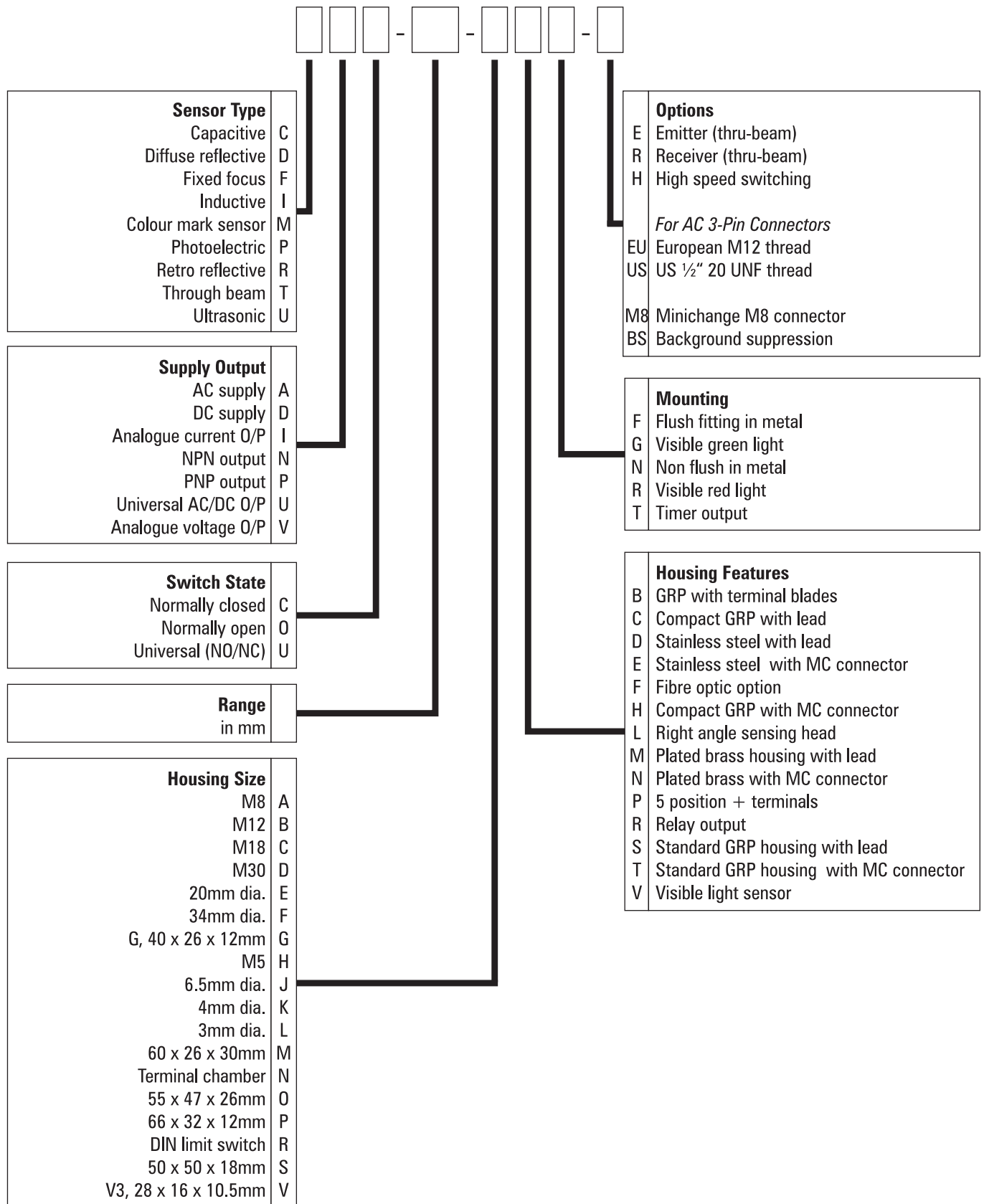


# SELECTION GUIDE proxistor®

## How To Pick Your Proxistor

There are Proxistors to suit all industrial uses. To select the correct Proxistor for your application, just decide which features you require from the chart below and confirm availability by referring to the data sheet.



# Capacitive proximity sensors

## 1. DESCRIPTION

Capacitive proximity sensors sense both electrically conducting and non-conducting materials, solids and liquids, without making contact. Adjustable sensitivity allows them to be tuned to differentiate between various materials or cope with different installations.

## 2. FEATURES

- -25 to 80°C operating range
- Fixed lead, or connector versions. M18, 20mm, M30 & 34mm body sizes available.
- Reverse polarity & short circuit protection.
- Adjustable sensitivity to sense different targets.
- Adjustable range 1 – 20mm depending on switch & target.
- LED for switch state. Connector versions include power on LED.
- AC, PNP & NPN versions, both NO/NC complimentary
- All switches are standard as 4-wire complimentary / change-over
- Tough chemically resistant PBT housing.
- 5m and 10m cable options are available, please call the factory.
- Special static resistant sensors are available for particular applications.
- AC versions for the US market feature ½" UNF connector thread. Add -US to part No. (for ½" UNF 20 TPI thread), -EU (for European M12x1)

## 3. TYPICAL APPLICATIONS

- Non-invasive contents detection through non-metallic containers
- Level detection or flow indication of solids or liquids e.g. for filling processes, hoppers, silos, pipelines, granules, powders, confectionery, foodstuffs or inks.
- Bottle counting with contents detection.
- Packaging counting.
- Band loop controlling or breakage indication.
- Use as non-contact switches.
- Wire winding break detection.

### 3.1.SPECIFIC APPLICATIONS

Feed control of Plastic granules in moulding,  
Hopper feed control of granules in colour mixing,  
Feed control for Flour level,  
High Level of Molten Glue at 90°C,  
Shower switch with no touch activation,  
Counting or monitoring of non metallic parts,  
Low cost moisture control in foodstuffs,  
Level control of powder materials,  
Wet spot detection for process control,  
Ink level detection,  
Liquid presence detection in glass or plastic bottles (non invasive),  
Liquid level detection in sight tube (non invasive),  
Overflow / high level detection in the blind spot of ultrasonic sensors,  
Detection of stretch and sag in non metallic belts,  
Paper out detection,  
Detection of liquid flow from outflow pipe,  
Packaging contents detection

### 4.INSTALLING CONNECTING AND SETTING UP YOUR CAPACITIVE PROXISTOR

#### 4.1.MECHANICAL installation (non flush or semi flush)

Non-Flush Mounting: Capacitive proxistor's function best when non-flush mounted separate from surrounding materials as shown. Wherever possible and in order to achieve maximum range, mount your Capacitive proxistor non flush.

In any installation, including the above, the maximum sensitivity setting for the Capacitive proxistor will be just below the point at which it detects itself, its mountings, or surrounding material.

#### Flush or semi-flush Mounting

Capacitive proxistor's can be flush or semi-flush mounted in surrounding metal (or other material). There will be a reduction in available sensitivity. Adjust your proxistor according to find maximum Capacitive proxistor non flush.

# DC M18

## Technical specifications

			CPU-010V-CSN	CNU-010V-CSN	CPU-010V-CTN	CNU-010V-CTN
Sensing range	Sn	10mm (Adjustable)				
Mounting		Non-flush				
Rated operational voltage	V	10...30 DC				
Rated insulation voltage	V	30 DC				
Rated operational current	mA	250				
Utilisation category		DC13				
IP Protection		IP67				
Pollution degree		3				
Repeat accuracy	%	≤ 10				
Differential travel	%	≤ 20				
Switching frequency	Hz	200				
Time delay before availability	ms	25				
Minimum operational current	mA	≤0.1				
Off state current	μA	≤ 10				
No load supply current	mA	≤ 9				
		≤ 11				
Voltage drop	V	≤ 2.5				
LED function display		Yes				
LED power on display		No				
Inrush current type	A	1.5				
Operating Temperature	°C	-25 to +70				
Housing Material		PBT				
Connection		2m 4w PVC cable				
		M12 Connector				
Output function		PNP				
		NPN				
Switching function		Normally open				
		Normally closed				
Short circuit protection		✓				
Reverse polarity protection		✓				



# DC 20mm

## Technical specifications

			CPU-012V-ESN	CNU-012V-ESN	CPU-012V-ETN	CNU-012V-ETN
Sensing range	Sn	0...12mm (Adjustable)				
Mounting		Non-flush				
Rated operational voltage	V	10...30 DC				
Rated insulation voltage	V	30 DC				
Rated operational current	mA	250				
Utilisation category		DC13				
IP Protection		IP67				
Pollution degree		3				
Repeat accuracy	%	≤ 10				
Differential travel	%	≤ 20				
Switching frequency	Hz	150				
Time delay before availability	ms	25				
Minimum operational current	mA	≤0.1				
Off state current	μA	≤ 10				
No load supply current	mA	≤ 9				
		≤ 11				
Voltage drop	V	≤ 2.5				
LED function display		Yes				
LED power on display		No				
Inrush current type	A	1.5				
Operating Temperature	°C	-25 to +70				
Housing Material		PBT				
Connection		2m 4w PVC cable				
		M12 Connector				
Output function		PNP				
		NPN				
Switching function		Normally open				
		Normally closed				
Short circuit protection		✓				
Reverse polarity protection		✓				



# DC M30

## Technical specifications

			CPU-020V-DSN	CNU-020V-DSN	CPU-020V-DTN	CNU-020V-DTN
Sensing range	Sn	0...20mm (Adjustable)				
Mounting		Non-flush				
Rated operational voltage	V	10...30 DC				
Rated insulation voltage	V	30 DC				
Rated operational current	mA	250				
Utilisation category		DC13				
IP Protection		IP67				
Pollution degree		3				
Repeat accuracy	%	≤ 10				
Differential travel	%	≤ 20				
Switching frequency	Hz	100				
Time delay before availability	ms	25				
Minimum operational current	mA	≤0.1				
Off state current	μA	≤ 10				
No load supply current	mA	≤ 9				
		≤ 11				
Voltage drop	V	≤ 2.5				
LED function display		Yes				
LED power on display		No				
Inrush current type	A	1.5				
Operating Temperature	°C	-25 to +70				
Housing Material		PBT				
Connection		2m 4w PVC cable				
		M12 Connector				
Output function		PNP				
		NPN				
Switching function		Normally open				
		Normally closed				
Short circuit protection		✓				
Reverse polarity protection		✓				



# DC 34mm

## Technical specifications

			CPU-020V-FSN	CNU-020V-FSN	CPU-020V-FTN	CNU-020V-FTN
Sensing range	Sn	0...20mm (Adjustable)				
Mounting		Non-flush				
Rated operational voltage	V	10...30 DC				
Rated insulation voltage	V	30 DC				
Rated operational current	mA	250				
Utilisation category		DC13				
IP Protection		IP67				
Pollution degree		3				
Repeat accuracy	%	≤ 10				
Differential travel	%	≤ 20				
Switching frequency	Hz	20				
Time delay before availability	ms	25				
Minimum operational current	mA	≤0.1				
Off state current	μA	≤ 10				
No load supply current	mA	≤ 9				
		≤ 11				
Voltage drop	V	≤ 2.5				
LED function display		Yes				
LED power on display		No				
Inrush current type	A	1.5				
Operating Temperature	°C	-25 to +70				
Housing Material		PBT				
Connection		2m 4w PVC cable				
		M12 Connector				
Output function		PNP				
		NPN				
Switching function		Normally open				
		Normally closed				
Short circuit protection		✓				
Reverse polarity protection		✓				



# Inductive proximity sensors

## 1. DESCRIPTION

proxistor offers a complete range of inductive proximity sensors. Inductive proxistors detect the presence of ferrous or non-ferrous metals without making contact and offer metal sensing unaffected by dirt, oil, humidity & dust. CENELEC proxistors comply with CENELEC electrical and mechanical standards and are interchangeable with other CENELEC sensors.

## 2. FEATURES

- M8, M12, M18 & M30 standard types.
- Complete range of sizes and types.
- Plated brass housing material.
- IP67 rating on all versions including connector types.
- PNP & NPN versions NO or NC, flush or non flush fitting.
- Most models have reverse polarity and short circuit protection.
- All units PLC compatible, some TTL compatible items available.
- Up to 500Hz switching speeds.
- Extended cable options available on selected items.
- 20 to 65°C operating range on many items
- Fixed lead or connector versions in all sizes

## 3. TYPICAL APPLICATIONS

- Conveyor systems for counting and control
- Detection and counting of small parts.
- Camshaft sensing
- RPM. Rotational direction and position sensing.
- Can, tin or keg detection.
- Tool and workpiece detection and positioning.
- Motion control e.g. air or hydraulic cylinders, valve position, processing steps or feed control.

## 4. SPECIFIC APPLICATIONS

Presence detection of screws in assembly jig  
Detection of part ejection from pressing machine  
Detection of correct location of mould tool  
Closure of window on fume cabinets  
Rotation monitoring of water filters with speed control

## 5. INSTALLING CONNECTING AND SETTING UP YOUR INDUCTIVE PROXISTOR

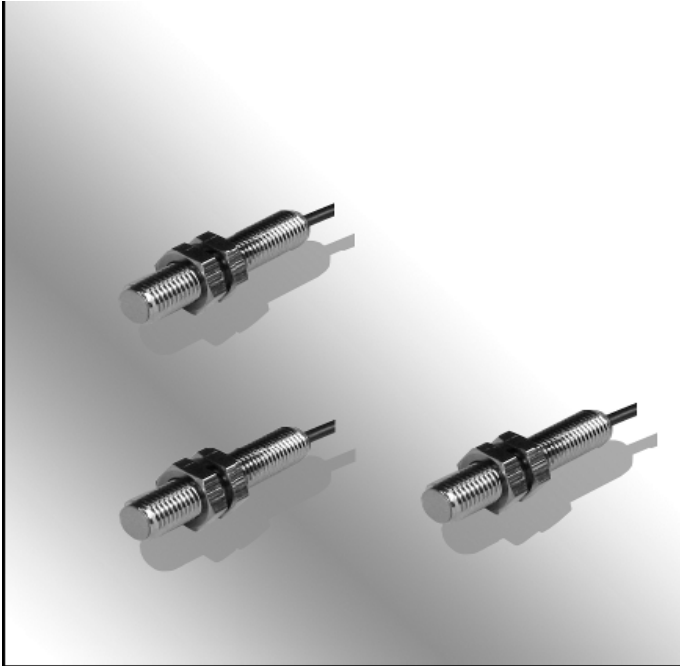
### 5.1. MECHANICAL INSTALLATION

proxistors designed for non flush mounting must be separated from surrounding metal and other proxistors as shown.

# Standard M8 Range

## Technical specifications

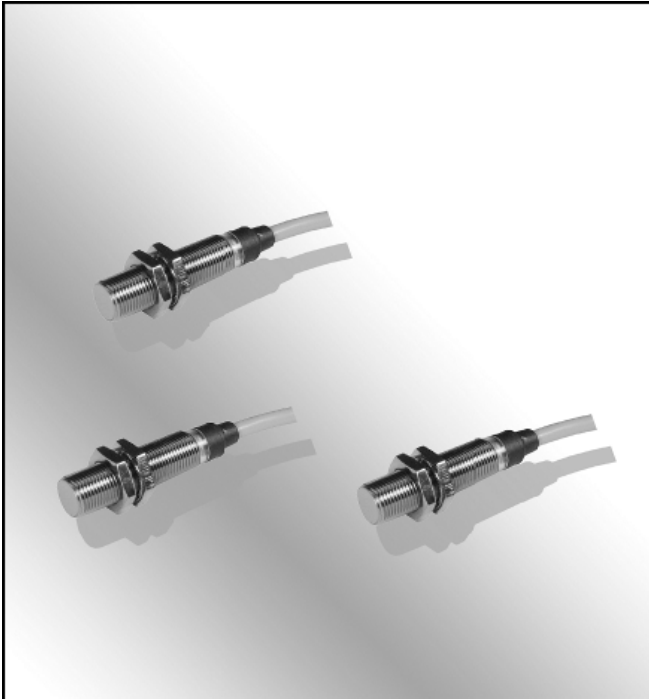
			INO-0015-ADF	INO-0015-AEFM8	INC-0015-ADF	INC-0015-AEFM8	IPO-0015-ADF	IPO-0015-AEFM8	IPC-0015-ADF	IPC-0015-AEFM8	INO-002-ADN	INO-002-AENM8	INC-002-ADN	INC-002-AENM8	IPO-002-ADN	IPO-002-AENM8	IPC-002-ADN	IPC-002-AENM8	
Sensing range	Sn	1.5mm																	
		2.0mm																	
Electrical configuration		DC 3-Wire																	
Supply Voltage	V	DC 10...30																	
Ripple	%	≤ 10																	
Voltage drop	V	≤ 2																	
Power consumption	mA	≤ 10																	
Continuous current	mA	≤ 200																	
Time delay before availability	ms	≤ 100																	
Repeatability	%	5 to 15																	
Ambient temperature rating	°C	-20 to +65																	
Housing material		Nickel plated brass																	
Switching output		NPN																	
		PNP																	
Output function		Normally closed																	
		Normally open																	
Installation		Flush																	
		Non-Flush																	
Connection type		Connector M12, 4pin																	
		Cable, PVC, 2m																	
IP Protection		67																	
Max switching frequency	Hz	500																	
Short circuit protection		✓																	
Reverse polarity protection		✓																	
Power-up pulse suppression		✓																	



# Standard M12 Range

## Technical specifications

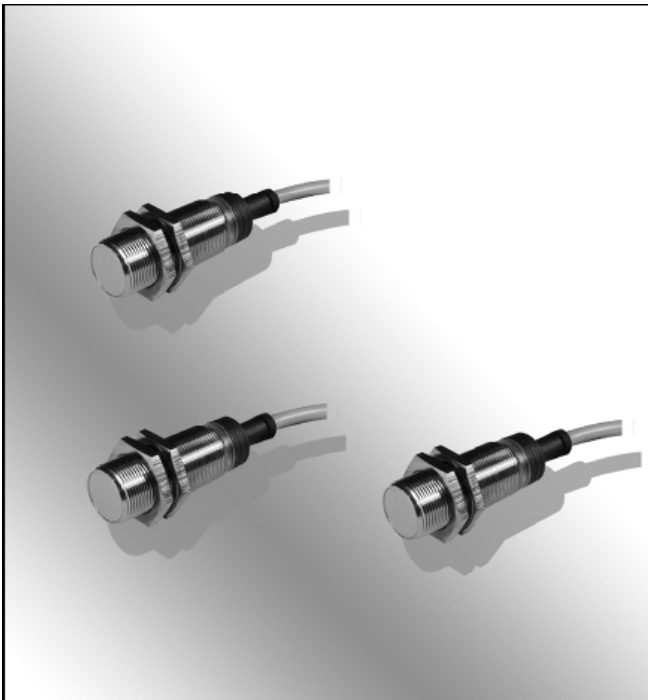
			INO-002-BMF	INO-002-BNF	INC-002-BMF	INC-002-BNF	IPO-002-BMF	IPO-002-BNF	IPC-002-BMF	IPC-002-BNF	INO-004-BMN	INO-004-BNN	INC-004-BMN	INC-004-BNN	IPO-004-BMN	IPO-004-BNN	IPC-004-BMN	IPC-004-BNN	
Sensing range	Sn	2mm																	
		4mm																	
Electrical configuration		DC 3-Wire																	
Supply Voltage	V	DC 10...30																	
Ripple	%	≤ 10																	
Voltage drop	V	≤ 2																	
Power consumption	mA	≤ 10																	
Continuous current	mA	≤ 200																	
Time delay before availability	ms	≤ 100																	
Repeatability	%	5 to 15																	
Ambient temperature rating	°C	-20 to +65																	
Housing material		Nickel plated brass																	
Switching output		NPN																	
		PNP																	
Output function		Normally closed																	
		Normally open																	
Installation		Flush																	
		Non-Flush																	
Connection type		Connector M12, 4pin																	
		Cable, PVC, 2m																	
IP Protection		67																	
Max switching frequency	Hz	500																	
Short circuit protection		✓																	
Reverse polarity protection		✓																	
Power-up pulse suppression		✓																	



# Standard M18 Range

## Technical specifications

			INO-005-CMF	INO-005-CNF	INC-005-CMF	INC-005-CNF	IPO-005-CMF	IPO-005-CNF	IPC-005-CMF	IPC-005-CNF	INO-008-CMN	INO-008-CNN	INC-008-CMN	INC-008-CNN	IPO-008-CMN	IPO-008-CNN	IPC-008-CMN	IPC-008-CNN	
Sensing range	Sn	5mm																	
		8mm																	
Electrical configuration		DC 3-Wire																	
Supply Voltage	V	DC 10...30																	
Ripple	%	≤ 10																	
Voltage drop	V	≤ 2																	
Power consumption	mA	≤ 10																	
Continuous current	mA	≤ 200																	
Time delay before availability	ms	≤ 100																	
Repeatability	%	5 to 15																	
Ambient temperature rating	°C	-20 to +65																	
Housing material		Nickel plated brass																	
Switching output		NPN																	
		PNP																	
Output function		Normally closed																	
		Normally open																	
Installation		Flush																	
		Non-Flush																	
Connection type		Connector M12, 4pin																	
		Cable, PVC, 2m																	
IP Protection		67																	
Max switching frequency	Hz	300																	
Short circuit protection		✓																	
Reverse polarity protection		✓																	
Power-up pulse suppression		✓																	



# Standard M30 Range

## Technical specifications

			INO-010-DMF	INO-010-DNF	INC-010-DMF	INC-010-DNF	IPO-010-DMF	IPO-010-DNF	IPC-010-DMF	IPC-010-DNF	INO-015-DMN	INO-015-DNN	INC-015-DMN	INC-015-DNN	IPO-015-DMN	IPO-015-DNN	IPC-015-DMN	IPC-015-DNN	
Sensing range	Sn	10mm																	
		15mm																	
Electrical configuration		DC 3-Wire																	
Supply Voltage	V	DC 10...30																	
Ripple	%	≤ 10																	
Voltage drop	V	≤ 2																	
Power consumption	mA	≤ 10																	
Continuous current	mA	≤ 200																	
Time delay before availability	ms	≤ 125																	
Repeatability	%	5 to 15																	
Ambient temperature rating	°C	-20 to +65																	
Housing material		Nickel plated brass																	
Switching output		NPN																	
		PNP																	
Output function		Normally closed																	
		Normally open																	
Installation		Flush																	
		Non-Flush																	
Connection type		Connector M12, 4pin																	
		Cable, PVC, 2m																	
IP Protection		67																	
Max switching frequency	Hz	100																	
Short circuit protection		✓																	
Reverse polarity protection		✓																	
Power-up pulse suppression		✓																	

