

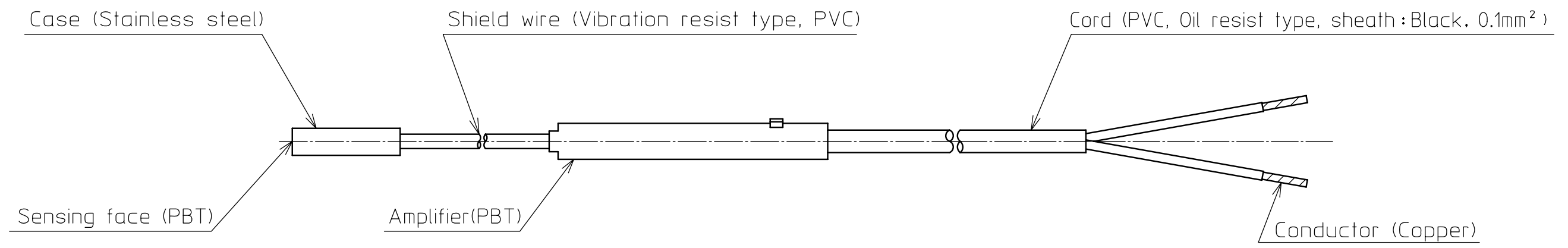
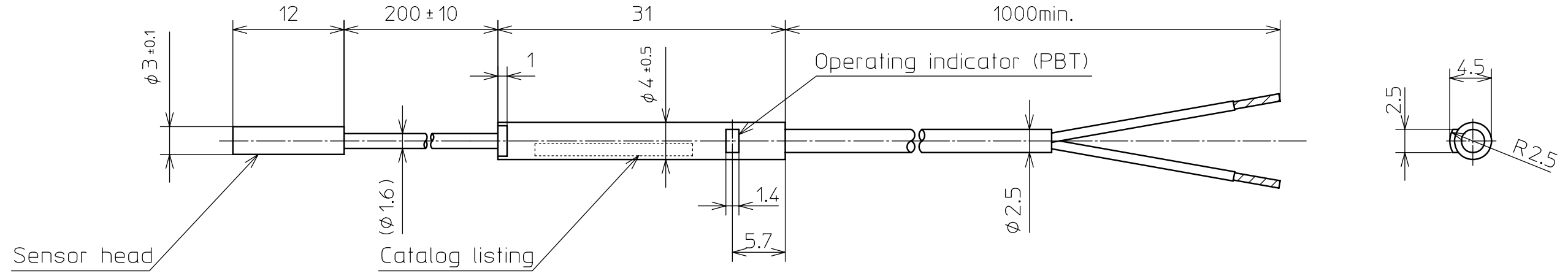
SR. No.
900-4-023

Yamatake Corporation

製品仕様書
SPECIFICATIONS

Catalog listing	Operating mode	Oscillation frequency
APT-N01J	N.O.	Standard frequency
APT-N01JF		Different frequency
APT-N01K	N.C.	Standard frequency
APT-N01KF		Different frequency

1. Mounting dimensions



Note1: The rubber spacer used in setscrew installation of the sensor is included.
 Note2: Use the dedicated bracket (sold separately) to mount the amplifier.
 The catalog listing is APT-PA03 (stainless steel) or APT-PA04 (PSF resin).

≤3	≤6	≤30	≤120
±0.2	±0.3	±0.5	±0.8

作成DR. Y.Nishizawa 11, 1, '05	検図CHK. S.Kawai 11, 1, '05	認可APPD H.Matsuno 11, 1, '05	日付DATE	尺 度 SCALE 2:1	記入のない公差 TOL. UNLESS NOTED REFER ABOVE TABLE FOR TOL. UNLESS NOTED
形 番 MODEL		APT-N01 series			
名 称 NAME		Proximity switch			
図 番 NO.		AD42931E		改番REV. 02	1/3

改番 REV.	来歴 RECORD	日付 DATE	担当 BY	検閲 APPD.
02	EC007-2908	11, 2, '07	T.O.	S.K.
01	EC006-1693	7, 3, '06	T.O.	S.K.

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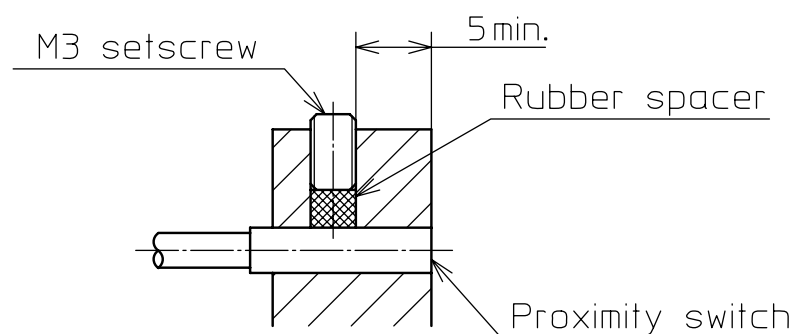
2. Specifications

	APT-N01J (F)	APT-N01K (F)
Type	Eddy current killed oscillator	
Rated supply voltage	12V/24VDC	
Supply voltage	10 to 30VDC	
Leakage current	0.8mA max.	
Sensing distance	0.5±0.075 mm	
Standard target	5×5mm t1mm (SPCC)	
Hysteresis	15% max. of sensing distance	
Operating mode	Normally open (make)	Normally close (break)
Output type	2-wire DC of transistor output	
Output	Load current ; 3 to 50mA Voltage drop ; 3.0V max. (Load current ; 50mA, cord length ; 1m) Output withstand voltage ; 30VDC	
Repetition	1000Hz min.	
Temperature drift	±20% of sensing distance (at +25℃) between -25 to +70℃	
Operating indicator	Orange 'ON' with output on	
Operating temperature	-25 to +70℃	
Storage temperature	-25 to +70℃	
Insulation resistance	50MΩ min. (at 500VDC)	
Dielectric strength	1000VAC 50/60Hz 1 minute	
Vibration	10 to 55Hz 1.5mm double amplitude 2 hours in each direction of X,Y,Z	
Shock	500m/s ² 3 times in each direction of X,Y,Z	
Sealing	IP66 (IEC standard)	(Note1)
Tightening torque	0.4N·m max.	(Note2)
Permissible bend radius	R30	
Mass	Approx.11g (only sensor with cord 1m)	
Circuit protection	Short current protection and wrong wiring protection	

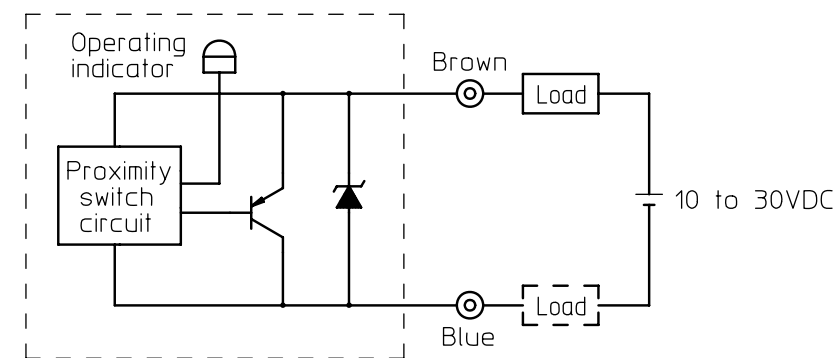
Note1: Do not use outdoors or where exposed to water, oil, or chemical liquids or vapors.

Note2: Permissible torque when setscrew installation is used.

Use the included rubber spacer to keep the screw and proximity sensor tip at least 5mm apart.



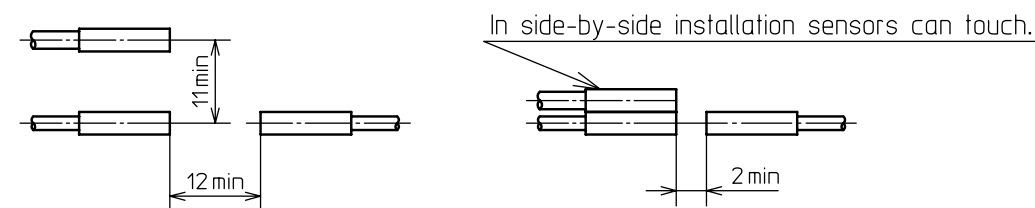
3. Connection diagram



Load can be connected to either of the lead wires.

4. Handling Precautions

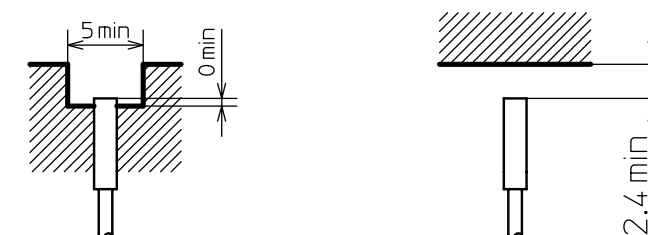
- The amplifier should not be surrounded by metallic surfaces. This can cause malfunction due to noise.
- Do not bend the shielded wire beyond the bend radius or tie it so that it is constricted.
- Do not put pressure the shielded wire where it exits the sensor or amplifier. Sensor operation might be affected.
- Mutual interference and malfunction might result if proximity switches are set up parallel to each other or facing each other. Maintain at least the distances shown in the figure below.



Combination of sensors with the same oscillation frequency

Combination of sensors with different oscillation frequencies

The detection distance might change if a metal object other than the target is nearby. Maintain at least the distances shown in the figure below.



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改番 REV.	来歴 RECORD	日付 DATE	担当 BY
			検閲 APPD.

作成DR. Y.Nishizawa 11-1 '05	検図CHK. S.Kawai 11-1 '05	認可APPD H.Matsuno 11-1 '05	日付DATE	尺度SCALE ~	記入のない公差TOL. UNLESS NOTED ~
形番 MODEL	APT-N01 series				
名称 NAME	Proximity switch				
図番 NO.	AD42931E	改番REV. 02	2		

SP.NO.

Yamatake Corporation

製品仕様書
SPECIFICATIONS**Terms and Conditions**

We would like to express our appreciation for your purchase and use of Yamatake products.

You are required to acknowledge and agree upon the following terms and conditions for your purchase of Yamatake products (field instruments, control valves, and control products), unless otherwise stated in any separate document, including, without limitation, estimation sheets, written agreements, catalogs, specifications and instruction manuals.

1 Warranty period and warranty scope**1.1 Warranty period**

Yamatake products shall be warranted for one (1) year from the date of your purchase of the said products or the delivery of the said products to a place designated by you.

1.2 Warranty scope

In the event that Yamatake product has any failure attributable to Yamatake during the aforementioned warranty period, Yamatake shall, without charge, deliver a replacement for the said product to the place where you purchased, or repair the said product and deliver it to the aforementioned place.

Notwithstanding the foregoing, any failure falling under one of the following shall not be covered under this warranty:

- (1) Failure caused by your improper use of Yamatake product
(noncompliance with conditions, environment of use, precautions, etc. set forth in catalogs, specifications, instruction manuals, etc.);
- (2) Failure caused for other reasons than Yamatake product;
- (3) Failure caused by any modification or repair made by any person other than Yamatake or Yamatake's subcontractors;
- (4) Failure caused by your use of Yamatake product in a manner not conforming to the intended usage of that product;
- (5) Failure that the state-of-the-art at the time of Yamatake's shipment did not allow Yamatake to predict; or
- (6) Failure that arose from any reason not attributable to Yamatake, including, without limitation, acts of God, disasters, and actions taken by a third party.

Please note that the term "warranty" as used herein refers to equipment-only-warranty, and Yamatake shall not be liable for any damages, including direct, indirect, special, incidental or consequential damages in connection with or arising out of Yamatake products.

2 Ascertainment of suitability

You are required to ascertain the suitability of Yamatake product in case of your use of the same with your machinery, equipment, etc. (hereinafter referred to as "Equipment") on your own responsibility, taking the following matters into consideration:

- (1) Regulations and standards or laws that your Equipment is to comply with.
- (2) Examples of application described in any documents provided by Yamatake are for your reference purpose only, and you are required to check the functions and safety of your Equipment prior to your use.
- (3) Measures to be taken to secure the required level of the reliability and safety of your Equipment in your use

Although Yamatake is constantly making efforts to improve the quality and reliability of Yamatake products, there exists a possibility that parts and machinery may break down.

You are required to provide your Equipment with fool-proof design, fail-safe design, anti-flame propagation design, safety design, or the like so that the said Equipment may satisfy the level of the reliability and safety required in your use, whereby preventing any occurrence of physical injuries, fires, significant damage, and so forth.

3 Precautions and restrictions on application

Yamatake products other than those explicitly specified as applicable (e.g. Yamatake Limit Switch For Nuclear Energy) shall not be used in a nuclear energy controlled area (radiation controlled area).

Any Yamatake products shall not be used for/with medical equipment.

In addition,

you are required to conduct a consultation with our sales representative and understand detail specifications, cautions for operation, and so forth by reference to catalogs, specifications, instruction manual, etc. in case that you intend to use Yamatake product for any purposes specified in (1) through (6) below.

Moreover, you are required to provide your Equipment with fool-proof design, fail-safe design, anti-flame propagation design and other designs of protection/safety circuit on your own responsibility to ensure the reliability and safety, whereby preventing problems caused by failure or nonconformity.

- (1) For use under such conditions or in such environments as not stated in technical documents, including catalogs, specification, and instruction manuals
- (2) For use of specific purposes, such as:
 - * Nuclear energy/radiation related facilities
[For use outside nuclear energy controlled areas]
[For use of Yamatake Limit Switch For Nuclear Energy]
 - * Machinery or equipment for space/sea bottom
 - * Transportation equipment
[Railway, aircraft, vessels, vehicle equipment, etc.]
 - * Antidisaster/crime-prevention equipment
 - * Burning appliances
 - * Electrothermal equipment
 - * Amusement facilities

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