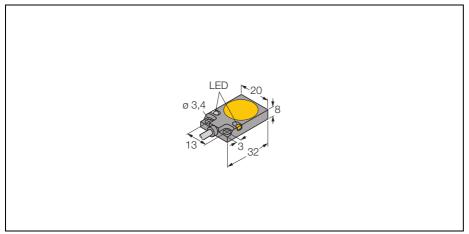
Inductive sensor with extended switching distance Bi7-Q08-VN6X2



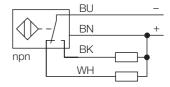


Repeatability Temperature drift Hysteresis Ambient temperature -25+70 °C Operating voltage Residual ripple DC rated operational current No-load current I ₀ Residual current 0.1 mA Residual current Rated insulation voltage Short-circuit protection Voltage drop at I _e Wire breakage / Reverse polarity protection Output function Switching frequency Plousing Dimensions Housing material Material active face Connection Cable quality Cable cross section: 4 10 % 10 % 10 % U _{SS} 10 30VDC 11 % U _{SS} 12 mA 15 mA 15 mA 15 mA 15 mA 15 mA 15 mA 18 v	e	Bi7-Q08-VN6X2
Mounting condition Assured sensing range Correction factors Repeatability Temperature drift Hysteresis Ambient temperature Coperating voltage Residual ripple DC rated operational current No-load current lo Residual current Reted insulation voltage Short-circuit protection Voltage drop at le Wire breakage / Reverse polarity protection Output function Switching frequency Housing DC rectangular, Q08 Dimensions Housing material Material active face Cable quality Cable cross section: St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.4 Al ~ 0.4 Al ~ 0.4 Ms	nt-No.	1600920
Assured sensing range Correction factors Repeatability 2 % Temperature drift 4 ± 10 % Hysteresis 3 15 % Ambient temperature Operating voltage Residual ripple 10 % U _{ss} DC rated operational current No-load current l ₀ Residual current Rated insulation voltage Short-circuit protection Voltage drop at l _e Wire breakage / Reverse polarity protection Output function Switching frequency Housing DC rated operational Switching material Material active face Connection Cable quality Cable cross section: (0,81 x Sn) mm St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 20.4, Al ~ 2	ed operating distance Sn	7 mm
Correction factors Repeatability Temperature drift Hysteresis Ambient temperature Coperating voltage Residual ripple DC rated operational current No-load current I ₀ Residual current Reted insulation voltage Short-circuit protection Voltage drop at I _e Wire breakage / Reverse polarity protection Output function Switching frequency Connection Cable quality Cable cross section: St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 2 % 10 % U _s 2 % 10 % 15 % Am. 10 30VDC 10 % U _{ss} 200 mA 10 30VDC 10 % U _{ss} 200 mA 10 15 mA 10 15 mA 10 15 mA 10 18 m	unting condition	flush
Repeatability Temperature drift Hysteresis Ambient temperature -25+70 °C Operating voltage Residual ripple DC rated operational current No-load current I ₀ Residual current 0.1 mA Residual current Rated insulation voltage Short-circuit protection Voltage drop at I _e Wire breakage / Reverse polarity protection Output function Switching frequency Plousing Dimensions Housing material Material active face Connection Cable quality Cable cross section: 1.0 % 1.0 MA 1.0 ImA 1.0 Im	ured sensing range	(0,81 x Sn) mm
Temperature drift ± 10 % Hysteresis 3 15 % Ambient temperature -25+ 70 °C Operating voltage 10 30VDC Residual ripple 10 % U _{ss} DC rated operational current 200 mA No-load current I ₀ 15 mA Residual current 0.1 mA Rated insulation voltage 0.5 kV Short-circuit protection yes / cyclic Voltage drop at I _e 1.8V Wire breakage / Reverse polarity protection yes / complete Output function 4-wire, change-over, npn Switching frequency 0.5 kHz Housing rectangular, Q08 Dimensions 32 x 20 x 8 mm Housing material metal, GD-Zn Material active face plastic, PA12-GF30, yellow connection cable quality 0 4, LifY-11Y, PUR, 2 m Cable cross section: 4 x 0.25mm ²	rection factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Hysteresis Ambient temperature -25+ 70 °C Operating voltage Residual ripple DC rated operational current No-load current I ₀ Residual current 0.1 mA Residual current 0.5 kV Short-circuit protection Voltage drop at I _e 1.8V Wire breakage / Reverse polarity protection Output function Switching frequency Housing Dimensions Housing material Material active face Cable quality Cable cross section: 10 30VDC 10 4. Wall supported to the second of	peatability	2 %
Ambient temperature -25+ 70 °C Operating voltage Residual ripple DC rated operational current No-load current I ₀ Residual current Residual current 0.1 mA Residual current 0.5 kV Short-circuit protection Voltage drop at I _e 1.8V Wire breakage / Reverse polarity protection Output function Switching frequency Housing pimensions Housing material Material active face Cable quality Cable cross section: -25+ 70 °C 10 30VDC 10 4. wisa	perature drift	± 10 %
Operating voltage 10 30VDC Residual ripple 10 % U _{ss} DC rated operational current 200 mA No-load current I ₀ 15 mA Residual current 0.1 mA Rated insulation voltage 0.5 kV Short-circuit protection yes / cyclic Voltage drop at I _e 1.8V Wire breakage / Reverse polarity protection yes / complete Output function 4-wire, change-over, npn Switching frequency 0.5 kHz Housing rectangular, Q08 Dimensions 32 x 20 x 8 mm Housing material metal, GD-Zn Material active face plastic, PA12-GF30, yellow Connection cable Cable quality Ø 4, LifY-11Y, PUR, 2 m Cable cross section: 4 x 0.25mm²	teresis	3 15 %
Residual ripple DC rated operational current No-load current I ₀ Residual current No-load current I ₀ Residual current O.1 mA Rated insulation voltage Short-circuit protection Voltage drop at I _e Vire breakage / Reverse polarity protection Output function Switching frequency Plousing Trectangular, Q08 Dimensions Housing material Material active face Cable quality Cable cross section: 10 % U _{ss} 200 mA 15 mA 0.1 mA 0.5 kV yes / cyclic 1.8V yes / complete 4-wire, change-over, npn 0.5 kHz Page 1 10 % U _{ss} 200 mA 10 my 10 my 11 ma 10 my 10 my 11 my 12 my 12 my 13 my 14 my 17 my 17 my 18	pient temperature	-25+ 70 °C
DC rated operational current No-load current I ₀ Residual current O.1 mA Rated insulation voltage Short-circuit protection Voltage drop at I _e Vire breakage / Reverse polarity protection Output function Switching frequency Housing Dimensions Housing material Material active face Cable quality Cable cross section: 200 mA 15 mA 15 mA 0.1 mA 0.5 kV yes / cyclic 1.8V yes / complete 4-wire, change-over, npn 0.5 kHz rectangular, Q08 32 x 20 x 8 mm metal, GD-Zn plastic, PA12-GF30, yellow cable Q 4, LifY-11Y, PUR, 2 m 4 x 0.25mm ²	erating voltage	10 30VDC
No-load current I ₀ 15 mA Residual current 0.1 mA Rated insulation voltage 0.5 kV Short-circuit protection yes / cyclic Voltage drop at I _e 1.8V Wire breakage / Reverse polarity protection yes / complete Output function 4-wire, change-over, npn Switching frequency 0.5 kHz Housing rectangular, Q08 Dimensions 32 x 20 x 8 mm Housing material metal, GD-Zn Material active face plastic, PA12-GF30, yellow Connection cable Cable quality Ø 4, LifY-11Y, PUR, 2 m Cable cross section: 4 x 0.25mm ²	idual ripple	10 % U _{ss}
Residual current Rated insulation voltage Short-circuit protection Voltage drop at I _e Wire breakage / Reverse polarity protection Output function Switching frequency Wishing Plant of the polarity protection Output function Output function Switching frequency Plant of the polarity protection Output function Switching frequency Plant of the polarity protection Output function Output function 4-wire, change-over, npn Output function Cable Feating output function Output function 4-wire, change-over, npn Output function 4-wire, change-over, npn Output function 4-wire, change-over, npn Output function Feating output function Output function A-wire, change-over, npn Output function Feating output function A-wire, change-over, npn Output function A-wire, chan	rated operational current	200 mA
Rated insulation voltage Short-circuit protection Voltage drop at I _e Wire breakage / Reverse polarity protection Output function Switching frequency Housing Dimensions Housing material Material active face Cable quality Cable cross section: 0.5 kV yes / cyclic 1.8V yes / complete 4-wire, change-over, npn 0.5 kHz rectangular, Q08 32 x 20 x 8 mm metal, GD-Zn plastic, PA12-GF30, yellow cable Q 4, LifY-11Y, PUR, 2 m 4 x 0.25mm ²	load current I ₀	15 mA
Short-circuit protection Voltage drop at I _e Wire breakage / Reverse polarity protection Output function Switching frequency Housing Dimensions Housing material Housing material Material active face Cable quality Cable cross section: yes / cyclic 1.8V yes / complete 4-wire, change-over, npn 0.5 kHz rectangular, Q08 32 x 20 x 8 mm metal, GD-Zn plastic, PA12-GF30, yellow cable Ø 4, LifY-11Y, PUR, 2 m 4 x 0.25mm ²	idual current	0.1 mA
Short-circuit protection Voltage drop at I _e Wire breakage / Reverse polarity protection Output function Switching frequency Plousing Dimensions Housing material Housing material Material active face Cable quality Cable cross section: yes / cyclic 1.8V yes / complete 4-wire, change-over, npn 0.5 kHz rectangular, Q08 32 x 20 x 8 mm metal, GD-Zn plastic, PA12-GF30, yellow cable Ø 4, LifY-11Y, PUR, 2 m 4 x 0.25mm ²	ed insulation voltage	0.5 kV
Voltage drop at I _e Wire breakage / Reverse polarity protection Output function Switching frequency Housing Dimensions Housing material Housing material Material active face Cable quality Cable cross section: 1.8V yes / complete 4-wire, change-over, npn 0.5 kHz rectangular, Q08 32 x 20 x 8 mm metal, GD-Zn plastic, PA12-GF30, yellow cable Ø 4, LifY-11Y, PUR, 2 m 4 x 0.25mm ²	3	ves / cvclic
Wire breakage / Reverse polarity protection Output function Switching frequency Housing Fectangular, Q08 Dimensions Simple frequency Tectangular, Q08 Dimensions Simple frequency Tectangular, Q08 Simple frequency Tectangular, Q08 Simple frequency Tectangular, Q08 Tectangular, Q08 Dimensions Tectangular, Q08	•	
Output function Switching frequency 4-wire, change-over, npn 0.5 kHz Housing rectangular, Q08 Dimensions 32 x 20 x 8 mm Housing material metal, GD-Zn Material active face Connection Cable quality Q 4, LifY-11Y, PUR, 2 m Cable cross section: 4-wire, change-over, npn 0.5 kHz	•	ves / complete
Switching frequency 0.5 kHz Housing rectangular, Q08 Dimensions 32 x 20 x 8 mm Housing material metal, GD-Zn Material active face plastic, PA12-GF30, yellow Connection cable Cable quality 0 4, LifY-11Y, PUR, 2 m Cable cross section: 4 x 0.25mm ²		· · · · · · · · · · · · · · · · ·
Dimensions 32 x 20 x 8 mm Housing material metal, GD-Zn Material active face plastic, PA12-GF30, yellow Connection cable Cable quality Ø 4, LifY-11Y, PUR, 2 m Cable cross section: 4 x 0.25mm ²	•	
Housing material metal, GD-Zn Material active face plastic, PA12-GF30, yellow Connection cable Cable quality Ø 4, LifY-11Y, PUR, 2 m Cable cross section: 4 x 0.25mm ²	using	rectangular, Q08
Material active face plastic, PA12-GF30, yellow Connection cable Cable quality Ø 4, LifY-11Y, PUR, 2 m Cable cross section: 4 x 0.25mm ²	ensions	32 x 20 x 8 mm
Connection cable Cable quality Ø 4, LifY-11Y, PUR, 2 m Cable cross section: 4 x 0.25mm ²	using material	metal, GD-Zn
Cable quality Ø 4, LifY-11Y, PUR, 2 m Cable cross section: 4 x 0.25mm ²	erial active face	plastic, PA12-GF30, yellow
Cable cross section: 4 x 0.25mm ²	nection	cable
	ole quality	Ø 4, LifY-11Y, PUR, 2 m
	ple cross section:	4 x 0.25mm ²
Vibration resistance 55 Hz (1 mm)	ration resistance	55 Hz (1 mm)
Shock resistance 30g (11 ms)	ock resistance	30g (11 ms)
Degree of protection IP67	gree of protection	IP67
Operating voltage display LED green	erating voltage display	LED green

LED yellow

- rectangular, height 8 mm
- top active face
- metal, die-cast zinc
- large detection range
- 4-wire DC, 10...30 VDC
- change-over, npn output
- cable connection

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and non-contact detection of metal objects. For this purpose they use a high-frequency electro-magnetic AC field that interacts with the target. With inductive sensors, this field is generated by an LC resonant circuit with a ferrite core coil.

Display switch state

• Edition: • 08.11.2008

Inductive sensor with extended switching distance Bi7-Q08-VN6X2



Mounting instructions	minimum distances
Distance D	2 x B
Distance W	3 x Sn
Distance S	1 x B
Distance G	6 x Sn
Width of the active face B	20 mm

