

TECHNICAL  
INFORMATION

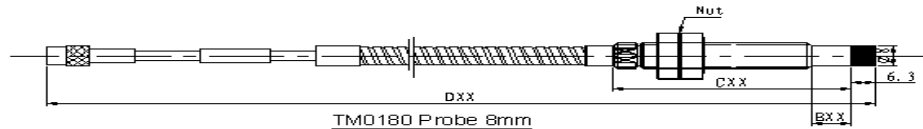
PREDICTIVE  
MAINTENANCE  
SYSTEMS

Gilchrist Technology, Inc.

## GT0180 8mm Proximity Probes

An improved version of GT0180 (GT0105) probe has been introduced as the standard 8mm (5mm) probe. With the new design, the probe has longer life cycle, and more durable. In addition, the up-graded extension cable, connector and the insulating material on the probe tip allows for optimum operation.

GT0180 (GT0105) probe comes with 0.5m and 1.0m standard cable. You can also order 5.0m and 9.0m with integrated probe and extension



### Extension Cable

GTI utilizes an up-graded extension cable for better system performance and life cycle. You can select various extension cable lengths based on the probe cable length. The total length of the probe and the extension cable can be either 5m or 9m.

### Driver

The 3503/04 Series Transmitter acts as the primary driver for the TM0180 (GT0105). The insulation of the driver to ground is a standard feature for all the drivers. The total length of cable between the probe and the driver should be 5m or 9m. The distance between the driver and the monitor can be up to 300m (1000 ft). GTI recommends using a three wire shielded cable to connect the driver and/or monitoring system.

### Hazardous Area

Please consult GTI or its office for further information.

# GTI

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## System Specifications

### *Electrical*

Power Supply:

Voltage: -23 ~ -30VDC

Current: < 12mA.

Linear Range:

2.0mm (80mils) begins at 0.25mm (10mils) from probe face (ANSI4140).

Range is 0.25 ~ 2.25mm (10 ~ 90 mils).

Sensitivity:

8.0 mV/um (200mV/mil)  $\pm$  4% typical if calibrated as a system.

$\pm$ 6.5% typical including interchangeability errors.

Temperature Sensitivity:

Probe and 5 meters cable. From 22 °C to 125 °C, tolerance is within  $\pm$ 0.3%/? . At 2.25mm (90mil), Typical  $\pm$ 0.5%/? .

### **Linearity (Deviation from straight line):**

Within  $\pm$ 0.0254mm ( $\pm$ 1.0 mil) of a straight line, if calibrated as a system.  $\pm$ 0.038mm ( $\pm$ 1.5mil) typical including interchangeability errors.

Frequency Response ( $\pm$ 3db):

0 ~ 10.0kHz.

Minimum Target Size:

15mm (6 inch) in diameter.

### *Environmental*

Driver Temperature:

Operation: -35°C ~ +85°C.

Probe and cable Temperature:

Operation: -35°C ~ +125°C.

Humidity:

100% non-condensing.

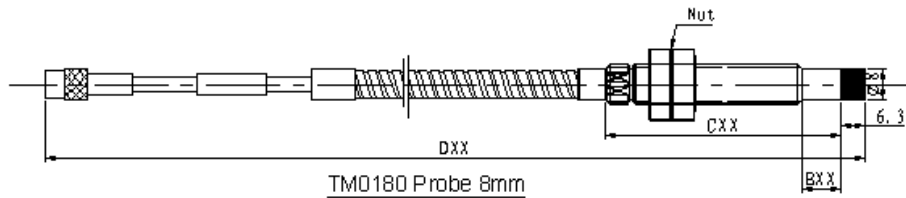
### *Physical*

Driver Dimension: Height: 75mm (2.95").

Driver Mounting:

35mm DIN rail mounting or

Plate mounting.



## Ordering Grid

### Order: 8mm probe

Standard configuration: GT0180-A07-B00-C05-D10

GT0180-AXX-BXX-CXX-DXX

#### **AXX: Probe type**

Typical: A01

A01\*: 8mm probe, 3/8-24 UNF; without armor

A02: 8mm probe, 3/8-24 UNF; with armor

A07: 8mm probe, M10×1; without armor

A08: 8mm probe, M10×1; with armor

#### **BXX: Unthreaded Length**

Typical: B00

Order in increments of 0.4 inch (10mm) as one unit. Maximum length = CXX – 0.8 inch (20mm).

Example: BXX=B03.  $0.4 \times 3 = 1.2$  inch or 30mm.

#### **CXX: Overall Case Length**

Typical: C05

Order in increments of 0.4 inch (10mm) as one unit.

Minimum length = 0.8 inch (20mm).

Maximum length = 9.8 inch (250mm).

Example: CXX=C05.  $0.4 \times 5 = 2.0$  inch or 50mm.

#### **DXX: Total Length**

Typical: D10=1.0 meter (39 inches)

D05: 0.5 meter (20 inches)

D10: 1.0 meter (39 inches)

D50: 5.0 meter (200 inches)

D90: 9.0 meters (354 inches)