### IB08012W

### inductive sensors (high temperature)



Inductive proximity switches are contact-free sensors. They detect all conductive metals, regardless of whether they move or not. The achievable sensing range of the devices depends on the object material and its dimensions. The vibration-resistant sensors can be approached laterally or frontally. Inductive proximity switches are used for presence detection (e.g. goods carriers), positioning (e.g. dampers), counting (e.g. nuts /bolts), speed detection (e.g. for cog wheels), on conveyor systems (e.g. hose feedings) or distance measurements (e.g. press-in checking) of metallic objects.



#### **TECHNICAL DATA**

Devices for hose mounting	NO
Feeding technology	NO
Hygienic and wet area	NO
Metallic sensor surface	NO
Oil and lubriating coolants	NO
Ring-shaped sensors	NO
Rough ambient conditions	NO
Welding proof sensors	NO
Ambient temperature (min/max)	0°C / 140°C
Ambient temperatures > -25°C	NO
Coating housing	Nickel-plated
Compression-resistant	NO
Construction type housing	Cylinder, screw-thread
Core cross section	0.14mm²
Degree of protection (IP)	IP65
High-pressure resistant sensors	NO
Increased ambient temperatures > 80°C	YES
Length of sensor	60mm
Material active area of sensor	PBT
Material housing	Metal
Material housing	Brass
Material independent sensors (factor 1)	NO
Mechanical mounting condition for sensor	Concise
Pitch thread	1mm
Sensors uneffected by atmospheric changes (temperature cycle)	NO
Teflon housing	NO
Thread length	53mm
Thread size metric (M)	8
Cascadable	NO
Connection to an amplifier	NO
Correction factor (aluminium)	0.3

Tel +49 2351 9365-0 Fax +49 2351 9365-19

## IB08012W

# inductive sensors (high temperature)



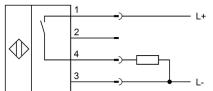
#### **TECHNICAL DATA**

Correction factor (brass)0.4Correction factor (spepr)0.2Correction factor (stainless steel)0.7Correction factor (steel)1Distance measuring sensorsNODouble sensing rangeNOHysteresis15%Increased sensing rangeNONo load current50mANo load current50mANotarting plate8x8x1Quaruple sensing rangeNORated control supply voltage Us at DC (min/max)10V / 35VRelative repeat accuracy3%Response time0.8msReverse polarity protectionYESStandby delay60msSuited for safety functionsNOSwitching distance2mmSwitching frequency600HzTiple sensing rangeNOSuited for safety functionsNOSuited for safety functions200HzSwitching distance2mmSwitching frequency00HzTiple sensing rangeNOVipe of electric connectionConnector M12Type of switch functionNormally open contactType of switch function2VVoltage dop2VVoltage dop2VVoltage dop2VVoltage dop2VVoltage dopNOWith HED indicationNOWith IED indicationNOWith Montoring function downstream switching devicesNOAreas inquiryNOWelding areasNO	TECHNICAL DATA	
Correction factor (stainless steel)0.7Correction factor (steel)1Distance measuring sensorsNODouble sensing rangeNOHysteresis15%Increased sensing rangeNOMax. output currentS0mANorm trimming plate&&&x11Quadruple sensing rangeNORated control supply voltage Us at DC (min/max)10V / 35VRelative repeat accuracy3%Response time0.8msReverse polarity protectionYESStandby delay60msSuite for safety functions10V / 35VSuite for safety functionsNOSuite for safety functionsNOSwitching idstance2mmSwitching frequency600HzTiple sensing rangeNOVoltage drop2VVoltage drop2VVoltage drop2VVoltage dropDCWith monitoring function downstream switching devicesNOWith monitoring function downstream switching devicesNOFreat inquiryNONoNoWith monitoring function downstream switching devicesNOKera inquiryNOKera inquiryNO <td>Correction factor (brass)</td> <td>0.4</td>	Correction factor (brass)	0.4
Correction factor (steel)1Distance measuring sensorsNODouble sensing rangeNOHysteresis15%Increased sensing rangeNOMax. output current50mANo load current15mANorm trimming plate8x8x1Quadruple sensing rangeNORated control supply voltage Us at DC (min/max)10V / 35VRelative repeat accuracy3%Residual ripple10%Reverse polarity protectionYESShort-circuit-proof60msSuited for safety functionsNOSuited for safety functions10V / 35VSwitching frequency600HzTriple sensing rangeNOSwitching frequency600HzSyntching frequencyConcetor M12Type of switch functionNormally open contactType of switching outputPNPVoltage typeDCWith monitoring function downstream switching devicesNOWith monitoring function functionNOWith monitoring function downstream switching devicesNOFread position inquiry hydraulic cylinderNOSuited for safery function function functionNOSuited for safery functionConcetor M12Suited for safery functionNoSuited for safery functionN	Correction factor (copper)	0.2
Distance measuring sensorsNODouble sensing rangeNOHysteresis15%Increased sensing rangeNOMax. output currentSomANo load current15mANornt rimming plate8x8x1Quadruple sensing rangeNORated control supply voltage Us at DC (min/max)10V / 35VRelative repeat accuracy3%Residual ripple0.8msReverse polarity protectionYESStandby delay60msSuited for safety functionsNOSuited for safety functionsNOSwitching frequency600HzTriple sensing rangeNOSwitching frequency600HzSwitching frequencyNOType of switch functionConnector M12Type of switch functionNoVoltage drop2VVoltage typeDCWith LED indicationNOWith DidicationNOAreas inquiryNOAreas inquiryNOSuitch orign function downstream switching devicesNOAreas inquiryNOFind position inquiry hydraulic cylinderNOAreas inquiryNOAreas inquiry </td <td>Correction factor (stainless steel)</td> <td>0.7</td>	Correction factor (stainless steel)	0.7
Double sensing rangeNOHysteresis15%Increased sensing rangeNOMax. output currentSomANo load current15mANorm trimming plate8x8x11Quadruple sensing rangeNORated control supply voltage Us at DC (min/max)10V / 35VRelative repeat accuracy3%Residual ripple0.8msReverse polarity protectionYESShort-circuit-proofYESStandby delay60msSuited for safety functionsNOSwitching frequency600HzTriple sensing rangeNOSwitching frequencyConnector M12Type of switch functionConnector M12Type of switch functionNoVoltage drop2vVoltage dropDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOAreas inquiryNOAreas inquiryNOKuthon inquiry hydraulic cylinderNO	Correction factor (steel)	1
Hysteresis15%Increased sensing rangeNOMax. output current50mANo load current15mANorm trimming plate8x8x1Quadruple sensing rangeNORated control supply voltage Us at DC (min/max)10V / 35VRelative repeat accuracy3%Residual ripple10%Response time0.8msReverse polarity protectionYESShort-circuit-proofYESStandby delay60msSuited for safety functions10V / 35VSwitching distance2mmSwitching frequency600HzTriple sensing rangeNOType of switch functionConnector M12Type of switch functionNoVoltage drop2VVoltage drop2VWith LED indicationNOWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOFund position inquiry hydraulic cylinderNOSuted position inquiry hydraulic cylinderNO	Distance measuring sensors	NO
Increased sensing rangeNOMax. output current50mANo load current15mANorm trimming plate8x8x1Quadruple sensing rangeNORated control supply voltage Us at DC (min/max)10V / 35VRelative repeat accuracy3%Residual ripple10%Resonse time0.8msReverse polarity protectionYESStandby delay60msSuited for safety functions10V / 35VSwitching frequency600HzTriple sensing rangeNOSwitching frequency600HzTriple sensing rangeNOType of switch functionNormally open contactType of switching outputPNPVoltage drop2VVoltage tripDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOKithing inquiry hydraulic cylinderNO	Double sensing range	NO
Max. output current50mANo load current15mANorm trimming plate8x8x1Quadruple sensing rangeNORated control supply voltage Us at DC (min/max)10V / 35VRelative repeat accuracy3%Residual ripple10%Response time0.8msReverse polarity protectionYESStandby delay60msSuited for safety functionsNOSuited for safety functions10V / 35VSwitching frequency600HzTriple sensing rangeNOType of electric connectionConnector M12Type of switching outputPNPVoltage drop2VVoltage trippDCWith LED indicationNOWith ED indicationNOWith monitoring function downstream switching devicesNONoNOWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNOEnd position inquiry hydraulic cylinderNO	Hysteresis	15%
No load current15mANorm trimming plate8x8x1Quadruple sensing rangeNORated control supply voltage Us at DC (min/max)10V / 35VRelative repeat accuracy3%Residual ripple10%Response time0.8msReverse polarity protectionYESShort-circuit-proofYESStandby delay60msSuited for safety functionsNOSuited for safety functions10V / 35VSwitching distance2mmSwitching frequency600HzTiple sensing rangeNOType of electric connectionNormally open contactType of switch functionNormally open contactVoltage drop2VVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Increased sensing range	NO
Norm trimming plate8x8x1Quadruple sensing rangeNORated control supply voltage Us at DC (min/max)10V / 35VRelative repeat accuracy3%Residual ripple10%Response time0.8msReverse polarity protectionYESShort-circuit-proofYESStandby delay60msSuited for safety functionsNOSwitching distance2mmSwitching frequency600HzTiple sensing rangeNOType of electric connectionNormally open contactType of switch functionNormally open contactVoltage dropZVVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Max. output current	50mA
Quadruple sensing rangeNORated control supply voltage Us at DC (min/max)10V / 35VRelative repeat accuracy3%Residual ripple10%Response time0.8msReverse polarity protectionYESShort-circuit-proofYESStandby delay60msSuited for safety functionsNOSupply voltage (min/max)10V / 35VSwitching distance2mmSwitching frequency600HzTiple sensing rangeNOType of electric connectionConnector M12Type of switch functionNormally open contactType of switching outputPNPVoltage toppDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNONoNO	No load current	15mA
Rated control supply voltage Us at DC (min/max)10V / 35VRelative repeat accuracy3%Residual ripple10%Response time0.8msReverse polarity protectionYESShort-circuit-proofYESStandby delay60msSuited for safety functionsNOSupply voltage (min/max)10V / 35VSwitching distance2mmSwitching frequency600HzTriple sensing rangeNOType of electric connectionConnector M12Type of switch functionNormally open contactType of switching outputPNPVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNONoNONoNONoNONoNONoNONoNONoNONoNONoNONoNONoNONoNONoNONoNONoNONoNONoNONoNOReverse outputNONoNONoNOReverse outputNONoNONoNONoNONoNONoNONoNONoNO <t< td=""><td>Norm trimming plate</td><td>8x8x1</td></t<>	Norm trimming plate	8x8x1
Relative repeat accuracy3%Residual ripple10%Response time0.8msReverse polarity protectionYESShort-circuit-proofYESStandby delay60msSuited for safety functionsNOSupply voltage (min/max)10V / 35VSwitching distance2mmSwitching frequency600HzTriple sensing rangeNOType of electric connectionConnector M12Type of switch functionNormally open contactType of switching outputPNPVoltage drop2VVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Quadruple sensing range	NO
Residual ripple10%Response time0.8msReverse polarity protectionYESShort-circuit-proofYESStandby delay60msSuited for safety functionsNOSupply voltage (min/max)10V / 35VSwitching distance2mmSwitching frequency600HzTriple sensing rangeNOType of electric connectionConnector M12Type of switch functionNormally open contactType of switching outputPNPVoltage drop2VVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Rated control supply voltage Us at DC (min/max)	10V / 35V
Response time0.8msReverse polarity protectionYESShort-circuit-proofYESStandby delay60msSuited for safety functionsNOSupply voltage (min/max)10V / 35VSwitching distance2mmSwitching frequency600HzTriple sensing rangeNOType of electric connectionConnector M12Type of switch functionNormally open contactType of switching outputPNPVoltage drop2VVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Relative repeat accuracy	3%
Reverse polarity protectionYESShort-circuit-proofYESStandby delay60msSuited for safety functionsNOSupply voltage (min/max)10V / 35VSwitching distance2mmSwitching frequency600HzTriple sensing rangeNOType of electric connectionConnector M12Type of switch functionNormally open contactType of switching outputPNPVoltage drop2VVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Residual ripple	10%
Short-circuit-proofYESStandby delay60msSuited for safety functionsNOSupply voltage (min/max)10V / 35VSwitching distance2mmSwitching frequency600HzTriple sensing rangeNOType of electric connectionConnector M12Type of switch functionNormally open contactType of switching outputPNPVoltage drop2VVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraullic cylinderNO	Response time	0.8ms
Standby delay60msSuited for safety functionsNOSupply voltage (min/max)10V / 35VSwitching distance2mmSwitching frequency600HzTriple sensing rangeNOType of electric connectionConnector M12Type of switch functionNormally open contactType of switching outputPNPVoltage drop2VVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Reverse polarity protection	YES
Suited for safety functionsNOSupply voltage (min/max)10V / 35VSwitching distance2mmSwitching frequency600HzTriple sensing rangeNOType of electric connectionConnector M12Type of switch functionNormally open contactType of switching outputPNPVoltage drop2VVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Short-circuit-proof	YES
Supply voltage (min/max)10V / 35VSwitching distance2mmSwitching frequency600HzTriple sensing rangeNOType of electric connectionConnector M12Type of switch functionNormally open contactType of switching outputPNPVoltage drop2VVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Standby delay	60ms
Switching distance2mmSwitching frequency600HzTriple sensing rangeNOType of electric connectionConnector M12Type of switch functionNormally open contactType of switching outputPNPVoltage drop2VVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Suited for safety functions	NO
Switching frequency600HzTriple sensing rangeNOType of electric connectionConnector M12Type of switch functionNormally open contactType of switching outputPNPVoltage drop2VVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Supply voltage (min/max)	10V / 35V
Triple sensing rangeNOType of electric connectionConnector M12Type of switch functionNormally open contactType of switching outputPNPVoltage drop2VVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Switching distance	2mm
Type of electric connectionConnector M12Type of switch functionNormally open contactType of switching outputPNPVoltage drop2VVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Switching frequency	600Hz
Type of switch functionNormally open contactType of switching outputPNPVoltage drop2VVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Triple sensing range	NO
Type of switching outputPNPVoltage drop2VVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Type of electric connection	Connector M12
Voltage drop2VVoltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Type of switch function	Normally open contact
Voltage typeDCWith LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Type of switching output	PNP
With LED indicationNOWith monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Voltage drop	2V
With monitoring function downstream switching devicesNOAreas inquiryNOEnd position inquiry hydraulic cylinderNO	Voltage type	DC
Areas inquiryNOEnd position inquiry hydraulic cylinderNO	With LED indication	NO
End position inquiry hydraulic cylinder NO	With monitoring function downstream switching devices	NO
	Areas inquiry	NO
Welding areas NO	End position inquiry hydraulic cylinder	NO
	Welding areas	NO



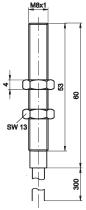
## inductive sensors (high temperature)

#### CONNECTION



**Colors:** 1 = BN (brown), 2 = WH (white), 3 = BU (blue), 4 = BK (black) **Functions:** 1 = L+, 2 = n. c., 3 = L-, 4 = PNP NO

#### DIMENSIONAL DRAWING



#### ADDITIONAL INFORMATION

ipf electronic	: gmbh
----------------	--------