

Inductive Sensors



Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
14 mm - Embeddable/Nonembeddable, Potted-In Cable 	Ni20-Q14-AD4X	M4414557			20	2-Wire DC
	Bi10U-Q14-AN6X2	M1608710	<i>Uprox</i>	•	10	3-Wire DC NPN
	Bi10-Q14-AN6X2	M1608320		•	10	
	Ni20-Q14-AN6X2	M4690220			20	
	Bi10U-Q14-AP6X2	M1608700	<i>Uprox</i>	•	10	3-Wire DC PNP
	Bi10-Q14-AP6X2	M1608720		•	10	
	Ni20-Q14-AP6X2	M4690205		•	20	
	Bi10-Q14-ADZ32X2	M4256220		•	10	2-Wire AC/DC Short-Circuit Protected
	Bi10-Q14-ADZ32X2/S34	M4256225	<i>Weld-field Immune</i>	•	10	
	Ni20-Q14-ADZ32X2	M4205410			20	
Bi10-Q14-Y0X	M1608730			•	10	2-Wire NAMUR
14 mm - Embeddable/Nonembeddable, picofast® Connector 	Bi10-Q14-AN6X2-V1131	M1608325		•	10	3-Wire DC NPN
	Bi10U-Q14-AN6X2-V1131	M1608510	<i>Uprox</i>	•	10	
	Ni20-Q14-AN6X2-V1131	M4690221			20	
	Bi10-Q14-AP6X2-V1131	M1608530		•	10	3-Wire DC PNP
	Bi10U-Q14-AP6X2-V1131	M1608500	<i>Uprox</i>	•	10	
	Ni20-Q14-AP6X2-V1131	M4690210			20	



Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/Face	Power LED	Output LED	Mating Cord, Cable Length/Jacket	Wiring Diagram #	Wiring Diagrams
10-65 VDC	150	≤100	-25 to +70	IP 67	PBT	PBT	N/A	YE	2M/PVC	1	<p>Diagram 1</p>
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	2M/PVC	2	<p>Diagram 2</p>
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PVC	2	
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PVC	2	
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	2M/PVC	3	<p>Diagram 3</p>
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PVC	3	
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PVC	3	
20-250 VAC 10-300 VDC	20	≤100	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PVC	4	<p>Diagram 4</p>
	30	≤100	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PVC	4	
	20	≤100	-25 to +70	IP 67	PBT	PBT	GN	YE	2M/PVC	4	
5-30 VDC	250	Remote	-25 to +70	IP 67	PBT	PBT	N/A	YE	2M/PVC	5	<p>Diagram 5</p>
10-30 VDC	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	PKG 3M-*	6	<p>Diagram 6</p>
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	PKG 3M-*	6	
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	PKG 3M-*	6	
10-30 VDC	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	PKG 3M-*	7	<p>Diagram 7</p>
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	PKG 3M-*	7	
	250	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	PKG 3M-*	7	

Rectangular

Sensors

General Specifications

2-Wire DC NAMUR

Differential Travel (Hysteresis)	1-10% (5% typical)
Nominal Voltage	8.2 VDC (EN60947-5-6)
Resistance Change from Nonactivated to Activated Condition	typical <1.0 to >8.0 k Ω
Resulting Current Change	≥ 2.2 mA to ≤ 1.0 mA
Recommended Switching Point for Remote Amplifier	>1.2 to <2.1 mA, typ. 1.55 mA ON/1.75 mA OFF
Power-On Effect	Realized in Amplifier
Reverse Polarity Protection	Incorporated
Wire-Break Protection	Realized in Amplifier
Transient Protection	Realized in Amplifier
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	$\leq 2\%$ of Rated Operating Distance

2-Wire DC

Ripple	$\leq 10\%$
Differential Travel (Hysteresis)	3-15% (5% typical)
Voltage Drop Across Conducting Sensor	Non-polarized (AD) <5.0 V Polarized (AG) <4.0 V
Trigger Current for Overload Protection	≥ 120 mA
Minimum Load Current	≥ 3.0 mA
Off-State (Leakage) Current	≤ 0.8 mA
Power-On Effect	Per IEC 947-5-2
Transient Protection	Per EN 60947-5-2
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	$\leq 2\%$ of Rated Operating Distance

REED (AC) and (DC)

Ripple	$\leq 10\%$
Differential Travel (Hysteresis)	≤ 1 mm (Depends on magnet)
Maximum Switching Capacity	10 W
No-Load Current	0 mA
Maximum Approach Velocity	≤ 10 m/s
Power-On Effect	Per IEC 947-5-2
Transient Protection	Per EN 60947-5-2
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	$\geq \pm 0.1$ mm (constant temperature & voltage)
Temperature Drift	≤ 0.1 mm
Voltage Drop	≤ 0.5 Volts