltage 4 Wire) - LONG RANGE

Order Code	Range (mm)	Logic	O/P	Freq.	Common Specs
KD2000HS3	2000 mm	PNP	NO+NC	200Hz	Voltage 10-35 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <12mA @12 V DC Switching Impulse Suppression Reverse Polarity & Over Load Protected PVC Cable
KD2000HR3		NPN			

All the above models are available in connector type version with suffix "P" to the model number, Example **KD2000HS3P**

M-30 (Input AC Voltage 2 Wire)

Order Code	Range (mm)	O/P	Freq.	Common Specs	
KD400HW1	400 mm	NO	25Hz	Voltage 90-250 V AC	Leakage Current <4.5mA
KD400HW2		NC		Max Load Current <400mA Voltage Drop <5V AC	Switching Impulse Suppression PVC Cable
All the above models are available in connector type version with suffix “P” to the model number, Example KD400HW1P					

MARK SENSOR

Order Code	DIMENSION (mm)	Logic	O/P	Freq.	Common Specs
KC10U	66X90X38	PNP & NPN BOTH	NO+NC	50Hz	Voltage 12-35 V DC Max Load Current <300mA Voltage Drop <2V DC Reverse Polarity & Over Load Protected Leakage Current <12mA @12 V DC Switching Impulse Suppression PVC Cable

Type- Thrubeam

Transmitter and Receiver are in separate housing facing each other with their optical areas. when ever the IR beam is interrupted a O/P Pulse is achieved.

Order Code	Diameter	Sn Range (Adj)	Remarks
KT4000GX	M-18	4 meters	Unit Contains two sensors one as transmitter other as receiver and a DIN RAIL Mount Control Box with a single change over relay O/P with a rating of 5 Amps/230 VAC
KT8000HX	M-30	7 meters	
KT4000GXD (with ON and OFF time delay)	M-18	4 meters	Unit Contains two sensors one as transmitter other as receiver and a DIN RAIL Mount Control Box with a single change over relay O/P with a rating of 5 Amps/230 VAC and two timing control POT adjustable up to 10 sec Providing ON delay and OFF Delay
KT8000HDX (with ON and OFF time delay)	M-30	7 meters	

Type- Thrubeam (inbuilt Amplifier)

Order Code	Out. Dia	Sn (Adj)	Logic	O/P	Freq	Common Specs
KT4000GS1	M-18	4 meter	PNP	NO	50 Hz	Voltage 10-35 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <10mA Reverse Polarity Protected, Switching Impulse, Suppression, PVC Cable,
KT4000GS2				NC		
KT4000GR1			NPN	NO		
KT4000GR2				NC		
KT8000HS1	M-30	7 meter	PNP	NO		Units contains two sensors one as transmitter other as receiver having in built amplifiers so that they can be connected directly to any external DC supply and an output load can be operated
KT8000HS2				NC		
KT8000HR1			NPN	NO		
KT8000HR2				NC		

Type- Slot Sensor - IR

Order Code Slot Width Slot Depth Logic O/P Freq

K6SLGS1	6 mm	6 mm	PNP	NO	200 Hz
K6SLGS1				NC	
K6SLGR1			NPN	NO	
K6SLGR2				NC	
K10SLS1	10 mm	32 mm	PNP	NO	
K10SLS2				NC	
K10SLR1			NPN	NO	
K10SLR2				NC	
K20SLS1	20 mm	40 mm	PNP	NO	
K20SLS2				NC	
K20SLR1			NPN	NO	
K20SLR2				NC	
K50SLS1	50 mm	42 mm	PNP	NO	
K50SLS2				NC	
K50SLR1			NPN	NO	
K50SLR2				NC	

Common Specs:-

Voltage :- 10-35 VDC, Current Consumption :- 12 mA,
Voltage drop :- <2.5 V DC, Housing :- ABS Plastic

FLOAT SWITCH

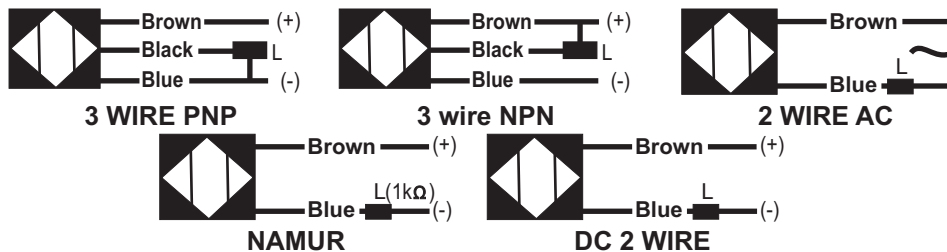
MODEL NO.	BARREL LENGTH (mm)	MOUNTING	MATERIAL	COMMON SPECS
VFS-34P	34	VERTICAL	BODY NYLON FLOAT POLYRETHENE	Switching Voltage: 200 VDC max Switching Current: 500 mA max Contact Resistance: 150 milli Ohms Operating Temp: -20 To 80 Deg C
VFS-55P	55			
VFS-80P	80			
HFS-01P	50	HORIZONTAL		

Capacitive Sensors

Capacitive Type sensors detect the presence of any dielectric material in the proximity of its sensing face. They are used for detecting non metallic objects, liquid level and other automation application.

Order Code	Sn (Adj)	Out. Dia	Logic	O/P	Freq	Common Specs		
J04ES1	04 mm	M-12	PNP	NO	100 Hz	Voltage 10-35 V DC Max Load Current <300mA Voltage Drop <2V DC Leakage Current <8mA- @12 V DC LED Indication, Reverse Polarity, Protected, Over Load Protected, Short Circuit Proof, Switching Impulse Suppression, PVC Cable,		
J04ES2				NC				
J04ER1			NPN	NO				
J04ER2				NC				
J10GS1	10 mm	M-18	PNP	NO			50 Hz	
J10GS2				NC				
J10GR1			NPN	NO				
J10GR2				NC				
J20HS1	20 mm	M-30	PNP	NO	25 Hz	Voltage 20-250 V AC Max Load Current <500mA Voltage Drop <5V AC Leakage Current <1.5mA LED Indication, Switching Impulse Suppression, PVC Cable,		
J20HS2				NC				
J20HR1			NPN	NO				
J20HR2				NC				
J10GW1	10 mm	M-18	—	NO				
J10GW2				NC				
J20HW1	20 mm	M-30		NO				
J20HW2				NC				

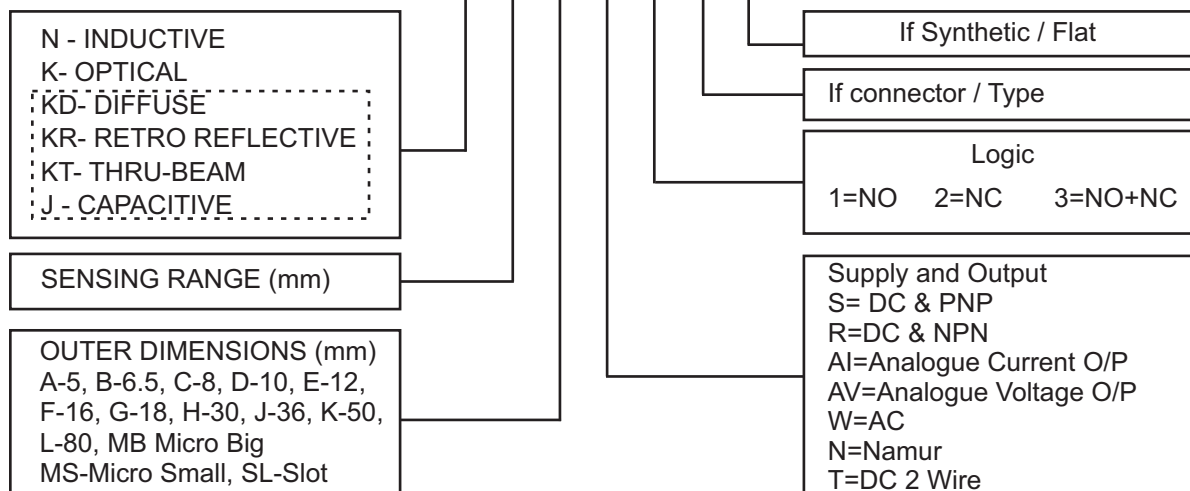
Equivalent Connection Diagrams for



Mechanical Data

- | | |
|---------------|--|
| 1- Housing:- | Nickle - Chrome plated brass or ABS elastic Housing |
| 2- Mounting:- | Through hole fixing by pair of check nuts or through pair of holes for screw |
| 3- Cable:- | PVC Insulated heat resistant cable with standards length of 2 meters |

N 8 G S 1 P K



Solid State Relays

Solid State Relays are increasingly becoming popular in modern industrial automation systems as they are an ideal replacement for heavy duty contractors which are a source of supply voltage surges, noises and sparks which greatly affect the adjoining microprocessor based system and control.

Solid State Relays do not have any moving contact. All switching is done by solid state components making the work absolutely noiseless, search free and with faster switching capability. SSR's are compatible to TTL / CMOS Logic with OPTO - ISOLATION of 2500 VAC.

Features

- ★ Optically isolated
- ★ Output Snubber Circuit Included
- ★ High Surge Rating Allows
- ★ LED Indicator
- ★ Noiseless
- ★ Low Consumption Inputs
- ★ Zero Current Switch-off
- ★ Protection Cover

Single Phase Series

Type - DC to AC



Model No.	I/P DC Voltage	O/P AC Voltage	Max Load Current	O/P Voltage Drop	Leakage I
SDA-3248-10	3-32 VDC	90-480 VAC	10 Amp	1.3 VAC	15 mA
SDA-3248-16			16 Amp	1.6 VAC	
SDA-3248-25			25 Amp	1.7 VAC	
SDA-3248-40			40 Amp	1.8 VAC	
SDA-3248-60			60 Amp	2.0 VAC	

Type - AC to AC



Model No.	I/P DC Voltage	O/P AC Voltage	Max Load Current	O/P Voltage Drop	Leakage I
SAA-2848-10	90-280 VAC	90-480 VAC	10 Amp	1.3 VAC	15 mA
SAA-2848-16			16 Amp	1.6 VAC	
SAA-2848-25			25 Amp	1.7 VAC	
SAA-2848-40			40 Amp	1.8 VAC	
SAA-2848-60			60 Amp	2.0 VAC	

Type - DC to DC



Model No.	I/P DC Voltage	O/P AC Voltage	Max Load Current	O/P Voltage Drop	Leakage I
SDD-3211-10	3-32 VDC	10-110 VDC	10 Amp	<5 VDC	04 mA
SDD-3211-16			16 Amp		
SDD-3211-25			25 Amp		
SDD-3211-50			50 Amp		

Single Phase Series

Type - Analogue Input



Model No.	Input	Output AC Voltage	Max Load Current
SAL-24-10	4-20 mA or 0-10 VDC	240 VAC Max	10 Amp
SAL-24-16			16 Amp
SAL-24-25			25 Amp
SAL-24-40			40 Amp

Type - Solid State Voltage Regulator (Phase Angle by POT)

POT - 480 k Ω



Model No.	Input	Output AC Voltage	Max Load Current
SSVR-10	POT 480 k Ω	24-240 VAC	10 Amp
SSVR-16			16 Amp
SSVR-25			25 Amp
SSVR-40			40 Amp

Three Phase Series

Type - DC to AC



Model No.	I/P DC Voltage	O/P AC Voltage	Max Load Current	O/P Voltage Drop	Leakage Current
TDA-3248-10	3-32 VDC	90-480 VAC	10 Amp	1.3 VAC	15 mA
TDA-3248-16			16 Amp	1.6 VAC	
TDA-3248-25			25 Amp	1.7 VAC	
TDA-3248-40			40 Amp	1.8 VAC	

Type - AC to AC

Model No.	I/P DC Voltage	O/P AC Voltage	Max Load Current	O/P Voltage Drop	Leakage Current
TAA-2448-10	90-280 VAC	90-480 VAC	10 Amp	1.3 VAC	15 mA
TAA-2448-16			16 Amp	1.6 VAC	
TAA-2448-25			25 Amp	1.7 VAC	
TAA-2448-40			40 Amp	1.8 VAC	

Common Features for all SSR's

Optically Isolated, Output Snubber Circuit Included, High Surge Rating Allows, Led Indicator, Noiseless, Zero Current Switch off, Protection Cover

SWITCH MODE POWER SUPPLIES - SMPS

Model	Output		Dimensions L x W x H
	VOLTAGE	CURRENT	

Short Body Series

DAPS-15-12	12 V	1.25 A	84x58x38 mm
DAPS-25-12		2.1 A	
DAPS-35-12		3.0 A	
DAPS-60-12		5.0 A	111x78x36 mm
DAPS-120-12		10.0 A	159x97x38 mm
DAPS-150-12		12.5 A	
DAPS-15-24	24 V	0.7 A	84x58x38 mm
DAPS-25-24		1.1 A	
DAPS-35-24		1.5 A	
DAPS-60-24		2.5 A	111x78x36 mm
DAPS-120-24		5.0 A	159x97x38 mm
DAPS-150-24		6.5 A	

Standard Body Series

DAPS-B-250-12	12 V	20 A	215x115x50 mm
DAPS-B-250-24	24 V	10 A	199x98x38 mm
DAPS-B-350-24		14.6 A	215x115x50 mm

COMMON FEATURES:Adjustable range for DC voltage : $\pm 10\%$

Withstand voltage : I/P-O/P : 1.5KvAC, I/P-FG : 1.5Kv, O/P-FG : 0.5Kv 1 minute

Isolation Resistance : I/P-O/P, I/P-FG, O/P-FG : 500VDC/1000MW

Working Temperature : $-10^{\circ}\text{C} \sim +50^{\circ}\text{C}$

Safety standards : Design refer to GB4943, UL60950, En60950

EMC Standards : Design refer to GB9254, 55022, ClassA

- LED Indicator for Power on
- Short Circuit, Over voltage Protection
- Safety and EMC standards : EN60950 &
- GB 9254, 55022
- High Efficiency, Long Life and reliability
- 230 VAC/110VAC input

LIGHT CURTAIN SENSOR

Specifications



Model	E-2000	E-2000/L
Number of Diodes	32	17
Number of Infra-Red Beams	154 Beams	96 Beams
Distance between Diodes	59mm	118mm
Response Time (Relay)	< 90ms	< 60ms
Size	10mm(T) x 24mm(W) x 2000mm(H)	
Detecting Height	20mm to 1840mm	
Detecting Distance	0 - 4000mm	
Vertical Displacement at 0mm	±20mm	
Horizontal Displacement at 0mm	±3mm	
Angular Displacement at 0mm	±10degrees	
Operating Temperature Range	-20°C to +65°C	
IP Rating	IP54	
Light Immunity	≥ 100000 LUX	
Power Rating	4 W	
Cables	Flexible Cables (4000mm x 2)	Flexible Cables (3000mm x 2)
Indicator Light Function	Green LED- Power Indication, Red LED- Status Indicator	
Buzzer	In Power Supply Unit	In Transmitter (TX)
	Give Buzzer sound 15 seconds after continuously interrupted	

POWER SUPPLY UNIT FOR LIGHT CURTAIN SENSOR



Model	E-2000	E-2000/L
Enclosure	Steel & Aluminum	PVC
Buzzer on/off Switch	YES	NO
Input Voltage	175 - 300V AC, 50Hz	
Relay o/p type & Contact Rating	COM, 1NO, 1NC & 250VAC, 7A or 30VDC, 7A	
Lifetime of Relay	≥ 10,00,000 times	
Power Consumption	4VA	
Indicator Light Function	Red LED- Power Indication, Green LED- Status Indicator	

Other Model

- ▲ E-2000/G (Available in 6mtr. sensing range)
- ▲ E-1000 (1000mm Height)
- ▲ E-3D (3D Sensor)

Features

- ▲ Criss-Cross Beam Technology
- ▲ Resist sharp sunlight more than 100000 LUX
- ▲ Robust & Extremely Compact Design

Presence in all Major Industrial Cities of INDIA





Appreciating Quality Automation



DOLPHIN AUTOMATION

A2/86, SITE - V (NEAR KASNA)

UPSIDC, GREATER NOIDA - 201308

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Product Catalogue

PROCESS CONTROL INSTRUMENTS



Appreciating Quality Automation