

# IN1801T1 INDUCTIVE SENSORS • INCREASED AMBIENT TEMPERATURE

sensor inductive, M18x1 77long, Non-flush, Sn: 8, 10-35V DC, 180°C, PNP NO, Cable 5m Polytetrafluorethylene (PTFE), IP50, Stainless steel 1.4305



# **MECHANICAL FEATURES**

Active area material of sensorVectra*Alignment of cable entryAxialAmbient temperature0 °C 180 °CCable infeedAxialCable length5 mDegree of protection (IP)IP50DesignCylinder, screw-threadHousing materialStainless stel 1.4305Increased ambient temperatures > 80°C+Material of cable sheathPolytetrafluorethylene (PTFE)Mechanical mounting condition for sensorNon-flushPressure-proof-Sensor length77 mmThread length60 mmThread size, metric18Wire cross section0.22 mm²Correction factor (aluminum)0.3Correction factor (brass)0.4Correction factor (topper)0.7Correction factor (stail. steel)15 %Non-load current15 mANorm measuring plate150 mAReadines delay5 msReadines delay10 %		
Ambient temperature0 °C 180 °CCable infeedAxialCable infeedS mDegree of protection (IP)IPS0DesignCylinder, screw-threadHousing materialStainless steel 1.4305Increased ambient temperatures > 80°C+Material of cable sheathPolytetrafluorethylene (PTFE)Mechanical mounting condition for sensorNon-flushPressure-proof-Sensor length77 mmThread length60 mmThread length1 mmThread size, metric18Wire cross section0.22 mm²Cascadable-Correction factor (aluminum)0.3Correction factor (stainl. steel)0.4Correction factor (stainl. steel)0.7Hystersis15 %Non-load current150 mANorm measuring plate150 mAReadiness delay5 msRelative repeat accuracy3 %	Active area material of sensor	Vectra®
Cable inferdAxialCable length5 mDegree of protection (IP)IP50DesignCylinder, screw-threadHousing materialStainless steel 1.4305Increased ambient temperatures > 80°C+Material of cable sheathPolytetrafluorethylene (PTFE)Mechanical mounting condition for sensorNon-flushPressure-proof-Sensor length77 mmThread length60 mmThread jtch1 mmThread size, metric18Wire cross section0.22 mm²Cascadable-Correction factor (strass)0.4Correction factor (strass)0.4Correction factor (strass)0.7Correction factor (strass)0.7No-flusth15 mANord current15 mANord current15 mANord current15 mAReadiness delay5 msRelative repeat accuracy3 %	Alignment of cable entry	Axial
Cable lengthS mDegree of protection (IP)IPS0DesignCylinder, screw-threadHousing materialStainless steel 1.430SIncreased ambient temperatures > 80°C+Material of cable sheathPolytetrafluorethylene (PTFE)Mechanical mounting condition for sensorNon-flushPressure-proof-Sensor length77 mmThread length60 mmThread pitch1 mmThread size, metric18Wire cross section0.22 mm²Cascadable-Correction factor (aluminum)0.3Correction factor (St37)1Correction factor (stainl. steel)0.7Hysteresis15 mANor-load current15 mANormeasuring plate18x18x1Readiness delay5 msRelative repeat accuracy3 %	Ambient temperature	0 °C 180 °C
Degree of protection (IP)IP50DesignCylinder, screw-threadHousing materialStainless steel 1.4305Increased ambient temperatures > 80°C+Material of cable sheathPolytetrafluorethylene (PTFE)Mechanical mounting condition for sensorNon-flushPressure-proof-Sensor length77 mmThread length60 mmThread pitch1 mmThread pitch0.22 mm²Cascadable-Correction factor (aluminum)0.3Correction factor (star)0.4Correction factor (star)1Correction factor (star)1.5No-load current1.5 %No-load current1.5 mANorm measuring plate1.5 mAReadiness delay5 msRelative repeat accuracy3 %	Cable infeed	Axial
DesignCylinder, screw-threadHousing materialStainless steel 1.4305Increased ambient temperatures > 80°C+Material of cable sheathPolytetrafluorethylene (PTFE)Mechanical mounting condition for sensorNon-flushPressure-proof-Sensor length77 mmThread length60 mmThread pitch1 mmThread pitch18Wire cross section0.22 mm²ELECTRICAL FEATURES0.3Correction factor (aluminum)0.3Correction factor (opper)0.2Correction factor (stainl. steel)15 %Hystersis15 %No-laad current150 mAReadiness delay5 msRelative repeat accuracy3 %	Cable length	5 m
Housing materialStainless steel 1.4305Increased ambient temperatures > 80°C+Material of cable sheathPolytetrafluorethylene (PTFE)Mechanical mounting condition for sensorNon-flushPressure-proof-Sensor length77 mmThread length60 mmThread pitch1 mmThread pitch1 mmThread size, metric18Wire cross section0.22 mm²Cascadable-Correction factor (aluminum)0.3Correction factor (topper)0.4Correction factor (copper)0.7Correction factor (stail. steel)15 %No-load current15 mANord current150 mAReadiness delay50 msReadiness delay50 msRelative repeat accuracy3 %	Degree of protection (IP)	IP50
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Material of cable sheathPolytetrafluorethylene (PTFE)Mechanical mounting condition for sensorNon-flushPressure-proof-Sensor length77 mmThread length60 mmThread pitch1 mmThread size, metric18Wire cross section0.22 mm² <b>ELECTRICAL FEATURES</b> -Cascadable-Correction factor (aluminum)0.3Correction factor (opper)0.4Correction factor (stain). steel)1Hysteresis15 %No-load current15 mANorm measuring plate18x18x1Readiness delay5 msRelative repeat accuracy3 %	Housing material	Stainless steel 1.4305
Mechanical mounting condition for sensorNon-flushPressure-proof-Sensor length77 mmThread length60 mmThread pitch1 mmThread size, metric18Wire cross section0.22 mm²ELECTRICAL FEATURESCascadable-Correction factor (aluminum)0.3Correction factor (opper)0.4Correction factor (stainl. steel)0.7Hysteresis15 %Non-load current15 mANorm measuring plate150 mAReadiness delay5 msRelative repeat accuracy3 %	Increased ambient temperatures > 80°C	+
Pressure-proof-Sensor length77 mmThread length60 mmThread pitch1 mmThread pitch1 mmThread size, metric18Wire cross section0.22 mm²ELECTRICAL FEATURESCascadable-Correction factor (aluminum)0.3Correction factor (brass)0.4Correction factor (copper)0.2Correction factor (star)1Correction factor (star)0.7Hysteresis15 %No-load current15 mANorm measuring plate18x18x1Rated switching current50 msReadiness delay5 msRelative repeat accuracy3 %	Material of cable sheath	Polytetrafluorethylene (PTFE)
Sensor length77 mmThread length60 mmThread pitch1 mmThread size, metric18Wire cross section0.22 mm²ELECTRICAL FEATURESCascadable	Mechanical mounting condition for sensor	Non-flush
Thread length60 mmThread pitch1 mmThread size, metric18Wire cross section0.22 mm²ELECTRICAL FEATURESCascadableCascadable-Correction factor (aluminum)0.3Correction factor (brass)0.4Correction factor (copper)0.2Correction factor (st37)1Correction factor (stail. steel)0.7Hysteresis15 %Norl measuring plate18x18x1Rated switching current150 mAReadiness delay5 msRelative repeat accuracy3 %	Pressure-proof	-
Thread pitch1 mmThread size, metric18Wire cross section0.22 mm2ELECTRICAL FEATURESCascadableCorrection factor (aluminum)Correction factor (aluminum)0.3Correction factor (brass)0.4Correction factor (copper)0.2Correction factor (stail. steel)0.7Hysteresis15 %Norload current15 mANorm measuring plate150 mAReadiness delay5 msRelative repeat accuracy3 %	Sensor length	77 mm
Thread size, metric18Wire cross section0.22 mm²ELECTRICAL FEATURESCascadable-Correction factor (aluminum)0.3Correction factor (brass)0.4Correction factor (copper)0.2Correction factor (stair). steel)0.7Hysteresis15 %ANorl measuring plate18x18x1Rated switching current150 mAReadiness delay5 msRelative repeat accuracy3 %	Thread length	60 mm
Wire cross section0.22 mm2ELECTRICAL FEATURES-Cascadable-Correction factor (aluminum)0.3Correction factor (brass)0.4Correction factor (copper)0.2Correction factor (sta77)1Correction factor (stanl. steel)0.7Hysteresis15 %Norl measuring plate18x18x1Rated switching current150 mAReadiness delay5 msRelative repeat accuracy3 %	Thread pitch	1 mm
ELECTRICAL FEATURESCascadable-Correction factor (aluminum)0.3Correction factor (brass)0.4Correction factor (copper)0.2Correction factor (St37)1Correction factor (stainl. steel)0.7Hysteresis15 %No-load current15 mANorm measuring plate18x18x1Rated switching current5 msReadiness delay3 %	Thread size, metric	18
Cascadable-Correction factor (aluminum)0.3Correction factor (brass)0.4Correction factor (copper)0.2Correction factor (st37)1Correction factor (stainl. steel)0.7Hysteresis15 %No-load current15 mANorm measuring plate18x18x1Rated switching current150 mAReadiness delay5 msRelative repeat accuracy3 %	Wire cross section	0.22 mm <sup>2</sup>
Correction factor (aluminum)0.3Correction factor (brass)0.4Correction factor (copper)0.2Correction factor (St37)1Correction factor (stainl. steel)0.7Hysteresis15 %No-load current15 mANorm measuring plate18x18x1Rated switching current150 mAReadiness delay5 msRelative repeat accuracy3 %	ELECTRICAL FEATURES	
Correction factor (brass)0.4Correction factor (copper)0.2Correction factor (St37)1Correction factor (stainl. steel)0.7Hysteresis15 %No-load current15 mANorm measuring plate18x18x1Rated switching current150 mAReadiness delay5 msRelative repeat accuracy3 %	Cascadable	-
Correction factor (copper)0.2Correction factor (St37)1Correction factor (stainl. steel)0.7Hysteresis15 %No-load current15 mANorm measuring plate18x18x1Rated switching current150 mAReadiness delay5 msRelative repeat accuracy3 %	Correction factor (aluminum)	0.3
Correction factor (St37)1Correction factor (stainl. steel)0.7Hysteresis15 %No-load current15 mANorm measuring plate18x18x1Rated switching current150 mAReadiness delay5 msRelative repeat accuracy3 %	Correction factor (brass)	0.4
Correction factor (stainl. steel)0.7Hysteresis15 %No-load current15 mANorm measuring plate18x18x1Rated switching current150 mAReadiness delay5 msRelative repeat accuracy3 %	Correction factor (copper)	0.2
Hysteresis15 %No-load current15 mANorm measuring plate18x18x1Rated switching current150 mAReadiness delay5 msRelative repeat accuracy3 %	Correction factor (St37)	1
No-load current15 mANorm measuring plate18x18x1Rated switching current150 mAReadiness delay5 msRelative repeat accuracy3 %	Correction factor (stainl. steel)	0.7
Norm measuring plate18x18x1Rated switching current150 mAReadiness delay5 msRelative repeat accuracy3 %	Hysteresis	15 %
Rated switching current150 mAReadiness delay5 msRelative repeat accuracy3 %	No-load current	15 mA
Readiness delay5 msRelative repeat accuracy3 %	Norm measuring plate	18x18x1
Relative repeat accuracy 3 %	Rated switching current	150 mA
	Readiness delay	5 ms
Residual ripple 10 %	Relative repeat accuracy	3 %
	Residual ripple	10 %
Response time 1.2 ms	Response time	1.2 ms

# **IPF** ELECTRONIC

# **ELECTRICAL FEATURES**

Reverse polarity protection	+
Short-circuit protection	+
Suitable for safety functions	-
Supply voltage	10 V 35 V
Switching distance	8 mm
Switching frequency	400 Hz
Type of electrical connection	Cable
Type of switching function	Normally open contact
Type of switching output	PNP
Voltage drop	2 V
Voltage type	DC
With monitoring function of downstream devices	-

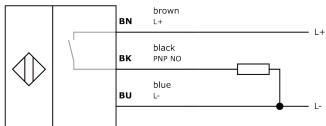
#### Other

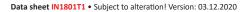
Packaging dimensions	124.0mm x 28.0mm x 149.0mm
Shipping weight	0.19kg
Tariff code	85365019

# Classification

ipf product group	202
eClass 8.0	27270101
eClass 9.0	27270101
eClass 9.1	27270101
ETIM-5.0	EC002714
ETIM-6.0	EC002714
ETIM-7.0	EC002714

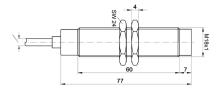
#### Connection







### **Dimensional drawing**



#### Installation



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



# 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. LED lighting systems can generate intensive UV radiation, which can damage your eyes in case of improper use. The manufacturer cannot be held responsible for damages that result from improper use or connection.

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