HydroMet

User Manual

Breakaway Kit

KISTERS
Empowering decisions of tomorrow

05-2026 – 01-02-002

Table of Contents

I	Disclaimer	3
II	Scope of Delivery	4
III	Safety Instructions	5
Part I	Introduction	6
Part II	Installation	8
Part III	Operation	11
Part IV	Repair	12
Part V	Obligations of the Operator and Disposal	13
5.1	Obligations of the Operator	13
5.2	Dismantling / Disposal	13

© 2026 | KISTERS

I Disclaimer

The information provided in this manual was deemed accurate as of the publication date. However, updates to this information may have occurred.

This manual does not include all of the details of design, production, or variation of the equipment nor does it cover every possible situation which may arise during installation, operation or maintenance. KISTERS shall not be liable for any incidental, indirect, special or consequential damages whatsoever arising out of or related to this documentation and the information contained in it, even if KISTERS has been advised of the possibility of such damages.

Any errors found in any KISTERS product should be reported to KISTERS where every effort will be made to quickly resolve the problem.

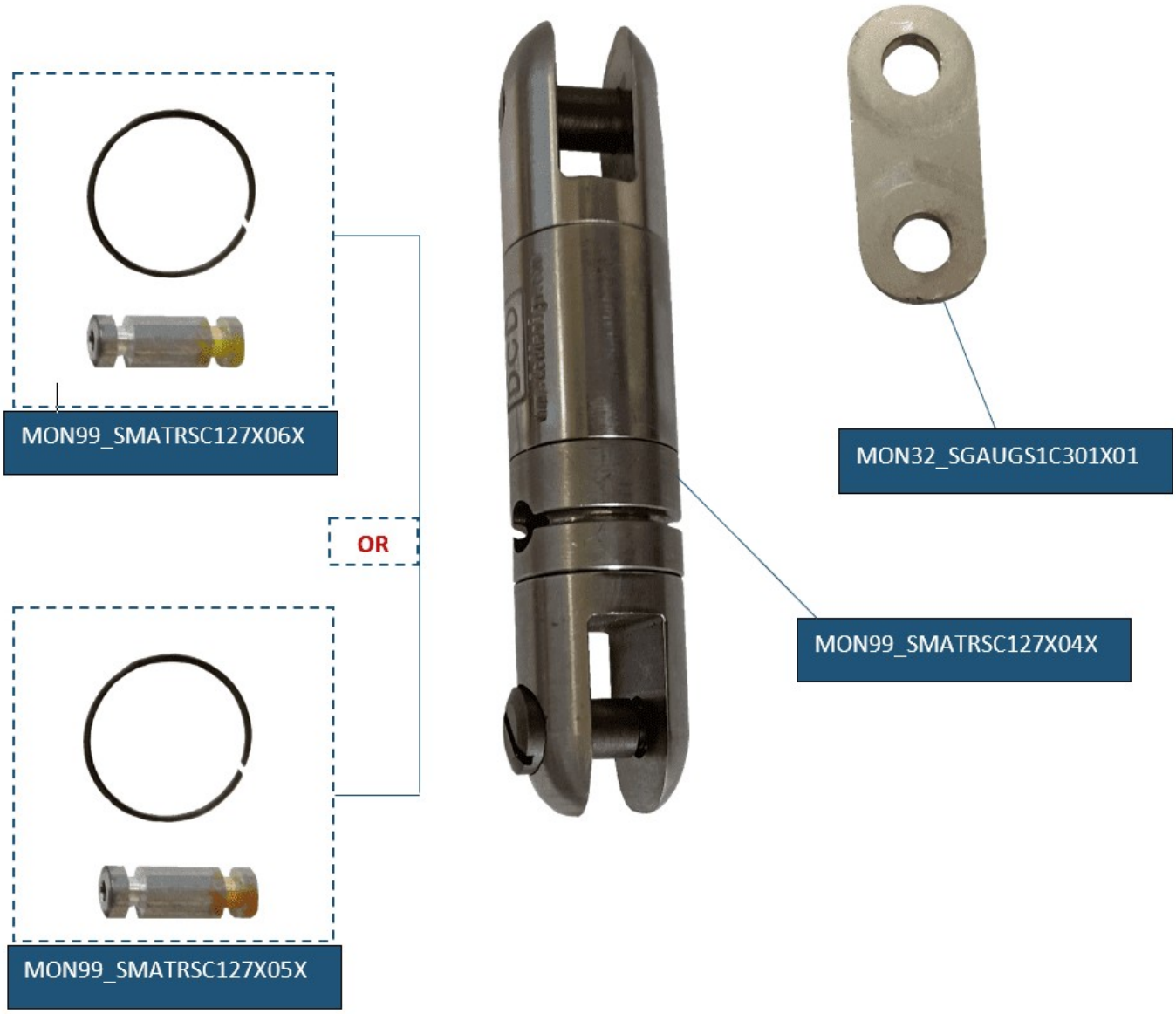
Copyright Notice: No parts of this work may be reproduced in any form or by any means without the written permission of the publisher. KISTERS waives copyright for users to print out parts of the documentation in hard copy for their own use only.

Trademark Notice: KISTERS products and services referred to in this document are trademarks or registered trademarks of KISTERS. Other product names used may or may not be the trademarks of their respective owners.

© 2026 | KISTERS. Any rights not expressly granted herein are reserved.

This document is public.

II Scope of Delivery



Note: The Breakaway Kit is supplied with 5 pins and circlips. Either yellow coloured pins for a breaking load of 182 kg or the orange coloured pins for a breaking load of 272 kg.

III Safety Instructions

- Read the user manual including all operating instructions prior to installing, connecting and powering up the KISTERS Breakaway Kit. The manual provides information on how to operate the product. The manual is intended to be used by qualified personnel, i.e. personnel that have been adequately trained, are sufficiently familiar with installation, mounting, wiring, powering up and operation of the product.
- Keep the user manual on hand for later reference!
- If you encounter problems understanding the information in the manual (or part thereof), please consult the manufacturer or its appointed reseller for further support.
- KISTERS Breakaway Kit is intended to be used in hydrometeorological or environmental monitoring applications.
- Before starting to work, you have to check the functioning and integrity of the system.
  - Check for visible defects on the Breakaway Kit, this may or may not include any or all of the following: mounting facilities, connectors and connections, mechanical parts, internal or external communication devices, power supplies or power supply lines, etc.
  - If defects are identified that could compromise operational safety, work must be stopped immediately. This applies to defects detected both before work begins and during operation.
- Do not use the KISTERS Breakaway Kit in areas where there is a danger of explosion.
- The present user manual specifies environmental/climatic operating conditions as well as mechanical and electrical conditions. Installation, wiring, powering up and operating the KISTERS Breakaway Kit must strictly comply with these specifications.
- Perform maintenance only when tools or machinery are not in operation.
- If guards are removed to perform maintenance, replace them immediately after servicing.
- Never make any electrical or mechanical diagnostics, inspections or repairs under any circumstances. Return the product to the manufacturer's named repair centre. You can find information on how to return items for repair in the relevant section of the KISTERS website.

Disposal instructions: After taking the KISTERS Breakaway Kit out of service, it must be disposed of in compliance with local waste and environmental regulations. The KISTERS Breakaway Kit is never to be disposed of in household waste!

Inputs and outputs of the device are protected against electric discharges and surges (so-called ESD). Do not touch any part of the electronic components! If you need to touch any part, please discharge yourself, i.e. by touching grounded metal parts.

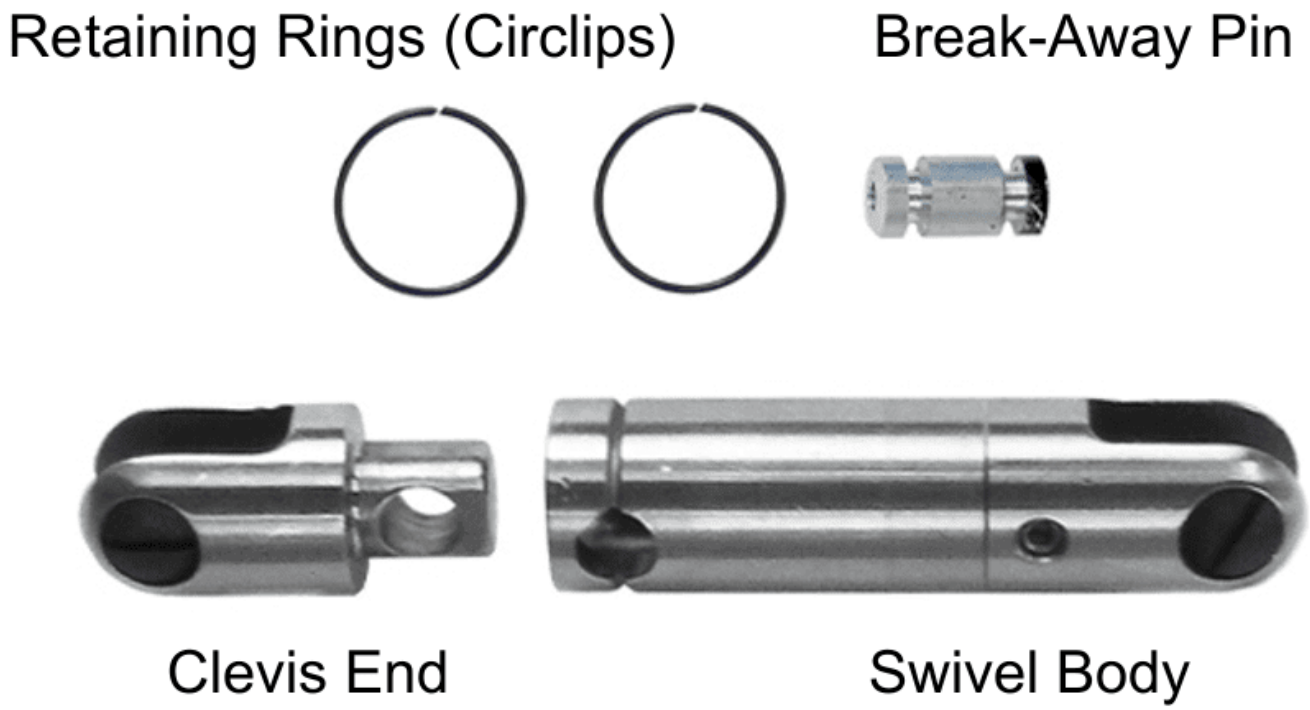
1 Introduction

Thank you for choosing our product. We hope you will enjoy using the device.

KISTERS manufactures, sells, installs and operates quality instrumentation, data loggers and communication technology. Products are designed with passion for environmental monitoring and with a deep understanding of the quality, accuracy and robustness needed to fulfil the requirements of measurement practitioners in the field.

The present User Manual will help you understand, install and deploy the device. If, however, you feel that a particular information is missing, incomplete or confusing, please do not hesitate to contact us for further support!

KISTERS provides a Breakaway Kit with its Cableway Systems and Winches as a safety precaution against large debris causing damage or injury during a flood situation. The Break-Away Swivels provide an inexpensive fracture point between a pulling line and a water flow sensor to avoid an expensive cableway structure from getting damaged or a human dragged into the water when gauging using a winch board or a bridge crane from the side of a bridge.



The Break-Away Swivel is used with the following KISTERS products:

1. The Hornet & the Hornet Plus (Series 2)
2. The Cable fox models:
   - CFX/S2/1014-H
   - CFX/S2/1014-H-EU
   - CFX/S2/1014-H-US
   - CFX/S2/1632-H
   - CFX/S2/1632-H-EU
   - CFX/S2/1632-H-US
3. Single Drum Winches Models:
   - WS250
   - WS400
   - WS500
   - WS700
   - WS1000 (Product coming soon)
4. Double Drum Winches Models:
   - DDT700
   - DDT1000

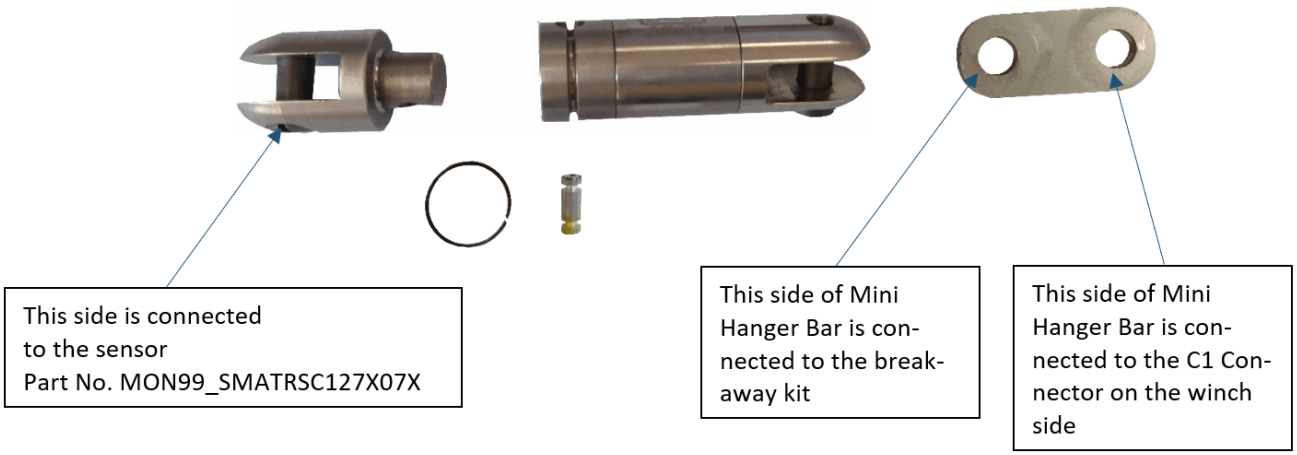
The table below shows the Break-Away load, Break-Away body and the pin required.

Model	Break-Away Load (kg)	Break-Away Part No.	Break-Away Pin Part No.	Colour Code	Number of Pins supplied
Hornet	182	MON99_SMATRSC127X04X	MON99_SMATRSC127X06X	Yellow	5
Hornet Plus	272	MON99_SMATRSC127X04X	MON99_SMATRSC127X05X	Orange	5
CFX/S2/1014-H	182	MON99_SMATRSC127X04X	MON99_SMATRSC127X06X	Yellow	5
CFX/S2/1014-H-EU	182	MON99_SMATRSC127X04X	MON99_SMATRSC127X06X	Yellow	5
CFX/S2/1014-H-US	182	MON99_SMATRSC127X04X	MON99_SMATRSC127X06X	Yellow	5
CFX/S2/1632-H	182	MON99_SMATRSC127X04X	MON99_SMATRSC127X06X	Yellow	5
CFX/S2/1632-H-EU	182	MON99_SMATRSC127X04X	MON99_SMATRSC127X06X	Yellow	5
CFX/S2/1632-H-US	182	MON99_SMATRSC127X04X	MON99_SMATRSC127X06X	Yellow	5
WS250	182	MON99_SMATRSC127X04X	MON99_SMATRSC127X06X	Yellow	5
WS400	182	MON99_SMATRSC127X04X	MON99_SMATRSC127X06X	Yellow	5
WS500	182	MON99_SMATRSC127X04X	MON99_SMATRSC127X06X	Yellow	5
WS700	272	MON99_SMATRSC127X04X	MON99_SMATRSC127X05X	Orange	5
WS1000 (Product coming soon)	272	MON99_SMATRSC127X04X	MON99_SMATRSC127X05X	Orange	5
DDT700	272	MON99_SMATRSC127X04X	MON99_SMATRSC127X05X	Orange	5
DDT1000	272	MON99_SMATRSC127X04X	MON99_SMATRSC127X05X	Orange	5

2 Installation

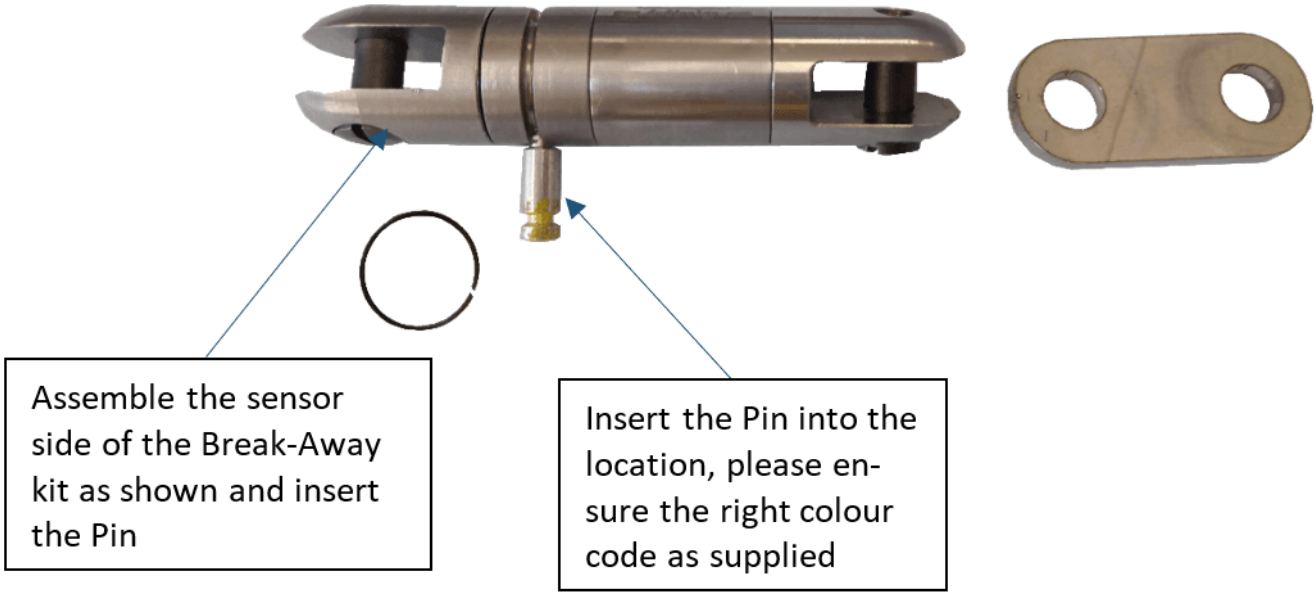
The Breakaway Kit assembly is very straight forward, however attention needs to be made to the fine detail explained below for the Breakaway Kit to perform as required using the specific load designated for it.

Step 1

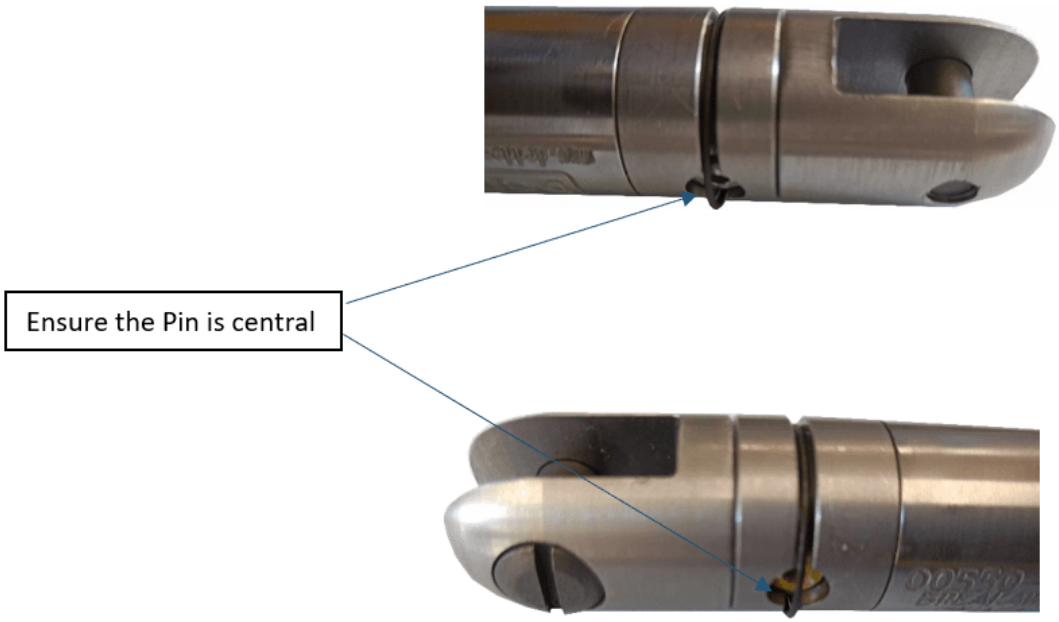


Note: In a situation where the Break-Away is released, and the sensor is detached and lost, only the small section of the Breakaway Kit has to be reordered. Part No. MON99_SMATRSC127X07X.

Step 2

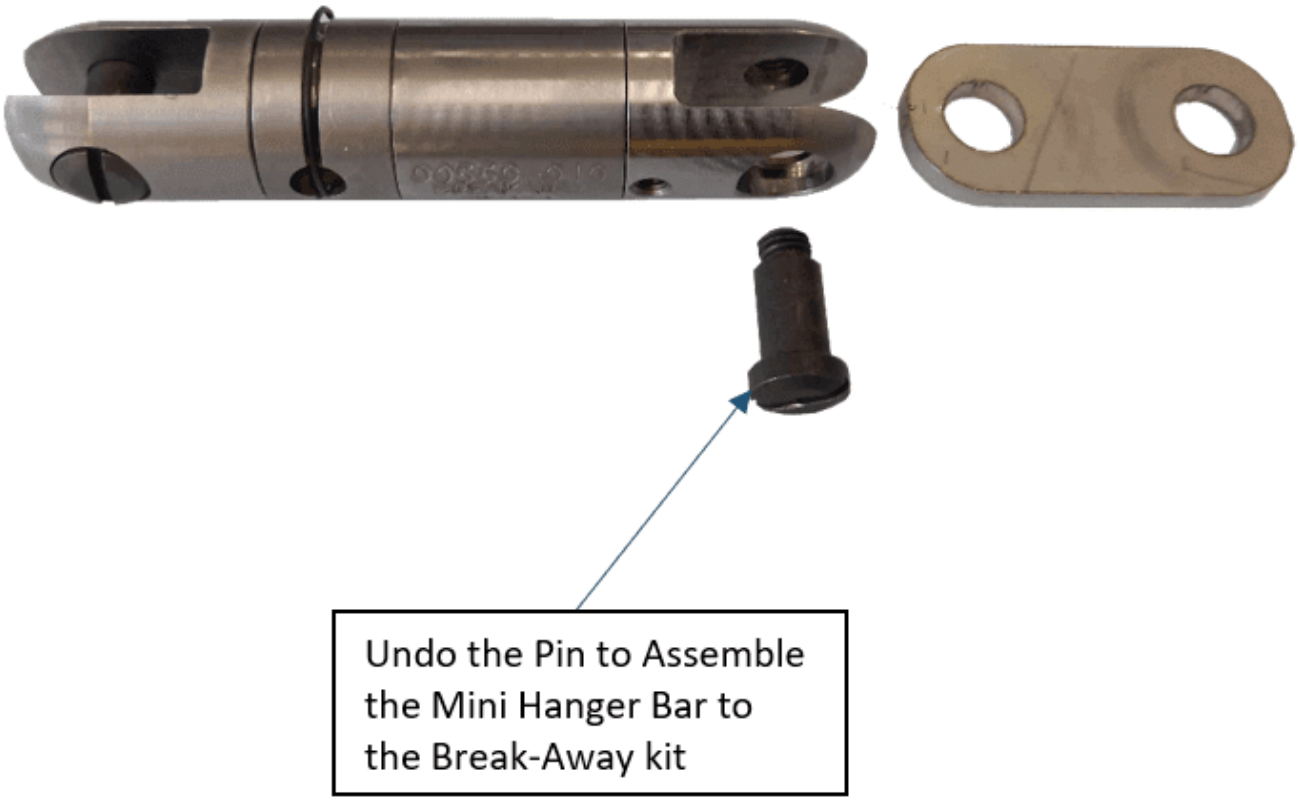


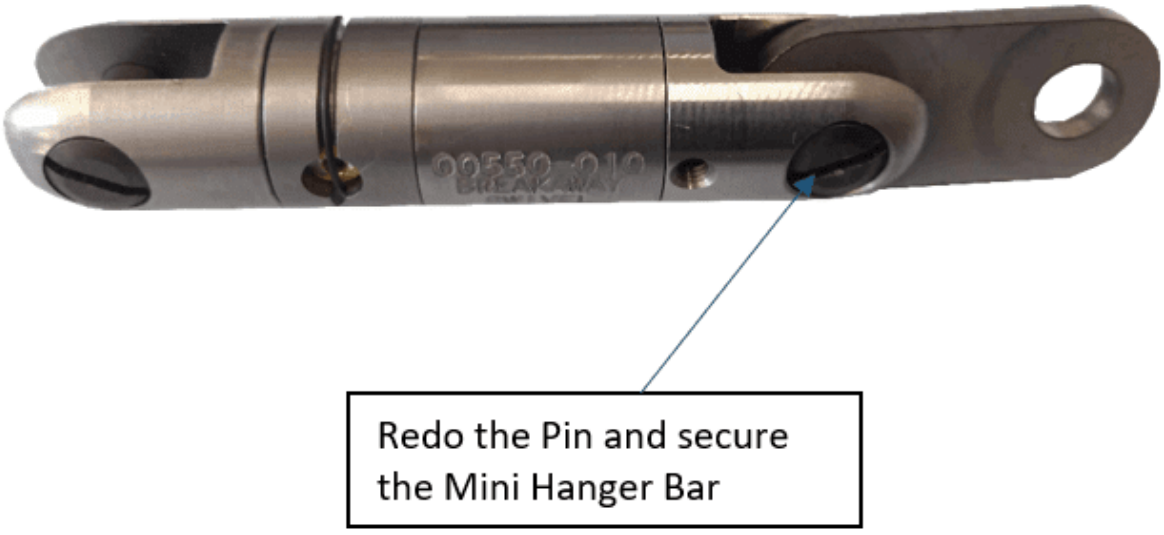
Step 3



It is essential to have the pin located in the center position as shown above for the Break-Away to activate at the load specified. Failure to do so will result in the Break-Away activating at a higher load.

Step 4





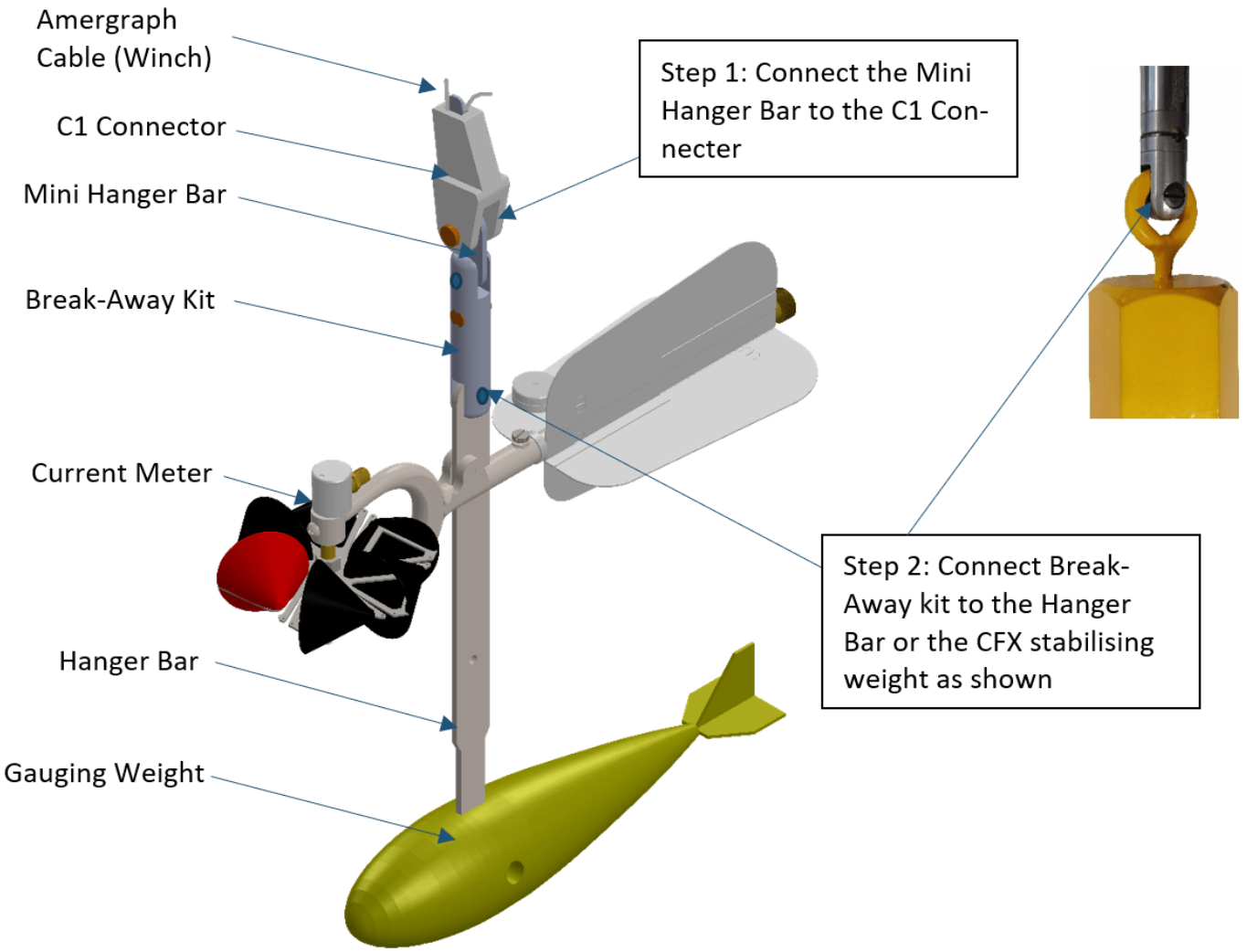
Note: The Break-Away Assembly is complete and ready to attach between the C1 connector (Winch) and the Sensor (The Stabilising Weight or Gauging Weight Hanger Bar on the sensor side).

3 Operation

It is essential to check the pin before using the Break-Away device, specially if the pin is used several times for gauging. Few safety precautions a user should take into consideration when using a Breakaway Kit which are listed below:

- Visually inspect the pin for any marks or cracks if used more than once.
- In a situation when the gauging was in extremely rough water and the pin did not fail, it is advisable not to reuse the pin as the chance of failure will be higher due to fatigue. Please note the Break-Away device and sensor is more expensive than the pin itself.
- When using the Breakaway Kit make sure you are wearing safety shoes and avoid having your feet directly under the gauging weight.
- When gauging, personnel should not move or stand directly below the gauging equipment.

After inspection, install the Breakaway Kit as shown below:



4 Repair

KISTERS precision instruments and data loggers are produced in quality-controlled processes. All KISTERS production and assembly sites in Australia, New Zealand and Europe are ISO 9001 certified. All equipment is factory tested and/or factory calibrated before it is shipped to the client. This ensures that KISTERS products perform to their fullest capacity when delivered.

Despite KISTERS most rigorous quality assurance (QA), malfunction may occur within or outside of the warranty period. In rare cases, a product may not be delivered in accordance with your order.

In such cases KISTERS' return and repair policy applies. For you as a customer, this means the following:

- Contact KISTERS using the Repair Request Form and the Declaration of Contamination made available online:

Region (Language)	Download Link
Asia-Pacific (English)	Repair Request Form (APAC) Declaration of Contamination (APAC)
Europe, the Middle East and Africa (English)	Repair Request Form (EMEA) Declaration of Contamination (EMEA)
Germany (German)	Repair Request Form (DE) Declaration of Contamination (DE)

  In response you will receive a reference number that must be referenced on all further correspondence and on the freight documents accompanying your return shipment.
- Please provide as much information and/or clear instructions within the return paperwork. This will assist our test engineers with their diagnosis.
- Please do not ship the goods prior to obtaining the reference number. KISTERS will not reject any equipment that arrives without reference number; however, it may take us longer to process.

Custom requirements for items sent to KISTERS for warranty or non-warranty repairs: Check with your national customs/tax authorities for details, processes and paperwork regarding tax exempt return of products. Typically, special custom tariff codes are available (such as HS Code = 9802.00) that verify the item is being returned for repair and has no commercial value. Please note that the customs invoice / dispatch documents should also clearly state: "Goods being returned to manufacturer for repair – No Commercial value". It is mandatory to have any returned goods accompanied by a commercial invoice on headed paper. KISTERS reserves the right to charge the customer for time spent rectifying incorrect customs documents.

Note: Please ensure that your goods are packed carefully and securely. Damage that occurs during transit is not covered by our warranty and may be chargeable.

5 Obligations of the Operator and Disposal

This chapter contains the following subsections:

- Obligations of the Operator 13
- Dismantling / Disposal 13

5.1 Obligations of the Operator

European Union

In the Single European Market it is the responsibility of the operator to ensure that the following legal regulations are observed and complied with: national implementation of the framework directive (89/391/EEC) and the associated individual directives, in particular 2009/104/EC, on minimum safety and health requirements for the use of work equipment by employees at work.

Worldwide

Regulations: If and where required, operating licences must be obtained by the operator. In addition, national or regional environmental protection requirements must be complied with, regardless of local legal provisions regarding the following topics:

- Occupational safety
- Product disposal

Connections: Local regulations for electrical installation and connections must be observed.

5.2 Dismantling / Disposal

When disposing of the units and their accessories, the applicable local regulations regarding environment, disposal and occupational safety must be observed.

Before dismantling

- Electrical Devices:
  - Switch off the units.
  - Disconnect electrical appliances from the power supply, regardless of whether the appliances are connected to the mains or to another power source.
- Mechanical devices:
  - Fix all loose components. Prevent the device from moving independently or unintentionally.
  - Loosen mechanical fastenings: Please note that appliances can be heavy and that loosening the fastenings may cause them to become mechanically unstable.

Disposal

Operators of old appliances must recycle them separately from unsorted municipal waste. This applies in particular to electrical waste and old electronic equipment.

Electrical waste and electronic equipment must not be disposed of as household waste!

Instead, these old appliances must be collected separately and disposed of via the local collection and return systems.

Integrated or provided batteries and accumulators must be separated from the appliances and disposed of at the designated

collection point. At the end of its service life, the lithium-ion battery must be disposed of according to legal provisions.

EU WEEE Directive

As players in the environmental market, KISTERS AG is committed to supporting efforts to avoid and recycle waste. Please consider:

- Avoidance before recycling!
- Recycling before disposal!

This symbol indicates that the scrapping of the unit must be carried out in accordance with Directive 2012/19/EU. Please observe the local implementation of the directive and any accompanying or supplementary laws and regulations.

Contact Data

Europe	KISTERS Europe	+49 2408 9385 0 hydromet.sales@kisters.eu www.kisters.eu
Australia	KISTERS Australia	+612 9601 2022 sales@kisters.com.au www.kisters.com.au
New Zealand	KISTERS New Zealand	+64 7 857 0810 sales@kisters.co.nz www.kisters.co.nz
Latin America	KISTERS Latin America	+57 350 575 4079 sales@kisters-latam.com www.kisters-latam.com
North America	KISTERS North America	+1 561 459 4876 kna@kisters.net www.kisters.net
Spain	KISTERS Ibérica	info@kisters.es www.kisters.es
France	KISTERS France	+33 1 4120 9200 info@kisters.fr www.kisters.fr
Canada	KISTERS Canada	kna@kisters.net www.kisters.net

© 2026 | KISTERS

www.kisters.eu
© 2026 | KISTERS
01/06/2026

KISTERS
Empowering decisions of tomorrow