

# **DETECT YOUR NOZZLE AND HOT RUNNER LEAKS EARLY!**



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DESIGNED AND MANUFACTURED BY KENEX



### WHAT IS AIRTECT?

THE AIRTECT PLASTIC LEAK ALARM SYSTEM IS A UNIQUE DEVICE WHICH ASSISTS IN PREVENTING DAMAGE CAUSED BY LEAKING MOLTEN PLASTIC MATERIAL AT THE MAIN INJECTION NOZZLE OF INJECTION MOULDING MACHINES AND ALSO WITHIN HOT RUNNER MOULDS.

IT IS BEING USED WORLDIDE BY MANY WELL KNOWN COMPANIES SUCH AS IAC, VALEO, MAGNA, BD, HELLA, POLYPIPE... TO NAME BUT A FEW.

AIRTECT PRODUCTS ARE REPRESENTED WORLDWIDE















### WHY USE AIRTECT?

Because of an industry wide problem....Leaks of molten Plastic Material at the Main Injection Nozzle and within Hot Runner Moulds:







### **BECAUSE OF THIS!**

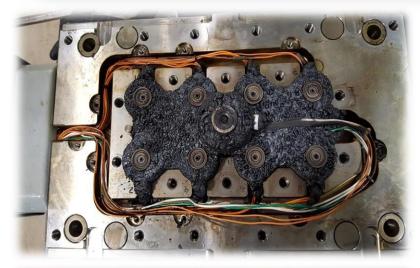








## AND THIS .....!



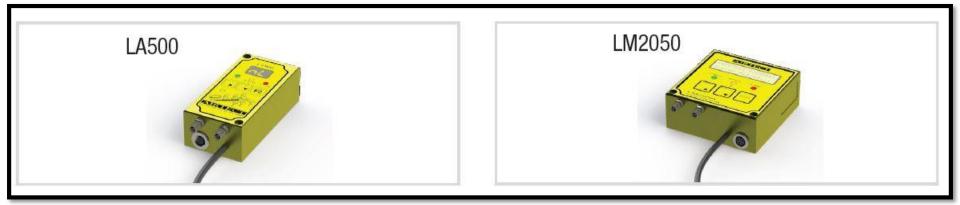








# A PROVEN EFFECTIVE SOLUTION TO REDUCE THE DAMAGE AND COST OF THESE LEAKS.....



# BENEFITS:

- Nozzle and Barrel Protection
- Significantly Reduced Budget for Maintenance Items
- Increased Health and Safety
- Reduced Downtime
- Peace of Mind for Unattended Machines

Functions as an Injection Nozzle Leak Alarm + Display and Control Unit and can be connected to Multi-Zone Manifold Units for Hot Runner Leak Detection.



#### INJECTION NOZZLE PLASTIC LEAK ALARM (AND CONTROL UNIT FOR LA508/516 MANIFOLD)

LA500

Kit Includes:

- LA500 with 2 x 7-segment LED display with programmable operational settings
- AR-20GF Air Pressure Regulator with Pressure Gauge, Air Filter and Fittings
- 3 Meters PU Tube
- 0.5 Metres 2.5mm Silicone Rubber Tube
- 3 Meters 2mm Stainless Steel Sensor Tube
- Installation/Operation Manual
- 2 Meter Electrical Power/Interlock Cable

# AIRTECT

LM2050

Functions as an Injection Nozzle Leak Alarm + Display and Control Unit and can be connected to Multi-Zone Manifold Units for Hot Runner Leak Detection.



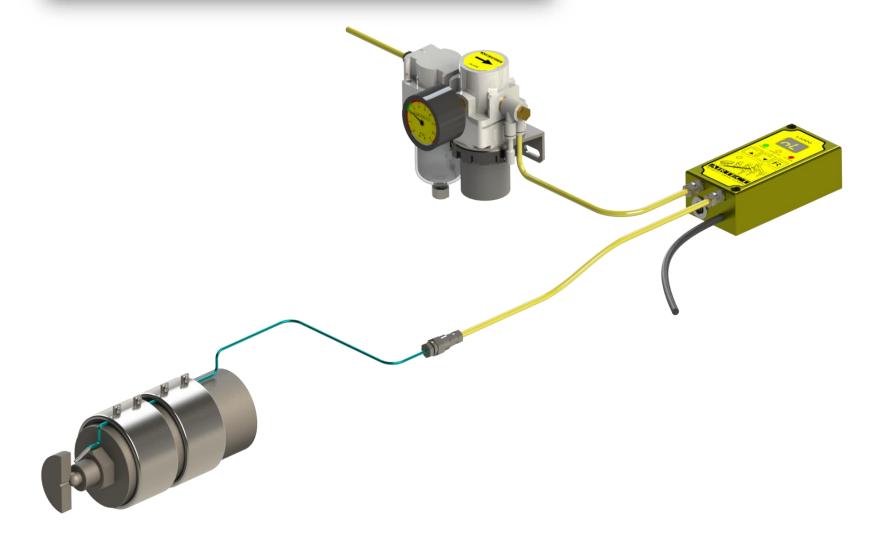
#### INJECTION NOZZLE PLASTIC LEAK ALARM (AND CONTROL UNIT FOR LA508/516 MANIFOLD)

Kit Includes:

- LM2050 with Clear Text LCD display with programmable operational settings
- AR-20GF Air Pressure Regulator with Pressure Gauge, Air Filter and Fittings
- 3 Meters PU Tube
- 0.5 Metres 2.5mm Silicone Rubber Tube
- 3 Meters 2mm Stainless Steel Sensor Tube
- Installation/Operation Manual
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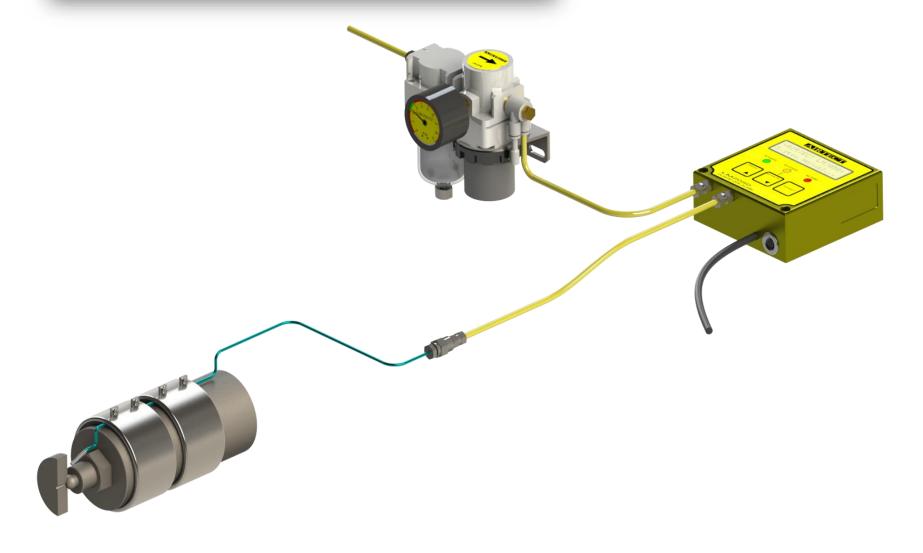


**LA500 INSTALLATION** (for nozzle only leak detection)





**LM2050 INSTALLATION** (for nozzle only leak detection)



# AIRTECT Plastic Leak Alarm System

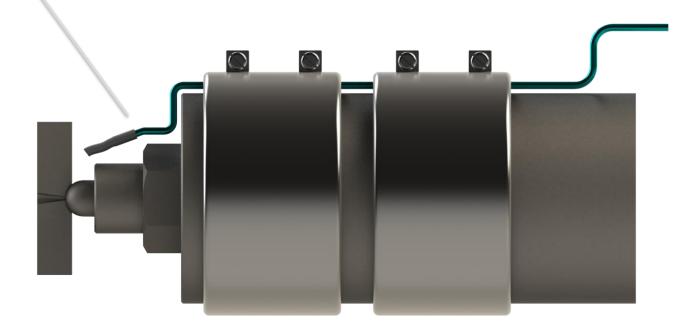
#### LM2050 and LA500 NOZZLE SENSOR TUBE INSTALLATION

#### FULL CUTTING RECOMMENDATIONS SHOWN LATER

- 1. File Sensor Tube Flat
- 2. Ensure 1mm Clear Hole in Centre



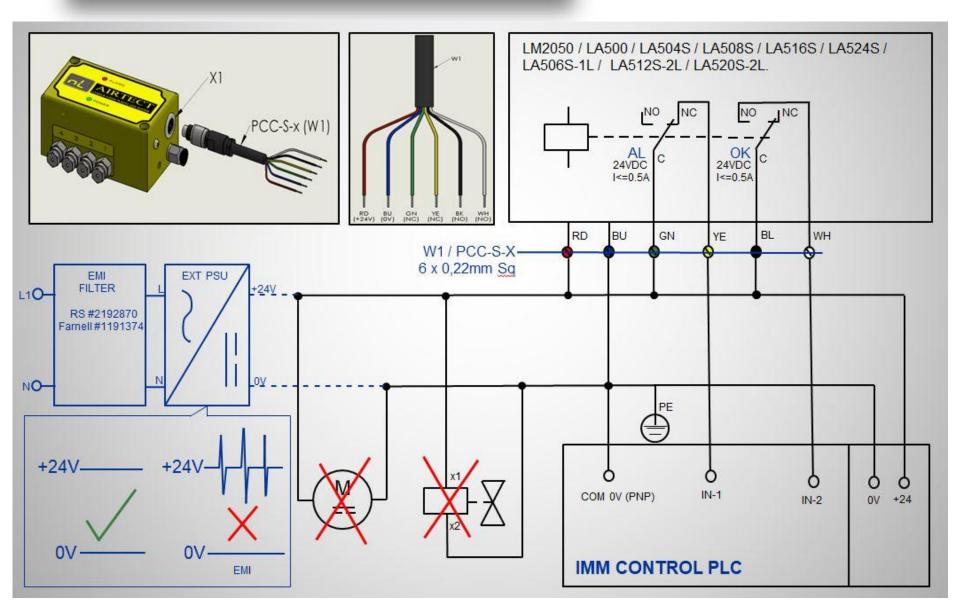
- 3. Put on Silicone Rubber Sleeve (leave 15-20mm overhang and keep away from direct contact with heater band or nozzle, max 270°C)
- 4. Place close to nozzle...customer can decide depending on how soon an indication they need.
- 5. Fix the Sensor Tube securely!





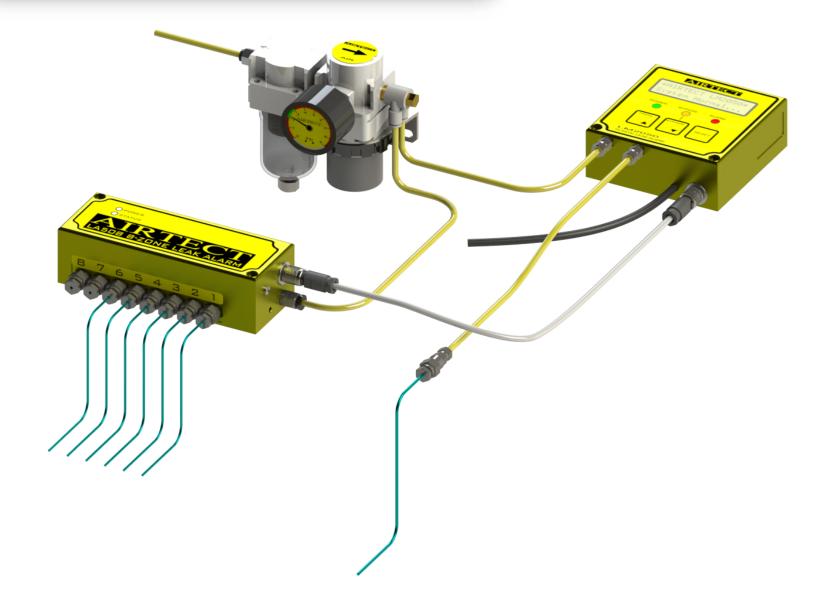
#### **ELECTRICAL INSTALLATION**

(Single nozzle, Multi-Zone and Stand-Alone Units)



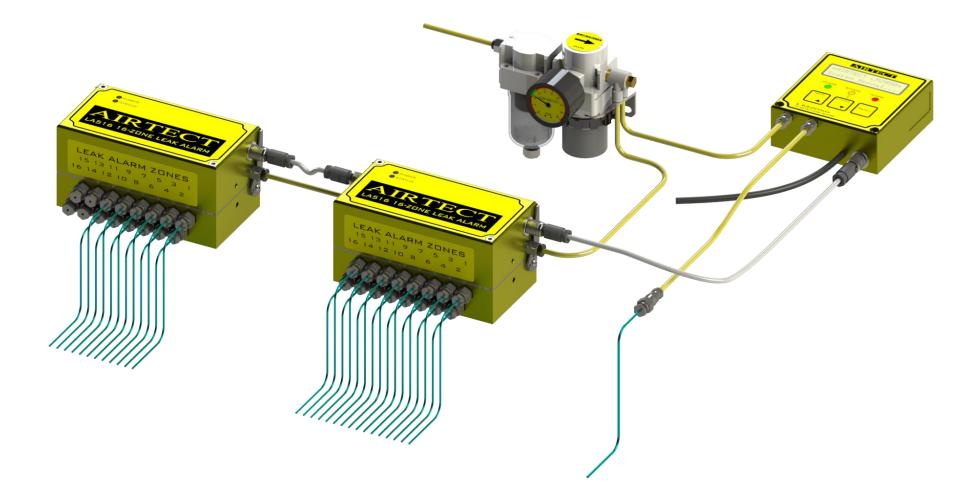


**LM2050 INSTALLATION** (single nozzle and 8-zone leak detection)



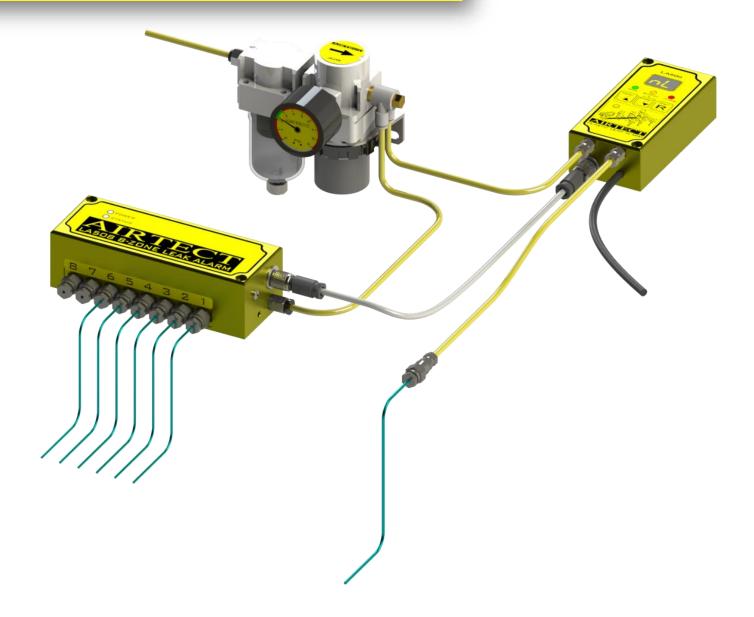


**LM2050 INSTALLATION** (single nozzle and 32-zone leak detection)



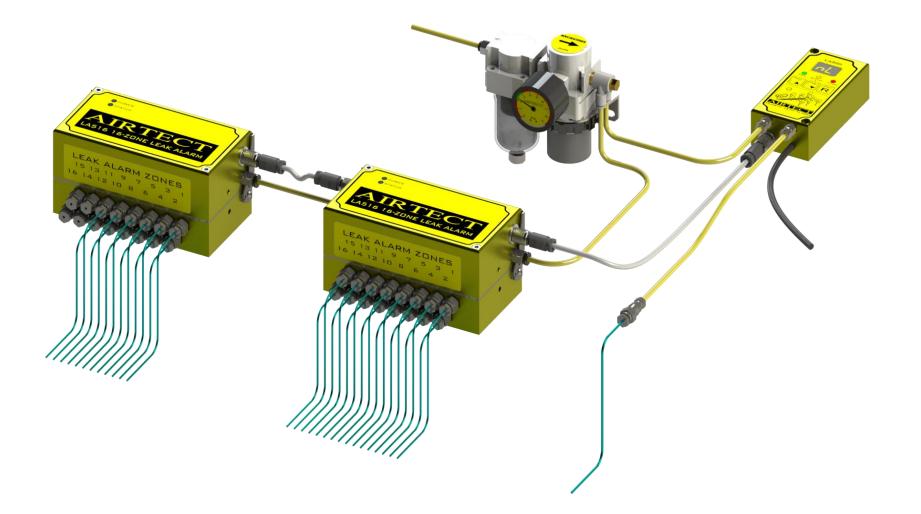


**LA500 INSTALLATION** (single nozzle and 8-zone leak detection)





**LA500 INSTALLATION** (single nozzle and 32-zone leak detection)





#### **MANIFOLD INSTALLATION PHOTOS**



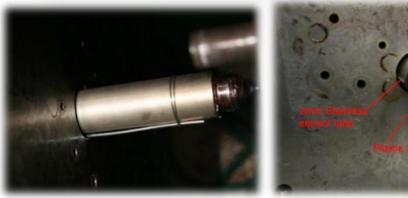


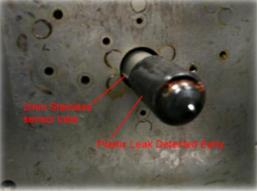






#### SENSOR TUBE INSTALLATION PHOTOS











#### SENSOR TUBE INSTALLATION PHOTOS









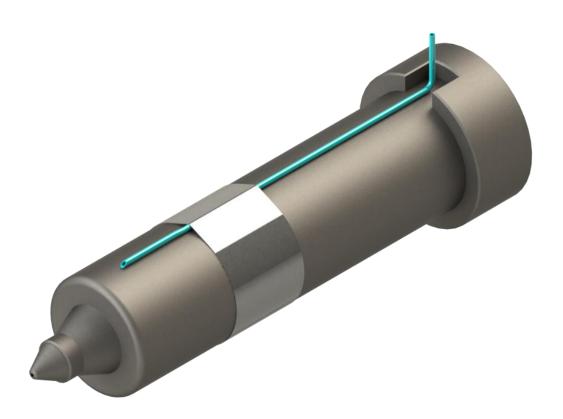






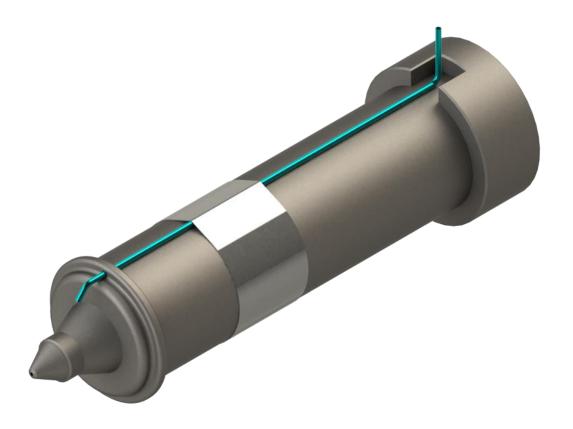
SENSOR TUBE INSTALLATION

RECOMMENDATIONS





SENSOR TUBE INSTALLATION RECOMMENDATIONS





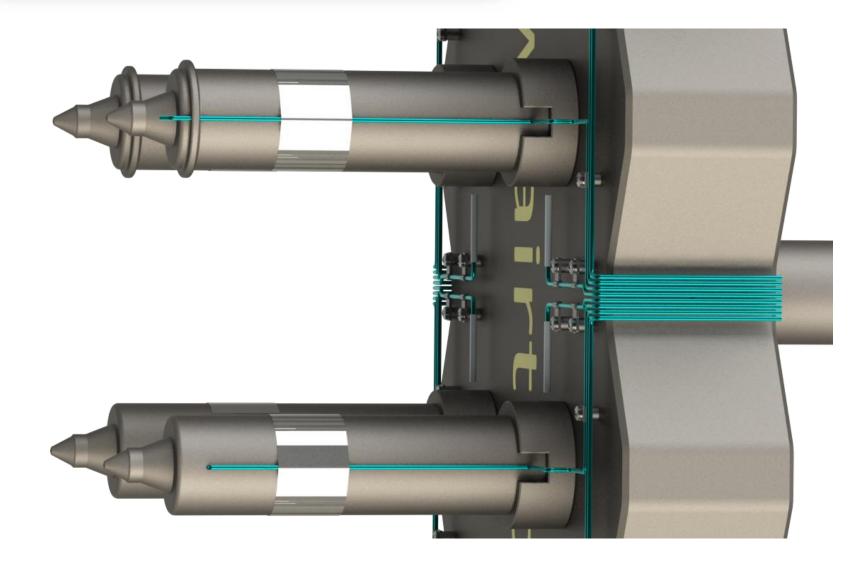
SENSOR TUBE INSTALLATION RECOMMENDATIONS





SENSOR TUBE INSTALLATION

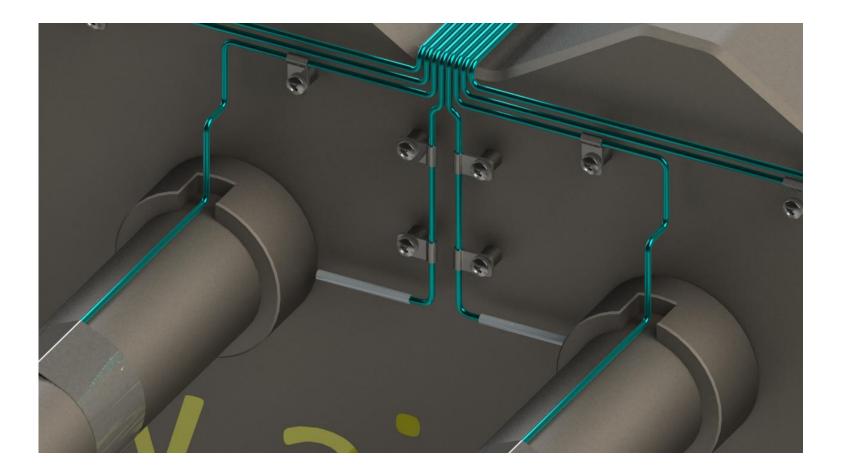
RECOMMENDATIONS





SENSOR TUBE INSTALLATION RECOMMENDATIONS

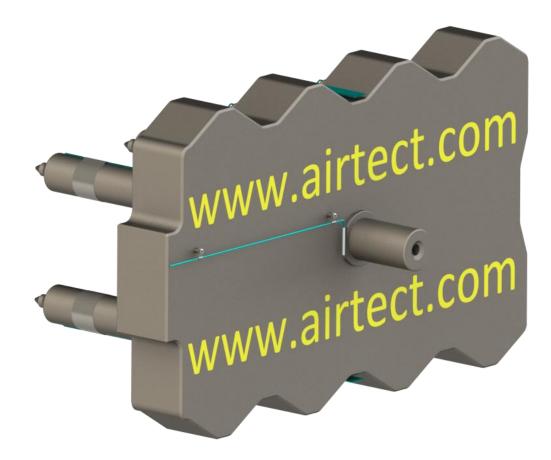
Plastic Leak Alarm System





SENSOR TUBE INSTALLATION RECOMMENDATIONS

Plastic Leak Alarm System





#### MULTI-ZONE LEAK DETECTION MANIFOLDS ARE AVAILABLE AS 'STANDARD' OR 'STAND-ALONE' UNUITS

**'STANDARD' MANIFOLD ADVANTAGES (CONNECTED TO LA500 or LM2050)** 

- PROGRAMMABLE FUNCTIONS INCLUDE LEAK REPORTING AND INTERLOCK RELAY DELAY TIMERS, MANIFOLD TEMPERATURE ETC
- MULTIPLE MANIFOLD CONNECTION SYSTEMS (DAISY CHAIN).
- PROVIDE LEAK DETECTION AT MAIN INJECTION NOZZLE

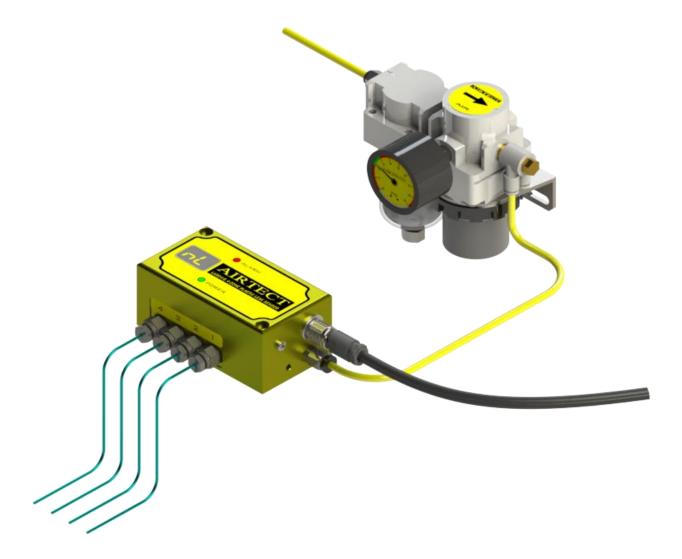
#### **'STAND-ALONE' MANIFOLD ADVANTAGES**

- LOW COST ALTERMATIVE WITH INTEGRAL CONTROL UNIT
- LEAK LOCATION DISPLAYED ON MANIFOLD
- FIXED 10 SECOND INTERLOCK RELAY DELAY TIMER
- AVAILABLE IN FIXED OR MODULAR UNITS, SAME AS ABOVE.
- AUTO-RESET OF ALARMS
- SAME ELECTRICAL CONNECTIONS AS LA500/LM2050
- NO PCC CABLES

NOTE: THESE UNITS CANNOT BE EXPANDED (DAISY CHAINED)

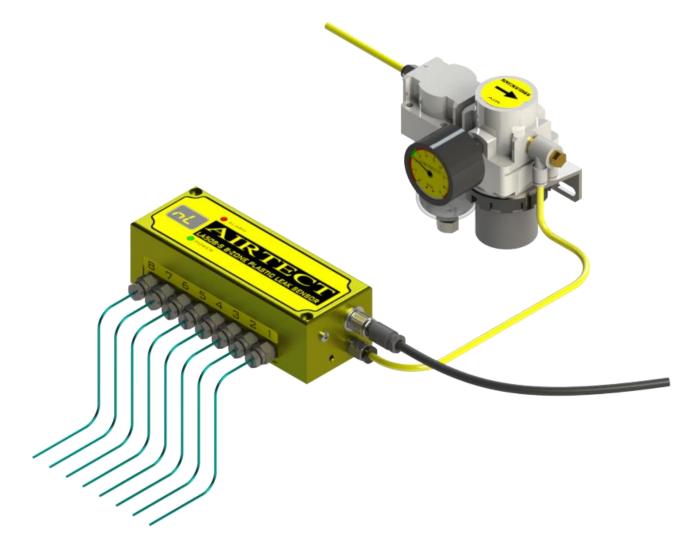


#### LA504S 4-ZONE 'STAND-ALONE' EXAMPLE





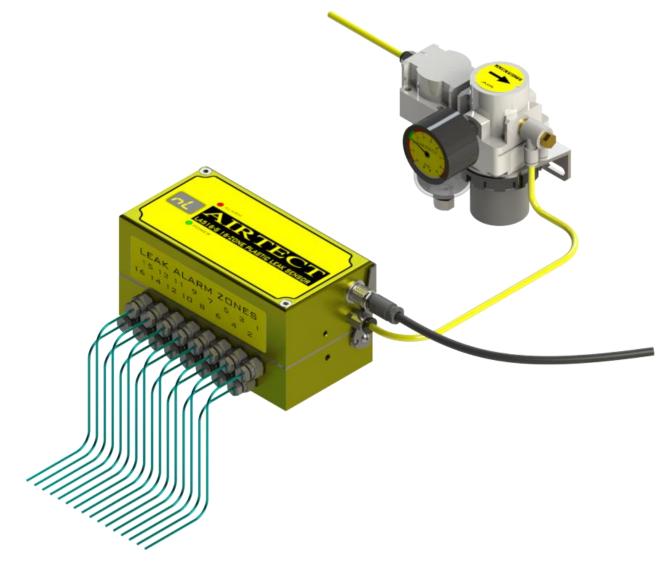
#### LA508S 8-ZONE 'STAND-ALONE' EXAMPLE





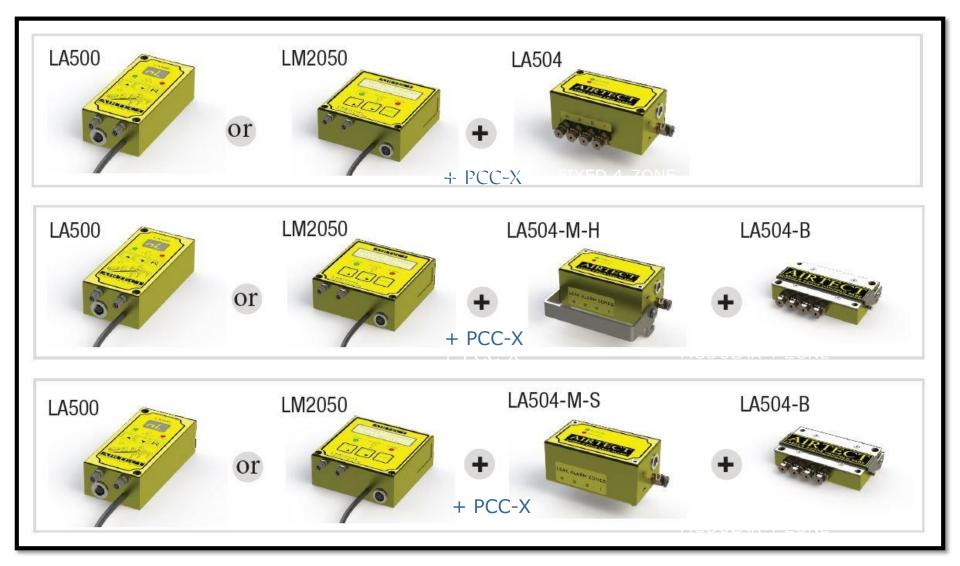
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#### LA516S-M-S 16-ZONE 'STAND-ALONE' EXAMPLE





#### 4-ZONE 'STANDARD' LEAK DETECTION SYSTEM OPTIONS



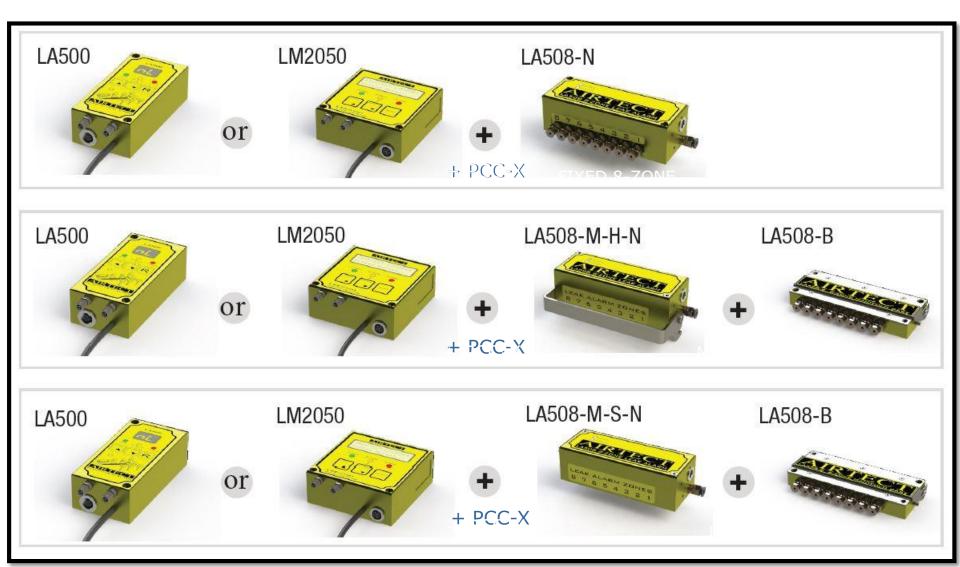


#### **4-ZONE 'STAND-ALONE' LEAK DETECTION SYSTEM OPTIONS**



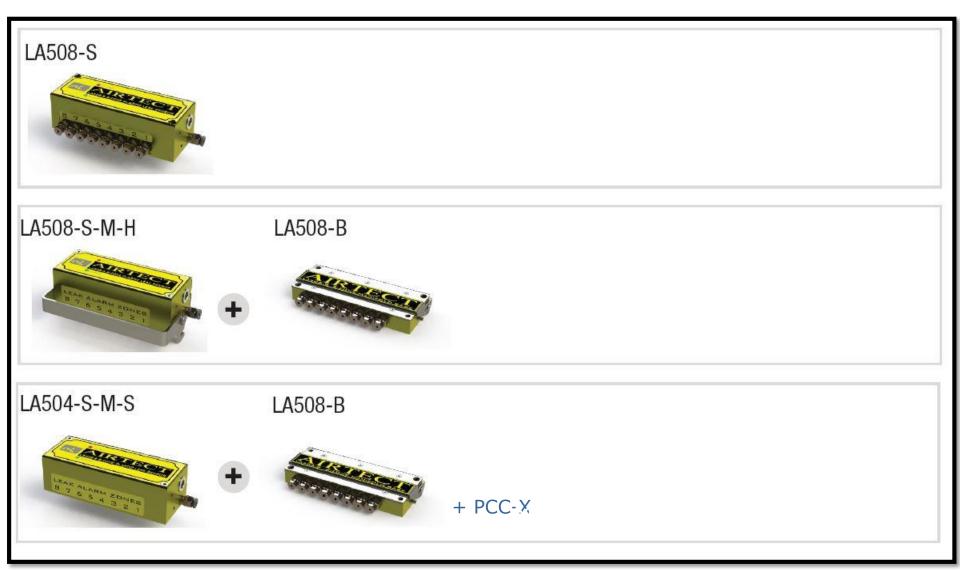


#### 8-ZONE 'STANDARD' LEAK DETECTION SYSTEM OPTIONS



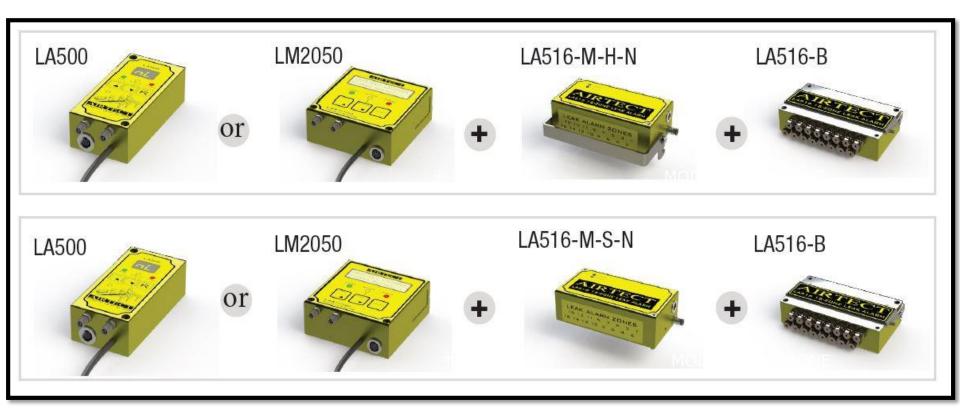


#### **8-ZONE 'STAND-ALONE' LEAK DETECTION SYSTEM OPTIONS**





#### **16-ZONE 'STANDARD' LEAK DETECTION SYSTEM OPTIONS**



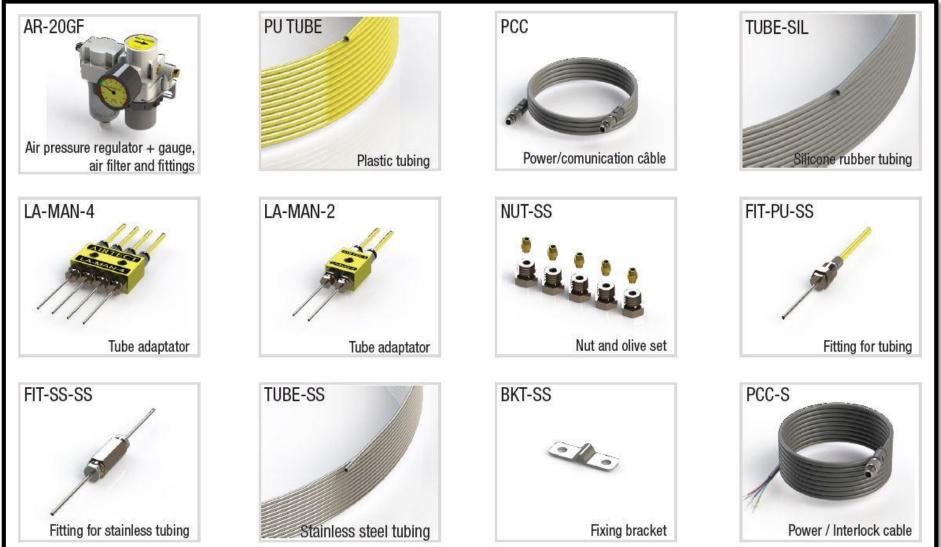


#### **16-ZONE 'STAND-ALONE' LEAK DETECTION SYSTEM OPTIONS**





#### ACCESSORIES





#### **FREQUENTLY ASKED QUESTIONS**

- Q: How much compressed air is used? A: 0.05 Litres per minute per sensor of compressed air at 2PSI.
- Q: What is the difference between the LA500 and LM2050. A: There is no functional difference. Only the Clear Text LCD display with multiple language options.
- Q: How much DC power is required?
   A: 24Vdc @ 150mA average for LM2050 + LA508. Please note the DC power Source must be free from Electromagnetic Interference (EMI), caused by many devices such a solenoid valves, servo motors etc working on the sale DC power line. Good electrical practice will eliminate all potential problems.
- Q: How long can the stainless steel sensor tubes be? A: The design is for a maximum of about 5 meters.
- Q: What is the minimum bend radius for the stainless steel tubes without affecting air flow?

A: R1.6mm for the 1.6mm diameter tube and R2 for the 2mm diameter tube.

Q: Where is the Silicone Rubber tube used?
 A: At the end of the stainless steel sensor tube at the main injection nozzle. It is also used within a Hot Runner mould where the temperature is less than 270°C.



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