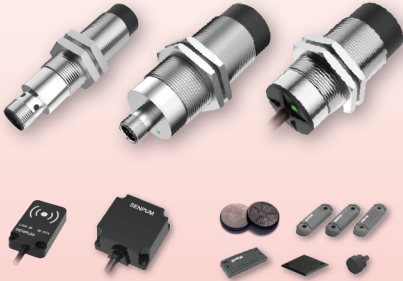
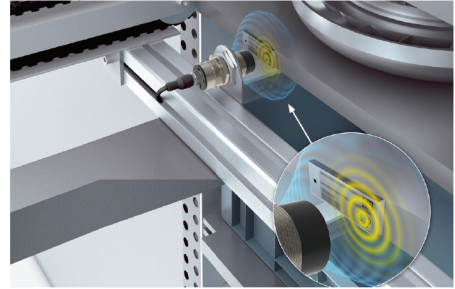


# High-frequency type RFID reader RI-H series



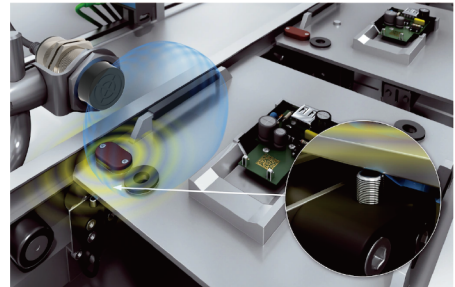
## Metal-resistant and non-metallic IC tags for different application scenarios.

The one-piece design is compact and easy to deploy in distributed installations.



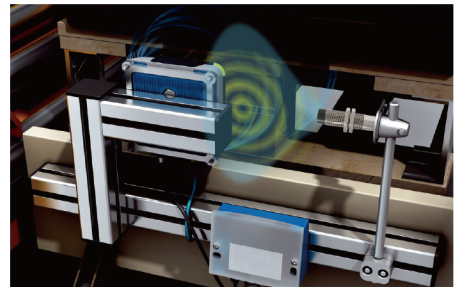
## Support ModbusRTU, ModbusTCP communication protocol.

RFID reader supporting protocol gateway can be through the serial port, network port and the host computer communication.



## Can be widely used in automotive, electronics, logistics, packaging industry

Cylindrical, square and other different shapes and sizes of readers and writers to meet the needs of users for different installation space.



Ask Senpum

**+86-755-83330055**

## Same-Day Delivery

Conventional model     

Most of the products are in stock and can be arranged to be shipped on the same day the order is received. Fast delivery reduces your overhead costs and losses caused by work stoppages.

※ Unconventional goods 3-5 days delivery



WeChat



WhatsApp



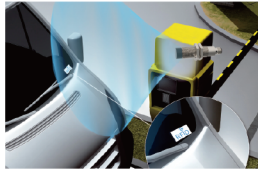
LINE

\* For more product features, please contact SENPUM engineers.

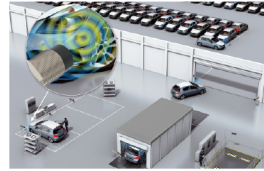
## Application



Identification of workpiece conveyor racks



Non-contact monitoring of railings



Vehicle traceability in production and distribution processes

## Reader Product List

| Type                         |                                                                                   | Appearance                                                                          | Power voltage                                                                     | Communication interface | Model     |
|------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------|-----------|
| High-frequency standard type | Cylindrical                                                                       |    | +12V~+28VDC                                                                       | RS485                   | RI-H18T   |
|                              |                                                                                   |    |                                                                                   |                         | RI-H30T   |
|                              |                                                                                   |    | POE                                                                               | LAN                     | RI-H30PL  |
|                              |  | +12V~+28VDC                                                                         | RI-H30CL                                                                          |                         |           |
|                              | Square type                                                                       |                                                                                     |  | RS485                   | RI-HQ40CT |
|                              |                                                                                   |                                                                                     |  |                         | RI-HQ90T  |
|                              |                                                                                   |    | POE                                                                               | LAN                     | RI-HQ90PL |
|                              |                                                                                   |  | +12V~+28VDC                                                                       |                         | RI-HQ90L  |

## Connecting Cables Product List

| Appearance | Type                        | Network port  | Applicable readers                          | Model                                |
|------------|-----------------------------|---------------|---------------------------------------------|--------------------------------------|
|            | Standard cable (3m)         | Straight type | RI-H18T<br>RI-H30T<br>RI-HQ90T<br>RI-HQ40CT | OW-RI-M12-05-L3000                   |
|            |                             | L type        |                                             | OW-RI-M12L-05-L3000                  |
|            | Network port LAN cable (3m) | Straight type | RI-H30CL<br>RI-HQ90L                        | OW-RI-M12-08-RA-L3000 <sup>*1</sup>  |
|            |                             | L type        |                                             | OW-RI-M12L-08-RA-L3000 <sup>*2</sup> |
|            | Network port POE cable (3m) | Straight type | RI-H30PL<br>RI-HQ90PL                       | OW-RI-M12-08-PA-L3000                |
|            |                             | L type        |                                             | OW-RI-M12L-08-PA-L3000               |

\*When the mesh port cable needs to be extended, the appropriate model of female mesh port cable should be purchased:

| Appearance | Type                        | Network port  | Applicable readers    | Model                  |
|------------|-----------------------------|---------------|-----------------------|------------------------|
|            | Network port LAN cable (3m) | Straight type | RI-H30CL<br>RI-HQ90L  | OW-RI-M12-08-RB-L3000  |
|            |                             | L type        |                       | OW-RI-M12L-08-RB-L3000 |
|            | Network port POE cable (3m) | Straight type | RI-H30PL<br>RI-HQ90PL | OW-RI-M12-08-PB-L3000  |
|            |                             | L type        |                       | OW-RI-M12L-08-PB-L3000 |

Fiber Optic Sensors

Photoelectric Sensors

Color Sensors

Laser Sensors

Inductive Proximity Sensors

Precision Contact Sensors

Area/Safety Light Curtain

Laser Scanners

Digital Contact Sensors

Laser Displacement Sensors

Confocal Displacement Sensors

Barcode Scanners

RFID

Infrared Temperature Sensors

Digital Pressure Sensors

Flow Test Sensors

Gate Magnetic Sensors

Ultrasonic Displacement Sensors

Magnetic Scale

Static Eliminators



# RI-H High-frequency type RFID reader

## Readers Product Specs

### RFID reader

| Model                     | RI-H18T                                   | RI-H30T        | RI-H30PL                                                                                           | RI-H30CL                                                                                           | RI-HQ40CT         | RI-HQ90T                                  | RI-HQ90PL                                                                                          | RI-HQ90L                                                                                           |
|---------------------------|-------------------------------------------|----------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Read distance (mm)*1      | 0~50                                      | 0~80           | 0~70                                                                                               |                                                                                                    |                   | 0~90                                      | 0~110                                                                                              | 0~80                                                                                               |
| Operating frequency       | 13.56MHz                                  |                |                                                                                                    |                                                                                                    |                   |                                           |                                                                                                    |                                                                                                    |
| RF power                  | 23dBm                                     |                |                                                                                                    |                                                                                                    |                   |                                           |                                                                                                    |                                                                                                    |
| Support protocol          | ISO/IEC 15693&ISO 14443A                  |                |                                                                                                    |                                                                                                    |                   |                                           |                                                                                                    |                                                                                                    |
| Power voltage             | +12V~+28VDC                               |                | POE                                                                                                |                                                                                                    | +12V~+28VDC       |                                           | POE                                                                                                | +12V~+28VDC                                                                                        |
| Maximum power consumption | 0.5W                                      | 0.7W           | 1W                                                                                                 |                                                                                                    | 0.7W              | 1W                                        | 1.5W                                                                                               |                                                                                                    |
| Communication interface   | RS485                                     |                | LAN                                                                                                |                                                                                                    | RS485             |                                           | LAN                                                                                                |                                                                                                    |
| Communication protocols   | Modbus RTU                                |                | Modbus TCP                                                                                         |                                                                                                    | Modbus RTU        |                                           | Modbus TCP                                                                                         |                                                                                                    |
| IP class                  | IP67                                      |                |                                                                                                    |                                                                                                    |                   |                                           |                                                                                                    |                                                                                                    |
| Ambient temperature       | -25℃~-65℃                                 |                |                                                                                                    |                                                                                                    |                   |                                           |                                                                                                    |                                                                                                    |
| Material                  | ABS+Nickel-plated copper alloy            |                |                                                                                                    |                                                                                                    | ABS               |                                           |                                                                                                    |                                                                                                    |
| Dimensions(mm)            | Φ18×73.5 (D×L)                            | Φ30×87.5 (D×L) |                                                                                                    | Φ30×76.5 (D×L)                                                                                     | 68×40×13 (L×W×H)  | 90×90×41 (L×W×H)                          |                                                                                                    |                                                                                                    |
| Connection type           | 5-core M12 straight pin                   |                | 8-core M12 straight pin                                                                            |                                                                                                    | 5-core loose wire | 5-core M12 straight pin                   | 8-core M12 straight pin                                                                            |                                                                                                    |
| Cable length              | -                                         |                | 1m                                                                                                 |                                                                                                    | 2m                | -                                         |                                                                                                    |                                                                                                    |
| Cable(option)             | OW-RI-M12-05-L3000<br>OW-RI-M12L-05-L3000 |                | OW-RI-M12-08-PA-L3000<br>OW-RI-M12-08-PB-L3000<br>OW-RI-M12L-08-PA-L3000<br>OW-RI-M12L-08-PB-L3000 | OW-RI-M12-08-RA-L3000<br>OW-RI-M12-08-RB-L3000<br>OW-RI-M12L-08-RA-L3000<br>OW-RI-M12L-08-RB-L3000 | -                 | OW-RI-M12-05-L3000<br>OW-RI-M12L-05-L3000 | OW-RI-M12-08-PA-L3000<br>OW-RI-M12-08-PB-L3000<br>OW-RI-M12L-08-PA-L3000<br>OW-RI-M12L-08-PB-L3000 | OW-RI-M12-08-RA-L3000<br>OW-RI-M12-08-RB-L3000<br>OW-RI-M12L-08-RA-L3000<br>OW-RI-M12L-08-RB-L3000 |
| Weight                    | 50g                                       | 120g           | 135g                                                                                               | 165g                                                                                               | 140g              | 220g                                      | 240g                                                                                               | 230g                                                                                               |

Note: \*1 The reading distance is related to the type of IC tag used.

## IC Label Product Specs

| Model                            | RI-TR8M <sup>*1</sup>                                 | RI-TR8 <sup>*1</sup> | RI-TR10M <sup>*1</sup> | RI-TR10 <sup>*1</sup> | RI-TR20M <sup>*1</sup> | RI-TR20 <sup>*1</sup> |
|----------------------------------|-------------------------------------------------------|----------------------|------------------------|-----------------------|------------------------|-----------------------|
| Metal resistant                  | Metal surface mount                                   | Metal-insensitive    | Metal surface mount    | Metal-insensitive     | Metal surface mount    | Metal-insensitive     |
| Read distance (mm) <sup>*2</sup> | 0~20                                                  |                      |                        |                       | 0~25                   | 0~60                  |
| Wireless protocol                | ISO15693                                              |                      |                        |                       |                        |                       |
| Operating frequency              | 13.56MHz                                              |                      |                        |                       |                        |                       |
| Ambient temperature              | -20℃~+150℃                                            |                      |                        |                       |                        |                       |
| Storage ambient temperature      | -30℃~+200℃                                            |                      |                        |                       |                        |                       |
| Vibration resistance             | 10~55HZ, amplitude 2.0mm, 3 directions, 2 hours each  |                      |                        |                       |                        |                       |
| Shock resistance                 | 500m/s <sup>2</sup> , 3 times in each of 6 directions |                      |                        |                       |                        |                       |
| IP class                         | IP68                                                  |                      |                        |                       |                        |                       |
| Material                         | PPS                                                   |                      |                        |                       |                        |                       |
| Dimensions(mm)                   | Φ8*5 (D×H)                                            |                      | Φ10*4.5 (D×H)          |                       | Φ20*3 (D×H)            |                       |
| Weight                           | Approx.0.5g                                           |                      | Approx.2g              |                       | Approx.1.6g            |                       |

Note: \*1 This label is not applicable to model RI-HQ90<sup>\*</sup>.

\*2 The reading distance of IC tags is related to the type of reader used.

| Model                            | RI-TR25M                                              | RI-TR25           | RI-TR30M                  | RI-TR30           | RI-TR50M                    | RI-TR50           |
|----------------------------------|-------------------------------------------------------|-------------------|---------------------------|-------------------|-----------------------------|-------------------|
| Metal resistant                  | Metal surface mount                                   | Metal-insensitive | Metal surface mount       | Metal-insensitive | Metal surface mount         | Metal-insensitive |
| Read distance (mm) <sup>*1</sup> | 0~25                                                  | 0~70              | 0~25                      | 0~75              | 0~60                        | 0~120             |
| Wireless protocol                | ISO15693                                              |                   |                           |                   |                             |                   |
| Operating frequency              | 13.56MHz                                              |                   |                           |                   |                             |                   |
| Ambient temperature              | -20℃~+150℃                                            |                   |                           |                   |                             |                   |
| Storage ambient temperature      | -30℃~+200℃                                            |                   |                           |                   |                             |                   |
| Vibration resistance             | 10~55HZ, amplitude 2.0mm, 3 directions, 2 hours each  |                   |                           |                   |                             |                   |
| Shock resistance                 | 500m/s <sup>2</sup> , 3 times in each of 6 directions |                   |                           |                   |                             |                   |
| IP class                         | IP68                                                  |                   |                           |                   |                             |                   |
| Material                         | PPS                                                   |                   |                           |                   |                             |                   |
| Dimensions(mm)                   | Φ25*3 ( borehole Φ4 D×H )                             |                   | Φ30*3 ( borehole Φ5 D×H ) |                   | Φ50*3.5 ( borehole Φ5 D×H ) |                   |
| Weight                           | Approx.2g                                             |                   | Approx.3g                 |                   | Approx.13g                  |                   |

Note: \*1 The reading distance of IC tags is related to the type of reader used.



## IC Label Product Specs

| Model                       | RI-TQ69M                                             | RI-TQ69           | RI-TQ40M            | RI-TQ40           | RI-TQ88M                       | RI-TQ88           |
|-----------------------------|------------------------------------------------------|-------------------|---------------------|-------------------|--------------------------------|-------------------|
| Metal resistant             | Metal surface mount                                  | Metal-insensitive | Metal surface mount | Metal-insensitive | Metal surface mount            | Metal-insensitive |
| Read distance (mm)*1        | 0~45                                                 | 0~75              | 0~30                | 0~40              | 0~60                           | 0~90              |
| Wireless protocol           | ISO15693                                             |                   |                     |                   |                                |                   |
| Operating frequency         | 13.56MHz                                             |                   |                     |                   |                                |                   |
| Ambient temperature         | -20℃~-+70℃                                           |                   | -30℃~-+150℃         |                   | -10℃~-+65℃                     |                   |
| Storage ambient temperature | -30℃~-+200℃                                          |                   | -50℃~-+200℃         |                   | -20℃~-+75℃                     |                   |
| Vibration resistance        | 10~55HZ, amplitude 2.0mm, 3 directions, 2 hours each |                   |                     |                   |                                |                   |
| Shock resistance            | 500m/s², 3 times in each of 6 directions             |                   |                     |                   |                                |                   |
| IP class                    | IP68                                                 |                   |                     |                   | IP66                           |                   |
| Material                    | PPS                                                  |                   |                     |                   | Modified ABS                   |                   |
| Dimensions(mm)              | 69*20*8 ( L×W×H )                                    |                   | 40*12*5 ( L×W×H )   |                   | 88*22*12 ( borehole Φ5 L×W×H ) |                   |
| Weight                      | Approx. 12.5g                                        |                   | Approx. 3g          |                   | Approx. 25g                    |                   |

Note: \*1 The reading distance of IC tags is related to the type of reader used.

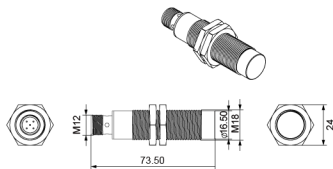
| Model                       | RI-TQ79M                                             | RI-TQ79           | RI-TQ25M                      | RI-TQ25           | RI-TM5M              | - |
|-----------------------------|------------------------------------------------------|-------------------|-------------------------------|-------------------|----------------------|---|
| Metal resistant             | Metal surface mount                                  | Metal-insensitive | Metal surface mount           | Metal-insensitive | Metal surface mount  | - |
| Read distance (mm)*         | 0~8                                                  |                   | 0~40                          | 0~60              | 0~50                 | - |
| Wireless protocol           | ISO15693                                             |                   |                               |                   |                      |   |
| Operating frequency         | 13.56MHz                                             |                   |                               |                   |                      |   |
| Ambient temperature         | -10℃~+65℃                                            |                   | -25℃~+100℃                    |                   | -10℃~+65℃            |   |
| Storage ambient temperature | -20℃~+75℃                                            |                   | -40℃~+200℃                    |                   | -20℃~+75℃            |   |
| Vibration resistance        | 10~55HZ, amplitude 2.0mm, 3 directions, 2 hours each |                   |                               |                   |                      |   |
| Shock resistance            | 500m/s², 3 times in each of 6 directions             |                   |                               |                   |                      |   |
| IP class                    | IP65                                                 |                   | IP68                          |                   |                      |   |
| Material                    | Modified ABS                                         |                   | PPS                           |                   | Modified ABS         |   |
| Dimensions(mm)              | 79*31*10 ( L×W×H )                                   |                   | 25*25*4 ( borehole Φ5 L×W×H ) |                   | M5*18.5*15 ( L×W×H ) |   |
| Weight                      | Approx. 22.5g                                        |                   | Approx. 2.7g                  |                   | Approx. 5g           |   |

Note: \*1 The reading distance of IC tags is related to the type of reader used.

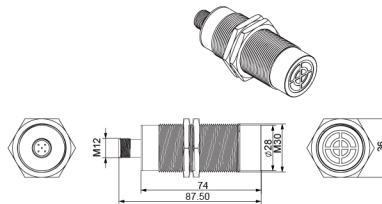
## Reader Dimensional Specifications

Unit: mm

RI-H18T



RI-30T / RI-H30PL



Fiber Optic Sensors

Photoelectric Sensors

Color Sensors

Laser Sensors

Inductive Proximity Sensors

Precision Contact Sensors

Area/Safety Light Curtain

Laser Scanners

Digital Contact Sensors

Laser Displacement Sensors

Confocal Displacement Sensors

Barcode Scanners

RFID

Infrared Temperature Sensors

Digital Pressure Sensors

Flow Test Sensors

Gate Magnetic Sensors

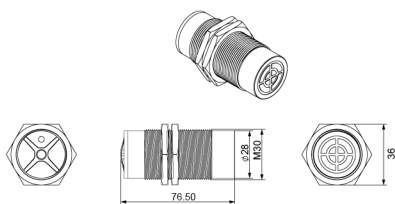
Ultrasonic Displacement Sensors

Magnetic Scale

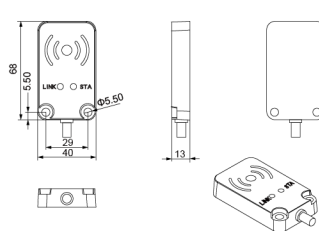
Static Eliminators



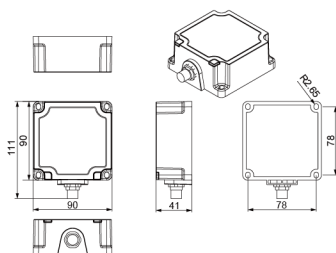
RI-H30CL



RI-HQ40CT



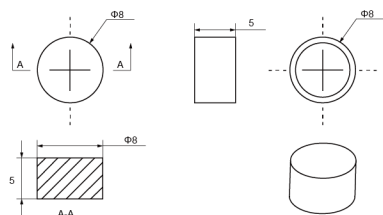
RI-HQ90T / RI-HQ90PL / RI-HQ90L



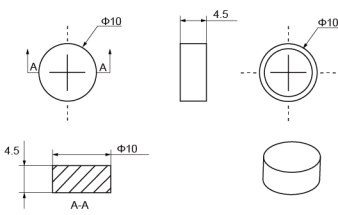
## IC Label Dimensional Specifications

Unit: mm

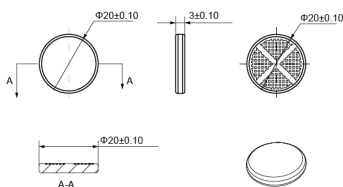
RI-TR8M / RI-TR8



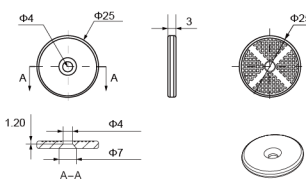
RI-TR10M / RI-TR10



RI-TR20M / RI-TR20



RI-TR25M / RI-TR25



Fiber Optic Sensors

Photoelectric Sensors

Color Sensors

Laser Sensors

Inductive Proximity  
SensorsPrecision Contact  
SensorsArea/Safety Light  
Curtain

Laser Scanners

Digital Contact Sensors

Laser Displacement  
SensorsConfocal Displacement  
Sensors

Barcode Scanners

RFID

Infrared Temperature  
SensorsDigital Pressure  
Sensors

Flow Test Sensors

Gate Magnetic Sensors

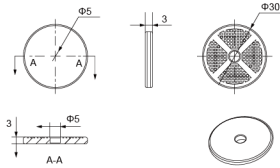
Ultrasonic  
Displacement Sensors

Magnetic Scale

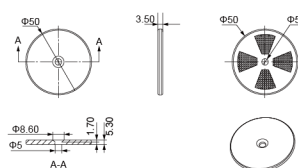
Static Eliminators



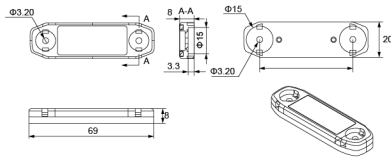
RI-TR30M / RI-TR30



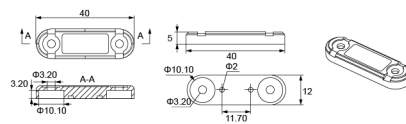
RI-TR50M / RI-TR50



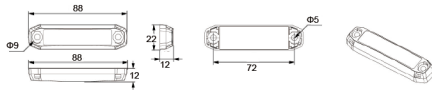
RI-TQ69M / RI-TQ69



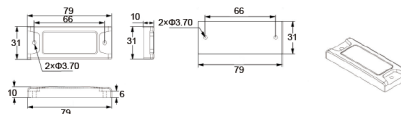
RI-TQ40M / RI-TQ40



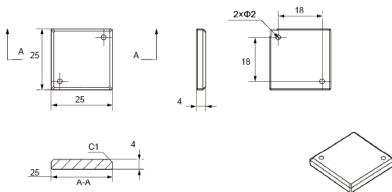
RI-TQ88M / RI-TQ88



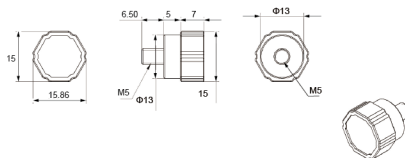
RI-TQ79M / RI-TQ79



RI-TQ25M / RI-TQ25



RI-TM5M



Fiber Optic Sensors  
Photoelectric Sensors  
Color Sensors  
Laser Sensors  
Inductive Proximity Sensors  
Precision Contact Sensors  
Area/Safety Light Curtain  
Laser Scanners  
Digital Contact Sensors  
Laser Displacement Sensors  
Confocal Displacement Sensors  
Barcode Scanners

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Magnetic Scale  
Static Eliminators

