PROGRAMMING LM2050

`*AIRTECT LM2050*` / `System Normal....` — `> Leak Monitor <` / `System Normal....` ⟲ `Mould Temp..18°C` / `System Normal....`

NORMAL DISPLAY INDICATION. NO LEAKS DETECTED. MOULD/MANIFOLD BODY TEMPERATURE WILL BE DISPLAYED IF THE OPTION IS SELECTED

PROG: TO ENTER PROGRAMMING MENU PRESS AND HOLD THE PROG/UP BUTTON FOR 5 SECONDS → `Programming Menu` / `Up..Down..Select`

PROG: `LEAK Delay Timer` / `Timer (Secs) = 00` → RESET → `LEAK Delay Timer` / `Timer (Secs) = XX` → RESET

PROGRAM THE 'LEAK DETECTION ' DELAY TIME 0-99 SECONDS (THE CONTROL UNIT WILL NOT DISPLAY OR SOUND AN ALARM UNTIL THIS TIMER HAS TIMED OUT). DEFAULT SETTING IS ZERO SECONDS.

USE THE ▲ UP AND DOWN ▼ BUTTONS TO SELECT VALUE FOR FIRST FLASHING DIGIT. THEN PRESS RESET TO SELECT THE VALUE FOR THE SECOND FLASHING DIGIT.

PROG: `LCD Contrast....` / `Select to Adjust` → RESET → `LCD Contrast....` / `Up..Down..Select` → RESET

USE THE ▲ UP AND DOWN ▼ BUTTONS TO SELECT CONTRAST.

PROG: `Select Language` / `[1] **ENGLISH**` → RESET → `[1] **ENGLISH**` / `Up..Down..Select` → RESET

DEFAULT SETTING IS ENGLISH.

USE THE ▲ UP AND DOWN ▼ BUTTONS TO SELECT LANGUAGE.

PROG: `Mold Temperature` / `****INACTIVE****` → RESET → `Mold Temperature` / `**** ACTIVE ****`

PROGRAM THE DISPLAY TO READ MOULD BODY TEMPERATURE AND ALLOW HIGH / LOW ALARM LIMITS TO BE MONITORED.

USE THE ▲ UP AND DOWN ▼ BUTTONS TO TOGGLE BETWEEN 'INACTIVE' AND 'ACTIVE'.

PROG: `Set Temparature` / `Low Trip °C..12` → RESET → `Set Temparature` / `Low Trip °C..XX` → RESET

PROGRAM LOW MOULD TEMPERATURE ALARM VALUE DEFAULT SETTING IS 12°C.

USE THE ▲ UP AND DOWN ▼ BUTTONS TO SELECT VALUE FOR FIRST FLASHING DIGIT. THEN PRESS RESET TO SELECT THE VALUE FOR THE SECOND FLASHING DIGIT.

PROG: `Set Temparature` / `High Trip °C..60` → RESET → `Set Temparature` / `High Trip °C..XX` → RESET

PROGRAM HIGH MOULD TEMPERATURE ALARM VALUE DEFAULT SETTING IS 60°C.

USE THE ▲ UP AND DOWN ▼ BUTTONS TO SELECT VALUE FOR FIRST FLASHING DIGIT. THEN PRESS RESET TO SELECT THE VALUE FOR THE SECOND FLASHING DIGIT.

PROG: `Set Number of...` / `Zones:........ 0` → RESET → `Set Number of...` / `Manifolds:....XX` → RESET

PROGRAM NUMBER OF MANIFOLD ZONES:
'08' = 4 or 8-ZONES e.g 1 x LA504 or 1 x LA508
'16' = 16-ZONES e.g 2 x LA508 or 1 x LA516
'24' = 24-ZONES e.g 1 x LA516 +1 x LA508
'32' = 32-ZONES e.g 2 x LA516

USE THE ▲ UP AND DOWN ▼ BUTTONS TO SELECT VALUE. THEN PRESS RESET

PROG: `Temperature Trip` / `Relay Active. YES` → RESET → `Temperature Trip` / `Relay Active. NO`

PROGRAM THE INTERLOCK RELAY TO ACTIVATE ON LOW / HIGH MOULD TEMPERATURE (RELAY WILL ACTIVATE 10 DEGREES ABOVE OR BELOW THE RESPECTIVE ALARM SET POINTS. (AUDIO-VISUAL ALARM ONLY DURING THIS 10 DEGREE WINDOW).

USE THE ▲ UP AND DOWN ▼ BUTTONS TO TOGGLE BETWEEN 'YES AND 'NO'.

PROG: `LEAK...Interlock` / `Relay Timed.. YES` → RESET → `LEAK...Interlock` / `Relay Timed.. NO`

PROGRAM THE INTERLOCK RELAY TO ACTIVATE AFTER A PRESET DELAY TIME 0-99 SECONDS (SEE HOW TO SET LATER).

USE THE ▲ UP AND DOWN ▼ BUTTONS TO TOGGLE BETWEEN 'YES AND 'NO'.

PROG: `Controller Zone` / `**** ACTIVE ****` → RESET → `Controller Zone` / `****INACTIVE****`

PROGRAM THE CONTROLLER AS A SINGLE ZONE 'NOZZLE' AALRM. IF SET TO 'INACTIVE', THE CONTROLLER WILL FUNCTION ONLY AS THE CONTROL / DISPLAY UNIT FOR A MULTI-ZONE SET-UP. THE CONTROLLER WILL NOT REQUIRE AN AIR SUPPLY CONNECTED TO IT. IF SET TO 'ACIVE' IT WILL REQUIRE AN AIR SUPPLY AND CAN BE USED AS A 'NOZZLE' ALARM IN ADDITION TO A NILTI-ZONE ALARM SYSTEM.

USE THE ▲ UP AND DOWN ▼ BUTTONS TO TOGGLE BETWEEN 'INACTIVE' AND 'ACTIVE'.

PROG: `Interlock Relay` / `Timer (Secs) = 10` → RESET → `Interlock Relay` / `Timer (Secs) = XX` → RESET

PROGRAM THE INTERLOCK RELAY DELAT TIME 0-99 SECONDS DEFAULT SETTING IS 10 SECONDS.

USE THE ▲ UP AND DOWN ▼ BUTTONS TO SELECT VALUE FOR FIRST FLASHING DIGIT. THEN PRESS RESET TO SELECT THE VALUE FOR THE SECOND FLASHING DIGIT.

PROG: `Restore Unit..to` / `Factory Settings` → RESET

PROGRAM THE UNIT BACK TO FACTORY DEFAULT SETTINGS.

PRESS AND HOLD THE RESET BUTTON FOR 2 SECONDS.
ARE YOU SURE YOU WANT TO SELECT THIS SETTING? BY SELECTING THIS OPTION YOU WILL OVERIDE ANY CHANGES MADE TO OPERATIONAL SETTINGS!

PROG: `Programming Menu` / `Save/Quit Menu` → RESET

PROGRAM THE UNIT BACK TO FACTORY DEFAULT SETTINGS.

PRESS 'RESET' TO SAVE PROGRAMMING SETTINGS AND RETURN TO NORMAL OPERATION.

NORMAL DISPLAY

`*AIRTECT LM2050*` / `System Normal....` — NORMAL

`> Leak Monitor <` / `System Normal....` ⟲ `Mould Temp..18°C` / `System Normal....` — OPTIONAL MOULD TEMPERATURE CYCLIC INDICATION

ALARM DISPLAY

LEAK DETECTED, BUZZER SOUNDS, RED LED FLASHES, INTERLOCK RELAY WILL OPERATE AFTER PRESET DELAY TIME, DISPLAY CYCLES THROUGH LEAK ALARM CONDITIONS

`System Alarm..!!` / `Leak at Nozzle..` — LEAK AT NOZZLE

⟲ `System Alarm..!!` / `Leak in Zone #05` — LEAK AT ZONE # 5 (if MANIFOLD connected)

INITIAL ACTION

PRESS RESET BUTTON TO ACCEPT ALARM, SOUNDER WILL CEASE, RED LED CONTINUES TO FLASH, DISPLAY CYCLES THROUGH LEAK ALARM LOCATIONS. N.B IF THE SOUNDER CEASES, THE RED LED CEASES TO FLASH AND THE DISPLAY RETURNS TO NORMAL AFTER PRESSING THE RESET BUTTON, THEN THE ALARM WAS MOMENTARY AND IS NOW NOT PRESENT.

IF THE LEAK IS NOT SERIOUS, THEN THE BYPASS FUNCTION MAY BE SELECTED

BYPASS ALARM

AFTER PRESSING THE RESET BUTTON, PRESS THE BYPASS BUTTON FOR 5 SECONDS UNTIL THE YELLOW LED FLASHES. THIS WILL DE-ENERGISE THE INTERLOCK RELAY AND ALLOW OPERATION TO CONTINUE UNDER SUPERVISED CONDITIONS UNTIL THE LEAK HAS BEEN CLEARED.

`Alarm Bypassed !` / `Leak at Nozzle..` — ALARM BYPASSED AT NOZZLE

⟲ `Alarm Bypassed !` / `Leak in Zone #05` — ALARM BYPASSED AT ZONE # 5

OTHER ALARM INDICATIONS

`Air Pressure LOW` / `in Control Unit` — LOW AIR SUPPLY (LM2050 Unit)

`System Alarm..!!` / `Mould Temp LOW` — TEMPERATURE LOW (MANIFOLD)

`System Alarm..!!` / `Mould Temp HIGH` — TEMPERATURE HIGH (MANIFOLD)

`Air Pressure LOW` / `in Manifold.....` — LOW AIR SUPPLY (Manifold Unit)

`Manifold(s) data` / `Error...!!!`

THIS DISPLAY RELATES TO COMMUNICATION ALARMS WHEN THE LM2050 IS CONNECTED TO A MULTI-ZONE MANIFOLD/S AND ' Set number of Manifolds' HAS NOT BEEN PROGRAMMED CORRECTLY. (SEE PROGRAMMING INSTRUCTIONS)
THESE ALARMS WILL ALSO BE DISPLAYED IF A MANIFOLD IS DISCONNECTED OR THE PCC CABLE IS BROKEN OR DAMAGED.

IMPORTANT INSTALLATION / OPERATION NOTES:

1) DC Power Source must be interference free i.e no EMI or Switching Valves, Servo Motors etc. Use separate Power Supply or Power Supply from the Machine PLC.
2) The Internal Interlock Relay Contacts have a capacity to switch loads of 24Vdc with a maximum current of 0.5A.
3) Ensure neat workmanship and run the wiring and PU tubing within the machine enclosure if possible. Do not overtighten pneumatic connections.
4) Ensure that both ends of all Sensor Tubes are cut neatly and filed and cleared of any debris so as to provide a clear air passage and clear inner Sensor Tube diameter of 1-1.2mm.
5) When using expansion Manifolds (LA508 etc) ensure the LM2050 has been programmed to accept the manifold/s and that it/they are connected, otherwise a communication alarm will be displayed and vice versa if the LM2050 has not been programmed and a manifold is connected, a communication alarm will be displayed.
6) ELECTRICAL POWER SHOULD ONLY BE SWITCHED ON AFTER THE SENSOR TUBE INSTALLATION IS COMPLETE AND THE AIR SUPPLY IS ENERGISED TO ALLOW THE 'SELF TEACHING' FUNCTION TO WORK. When using LA504-M, LA508-M or LA516-M Modular Systems, the Manifolds should be mounted on the Manifold Base before applying Electrical Power as all mould leak sensor installations will be somewhat different.

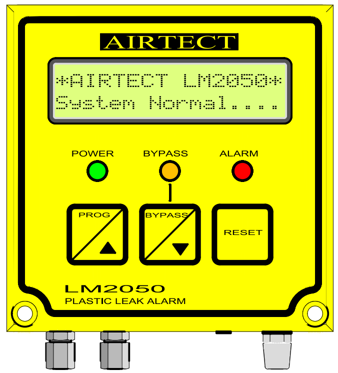
MANIFOLD LED INDICATIONS

- POWER LED SHOULD BE CONTINUOUSLY LIT (NORMAL)
- STATUS LED SHOULD FLASK EVERY 3-4 SECONDS (NORMAL)
- STATUS LED WILL FLASH QUICKLY FOR COMMUNICATION 'DATA ERROR' WARNING
- STATUS LED WILL FLASH RED / GREEN QUICKLY FOR 'INTERNAL SENSOR ERROR' WARNING

CORRECT INSTALLATION WILL MAKE A VERY RELIABLE LEAK DETECTION SYSTEM!
INFO@AIRTECT.COM WWW.AIRTECT.COM

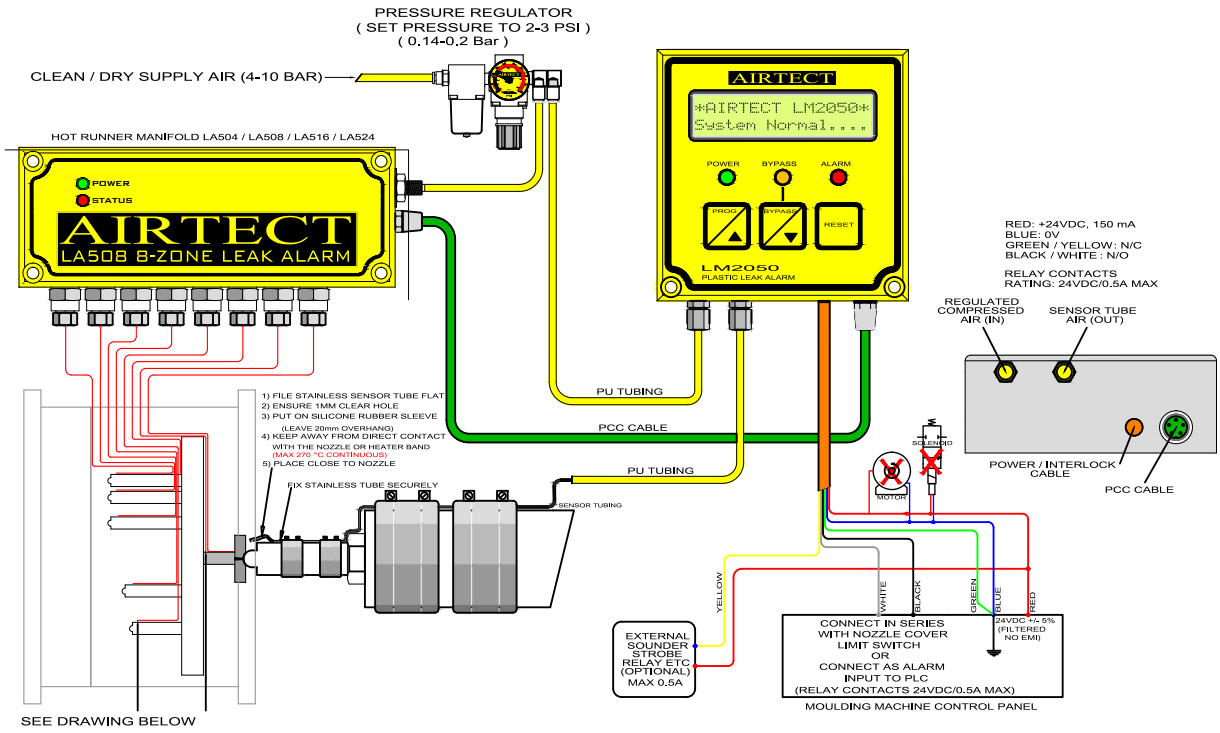
AIRTECT

Plastic Leak Alarm System

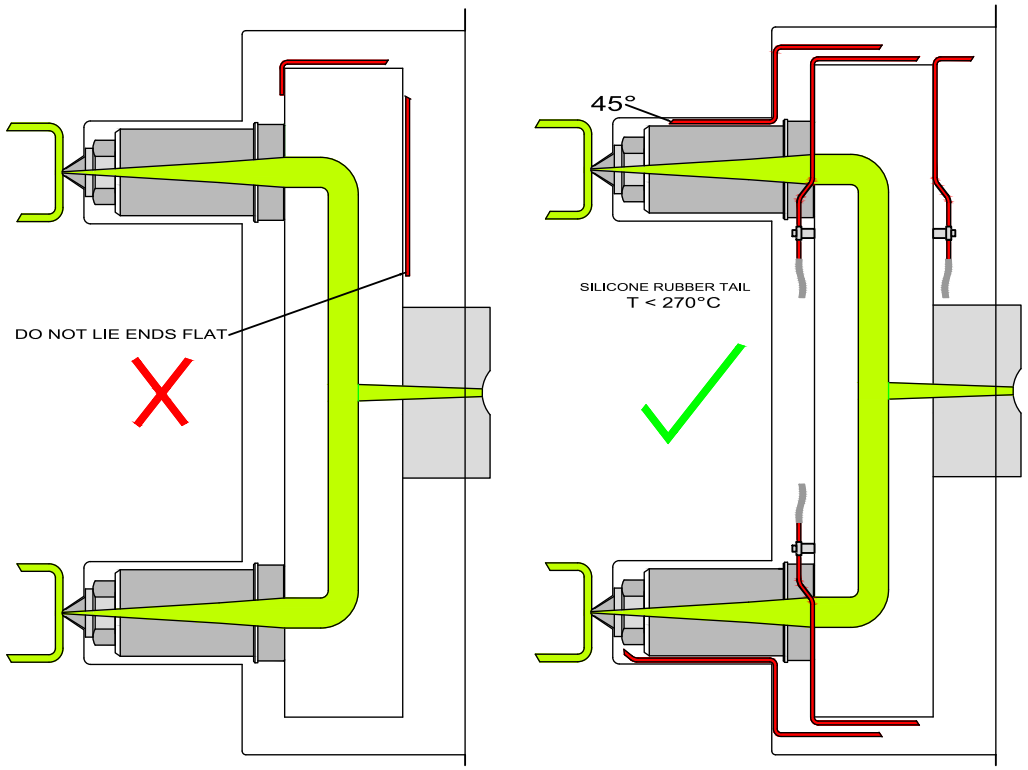


LM2050 Installation Guide

V4 0924



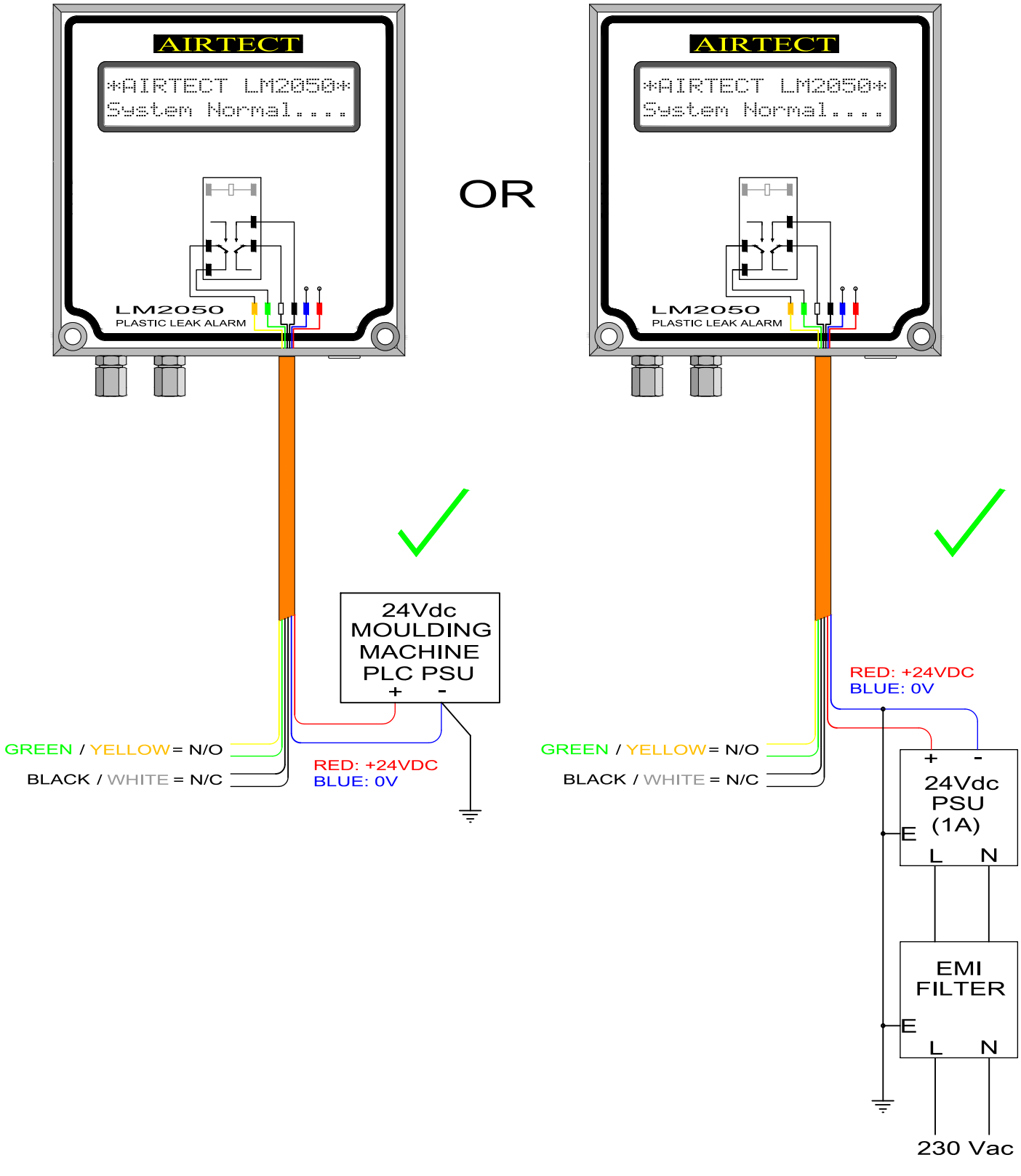
AIRTECT LM2050 - LA504 / LA508 / LA516 NOZZLE AND HOT RUNNER INSTALLATION GUIDE

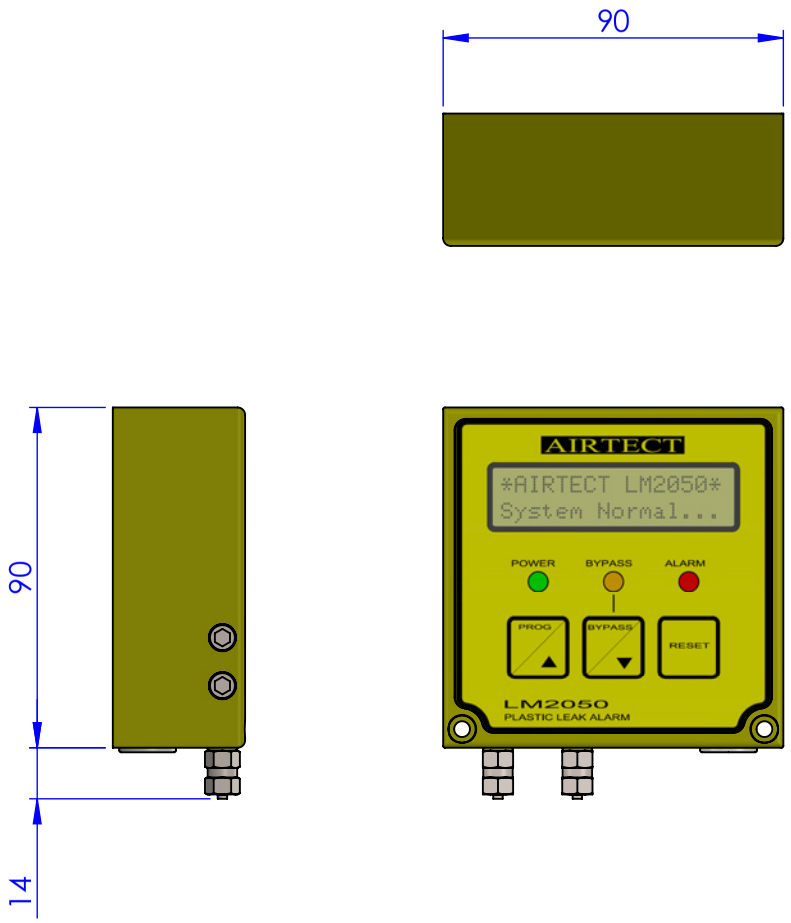


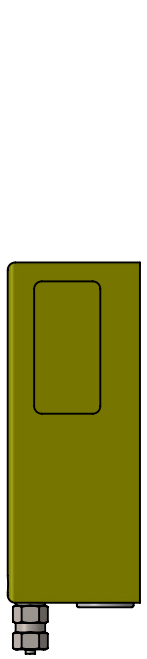
Example for the location of Leak Sensor Tubes at the Nozzles and Hot Runner Manifold areas.

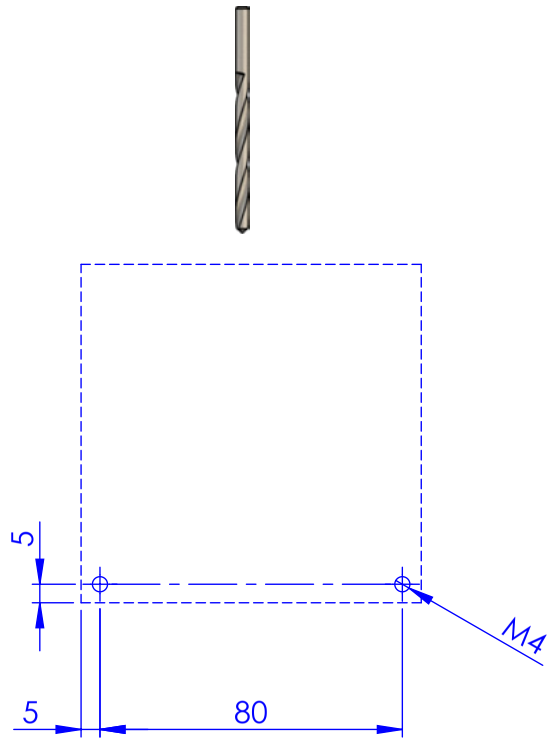
Install the Leak Sensor Tubes at likely leak locations. Choose carefully based on Mould Design and Leak History. For the Manifold, offset the ends of the Leak Sensor Tubes by 5mm from the Manifold Surface using the brackets supplied. Attach 20mm-30mm long Silicone Rubber Tails to the ends of the Leak Sensor Tubes. Do NOT use Silicone Rubber Tails on the Leak Sensor Tubes at the Nozzle Drops.

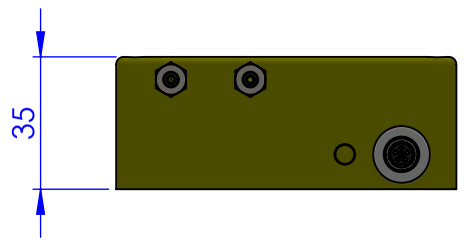
LM2050 ELECTRICAL INSTALLATION GUIDE DC / AC











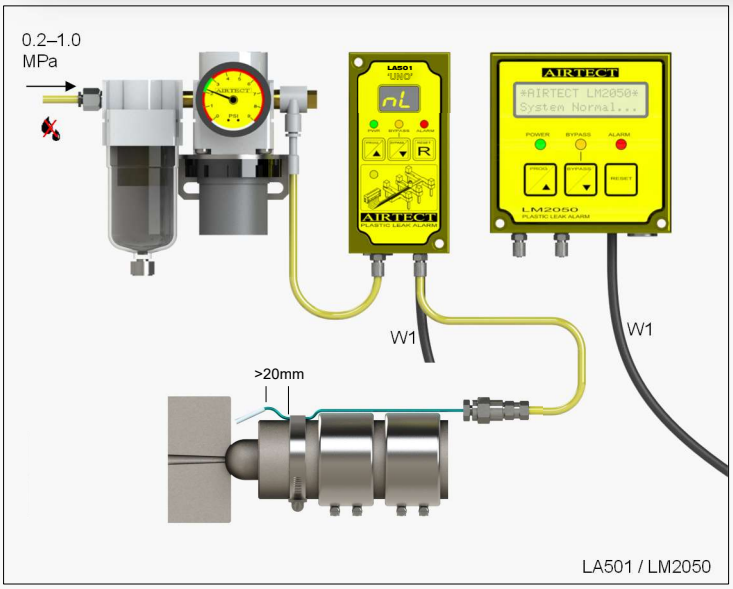
AIRTECT

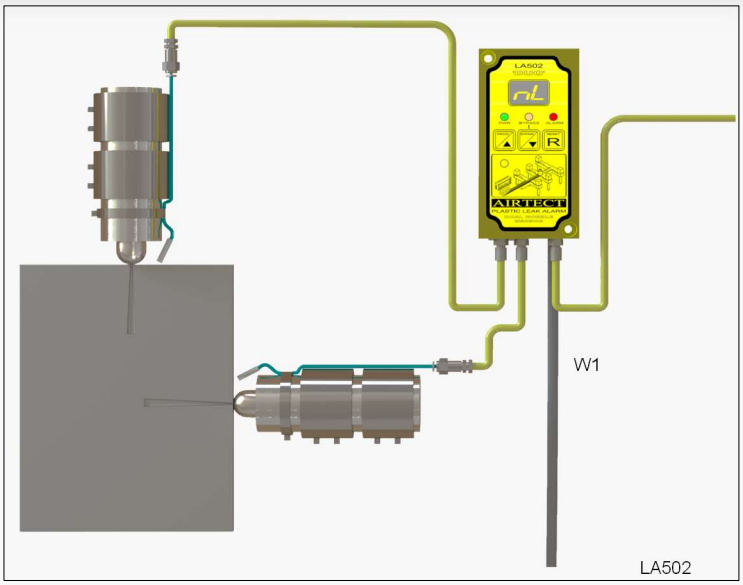
Plastic Leak Alarm System

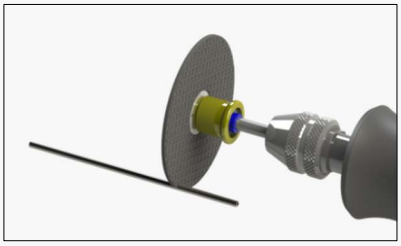
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: BRUSHED TOLERANCES: LINEAR: ±0.1mm ANGULAR: ±0.5°		FINISH:		DEBURR AND BREAK SHARP EDGES	DO NOT SCALE DRAWING	REVISION 0
	NAME	SIGNATURE	DATE		TITLE: LM2050 Mounting Details	
DRAWN	SC		01/07/2019			
CHK'D						
APPV'D						
MFG						
Q.A				MATERIAL:	DWG NO. LM2050	A3
REV						
				WEIGHT:	SCALE:1:2	SHEET 1 OF 1

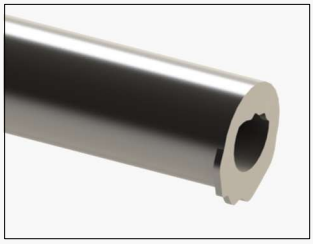
AIRTECT

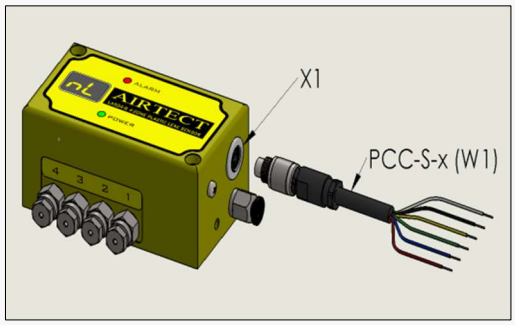
Plastic Leak Alarm System

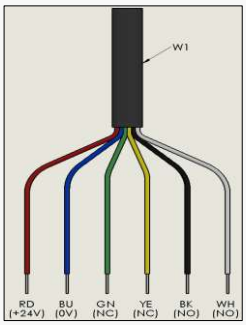




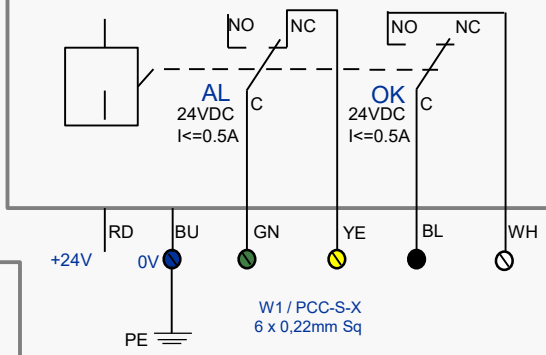


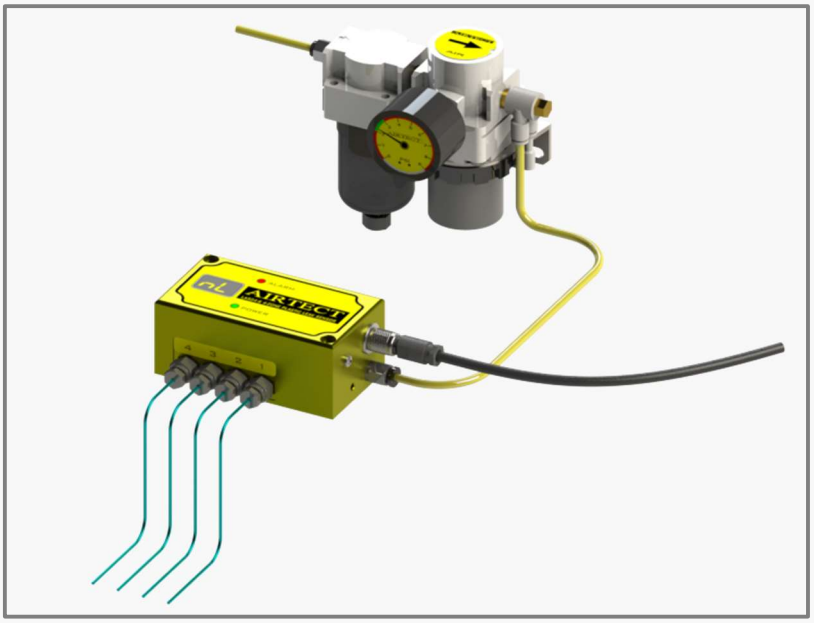


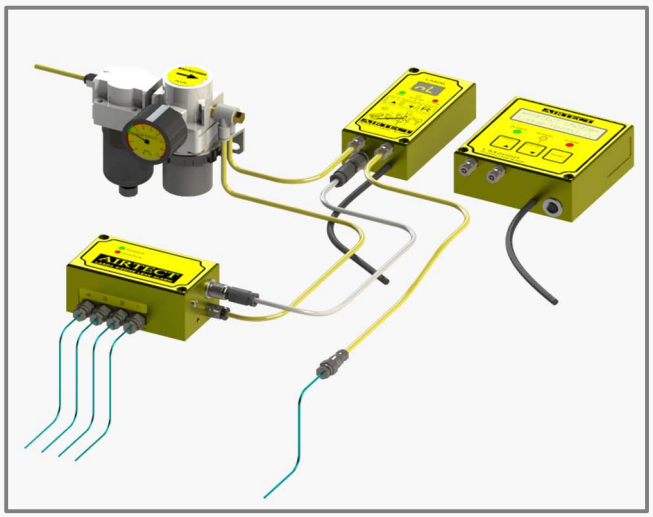




LM2050 / LA501 / LA502 / LA504S / LA508S / LA516S
LA524S / LA506S-1L / LA512S-2L / LA520S-2L.

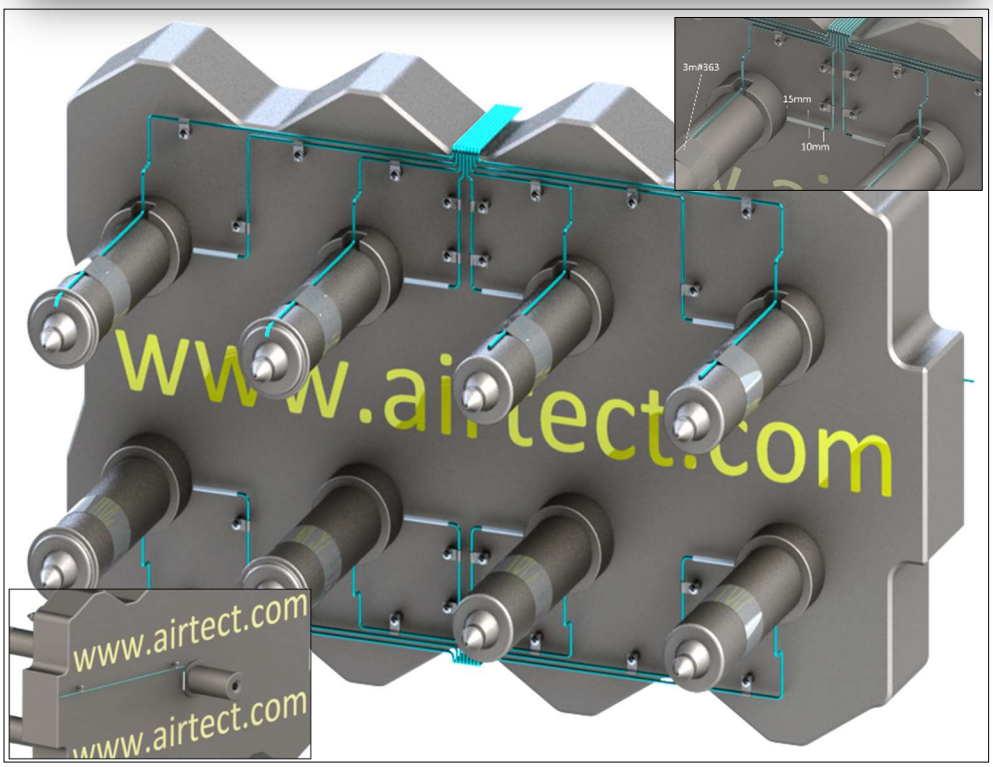


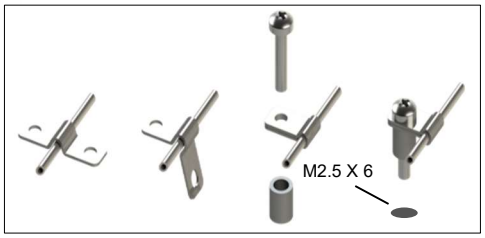


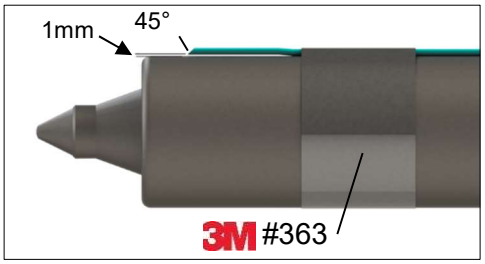


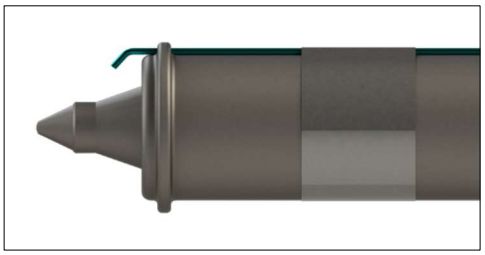
AIRTECT

Plastic Leak Alarm System

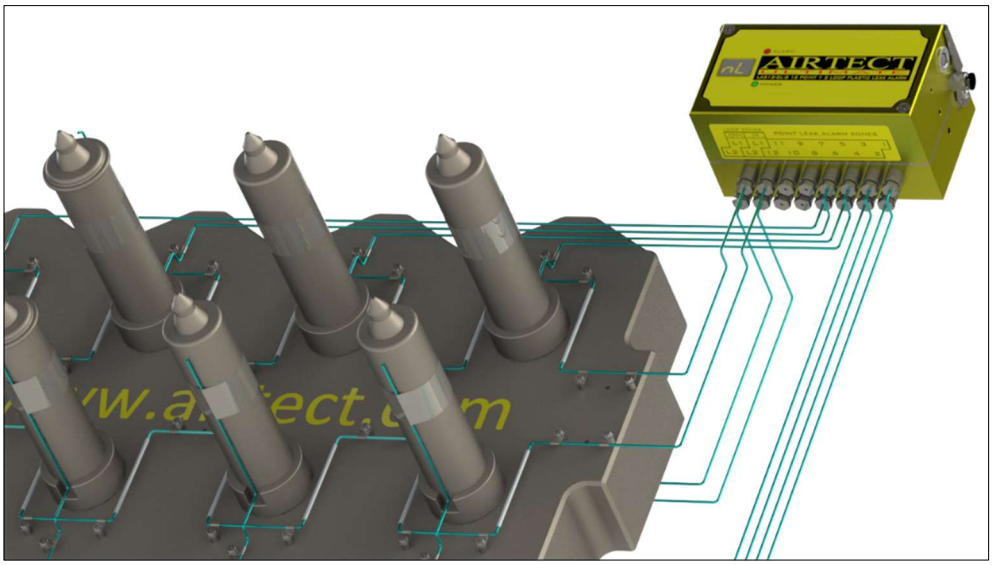


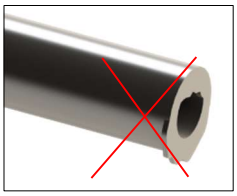


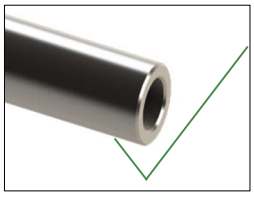


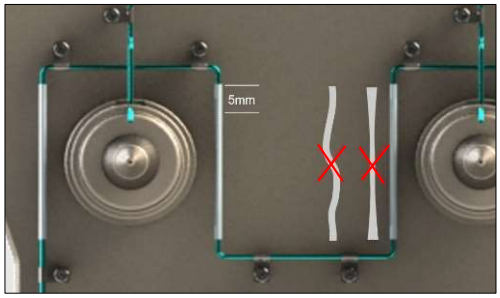


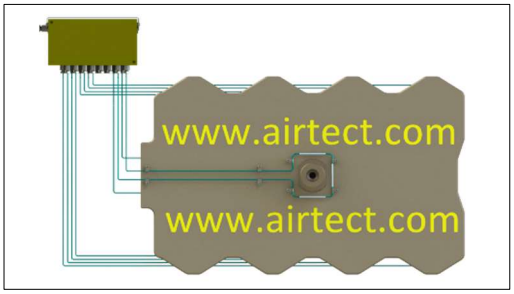
ULTIMATE

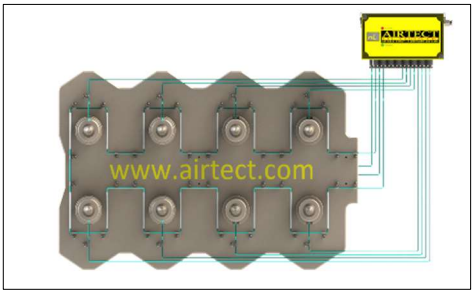


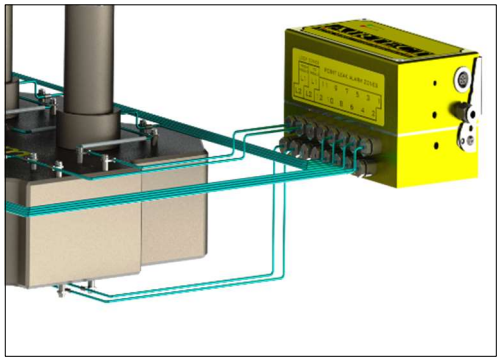












DESIGNED AND MANUFACTURED BY: GKET Ltd., E5 Swords Enterprise Park, Feltrim Road, Swords, Co. Dublin. IRELAND
info@airtect.com www.airtect.com