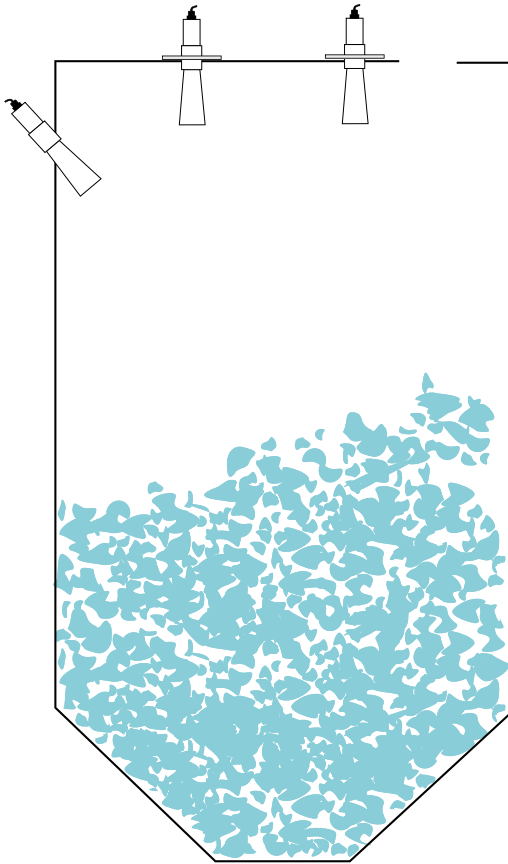
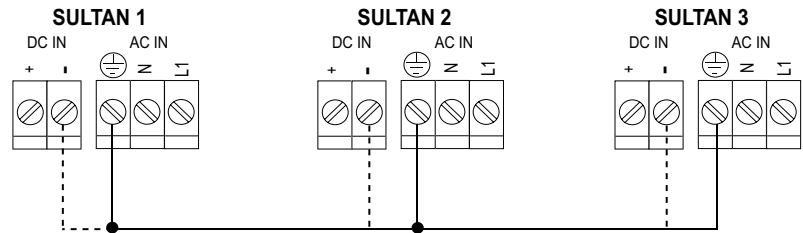


# SULTAN CROSS TALK PREVENTION

MORE THAN ONE TRANSDUCER IN A VESSEL

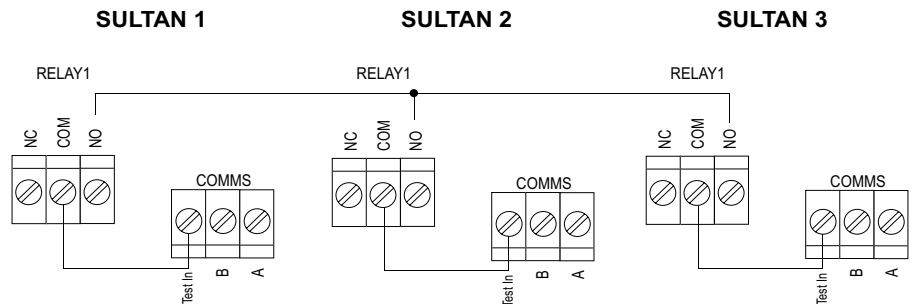


1. Units to be linked must have a common ground connection, or wire between 'GND', or 'DC -' terminals (parallel connection of all units).



\* "GND" and "DC-" are electrically the same

2. Inside each single unit, wire a connection between Relay 1 'Common' terminal and the terminal labeled 'TEST'.
3. Wire a connection between the Relay 1 'Normally Open' terminals of each unit (parallel connection of all units).



4. In the software setup of each unit, program Relay 1 to 'FS' (Failsafe) mode in Output Adjust menu. (you could use a different relay number in the same way if relay 1 is needed for another function).

The units will now be linked so that they can not crosstalk.

The 'TEST' terminal acts as an input when the unit is about to pulse, and will cause the instrument to enter a paused state (not pulse) if you apply connection to ground. Each unit also drives its own 'TEST' terminal to ground when it is busy pulsing. These two functions combined mean that if two or more units have their 'TEST' terminals connected in parallel, and share a common ground, then at any time when one is pulsing, it will ground the Test terminals of all units it is connected to, and temporarily pause them until it is finished, then release them. The next unit which is ready to pulse then does the same thing in turn, and the process repeats.

The connections above also include normally open contact of a relay programmed into Failsafe mode in line with the Test terminals. The function of this is simply to prevent a possible lock up of the whole system if one unit has a problem (such as power failure). Any time that a unit is in the failed state, it will be disconnected by the relay from the other units, so they can continue working together.