Aquaman ™

Aquaman

REMOTE MONITORING SOLUTIONS

LIQUID & WATER
LEAKAGE ALARM SYSTEM

Web-based Monitoring And
Alarm Notification

RELIABLE
FLEXIBLE
AFFORDABLE

Aquaman
Liquid Leakage Alarm System

Liquid & Water Sensing Cable

Description

The Aquaman AQM-W101 Liquid and Water Sensing Cable is used to detect the presence of water or any conductive fluid. The sensing cable is durable, easy to clean, fast drying, and able to resist damage from most contaminants. The cable's abrasion-resistant polymer core increases its strength and durability. The cable is constructed with conductive polymer and covered with insulating mesh to eliminate the chance of false alarms due to short circuit with metal objects. AQM-W101 Liquid and Water Sensing Cable is available in modular forms with pre-installed connectors with four different lengths, 5m, 10m, 15m and 30m.

Specification

Key Feature:

· Durable
· Easy to clean
· Fast drying
· Helps eliminate false alarms
· Able to resist damage from most contaminants
· Highly flexible - resists bends and kinds
· Quick, simple installation and easy system expansion
· Lies flat after installation
· Non-conductive polymer construction
· Thermally bonded polymer-coated carrier
· Available in standard and custom lengths with pre-installed end connectors

Sheer Strength:
>180lbs. (81kg)

Cut Through Resistance:
>180kg with 0.127mm blade

Abrasion Resistance :
60 cycles

Operating Environment: Temperature :
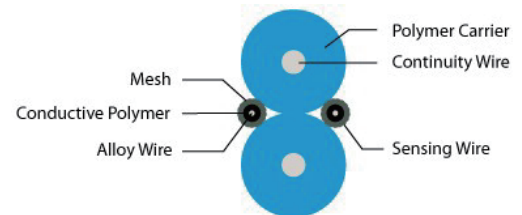0℃ - 75℃
Humidity: 5 - 95% RH, non-condensing

Certifications :
RoHs compliant
CE

Cable Diameter :
<6.35 mm

Cable Weight :
29.74 g/m

Cable Color :
Blue

Connector :
Black Plastic

Package Contents
Liquid and Water Sensing Cable CE RoHS

Liquid and Water Sensing Cable, 5m · · · · · · · · · · · · · · AQM-W101-5M
Liquid and Water Sensing Cable, 10m · · · · · · · · · · · · · · AQM-W101-10M
Liquid and Water Sensing Cable, 15m · · · · · · · · · · · · · · AQM-W101-15M
Liquid and Water Sensing Cable, 30m · · · · · · · · · · · · · · AQM-W101-30M

Liquid & Water Sensing Cable

Description

The Aquaman AQM-W111 Liquid & Water Sensing Cable is used to detect the presence of water, mild acid or mild alkaline at any point along its length. Installed with Aquaman Leakage Alarm System, the cables senses liquid leakage and triggers alarm. The cable is small, lightweight and flexible, allowing easy installation AQM-W111 Liquid & Water Sensing Cable is available in modular forms with factory pre-molded connectors of three different lengths: 5m, 10m and 15m.

Specifications

Model :
AQM-W111

Cable Diameter :
6.0mm nominal

Cable Weight :
<30 g/m

Cable Color :
Blue

Connector :
Black Plastic

Tensile Strength :
>30 kg

Certifications :
RoHs
CE

Insulation Impedance:
≥ 7M Ω, DC 100V

Working Conditions :
Temperature: 0°C ~ 60°C
Humidity: 5%~95% (Non-condensing)

Package Contents
Liquid & Water Sensing Cable

Spot Type Liquid & Water Leakage Detector

Description

The Aquaman AQM-215 Spot Type Liquid & Water Leakage Detector is used to detect the presence of liquid on horizontal surface. High Voltage and Current Rating of the Dry Contract Relay Output allow AQM-215 Spot Type Liquid & Water Leakage Detector to control electrial solenoid water valve directly. Green LED indicates the power of the device is on while Blinking Red LED indicates the detection of liquid.

Package Contents

Spot Type Liquid & Water Leakage Detector

CE

Specifications

Dimensions:
57 x 47 x 39mm
(without the sensing probes)

Weight:
125g

Housing:
Grey plastic

Power Requirement:
12-24V DC

Maximum Current Consumption:
65mA

Output:
Normally energized relay, Dry contact output
(Normally Closed / Normally Open)

Maximum Output Power Rating:
250V AC, 1A

Recognition Time:
5 Seconds

Sensing Probes:
~ Package comes with a pair of "L" shape conductive electriode probes which can be setip into two different detection height levels by different orientation.

~ Can be replaced with most of the water sensing cables in the market.

Compatibility:
All Aquaman models or standalone

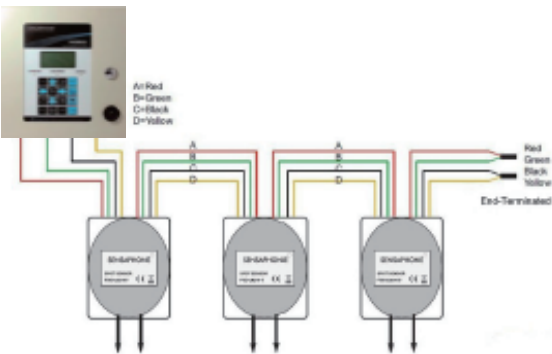Spot Type Liquid & Water Leakage Detector AQM-W215

Spot Type Liquid & Water Leakage Detector

Description

The Aquaman AQM-W216 Spot Type Liquid & Water Leakage Detector is used to detect the presence of liquid on horizontal surface. Multiple detectors can be connected in series.

AQM-W8000 Locating Liquid & Water Leakage Alarm Panel

Package Contents

Spot Type Liquid & Water Leakage Detector

CE

Specifications

Dimensions:
57 x 47 x 39mm
(without the sensing probes)

Weight:
50 g

Housing:
Grey plastic

Sensing Probes:
~ Package comes with a pair of "L" shape conductive electrode probes which can be setip into two different detection height levels by different orientation.

~Can be replaces with most of the water sensing cables in the market.

Compatibility:
AQM-W8500, AQM-W8000

Spot Type Liquid & Water Leakage Detector

Equivalent to 5m Cable Length AQM-W216-5
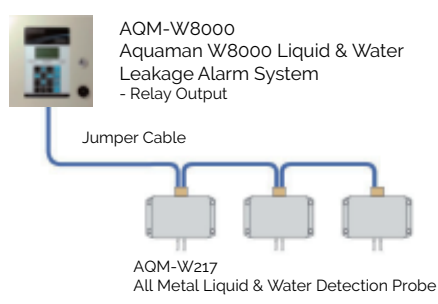Equivalent to 10m Cable Length AQM-W216-10

All Metal Liquid & Water Detection Probe

The diagram below shown a typical system configurations when using AQM-W217:

AQM-W8000
Aquaman W8000 Liquid & Water Leakage Alarm System
- Relay Output

Jumper Cable

AQM-W217
All Metal Liquid & Water Detection Probe

Package Contents

All Metal Liquid & Water Detection Probe

CE

Description

The Aquaman AQM-W217 All Metal Liquid & Water Detection Probe is designed because of fire-rated consideration. It allows the monitoring for leaks in area where sensing cables would be difficult to install either because of the harsh operating environment in which detection is required, or the impracticality of installing lengths of sensing cable in vulnerable areas.

AQM-W217 has been designed for use with any of the Aquaman Liquid & Water Leakage Alarm System and has an equivalent cable length of 15m.

Specifications

Dimensions:
148L x 115W x 34H mm
(plus Probe Tip length)

Probe Length:
25mm

Probe Height above Mounting Surface:
~ 1mm

Optional Conduit Support - Flexible Conduit Connector:
Material: Natural Brass
Hole Diameter: 20mm

Housing:
Diecast Aluminum Alloy 380

Probe with Sleeving:
363 Stainless Steel
Heat Treated Fiberglass Sleeving

Modular Leader Cable

Description

The Aquaman AQM-W301 Modular Leader Cable is provide with sensing cable connector on one end, with the other end ready for connection on the wire terminal of the Liquid Leakage Alarm System.

Package Contents

Modular Leader Cable

CE

Specifications

Connector:
Black Plastic

Wires:
4x21 AWG Conductors

Cable Length:
5m

Isolation Resistance:
>20MΩ

Conductor Resistance:
<42 Ω per km

Modular Jumper Cable

Description

The Aquaman AQM-W302 Modular Jumper Cable is cable used for interconnection between separated sections of Aquaman Liquid & Water Sensing Cable. AQM-W302 Modular Jumper Cable is available in modular forms with pre-installed connectors with four different lengths, 5m, 10m, 15m and 30m.

Package Contents

Modular Jumper Cable

CE

Specifications

Connector:
Black Plastic

Wires:
4x21 AWG Conductors

Isolation Resistance:
>20MΩ

Conductor Resistance:
<42 Ω per km

Modular End Termination

Description

The Aquaman AQM-W303 Modular End Termination is required at end of each Aquaman sensor circuit and each sensor branch circuit.

Package Contents

Modular End Termination

CE

Specifications

Connector:
Black Plastic

Modular End Termination AQM-W303

Branch Connection Box

Description

The Aquaman AQM-W304 Branch Connection Box adds simulated length of 5 meters (17 feet) on each branch when wired in series to make clear divisions between areas.

The 4 core jumper cables are connected directly into the terminal connectors within the IP65 housing.

The diagram belwo two typical system configurations when using the AQM-W304:

Specifications

Dimensions:
100 x 80 x 50mm

Housing:
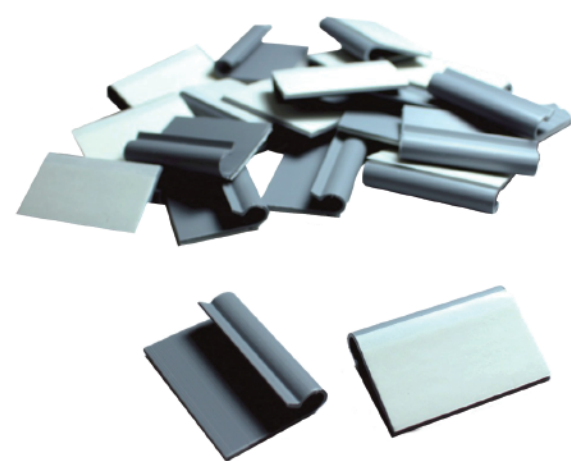White Plastic

Package Contents

Branch Connection Box

CE

Branch Connecting Box . . . . AQM W304

Hold Down Clips with Adhesive Foam Tape

Description

The Aquaman AQM-W305 Hold Down Clips are plastic cable clips with adhesive foam tape that can be attached to floors or other surfaces.

Specifications

Plastic Clips
Grey Plastic

Package Contents

Hold Down Clips
(1 bag of 50 pcs)

MADE IN THE
USA

Hold Down Clips with Adhesive Foam Tape AQM-W305

Identification Tags for Sensing Cable
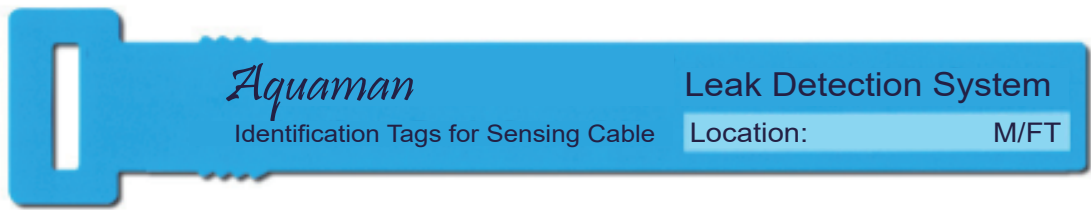
Description

The Aquaman AQM-W306 Identification Tags for Sensing Cable are plastic tags that can be attached to sensing cables or other components to identify them in the Leak Detection System. The mapping distance can be written on the tag which helps identifying the leak location.

Package Contents

Identification Tags
(1 bag of 50 pcs)

CE

Specifications

Dimensions:
197 x 38mm

Plastic Tags:
Blue Plastic

Modular Leader Cable

Description

The Aquaman AQM-W311 Modular Leader Cable is provide with sensing cable connector on one end, with other end ready for connection to wire terminal ofthe Liquid & Water Alarm System.

Specifications

Connector:
Black Plastic

Wires:
4x24 AWG Conductors

Cable Length:
5m

Isolation Resistance:
>20M Ω

Conductor Resistance:
<42Ω per km

Package Contents

Modular Leader Cable

CE

Modular leader Cable, 5m AQM-W311

Aquaman
Liquid Leakage Alarm System

PRODUCT DIMENSIONS
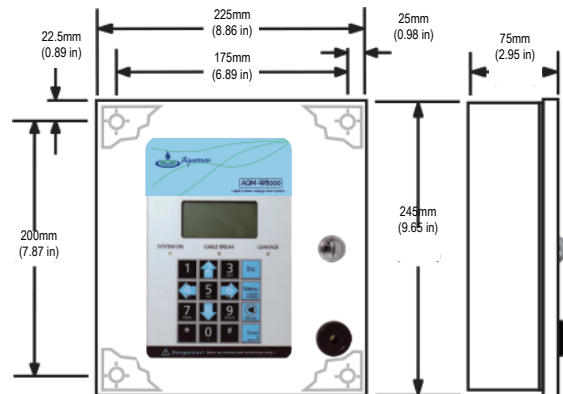
SPECIFICATOINS

INPUTS:

- 2 Input Channels
- Cable measured in Meter/Feet
- Max Length of Cable is 200m/650 feet
- Adjustable Sensitivity, ranging from 000-999μA
- Cable Resistance ranging
  from 00.00-99.99 ohm/meter

OUTPUTS:

- 4 Relay Outputs (1A - 120VAC, 1A - 24VDC)
  - Normally Closed/Normally Open
- Switched when Leakage, Cable Break or
  Fault occurs

LOCAL INDICATORS:

- LED
  - Power On (Green)
  - Cable Break (Orange)
  - Leakage (Red)
- 90dB Buzzer as audible alarm indicator

PANEL FEATURES:

- LCD Display (128 x 64 pixels with backlight)
- Panel Language available in English or Chinese
- With Key Pad (4 x4, 16 buttons) and Mute Button
- Built-in Web Server and Real Time Clock
- Power On Self Test
- Able to locate Point of Leakage
- Support Wall Mounting Installation
- Password Protection

COMMUNICATION PORTS:

- RJ-45 Port
- Connection via UTP Cable

WEB SERVER:

- Support the following Browser in English
  and Chinese: Interner Explorer 8, Firefox 4,
  Safari 5, Chrome 5 or above
- Support DHCP and Static IP Address
- Real-time Status (Auto update)
- Sending Email Alert to 4 Contacts via External SMTP
  Server
- Event Logging with 4,000 Entries
  (All samples include time stamp and date)
- Event Log Export available in XML and HTML format
- Password Protection

POWER REQUIREMENTS:

- 12V ± 15 %
- Connection via wire Terminal
- Max Power Consumption is 5.4W
- Optional Backup Battery (7.2VDC, Ni-MH)

Web Based Monitoring & Alarm Notification

Aquaman AQM-W8000 panel has 2 Input Channels and can monitor up to 200m sensing cable per channer. Liquid and Water Sensing Cable can be attached to expand the liquid leak detection capabilities throughout the facility.

AQM-W8000 provides real-time status of the site throught the Internet (TCP/IP). It also sends alarm messages to users via e-mail. Audible and visual alarm are integrated into AQM-W8000 to indicate the status locally.

WEB STATUS:

Live status and history is only a webpage away. The AQM-W8000 built in web server provides quick and easy infomation about your monitored conditions. Even time stamped history reports are readily available online.

WEB PROGRAMMING:

Built in web server for easy access to programming and status. Just point your browser to the AQM-W8000'swebpage and fill in the blanks for a quick configuration.

MULTIPLE ALARM NOTIFICATION:

When monitored conditions detect any liquid or water leakge, the AQM-W8000 will notify you immediately by sending out email alarm messages. You can also view the status of the monitored conditions at the local panel or at the AQM-W8000's webpage.

Summary	History	Setup	Email	Relay	

Unit Name: AQM-W8000
Location: Building A
Description: Office

History

Date	Time	Channel	Event
04/20/2011	17:03:21	CH.2	Cable Break
04/20/2011	11:16:38	CH.2	Return Normal (Mail Sent)
04/20/2011	11:16:32	CH.2	Leak 20m (Mail Sent)
04/20/2011	11:05:16	CH.2	Return Normal (Mail Sent)
04/20/2011	11:05:11	CH.2	Leak 20m (Mail Sent)
04/20/2011	11:04:41	CH.2	Return Normal (Mail Sent)
04/20/2011	11:04:36	CH.2	Leak 18m (Mail Sent)
04/19/2011	15:38:31	CH.2	Return Normal
04/19/2011	15:38:25	CH.2	Leak 20m
04/19/2011	15:38:10	CH.1	Return Normal
04/19/2011	15:38:04	CH.1	Leak 0m
04/19/2011	15:27:40	CH.1	Return Normal (Mail Sent)
04/19/2011	15:16:18	CH.1	Leak 0m (Mail Sent)
04/19/2011	15:16:18	CH.1	Return Normal (Mail Sent)

ALARM HISTORY:

The AQM-W8000 can log up to 4,000 entries of Leak and Cable Break Alarm History. The eventlog history can export to XML or HTML files for data analysis.

MULTIPLE LANGUAGE LCD DISPLAY:

The AQM-W8000 can have the LCD display either in English or in Simplified Chinese.

2 CHANNELS, 4 RELAYS:

Two input channels can be connected to a liquid & water sensing cable or a zone type water leakage detector. Four dry contact relay outputs are available.

OPTIONAL BATTERY BACKUP:

With the battery backup, the AQM-W8000 can stay operational for two full hours while the power is out.

TYPICAL APPLICATIONS

- Web Status
- Programming

Aquaman AQM-W8000
Liquid & Water Leakage
Alarm System

-Buzzer Alarm

AQM-W8500
Aquaman AQM-W8500
Zone Type Liquid & Water
Leakage Alarm System

Email Notificaton

Internet

AQM-W301
Leader Cable

AQM-W101-15
15M Liquid & Water Sensing Cable

AQM-W303
End Termination

AQM-W8500
Aquaman AQM-W8500
Zone Type Liquid & Water
Leakage Alarm System

AQM-W301
Leader Cable

AQM-W101-15
15M Liquid & Water Sensing Cable

AQM-W303
End Termination

AQM-W301
Leader Cable

AQM-W101-15
15M Liquid & Water Sensing Cable

AQM-W303
End Termination

4-wire Network

4-wire Network

ACCESSORIES

ZONE TYPE LIQUID & WATER ALARM SYSTEM:

• Aquaman AQM-W8500 .... AQM-W8500

SENSING CABLE:

• Liquid & Water Sensing Cable, 5m AQM-W101-5M
• Liquid & Water Sensing Cable, 10m AQM-W101-10M
• Liquid & Water Sensing Cable, 15m AQM-W101-15M
• Liquid & Water Sensing Cable, 30m AQM-W101-30M

SYSTEM COMPONENTS:

• Modular Leader Cable, 5m AQM-W301
• Modular Jumper Cable, 5m AQM-W302-5M
• Modular Jumper Cable, 10m AQM-W302-10M
• Modular Jumper Cable, 15m AQM-W302-15M
• Modular Jumper Cable, 30m AQM-W302-30M
• Modular End Termination AQM-W303
• Modular Branch Connector AQM-W304
• Hold Down Clips with Adhesive Backs AQM-W305
• Identification Tags for Sensing Cable AQM-W306
• Testing Tool for Sensing Cable AQM-W307

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Zone Type Liquid & Water Leakage Alarm System

Aquaman AQM-W8500 panel can be used for the leak protection of server rooms / technical services areas. Main application areas including: underfloor chilled water pipe, overhead fan coil units, hot water radiator units, sump tanks, drip trays, etc.

The system allows immediate detection of conductive (water acid or alkaline) or non-conductive (hydrocarbon fuel or organic solvent) by applying different type of liquid sensing cables.

LOCAL INDICATORS:
Audible alert and LED visual indicators are available during an alarm to notify users the monitored conditions.

2 RELAY OUTPUTS:
Two relay outputs are available, the leakage relay andthe fault relay (power failure and cable break)

SAFE OPERATIONS:
AQM-W8500 has plenty of space for wiring inside the plastic enclosure, no connection exposes to the outside environment, this promotes safe operation and a tidy environment.

SIMPLE AND USER FRIENDLY:
Simple wiring equipped with tactile button to provide users a better hands on experience.

TYPICAL APPLICATIONS

AQM-W8500
Aquaman W8500 Zone type
Liquid & Water Leakage Alarm System

AQM-W8500
Aquaman W8500 Zone type
Liquid & Water Leakage Alarm System

AQM-W101-15M
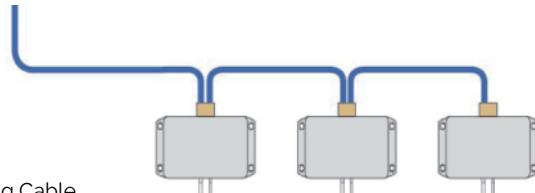Aquaman W8500 Zone Type
15M Liquid & WaterSensing Cable

AQM-W216
Sport Type Liquid & Water
Leakage Detector

AQM-W101-15M
15M Liquid & WaterSensing Cable

AQM-W217
All Metal Liquid & Water Detection Proble

4-Wire Network

SPECIFICATIONS

INPUTS:
- Single Input Channel
  - Liquid Sensing Cable
  - Spot Sensor
- Adjustable Sensitivity

OUTPUTS:
- 2 Relay Outputs
  - Leakage Relay (Form C)
  - Fault Relay (Form C)

LOCAL INDICATORS:
- LED
  - Power On (Green)
  - Cable Break (Orange)
  - Leakage (Red)
- Buzzer as audible alarm indicator, with Silent Switch

PANEL FEATURES:
- Comes in an ABS Enclosure
- Dimension of panel is 125mm x 165mm x 75mm
  (Excluding Cable Gland)
- Weight of panel is 550g
- With Mute / Acknowledgement Button and
  Leakage Relay Reset Button
- Support Wall Mounting Installation

POWER REQUIREMENTS:
- 110/220VAC, 50/60Hz, Single Phase
  or 12-24 V AC/DC
- Connection via Wire Terminal
- Max Power Consumption is 2W

ACCESSORIES

SENSING CABLE:
Modular Liquid & Water Sensing Cable AQM-W111

SYSTEM COMPONENTS:
Modular Branch Connector AQM-W304
Hold Down Clips with Adhesive Backs AQM-W305
Identification Tags for Sensing Cable AQM-W306
Testing Too for Sensing Cable AQM-W307

SPOT TYPE WATER LEAKAGE DETECTOR:
Sport Type Liquid & Water Leakage Detector .. AQM-W216
All Metal Liquid & Water Detection Probe AQM-W217

*Photos are for reference only.
*Specifications subject to change without notice.

Panels, Cables and Accessories

Aquaman AQM-W8000

Master Panel - Liquid Leakage Alarm System with a web-based platform.

AQM-W8000

Aquaman AQM-W8500

Zone Type Liquid Leakage Alarm System.

AQM-W8500

Liquid & Water Sensing Cable

Able to detect the presence of water or any conductive liquid.

AQM-W101-5M, Liquid & Water Sensing Cable
AQM-W101-10M, Liquid & Water Sensing Cable
AQM-W101-15M, Liquid & Water Sensing Cable
AQM-W101-30M, Liquid & Water Sensing Cable

Spot Type Liquid & Water Leakage Detector

Can be used standalone to detect the presence of liquid on a horizotal surface.

AQM-W215, Spot Type Liquid & Water Leakage Detector

Liquid & Water Sensing Cable

Able to detect the presence of water or any conductive liquid.

AQM-W111, Liquid & Water Sensing Cable

Spot Type Liquid & Water Leakage Detector

Multiple detectors can be connected in series to detect the presence of liquid on a horizontal surface.

AQM-W216-5, Spot Type Liquid & Water Leakage Detector
(Equivalent to 5m Cable Length)
AQM-W216-10, Spot Type Liquid & Water Leakage Detector
(Equivalent to 10m Cable Length)

All Metal Liquid & Water Detection Probe

Designed of fire-rated consideration.

AQM-W217, All Metal Liquid & Water Detection Probe

Modular Leader Cable

Used for interconnecting between sensing cable and wire terminal of the liquid leakage alarm system.

AQM-W301, Modular Leader Cable, 5m

Modular Jumper Cable

Used for interconnecting between separated sections of liquid sensing cable.

AQM-W302-5M, Modular Jumper Cable, 5m
AQM-W302-10M, Modular Jumper Cable, 10m
AQM-W302-15M, Modular Jumper Cable, 15m
AQM-W302-30M, Modular Jumper Cable, 30m

Modular End Termination

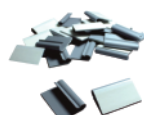Used at the end of each sensor circuit and each branch circuit.

AQM-W303, Modular End Termination

Branch Connecting Box

Used to add a simulated length of 5 meters on each branch when wird in series to make clear divisions between areas.

AQM-W-304, Branch Connecting Box

Hold Down Clips with Adhesive Foam Tape

Used to attach liquid sensing cable to floors or other surfaces.

AQM-W305, Hold Down Clips with Adhesive Foam Tape.

Identification Tags for Sensing Cable

Used to attach to sensing cables or other components. The mapping distance can be written on the tag which helps identifying the leak location.

AQM-W306, Identification Tags for Sensing Cable

Modular Leader Cable

Used for interconnecting between sensing cable and wire terminal of the liquid leakage alarm system.

AQM-W311, Modular Leader Cable, 5m

Specification Subject to change without notice.