RBR rbr-global.com

APPLICATION NOTE FOR DESICCANT PACKS

Desiccant use is imperative to reduce the likelihood of electronic damage and data loss by condensing moisture.

The user is responsible for taking steps to prevent irreparable condensation damage to the logger's electronics. There are two sources of condensation inside a logger that may occur. Internal condensation can occur when a logger closed in a warm moist atmosphere is then introduced to a cold environment. This is the most common cause of internal condensation. The permeability of the Delrin™ body to water is the other cause. Though the amount of moisture permeating through the logger body is small, long deployments should always use desiccant to remove any moisture that may accumulate.

Prevention methods:



- Use desiccant packs.
- Service the logger in a cool, dry location.
- Purge the logger with dry inert gas before deploying.
- Desiccant and a dry nitrogen purge are used routinely. A gas fill is needed to ensure convective cooling of the components and to ensure O-ring performance.

RBR logger volumes and desiccant pack size

Model	Volume (ml)	Desiccant type
1060 Series	100ml	1 pack (40AG31)
XR(X) Series	700ml	2 or more capsules (33AG41)
2050 Series	700ml	1 capsules (33AG41)
RBR*virtuoso*, RBR*duo*, RBR*concerto*	700ml	2 to 4 capsules (33AG41)

40AG31, 40ISG01, 40ISG31 – 0.25g, 5/8"x13/16" Minipax® pillow bag
33AG41 - 2.5g, 0.5"Ø, 1.375" long Desiccant capsule

http://www.sorbentsystems.com
http://www.multisorb.com

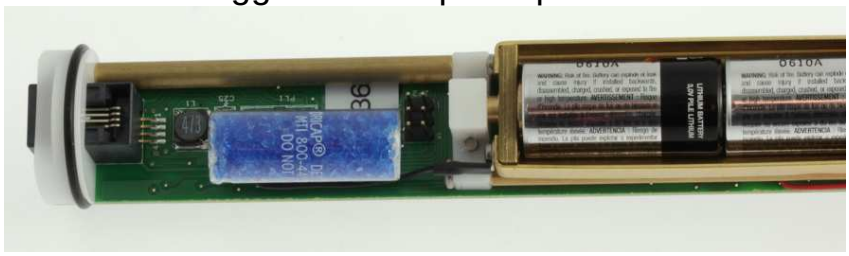
Suggested desiccant placement and type

1060 series loggers use soft pack 40AG31



Fold the soft pack on one (length) edge to make it easier to place the desiccant inside the logger. Note the fold in the soft pack in the above image.

2050 series loggers use capsule pack 33AG41



Place the capsule pack in the space between the battery holder and the data port.

XR(X) series loggers use capsule pack 33AG41



Placement of the capsule packs in the XR and XRX loggers depends on the number of sensors used as this will reduce space. The above image shows possible places

to put the desiccant capsule. The battery endcap must be removed first, then the battery carousel, and finally the sensor endcap with the attached electronics.

RBR*virtuoso*, RBR*duo*, RBR*concerto* use capsule pack 33AG41



Placement of the capsule packs for the RBR*virtuoso,* RBR*duo* and RBR*concerto* is the same. Simply remove the bottom end cap (i.e.: the non-sensor end) and place (2) to (4) packs into the desiccant holder.