IPF ELECTRONIC

INO801A3

INDUCTIVE SENSORS • ENLARGED SWITCHING DISTANCE

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

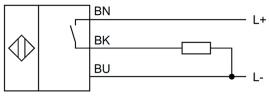
2x increased switching distance	Yes
3x increased switching distance	No
4x increased switching distance	No
Active area material of sensor	PA 6.6 (synthetic)
Ambient temperature	-25 °C 70 °C
Ambient temperatures < -25°C	No
Areas inquiry	No
Atmospheric-change resistant (temperature cycle)	No
Cable length	2 m
Cascadable	No
Connection to amplifier	No
Correction factor (aluminum)	0.3
Correction factor (brass)	0.4
Correction factor (copper)	0.2
Correction factor (stainless steel)	0.7
Correction factor (steel)	1
Degree of protection (IP)	IP67
Devices for hose mounting	No
Distance measuring sensors	No
End position sensing, hydraulic cylinder	No
Feeding technology	No
Harsh environmental conditions	No
High-pressure-proof sensors	No
Housing design	Cylinder, screw-thread
Housing material	Stainless steel 1.4301
Housing material	Metal
Hygienic and wet area	No
Hysteresis	15 %
Increased ambient temperatures > 80°C	No
Increased switching distance	No

IPF ELECTRONIC

Material independent sensors (factor 1)NoMaterial of cable sheathPUR (Polyurethane)Max. output current200 mAMechanical mounting condition for sensorNot flatMetallic sensor surfaceNoNo-load current15 mANorm measuring plate8x8x1Number of wires3Oil and cooling lubricantsNoPressure-proofNoRated control supply voltage Us at DC10 V 30 VRelative repeat accuracy10 %Reverse polarity protectionYesSitable for safety functionsNoSourcelle for safety functionsNoSuitable for safety functionsNoSuitable for safety functions100 V 30 VSwitching frequency100 V 30 VSwitching frequency100 V 30 VSwitching frequency100 V 30 VSwitching functionNoSuitable for safety functionsNoSuitable for safety functionNoSuitable fo	TECHNICAL DATA	
Max. output current200 mAMechanical mounting condition for sensorNot flatMetallic sensor surfaceNoNo-load current15 mANorm measuring plate&x&x1Number of wires3Oil and cooling lubricantsNoPressure-proofNoReted control supply voltage Us at DC10 V 30 VRelative repeat accuracy10 %Reverse polarity protectionYesSensor length40 mmShort-circuit-proofYesSuitable for safety functionsNoSuitable for safety functions100 V 30 VSwitching frequency1000 HzThread pitch1 mmThread pitch1 mmThread pitch1 mmThread pitch2 VVoltage top2 VVoltage topDCVoltage topNoWitching inctionNoMoreal engthMorealMarceal pitch1 mmThread pitch1 mmThread pitch0 VVoltage top2 VVoltage top2 VVoltage top0 CVoltage top0 CVelding areaNoWelding areaYes	Material independent sensors (factor 1)	No
Mechanical mounting condition for sensorNot flatMetallic sensor surfaceNoNo-load current15 mANorm measuring plate8x8x1Number of wires3Oil and cooling lubricantsNoPressure-proofNoRated control supply voltage Us at DC10 V 30 VRelative repeat accuracy10 %Reverse polarity protectionYesSensor length40 mmSont-circuit-proofNoSuitable for safety functionsNoSuitable for safety functions100 V 30 VSwitching frequency100 V 30 VSwitching frequency1000 HzThread length31 mmThread pitch1 mmThread pitch31 mmType of switching functionCableType of switching outputPNPVoltage top2 VVoltage topDCWelding areaNoWelding areaNoWith LED displayYes	Material of cable sheath	PUR (Polyurethane)
Metallic sensor surfaceNoNo-load current15 mANorm measuring plate8x8x1Number of wires3Oil and cooling lubricantsNoPressure-proofNoRated control supply voltage Us at DC10 V 30 VRelative repeat accuracy10%Reverse polarity protectionYesRing-shaped sensorsNoSonsor length40 mmShort-circuit-proofYesSuitable for safety functionsNoSuitable for safety functionsNoSwitching frequency1000 HzTeflon housingNoThread length31 mmThread length11 mmThread size, metric8Type of switching functionNormally open contactType of switching outputPNPVoltage drop2VVoltage dropDCWelding areaNoWelding areaNoWelding areaNoWelding areaNoWelding areaNoWith LED displayYes	Max. output current	200 mA
No-load current15 mANorm measuring plate8x8x1Number of wires3Oil and cooling lubricantsNoPressure-proofNoRated control supply voltage Us at DC10 V 30 VRelative repeat accuracy10 %Reverse polarity protectionYesRing-shaped sensorsNoSensor length40 mmShort-circuit-proofYesSuitable for safety functionsNoSuitable for safety functions10 V 30 VSwitching frequency1000 HzSwitching frequency1000 HzThread pitch1 mmThread pitch31 mmThread size, metric8Type of switching outputVormally open contactType of switching outputPNPVoltage drop2 VVoltage drop2 VVoltage typeNoWelding areaNoWelding areaNoWelding areaNoWelding areaNoWelding areaNoWith LED displayYes	Mechanical mounting condition for sensor	Not flat
Norm measuring plate8x8x1Number of wires3Oil and cooling lubricantsNoPressure-proofNoRated control supply voltage Us at DC10 V 30 VRelative repeat accuracy10 %Reverse polarity protectionYesRing-shaped sensorsNoSensor length40 mmShort-circuit-proofYesSuitable for safety functionsNoSupply voltage10 V 30 VSwitching distance4 mmSwitching frequency1000 HzThread length31 mmThread pitch1 mmThread size, metric8Type of electrical connectionCableType of switching functionsNoVoltage drop2 VVoltage drop2 VVoltage dropCWith LED displayNo	Metallic sensor surface	No
Number of wires3Oil and cooling lubricantsNoPressure-proofNoRated control supply voltage Us at DC10 V 30 VRelative repeat accuracy10 %Reverse polarity protectionYesRing-shaped sensorsNoSensor length40 mmShort-circuit-proofYesSuitable for safety functionsNoSuitable for safety functions10 V 30 VSwitching distance4 mmSwitching frequency1000 HzTeflon housingNoThread length31 mmThread pitch1 mmThread size, metric8Type of electrical connectionCableType of switching functionNormally open contactType of switching outputPNPVoltage drop2 VVoltage typeDCWelding-proof sensorsNo	No-load current	15 mA
Oil and cooling lubricantsNoPressure-proofNoRated control supply voltage Us at DC10 V 30 VRelative repeat accuracy10%Reverse polarity protectionYesRing-shaped sensorsNoSensor length40 mmShort-circuit-proofYesSuitable for safety functionsNoSuitable for safety functions10 V 30 VSwitching distance4 mmSwitching frequency1000 HzThread length31 mmThread pitch8Type of switching functionCableType of switching outputPNPVoltage drop2 VVoltage drop2 VVoltage dropNoSuitable for sander functionNoSwitching functionNoSwitching functionNoStart of switching functionNoSupply coltage2 NVoltage drop2 VVoltage drop2 NVoltage typeDCWelding areaNoWith LED displayYes	Norm measuring plate	8x8x1
Pressure-proofNoRated control supply voltage Us at DC10 V 30 VRelative repeat accuracy10 %Reverse polarity protectionYesRing-shaped sensorsNoSensor length40 mmShort-circuit-proofYesSuitable for safety functionsNoSuitable for safety functions10 V 30 VSwitching distance4 mmSwitching frequency1000 HzThread length31 mmThread pitch8Type of electrical connectionKobleType of switching junctionsNormally open contactType of switching outputPNPVoltage drop2 VVoltage dropNoStude dropNoType of switching functionNormally open contactType of switching functionNoWelding-proof sensorsNoWelding-proof sensorsNoWith LED displayYes	Number of wires	3
Rated control supply voltage Us at DC10 V 30 VRelative repeat accuracy10 %Reverse polarity protectionYesRing-shaped sensorsNoSensor length40 mmShort-circuit-proofYesSuitable for safety functionsNoSupply voltage10 V 30 VSwitching distance4 mmSwitching frequency1000 HzThread length31 mmThread pitch1 mmThread size, metric8Type of electrical connectionCableType of switching outputPNPVoltage drop2 VVoltage tropDCWelding areaNoWith LED displayYes	Oil and cooling lubricants	No
Relative repeat accuracy10 %Reverse polarity protectionYesRing-shaped sensorsNoSensor length40 mmShort-circuit-proofYesSuitable for safety functionsNoSupply voltage10 V 30 VSwitching distance4 mmSwitching frequency1000 HzThread length31 mmThread pitch1 mmThread size, metric8Type of electrical connectionCableType of switching outputPNPVoltage drop2 VVoltage typeDCWelding areaNoWith LED displayYes	Pressure-proof	No
Reverse polarity protectionYesRing-shaped sensorsNoSensor length40 mmShort-circuit-proofYesSuitable for safety functionsNoSupply voltage10 V 30 VSwitching distance4 mmSwitching frequency1000 HzTeflon housingNoThread length31 mmThread pitch1 mmThread size, metric8Type of electrical connectionCableType of switching functionNormally open contactType of switching outputPNPVoltage drop2 VVoltage typeDCWelding-proof sensorsNoWith LED displayYes	Rated control supply voltage Us at DC	10 V 30 V
Ring-shaped sensorsNoSensor length40 mmShort-circuit-proofYesSuitable for safety functionsNoSupply voltage10 V 30 VSwitching distance4 mmSwitching frequency1000 HzTeflon housingNoThread length31 mmThread pitch8Type of electrical connectionCableType of switching outputPNPVoltage drop2 VVoltage typeDCWelding areaNoWith LED displayYes	Relative repeat accuracy	10 %
Sensor length40 mmShort-circuit-proofYesSuitable for safety functionsNoSupply voltage10 V 30 VSwitching distance4 mmSwitching frequency1000 HzTeflon housingNoThread length31 mmThread size, metric8Type of electrical connectionCableType of switching functionNormally open contactType of switching outputPNPVoltage drop2 VVoltage typeDCWelding areaNoWith LED displayYes	Reverse polarity protection	Yes
Short-circuit-proofYesSuitable for safety functionsNoSupply voltage10 V 30 VSwitching distance4 mmSwitching frequency1000 HzTeflon housingNoThread length31 mmThread pitch1 mmThread size, metric8Type of electrical connectionCableType of switching functionNormally open contactType of switching outputPNPVoltage drop2 VVoltage typeDCWelding areaNoWith LED displayYes	Ring-shaped sensors	No
Suitable for safety functionsNoSupply voltage10 V 30 VSwitching distance4 mmSwitching frequency1000 HzTeflon housingNoThread length31 mmThread pitch1 mmThread size, metric8Type of electrical connectionCableType of switching functionNormally open contactType of switching outputPNPVoltage drop2 VVoltage typeDCWelding areaNoWith LED displayYes	Sensor length	40 mm
Supply voltage10 V 30 VSwitching distance4 mmSwitching frequency1000 HzTeflon housingNoThread length31 mmThread pitch1 mmThread size, metric8Type of electrical connectionCableType of switching functionNormally open contactType of switching outputPNPVoltage drop2 VVoltage typeDCWelding areaNoWith LED displayYes	Short-circuit-proof	Yes
Switching distance4 mmSwitching frequency1000 HzTeflon housingNoThread length31 mmThread pitch1 mmThread size, metric8Type of electrical connectionCableType of switching functionNormally open contactType of switching outputPNPVoltage drop2 VVoltage typeDCWelding areaNoWith LED displayYes	Suitable for safety functions	No
Switching frequency1000 HzTeflon housingNoThread length31 mmThread pitch1 mmThread size, metric8Type of electrical connectionCableType of switching functionNormally open contactType of switching outputPNPVoltage drop2 VVoltage typeDCWelding areaNoWith LED displayYes	Supply voltage	10 V 30 V
Teflon housingNoThread length31 mmThread pitch1 mmThread size, metric8Type of electrical connectionCableType of switching functionNormally open contactType of switching outputPNPVoltage drop2 VVoltage typeDCWelding areaNoWelding-proof sensorsNoWith LED displayYes	Switching distance	4 mm
Thread length31 mmThread pitch1 mmThread size, metric8Type of electrical connectionCableType of switching functionNormally open contactType of switching outputPNPVoltage drop2 VVoltage typeDCWelding areaNoWith LED displayYes	Switching frequency	1000 Hz
Thread pitch1 mmThread size, metric8Type of electrical connectionCableType of switching functionNormally open contactType of switching outputPNPVoltage drop2 VVoltage typeDCWelding areaNoWelding-proof sensorsNoWith LED displayYes	Teflon housing	No
Thread size, metric8Type of electrical connectionCableType of switching functionNormally open contactType of switching outputPNPVoltage drop2 VVoltage typeDCWelding areaNoWith LED displayYes	Thread length	31 mm
Type of electrical connectionCableType of switching functionNormally open contactType of switching outputPNPVoltage drop2 VVoltage typeDCWelding areaNoWelding-proof sensorsNoWith LED displayYes	Thread pitch	1 mm
Type of switching functionNormally open contactType of switching outputPNPVoltage drop2 VVoltage typeDCWelding areaNoWelding-proof sensorsNoWith LED displayYes	Thread size, metric	8
Type of switching outputPNPVoltage drop2 VVoltage typeDCWelding areaNoWelding-proof sensorsNoWith LED displayYes	Type of electrical connection	Cable
Voltage drop2 VVoltage typeDCWelding areaNoWelding-proof sensorsNoWith LED displayYes	Type of switching function	Normally open contact
Voltage typeDCWelding areaNoWelding-proof sensorsNoWith LED displayYes	Type of switching output	PNP
Welding areaNoWelding-proof sensorsNoWith LED displayYes	Voltage drop	2 V
Welding-proof sensorsNoWith LED displayYes	Voltage type	DC
With LED display Yes	Welding area	No
	Welding-proof sensors	No
With monitoring function of downstream devicesNo	With LED display	Yes
	With monitoring function of downstream devices	No

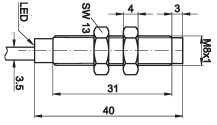
IPF ELECTRONIC

CONNECTION



Colors: BN (brown), BU (blue), BK (black) **Functions:** BN = L+, BU = L-, BK = PNP NO

DIMENSIONAL DRAWING



INSTALLATION

Mounting / Installation may only be carried out by a qualified electrician!

DISPOSAL



SAFETY WARNINGS

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information!

Never use these devices in applications where the safety of a person depends on their functionality.