

KEYENCE

NEW General Purpose Digital Contact Sensor
GT Series



General Purpose Digital Contact Sensor
with Push Button Calibration

GT SERIES



Simplicity + Peace of mind = Ease of use

sensor heads

[Easy set-up
Compact sensor head]

Shortest in its class
Total length
3.54"
(90mm)



10 mm range
GT-H10

Resolution
0.039Mil
(1 μ m)

Environment resistance
IP67
*Excluding low-stress types

Measuring range
0.39"(10mm)
0.87"(22mm)



22 mm range
GT-H22

amplifiers

[Compact amplifier]



DIN rail mounting
amplifier unit
GT-71A



Arrow keys for
simple navigation

Panel mounting
amplifier unit
GT-75A



1 Tough and rugged

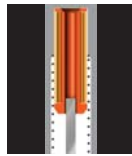
[Maintenance cost reduction]



Excessive tightening torque prevention
Twice the service life of conventional sensors
IP67 Enclosure rating

2 Error-free

[Reduce downtime]



No more lost data in high speed applications
No speed errors
No more troublesome adjustments or recalibration

3 Total Cost Reduction

[Simplified setup eliminates the need for I/O cards and tedious PLC programming]



HI/LO/GO output
Calculation without additional PLC programming

4 Compact amplifier

[Space-saving]

5 Easy to read

[At-A-Glance]

6 Easy and simple set-up

[Man-hour reduction]

7 One-push zero point adjustment

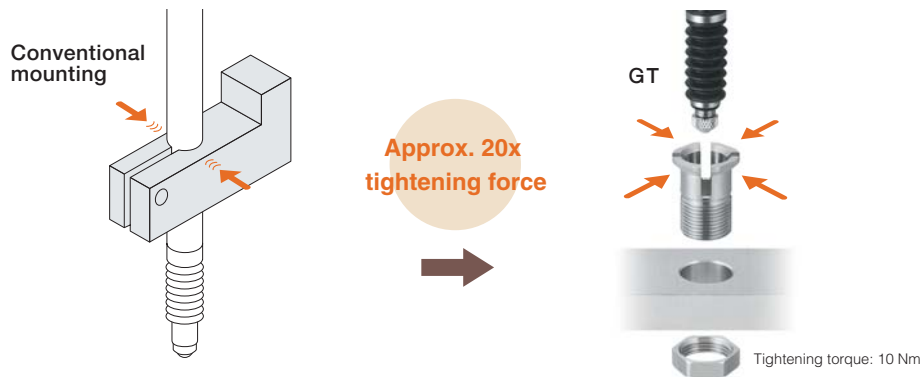
8 Data communication with 10 amplifiers

1 Tough and rugged

The sensor head is designed for durability to prevent frequent problems which may result in significant time loss and improvement costs.

No concern about excessive tightening **Locking collet**

Conventional sensor head mounting is prone to short service life due to the excessive tightening force applied by a clamping fixture. Insufficient tightening in fear of damaging the head is also a problem.



Since the force is concentrated at two points, excessive tightening often damages the sensor.

With the **Locking collet** of the GT Series the force is applied from four directions which prevents damage and product life reduction.

Ball bearing for longer life **Linear ball bearing**

Contact sensors are destined to break due to friction over a long period of use. The GT Series uses linear ball bearings in the spindle to achieve a longer service life.



← **Twice the life of conventional contact sensors**

There are two types of contact sensors: those with and those without ball bearings. The use of ball bearings greatly increases the service life.

Harsh environments **IP67**

The GT Series is water-resistant. This renders the structure effective for long-term use in harsh environments.

2 Error-free

Productivity decreases if the contact sensor makes repeated errors leading to frequent facility stops. The GT Series is free from typical contact sensor errors.

No lost data, No speed errors Co-transformer method

Many contact sensors typically use pulse counting methods which can miss data when targets travel at high speeds. However, Keyence's use of the co-transformer method to keep track of the contact's absolute position eliminates skipped (missing) data.

When the cylinder extends

When the cylinder shrinks

Co-transformer method

The signal level changes according to the position of the spindle inside the coil. The double-coil structure allows comparison of two signals to eliminate errors.

Reduced Size

Shortest in its class

Total length 3.54" (90mm)

The 10-mm range head is the shortest in its class at only 90 mm (3.54").

Differential transformer method

The primary coil and the secondary coil are arranged in series.

Co-transformer method

The detection coil and the adjustment coil surround each other.

Origin alignment unnecessary

The co-transformer method does not require troublesome adjustments.

No mutual interference

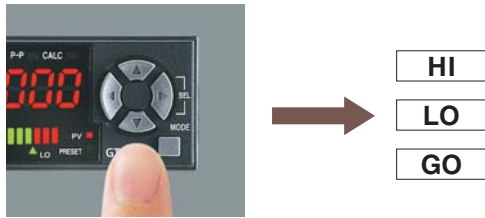
The co-transformer method and high-performance magnetic shield structure prevent mutual interference from units that are close together.

3 Total Cost Reduction

Simplified setup eliminates need for analog I/O cards and tedious PLC programming.

HI/LO/GO discrete outputs Pushbutton setup

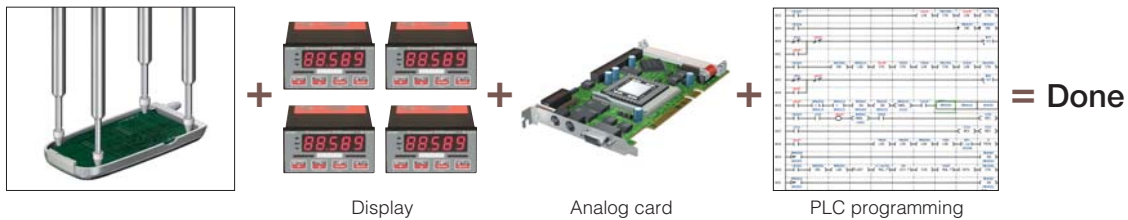
Featuring 3 digital comparator outputs (HI, LO and GO), the GT series can be lower case in minutes, not hours. Pushbutton calibration will leave you asking yourself why you hadn't switched to the GT sooner.



No additional equipment required Analog I/O card not necessary

Forget about the tedious PLC programming that you're used to with your existing LVDT's. The GT does the work for you. In addition, you can save money by eliminating the analog I/O card from your budget.

The Difficult, time consuming way:



The Easy way:



Simple Product Changeover Quickly select from up to 4 sets of HI/LO limits

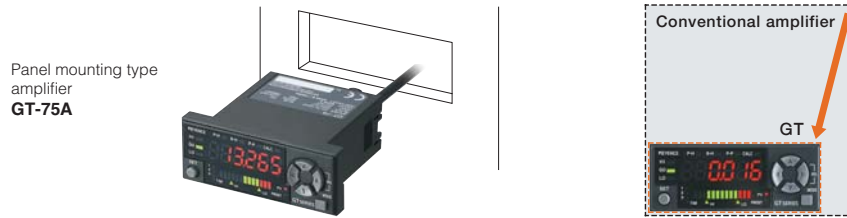
Using channel select inputs on the GT-70A, users can easily toggle between up to 4 different sets of HI/LO limits. You can even use your existing HMI, while clearing out the cobwebs of PLC programming running behind the scenes.

4 Compact amplifier

Efficient installation in the current space is another important point to consider. The GT Series amplifier is compact and can be mounted in two ways.

Making the control panel smaller Compact, panel mounting type

Unlike conventional amplifiers, this amplifier does not require a large mounting space. The LED display is brighter, and easier-to-read than conventional LCD indicators.



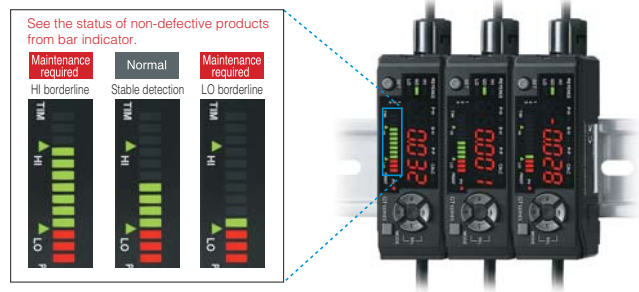
Easy mounting Compact, DIN-rail mounting type

This amplifier can easily be mounted in the desired position by using a DIN-rail or the optional bracket.



Operating status at a glance Bar indicator

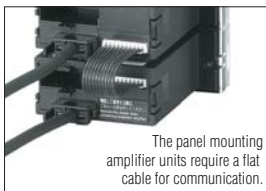
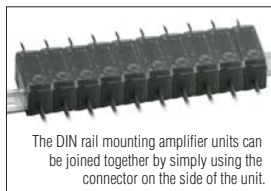
Since the numerical display updates slower than the internal detection, you can check the status of fast moving parts easily by monitoring the bar indicator.



Multi-head calculations and wire saving Expendable

[Expandable up to 10 units]

Installation of expansion units enables communication between sensor heads for various calculations.



[Wire-saving]

Expansion units can be powered by the main unit. As a result, fewer wires need to be connected during setup, making for a quicker, neater installation.

[Close vertical mounting] (Panel mounting amplifier units only)

Panel mounting amplifier units can be vertically mounted closely together.

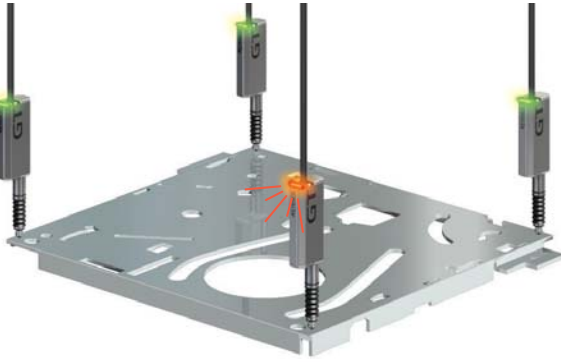


5 Easy to read

Quick, at-a-glance recognition is important for efficient operation. The simple and clear two-color indicator and bar graph are well received in the field.

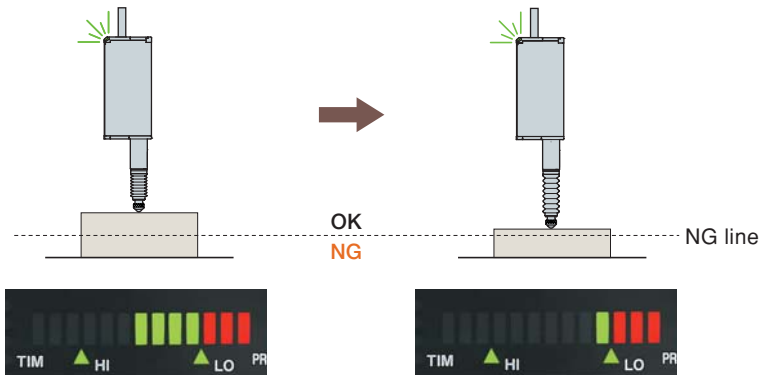
Green for OK; Red for NG Two-color indicator

The sensor head has a bright, two-color indicator. The light illuminates in red when the result is NG, which ensures easy recognition of problematic points.



Catch failures before they happen Bar indicator

Operators can visually determine the state in which the products are nearing the NG limits. For example, when the height of the target is nearing the NG line, the green segments in the bar indicator decrease. Although it is difficult to recognize this state by reading numerical values, the bar indicator shows it clearly. Corrective measures can be taken before defective products are produced.



Peak value display Peak hold

The peak value of each detection can be held for an easy visual check. Since the indicator unit is separate from the detection unit, it can be mounted in any easy-to-see location.



6 Easy and simple set-up

No matter how good the sensor is, it is difficult to use it in the field if installation or operation is complicated. The GT Series reduces labor significantly due to its easy installation and operation.

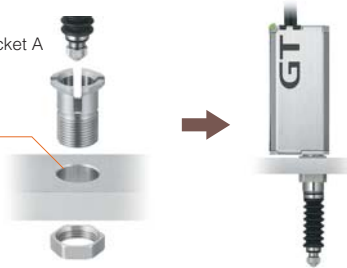
Simple mounting through a $\phi 10\text{mm}$ hole Special bracket

An locking collet specifically designed for the GT Series is available, eliminating the need to prepare a clamping fixture. The sensor can be easily mounted simply by drilling a 10mm diameter hole.

OP-76874

Head mounting bracket A
(Optional)

$\phi 0.39\text{"}$ hole
($\phi 10\text{mm}$)



OP-76875

Head mounting bracket B
(Optional)
Side-mountable



RIGHT/LEFT to select, UP/DOWN to set Easy operation

The amplifier is designed for simple and easy operation with the RIGHT/LEFT buttons for menu selection and the UP/DOWN buttons for value specification.



Blinking LED calibration indicator Oversized indicator

The indicator for the sensor head currently being set will blink, letting you know at a glance which of several heads is being set. (Patent pending)



Preconfigured application modes Automatic calculation

Unlike conventional calculations, which were done with a PLC using recorded data, calculations such as thickness and degree of flatness are automatically done by the sensor head. Simply select the proper application mode.



7 One-push zero point adjustment

Simultaneously pressing the UP and DOWN buttons completes the zero point adjustment. This allows easy adjustment of initial and changeover settings. (Bank switching function also available)

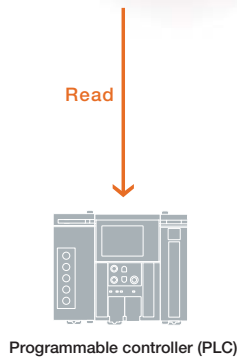


Since the co-transformer method keeps track of the absolute position, the zero point position is retained even after the power is turned off. Once the zero point is adjusted, it is not necessary to adjust it again.

8 Data communication with up to 10 amplifiers

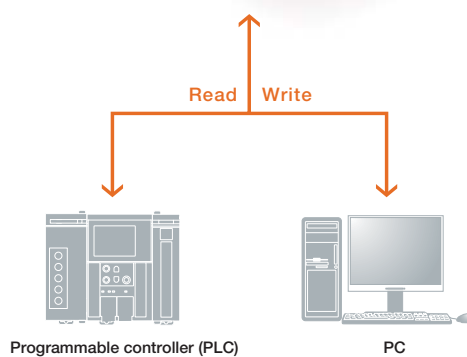
A single communication unit enables data communication with up to 10 amplifiers, including detection data stored in an amplifier.

BCD output unit
DL-RB1



The DL-RB1 allows a PLC or other external device to read detection data for the specified amplifier.

RS-232C communication unit
DL-RS1



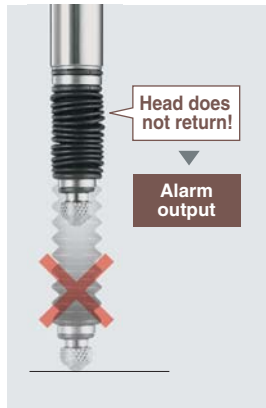
The DL-RS1 allows a PLC, PC, or other external device to read the detection or setting data for an amplifier or the calculation result of the data for several amplifiers, as well as to write setting data into an amplifier.

Additional functions

Self-diagnostic function

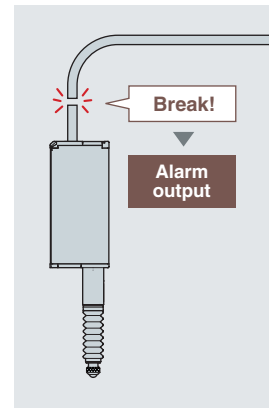
[Core alarm]

In the event of core damage, or contamination, the core may stick, or remain compressed. This function outputs an alarm if the core does not return to a home position. This preventive maintenance alarm helps to eliminate downtime and to minimize scrap and rework.



[Break alarm function]

Outputs an alarm when the head cable is broken.

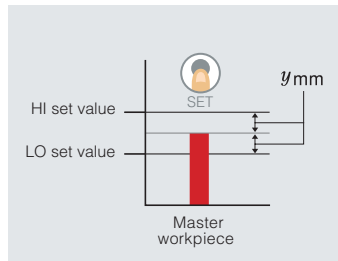


Automatic calibration function

Simply press the SET button to calibrate the unit.

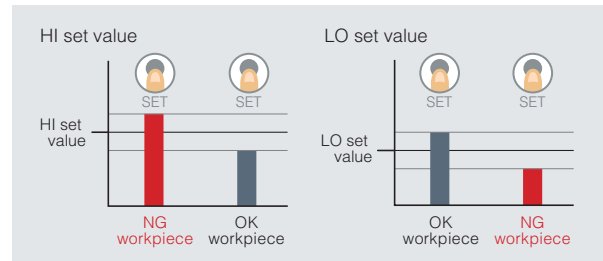
1. [Tolerance calibration]

Setting the tolerance is as easy as pressing the SET button on a master workpiece and setting the width (y mm).



2. [Two-point calibration]

Pressing the SET button once each on an OK and NG workpiece sets the detection value.



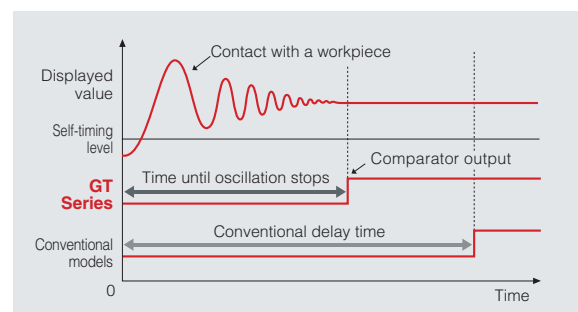
Timing input unnecessary

[Self-timing function]

When the preset timing level is exceeded, the self-timing function prepares for comparison.

[Static hold function]

After the self-timing level is exceeded, the static hold function automatically detects when head oscillation has stopped and issues a comparator output. Compared with conventional sensors, this function can greatly increase tact time. (* Optional delay time can also be set as desired.)



Air push models

With the sensor head fixed, Spindle extends/ retracts using air pressure

While the sensor head remains in a fixed position, the spindle extends or retracts in length with the increase or decrease of air pressure. There is no need to move the sensor head using a cylinder or alternate methods.



10-mm range,
Air push model
sensor head
GT-A10

22-mm range,
Air push model
sensor head
GT-A22

Operation of the extending/retracting spindle

1 Target positioning



2 Air injection

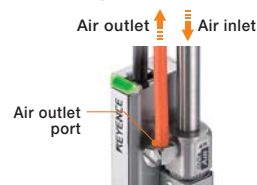


3 Air release



Environmental-resistant, IP67 rating

To maintain the IP67 rating, it is necessary to attach an air tube to prevent the entry of water through the air outlet port.



Adjusting spindle movement

The speed controller (optional) allows the spindle movement speed to be adjusted.



Speed controller
OP-82133

Low-stress type

No damage to targets

New low-stress type sensor heads available.



Wider range of applications

Detecting a loose PC board in a mobile phone

The low-stress sensor head with a fluorine plastic contact prevents scratches on the PC board.



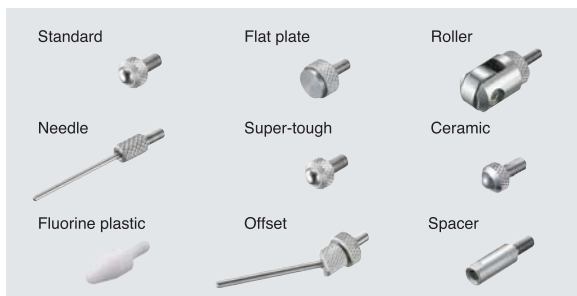
Checking the flatness of a mechanical chassis

The low-stress sensor head prevents deformation of a lightweight target.



Contact options

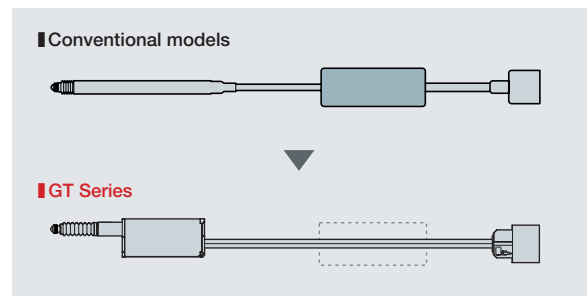
Select a contact to suit your application.



* The standard contact is factory-attached to the sensor head.

Wiring [No relay amplifier required]

Easier wiring is possible as a relay amplifier is not needed.



Versatile Detection Modes Support All Applications

Single head



Standard Peak hold Bottom hold Peak to peak

Multiple heads/when additional amplifier units are installed (Application modes)



STD

Rivet height differentiation

Outputs HI, GO, and LO according to rivet height.

STD

Insertion depth

The self-timing function enables you to detect insertion depth without a timing input.

STD

Packing insertion check

Confirms that targets are properly seated.

STD

Shaft inclination detection

Ensures proper alignment.

Warpage

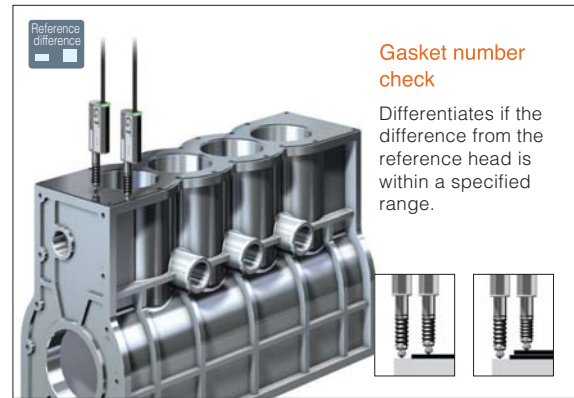
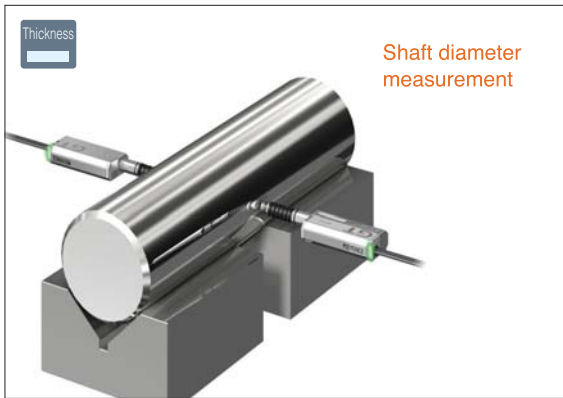
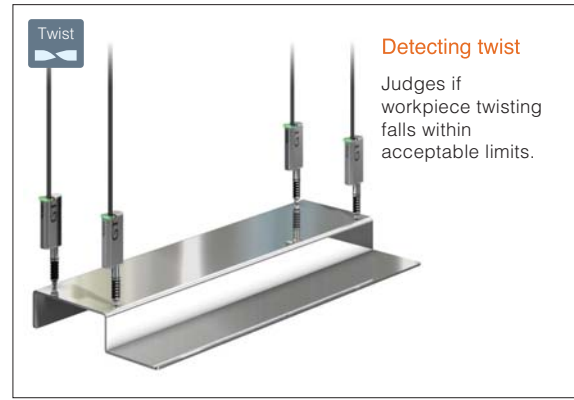
Board warpage detection

Confirms if workpiece warpage falls within acceptable limits.

Degree of flatness

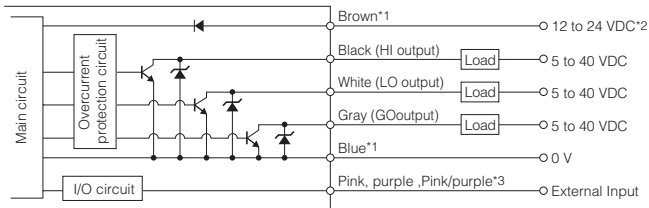
Workpiece flatness

Confirms if workpiece flatness falls within acceptable limits.

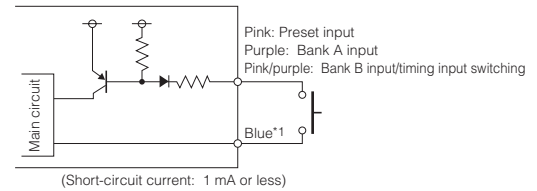


Input/Output Circuits

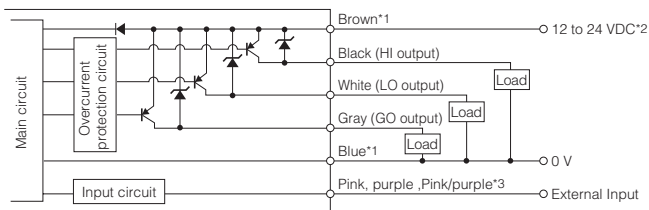
I/O circuit GT-71/72/75/76



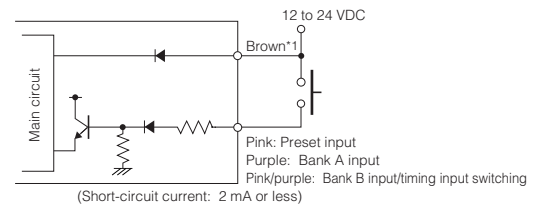
External Input circuit



I/O circuit GT-71P/72P/75P/76P









External Input circuit



*1 Brown and blue are applicable only to main units (GT-71/71P/75/75P), not to expansion units (GT-72/72P/76/76P).
 *2 At expansion, 12 VDC changes to 24 VDC.
 *3 For details on external input, see the External Input Circuit Diagram.

Product lineup

■ Sensor heads



Type	Model	Shape	Measuring range
Standard	GT-H10		0.39" 10 mm
	GT-H22		0.87" 22 mm
Air push models	GT-A10		0.39" 10 mm
	GT-A22		0.87" 22 mm
Low-stress	GT-H10L		0.39" 10 mm
	GT-H22L		0.87" 22 mm

■ Contacts



Standard (Ioduced with all heads)* OP-77678	Flat plate (Optional) OP-77679	Roller (Optional) OP-77680
Needle (Optional) OP-77681	Super-tough (Optional) OP-77682	Ceramic (Optional) OP-81970
Fluorine plastic (Optional) OP-80228	Offset (Optional) OP-77683	Spacer (Optional) OP-77684

* The standard contact is factory-attached to the sensor head.

■ Amplifier units

Model	Shape	Type	Output type
GT-71A		DIN rail mounting	Main unit
GT-72A			Expansion unit
GT-71AP			Main unit
GT-72AP		Panel mounting	Expansion unit
GT-75A			Main unit
GT-76A			Expansion unit
GT-75AP			Main unit
GT-76AP			Expansion unit

■ BCD output unit/RS-232C communication unit

Model	Shape	Type
DL-RB1		BCD
DL-RS1		RS-232C

■ Optional

Head mounting bracket A (Optional) OP-76874	Head mounting bracket B (Optional) OP-76875	Panel mounting bracket (Included with panel-mountable amplifier units) OP-76876
Fixture for fastening the DIN amplifier (Optional) OP-76877	End unit (2 per pack) (Optional) OP-26751	Speed controller (for spindle movement adjustment) (Optional) OP-82133
Dust boot (attached to sensor head)* OP-78041 (for GT-H10/A10)	Dust boot (attached to sensor head)* OP-78042 (for GT-H22/A22)	

* Dust boot is not included with the GT-H10L/H22L

Specifications

■ Sensor head



Model	GT-H10	GT-H10L	GT-H22	GT-H22L
Measuring range	0.39" 10 mm		0.87" 22 mm	
Mechanical response frequency	10 Hz (at ambient temperature of 73°F (23°C))	7 Hz (at ambient temperature of 73°F (23°C))	8 Hz (at ambient temperature of 73°F (23°C))	5 Hz (at ambient temperature of 73°F (23°C))
Repeatability 1.	0.12 Mil 3 μm (at ambient temperature of 73°F (23°C))		0.31 Mil 8 μm (at ambient temperature of 73°F (23°C))	
Measuring force 2.	When installed facing down: 1.0 N When installed sideways: 0.9 N When installed facing up: 0.8 N	When installed facing down: 0.3 N When installed sideways: 0.25 N When installed facing up: 0.2 N	When installed facing down: 1.5 N When installed sideways: 1.4 N When installed facing up: 1.3 N	When installed facing down: 0.35 N When installed sideways: 0.3 N When installed facing up: 0.25 N
Environmental resistance	14 to 131°F (-10 to +55°C)			
Relative humidity	35 to 85%			
Enclosure rating	IP67	-	IP67	-
Materials	Housing: TYPE430 Stainless steel, Indicator: Polyarylate, Dust boot 3: NBR, Contact: TYPE304 stainless steel, Cable: PVC			
Weight (with 2-m cable)	Approx.115 g		Approx.135 g	

1. Value read at the center of the measuring range with the response time set to 100 ms.

2. Value read near the center of the measuring range

3. Dust boot is not included with the GT-H10L/H22L

■ Sensor head (Air push models)

Model	GT-A10	GT-A22
Measuring range	0.39" 10 mm	0.87" 22 mm
Repeatability 1.	0.12 Mil 3 μm (at ambient temperature of 73°F (23°C))	0.31 Mil 8 μm (at ambient temperature of 73°F (23°C))
Measuring force 2.	When installed facing down: 1.0 N When installed sideways: 0.9 N When installed facing up: 0.8 N	When installed facing down: 1.5 N When installed sideways: 1.4 N When installed facing up: 1.3 N
Environmental resistance	32 to 131°F (0°C to +55°C)	
Relative humidity	35 to 85%	
Enclosure rating	IP67 3.	
Operating pressure range	0.35 to 0.5 MPa	
Withstanding pressure	1.0MPa	
Material	Housing: TYPE430 stainless steel, Cylinder: Aluminum alloy, Plastic section of air joint: Polyacetal, Metal section of air joint: Nickel-plated brass, Indicator: Polyarylate, Dust boot: NBR, Contact: TYPE304 stainless steel, Cable: PVC	
Weight (with 2-m cable)	Approx.150 g	Approx.180 g

1. Value read at the center of the measuring range at ambient temperature of 73°F(23°C) with the response time set to 100 ms.

2. Value read near the center of the measuring range when the sensor head is installed downward.

3. To ensure you achieve the rating, connect the air tube to the air outlet joint and prevent foreign matter from entering it through the joint.

■ Amplifier

Model	NPN	GT-71A	GT-72A	GT-75A	GT-76A
	PNP	GT-71AP	GT-72AP	GT-75AP	GT-76AP
Mounting method	DIN rail mount 1.			Panel mount	
Main unit/Expansion unit 2.	Main unit		Expansion unit	Main unit	Expansion unit
Power supply voltage 3.	12 to 24 VDC, ripple (P-P) 10% or less				
Power consumption			At 12 V	At 24 V	
	Normal		1140 mW (95 mA) or less	1200 mW (50 mA) or less	
	Power saving (eco)		600 mW (50 mA) or less	840 mW (35 mA) or less	
Display method	Measured value display	6-digit 7-segment LED (red)			
	Other displays	2-color 13-level bar LED display (red, green), indicators (red, green)			
Display range	-99.999 to 999.999				
Display resolution	0.039mm 1 μm				
Sampling rate	2000 times/second				
Main functions	Preset, Hold, Variable hysteresis, Variable response time, Multiplier setting, Bank function (4 banks), Self-timing, Power save (eco) mode, Application mode, Calibration function, Core alarm				
Control input	Timing input	Non-voltage input (relay contact, solid state), input time: 2 ms or more			
	Preset input	Non-voltage input (relay contact, solid state), input time: 20 ms or more			
	Bank input	Non-voltage input (relay contact, solid state), input time: 20 ms or more			
HIGH, GO, LOW output	NPN (PNP) open collector, 50 mA max. (NPN: 40 V or less, PNP: 30 V or less), residual voltage: 1 V or less, N.O./N.C. switchable				
Response time	hsp (1.5 ms), 5 ms, 10 ms, 100 ms, 500 ms, 1 s, 5 s				
Environmental resistance	Ambient temperature	14 to 131°F (-10 to +55°C)			
	Relative humidity	35 to 85% (No condensation)			
	Vibration	10 to 55 Hz, double amplitude: 1.5 mm, 2 hours in each of X, Y, and Z directions			
Materials	Main body case: Polycarbonate, Key top: Polyacetal, Front sheet: Polycarbonate, Cable: PVC				
Weight	GT-71A(P), GT-72A(P): Approx. 110 g (including the power cable) GT-75A(P), GT-76A(P): Approx 110 g (including panel mounting bracket, protective front cover, power cable)				
Accessories	GT-71A(P), GT-72A(P): instruction manual GT-75A(P): Panel mounting bracket, protective front cover, power cable, instruction manual GT-76A(P): Panel mounting bracket, protective front cover, power cable, flat cable for expansion, instruction manual				

- Be sure to mount the DIN rail mounting amplifier on a DIN rail (i.e. the unit should be mounted on the metal DIN plate itself). For additional amplifier unit installation, be sure to use the end unit (OP-26751).
- One main unit and nine expansion units (ten in total) can be additionally installed. For additional amplifier unit installation, each output current must be 20 mA or less.
- If additional amplifier units are installed, the power supply voltage is 24 VDC.

■ Communication unit (common specifications)

Model	DL-RB1	DL-RS1
Type	BCD	RS-232C
Power supply voltage	24 VDC Ripple (P-P) 10% max. (supplied from the connected amplifier)	
Current consumption	20 mA max.	18 mA max.
No. of connectable amplifiers	10 units max. (including the main unit)	
Indicator	Alarm indicator (Red), Power indicator (Green)	Communication status indicator (Green x 2), Alarm indicator (Red), Power indicator (Green)
Environmental resistance	Ambient temperature	14 to 131°F (-10 to +55°C)
	Relative humidity	35 to 85%
	Vibration	10 to 55 Hz, double amplitude: 1.5 mm, 2 hours each in the X, Y and Z axis
Material	Housing: Polycarbonate	
Weight	Approx. 46 g	Approx. 53 g
Accessory	Instruction manual, End unit (2 pcs.), Switch protection sticker, Expansion connector cover	

*Only amplifiers with a model name suffixed with an A can be connected.

■ Communication unit (Communication specifications of DL-RS1)

Model	DL-RS1
Communication method	Full duplex
Synchronization	Start-stop
Transmission code	ASCII
Baud rate	Selectable from 2400, 4800, 9600, 19200, 38400 bps (Factory setting: 9600 bps)
Data length	Selectable from 7 bits or 8 bits (Factory setting: 8 bits)
Parity check	Selectable from none, even, odd (Factory setting: None)
Stop bit length	1 bit
Delimiter	Receive: CR or CR+LF (Automatically recognized) Send: CR+LF (Fixed)

Pin assignment of DL-RB1 (BCD output)

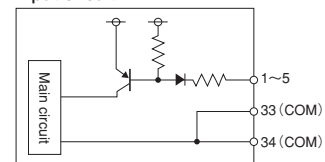
Pin No.	Signal name	Description
1	IDSEL1	ID No. selection input 1
2	IDSEL2	ID No. selection input 2
3	IDSEL3	ID No. selection input 3
4	IDSEL4	ID No. selection input 4
5	DRQ	Data request input
6	BCD DIGIT 1(1)	BCD 1st digit 1 x 10 ⁰
7	BCD DIGIT 1(2)	BCD 1st digit 2 x 10 ⁰
8	BCD DIGIT 1(4)	BCD 1st digit 4 x 10 ⁰
9	BCD DIGIT 1(8)	BCD 1st digit 8 x 10 ⁰
10	BCD DIGIT 2(1)	BCD 2nd digit 1 x 10 ¹
11	BCD DIGIT 2(2)	BCD 2nd digit 2 x 10 ¹
12	BCD DIGIT 2(4)	BCD 2nd digit 4 x 10 ¹
13	BCD DIGIT 2(8)	BCD 2nd digit 8 x 10 ¹
14	BCD DIGIT 3(1)	BCD 3rd digit 1 x 10 ²
15	BCD DIGIT 3(2)	BCD 3rd digit 2 x 10 ²
16	BCD DIGIT 3(4)	BCD 3rd digit 4 x 10 ²
17	BCD DIGIT 3(8)	BCD 3rd digit 8 x 10 ²

Pin No.	Signal name	Description
18	BCD DIGIT 4(1)	BCD 4th digit 1 x 10 ³
19	BCD DIGIT 4(2)	BCD 4th digit 2 x 10 ³
20	BCD DIGIT 4(4)	BCD 4th digit 4 x 10 ³
21	BCD DIGIT 4(8)	BCD 4th digit 8 x 10 ³
22	BCD DIGIT 5(1)	BCD 5th digit 1 x 10 ⁴
23	BCD DIGIT 5(2)	BCD 5th digit 2 x 10 ⁴
24	BCD DIGIT 5(4)	BCD 5th digit 4 x 10 ⁴
25	BCD DIGIT 5(8)	BCD 5th digit 8 x 10 ⁴
26	BCD DIGIT 6(1)	BCD 6th digit 1 x 10 ⁵
27	BCD DIGIT 6(2)	BCD 6th digit 2 x 10 ⁵
28	BCD DIGIT 6(4)	BCD 6th digit 4 x 10 ⁵
29	BCD DIGIT 6(8)	BCD 6th digit 8 x 10 ⁵
30	BCD SIGN	BCD data polarity sign
31	BCD STB	Strobe output
32	ALARM	Alarm output
33	COM	Common
34	COM	Common

I/O circuit diagram

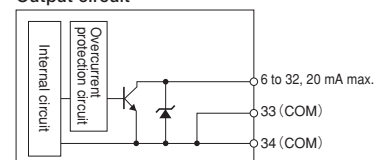
1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30
31	32
33	34

Input circuit



(Short-circuit current: 1 mA max.)

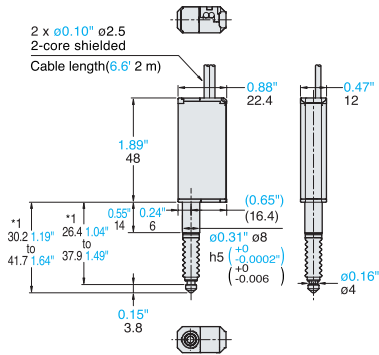
Output circuit



(Short-circuit current: 1 mA max.)

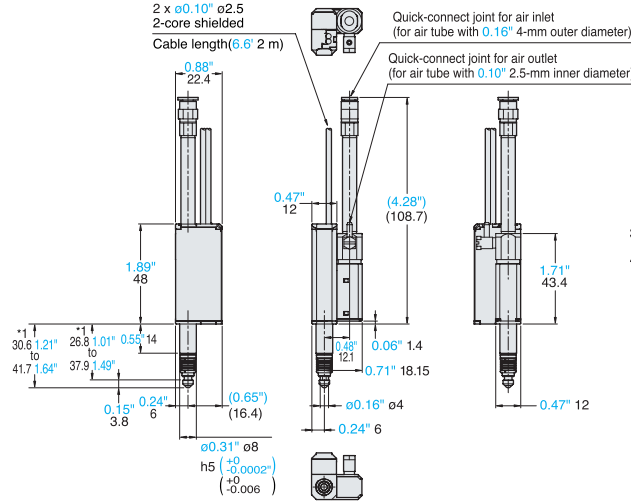
Sensor head

0.39" 10 mm range GT-H10



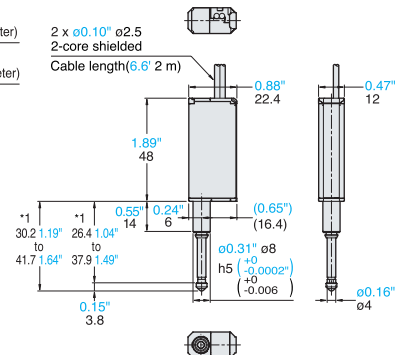
Air push models sensor head

0.39" 10 mm range GT-A10

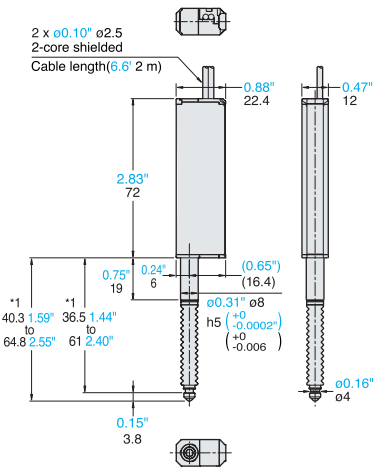


Low-stress sensor head

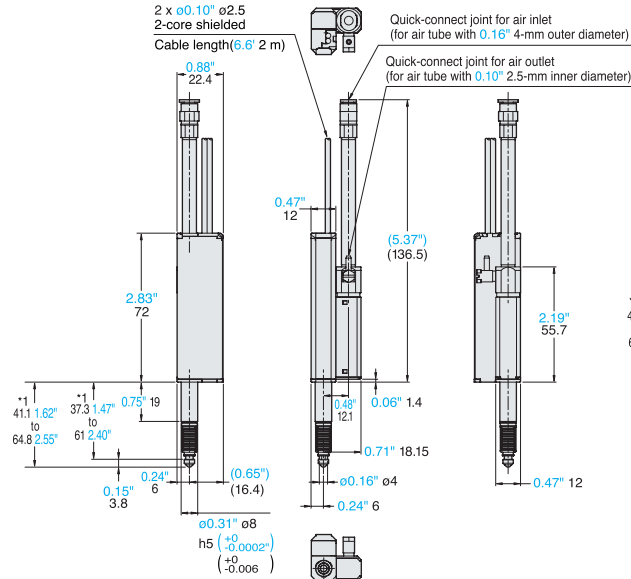
0.39" 10 mm range GT-H10L



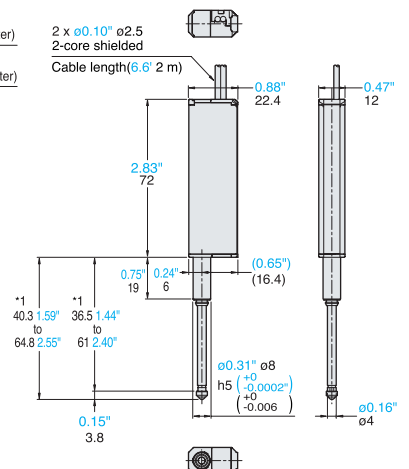
0.87" 22 mm range GT-H22



0.87" 22 mm range GT-A22



0.87" 22 mm range GT-H22L

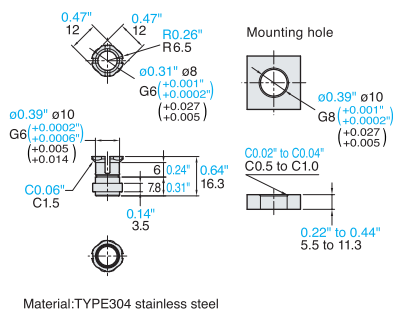


*1 These values indicate the movable range. The sensor head cable cannot be cut or extended.

*1 These values indicate the movable range. The sensor head cable cannot be cut or extended.

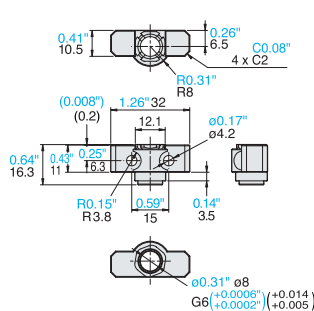
*1 These values indicate the movable range. The sensor head cable cannot be cut or extended.

Head mounting bracket A OP-76874 (Optional)



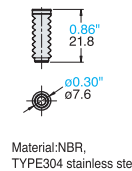
Material:TYPE304 stainless steel

Head mounting bracket B OP-76875 (Optional)



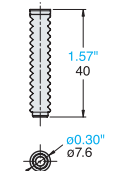
Material:TYPE304 stainless steel, Zinc

Dust boot (Included) OP-78041 (for GT-H10/A22)



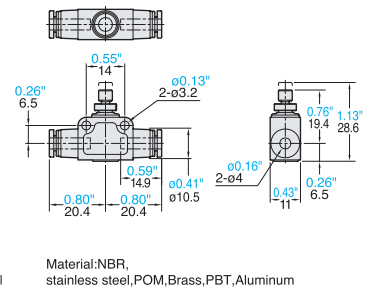
Material:NBR, TYPE304 stainless steel

Dust boot (Included) OP-78042 (for GT-H22/A22)



Material:NBR, TYPE304 stainless steel

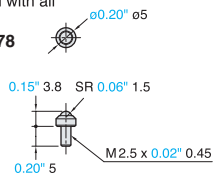
Speed controller (Optional) OP-82133



Material:NBR, stainless steel,POM,Brass,PBT,Aluminum

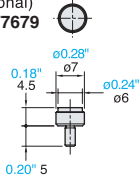
Contact

Standard
(Included with all heads)*
OP-77678



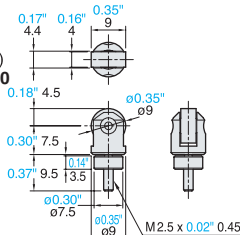
Material:TYPE304 stainless steel,TYPE440C stainless steel
*3 The standard-type contact is attached to a head when shipped.

Flat plate
(Optional)
OP-77679



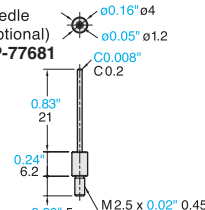
Material:TYPE304 stainless steel
Super-tough tungsten alloy

Roller
(Optional)
OP-77680



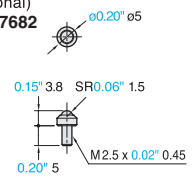
Material:TYPE304 stainless steel
TYPE440C stainless steel

Needle
(Optional)
OP-77681



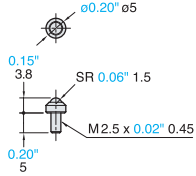
Material:TYPE304 stainless steel
Super-tough tungsten alloy

Super-tough
(Optional)
OP-77682



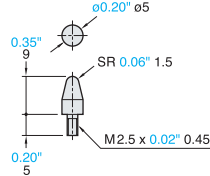
Material:TYPE304 stainless steel
Super-tough tungsten alloy

Ceramic
(Optional)
OP-81970



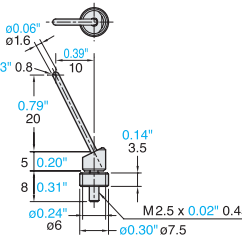
Material:SUS304,Ceramic

Fluorine plastic contact
(Optional)
OP-80228



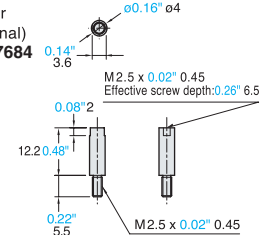
Material: Fluorine plastic (PTFE)

Offset
(Optional)
OP-77683



Material:TYPE304 stainless steel,Super-tough tungsten alloy

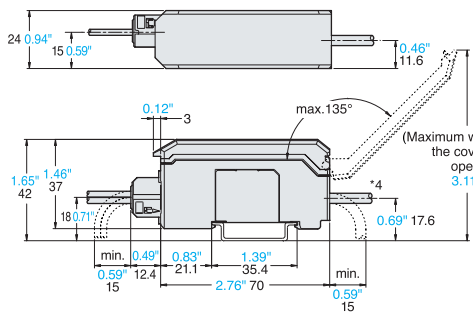
Spacer
(Optional)
OP-77684



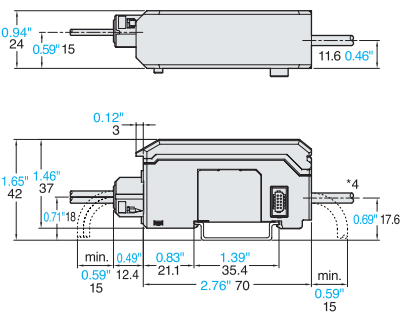
Material:TYPE304 stainless steel

Amplifier unit (DIN rail mount)

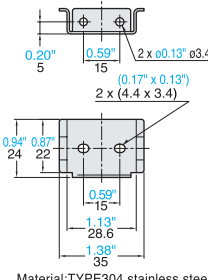
GT-71A/71AP



GT-72A/72AP

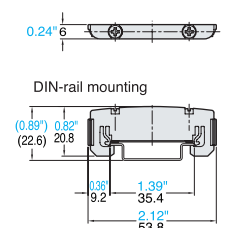


Fixture for fastening the
DIN amplifier
(Optional)
OP-76877



Material:TYPE304 stainless steel

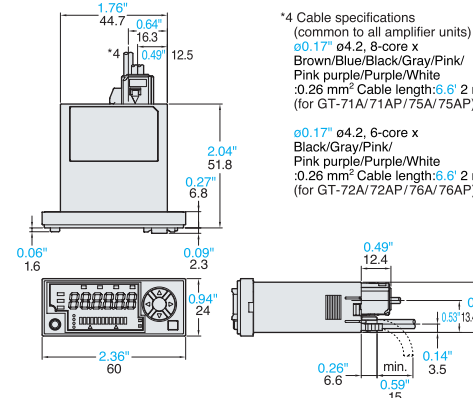
End unit (Optional)(2 per pack)
OP-26751



Material: Polycarbonate, stainless steel

Amplifier unit (Panel mount)

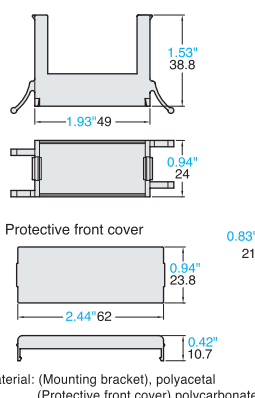
GT-75A/75AP/76A/76AP



*4 Cable specifications
(common to all amplifier units)
ø0.17" ø4.2, 8-core x
Brown/Blue/Black/Gray/Pink/
Pink purple/Purple/White
:0.26 mm² Cable length:6.6' 2 m
(for GT-71A/71AP/75A/75AP)

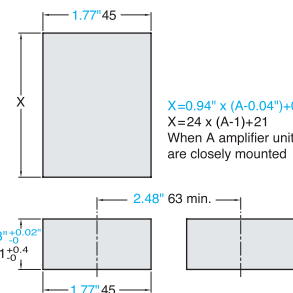
ø0.17" ø4.2, 6-core x
Black/Gray/Pink/
Pink purple/Purple/White
:0.26 mm² Cable length:6.6' 2 m
(for GT-72A/72AP/76A/76AP)

Panel mounting bracket (Accessory)
OP-76876



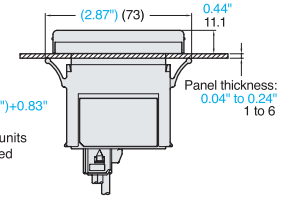
Material: (Mounting bracket), polyacetal
(Protective front cover) polycarbonate

Panel cutout



As for the expansion of the panel mounting type amplifier, connecting the main and expansion units is possible only in the vertical-mounting position. When connecting the units in the horizontal-mounting position, use the main units only.

Panel mounting bracket

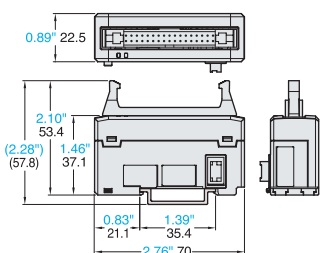


Panel thickness:
0.04" to 0.24"
1 to 6

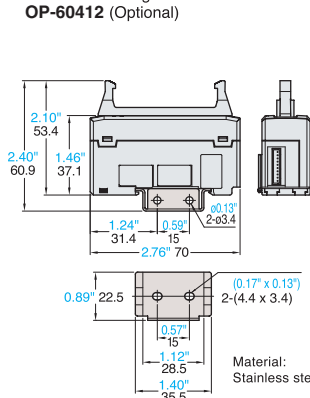
Communication unit

BCD output type **DL-RB1**

When mounted to a DIN-rail



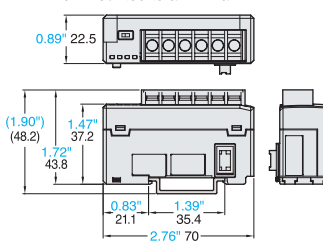
When a mounting bracket is used
OP-60412 (Optional)



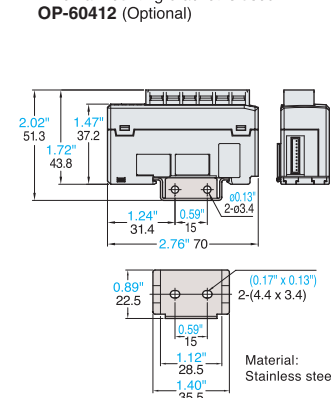
Material:
Stainless steel

RS-232C communication type **DL-RS1**

When mounted to a DIN-rail



When a mounting bracket is used
OP-60412 (Optional)



Material:
Stainless steel

Related products

High-speed, High-accuracy CCD Laser Displacement Sensor LK-G Series



Ultra-high speed

50 kHz

High accuracy

±0.02%

Wide measuring range

0.35" to 39.37" 9 to 1000 mm

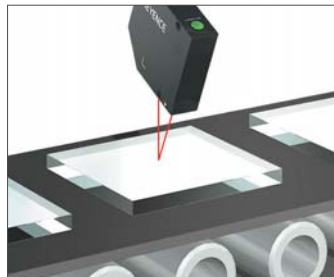
Various types of measuring heads

6 types

Applications



Measuring the thickness of a silicon wafer



Measuring the thickness of a glass plate



Measuring the runout of a disk rotor



Measuring the height of a jet solder bath

Specifications are subject to change without notice.

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