LAND

LANDSCAN

LSP Series Linescanners
Mountings and Accessories

An AMETEK® Company

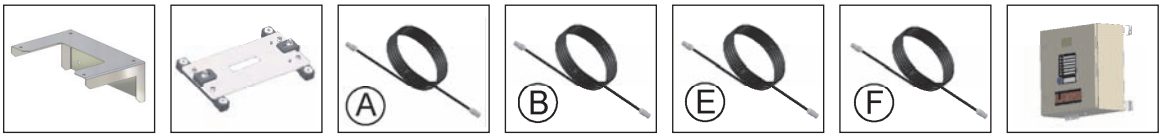
LANDSCAN LSP RANGE OF MOUNTINGS AND ACCESSORIES

The following information is intended as a guide to the extensive range of optional mountings and accessories available to ensure that you get the best possible service from the investment you have made when specifying Landscan LSP infrared linescanning systems to monitor and control your manufacturing process. The tables below illustrate a range of possible arrangements for typical industrial applications encountered - ranging from light industrial to hostile environments such as the steel and glass works.

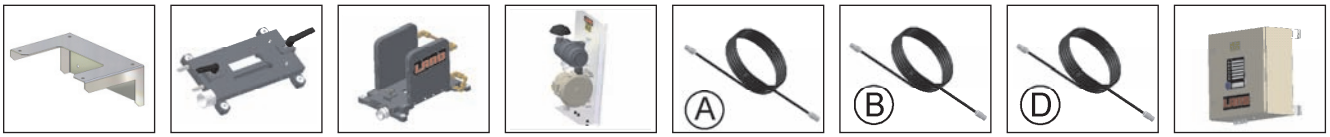
For specific recommendations on the choice of protection housing, mounting assemblies, water cooling, air purging and cabling requirements to suit your specific industry or installation, contact Land Instruments International for further advice before ordering.

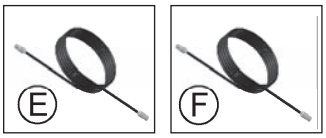
TYPICAL APPLICATIONS

Light Industrial - General Purpose



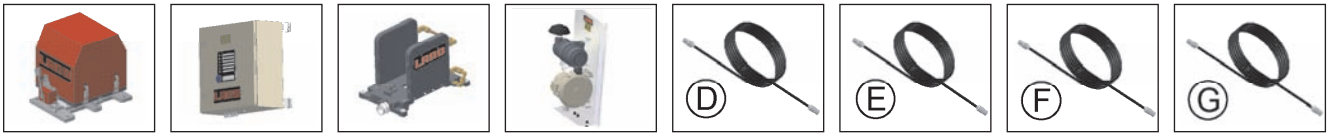
Heavy Industrial - Hostile Environments





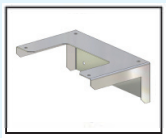
SPECIAL APPLICATIONS

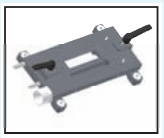
Glass Float Line

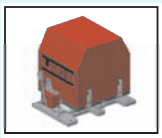


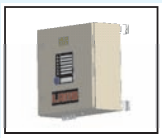
Other examples include: kiln scanning, and torpedo car and ladle safety, and conveyor belt monitoring. For information on these applications contact Land Instruments International for further information.

KEY

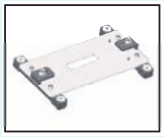

Right-angle Mounting plate


Water-cooled, air purged base plate


Float line mounting assembly with cover

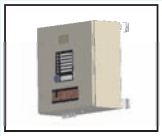

Float line mounting service panel


Cable assemblies See separate table


Basic Mounting Plate


Water-cooled, air purged base plate with sides


Plate mounted blower unit

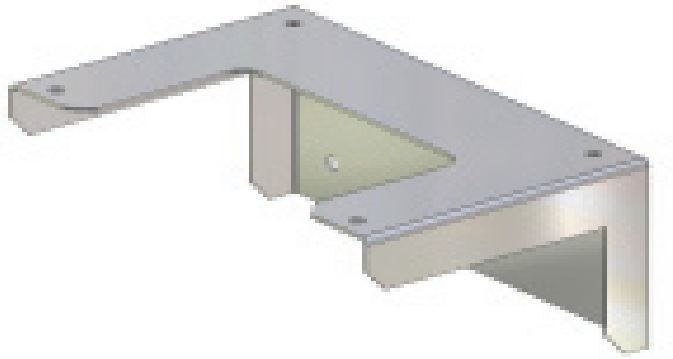

Mini service panel

RIGHT ANGLE MOUNTING PLATE

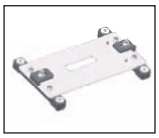
The right angle mounting plate is a simple design intended for basic LSP linescanner head mounting.

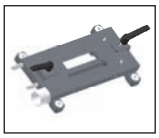
It is pre-drilled to accept either the basic mounting plate or the water cooled, air purged base plate.

All fixings are supplied with the plate.

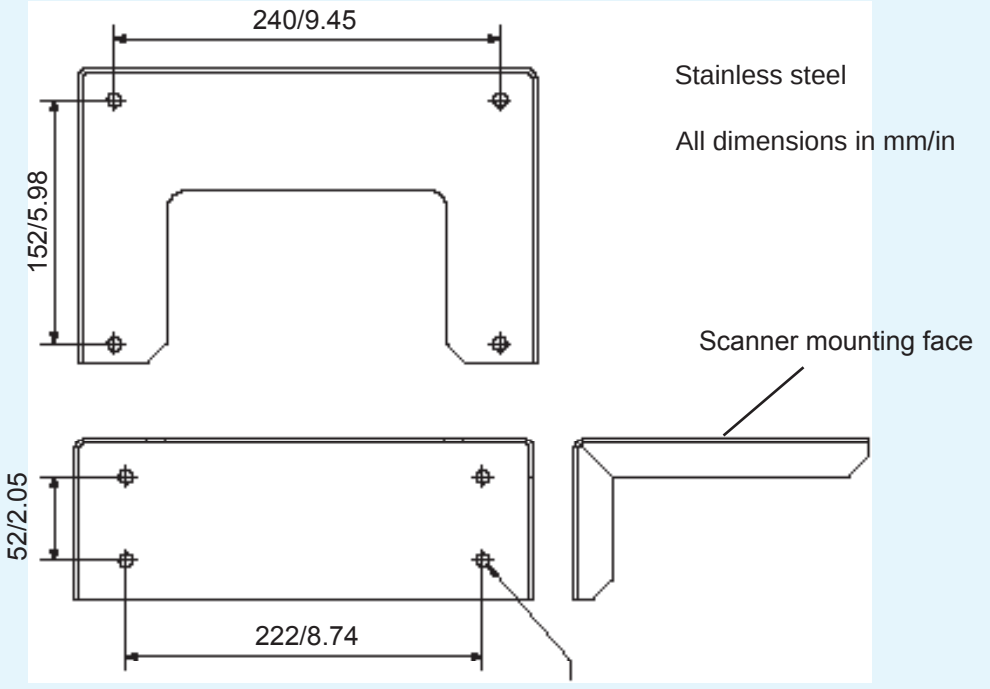


Can be used with:





Right angle mounting plate

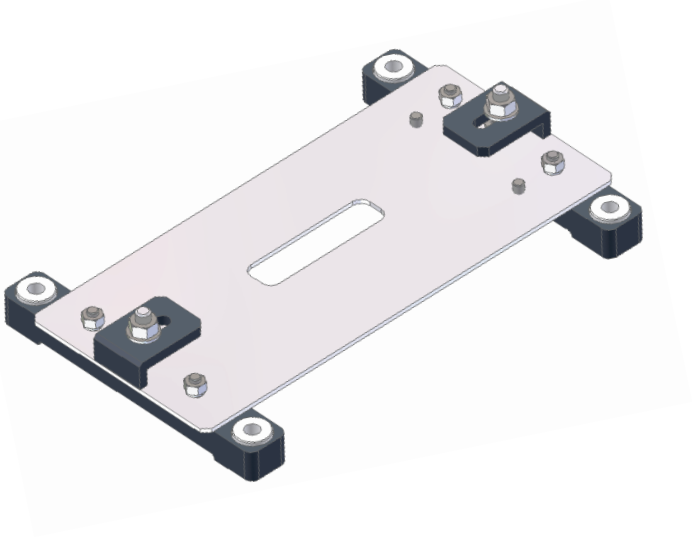


Dimensions

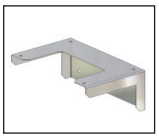
BASIC MOUNTING PLATE

The basic base plate is used in applications where an LSP linescanner head is to be installed in light industrial environments where the ambient temperatures is within the recommended operating range of the instrument and the atmosphere is relatively free from dust and airborne particles.

The basic base plate provides a quick release mounting arrangement for the scanner, making realignment a simple and easy operation.

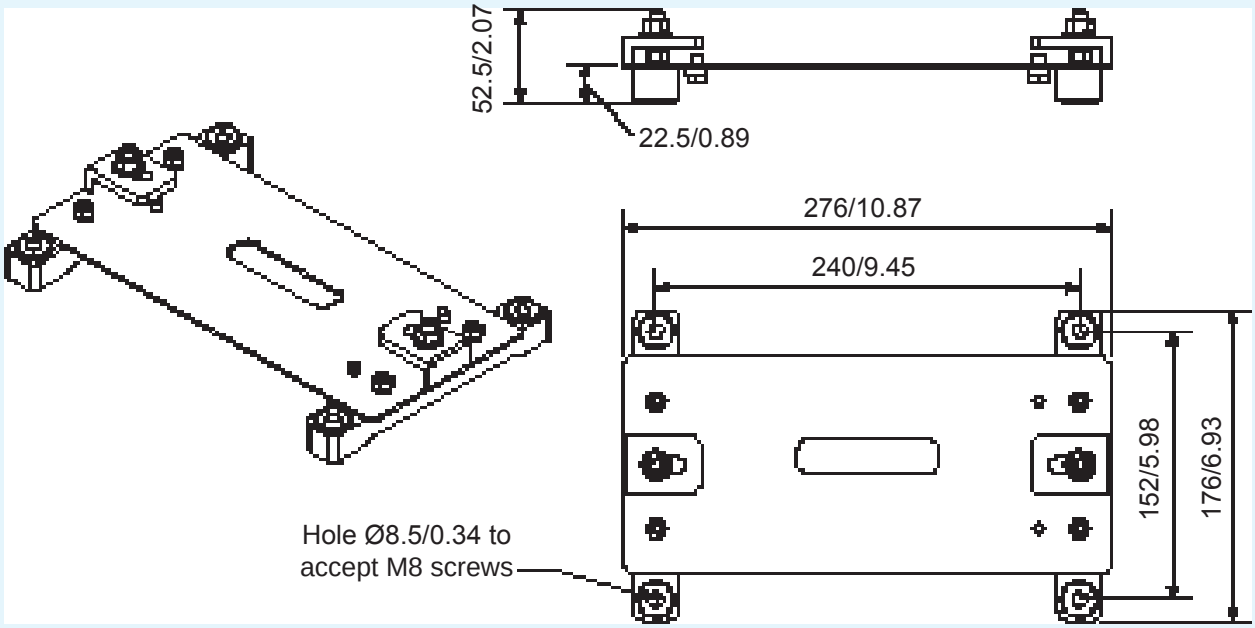


Can be used with:



Basic mounting plate

All dimensions in mm/in



WATER COOLED, AIR PURGED BASE PLATE

The water cooled, air purged base plate is used in applications where an LSP scanner is to be installed into environments where the ambient temperatures are in the range of 60 to 100°C/140 to 212°F.

This accessory is ideally suited to general industrial applications.

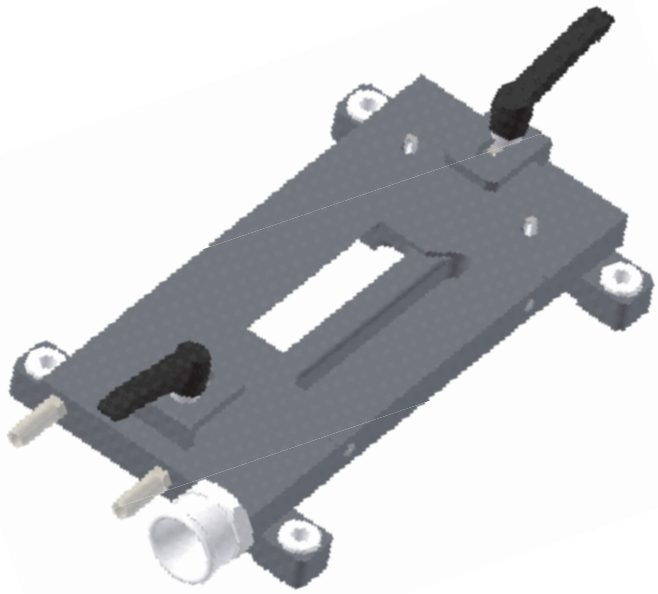
The air purge facility should be utilized where the operating environment is dusty and airborne particles could contaminate the scanner viewing window.

The base plate is fitted with hose connectors suitable for 9.5mm/3/8in bore reinforced PVC water hose.

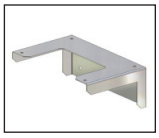
The water flow rate required depends upon each individual application, however 1l/min/0.26GPM is an absolute minimum at 30°C/86°F maximum water temperature.

The base plate is fitted with a G3/8 air connector, which is suitable for 38mm/1.5in I/D neoprene air hose, through which the purge air is supplied.

The flow rate depends upon local conditions and scanner orientation, but a rate of 300l/min/12.36SCFM at an inlet pressure of 1m WG/1.42psi/0.1bar is typically sufficient.

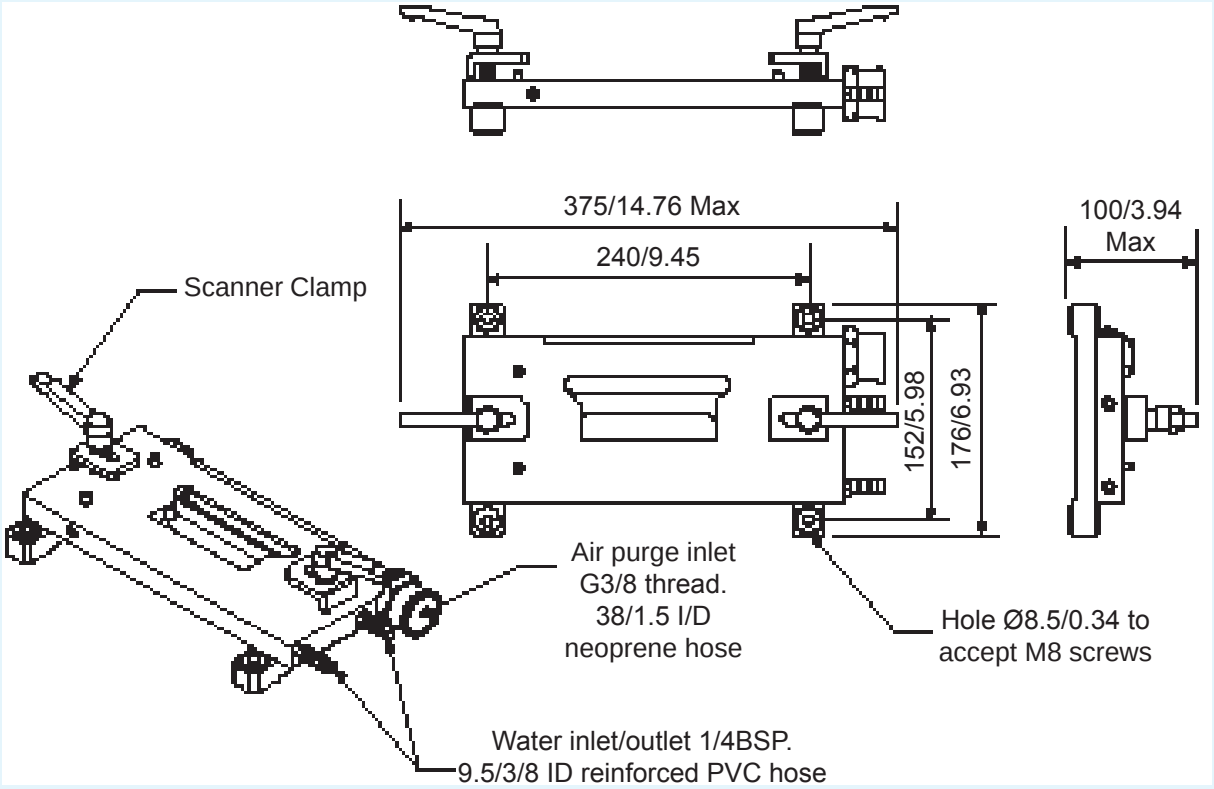


Can be used with:



Water cooled, air purged base plate

All dimensions in mm/in



WATER COOLED, AIR PURGED BASE PLATE WITH SIDES

The water cooled, air purged base plate with sides is used in applications where an LSP linescanner is to be installed in environments where the ambient temperatures are in the range of 60 to 120°C/140 to 212°F, such as steel and glass plants.

The air purge facility should be utilized where the operating environment is dusty and airborne particles could contaminate the scanner viewing window.

The base plate is fitted with hose connectors suitable for 9.5mm/3/8in bore reinforced PVC water hose.

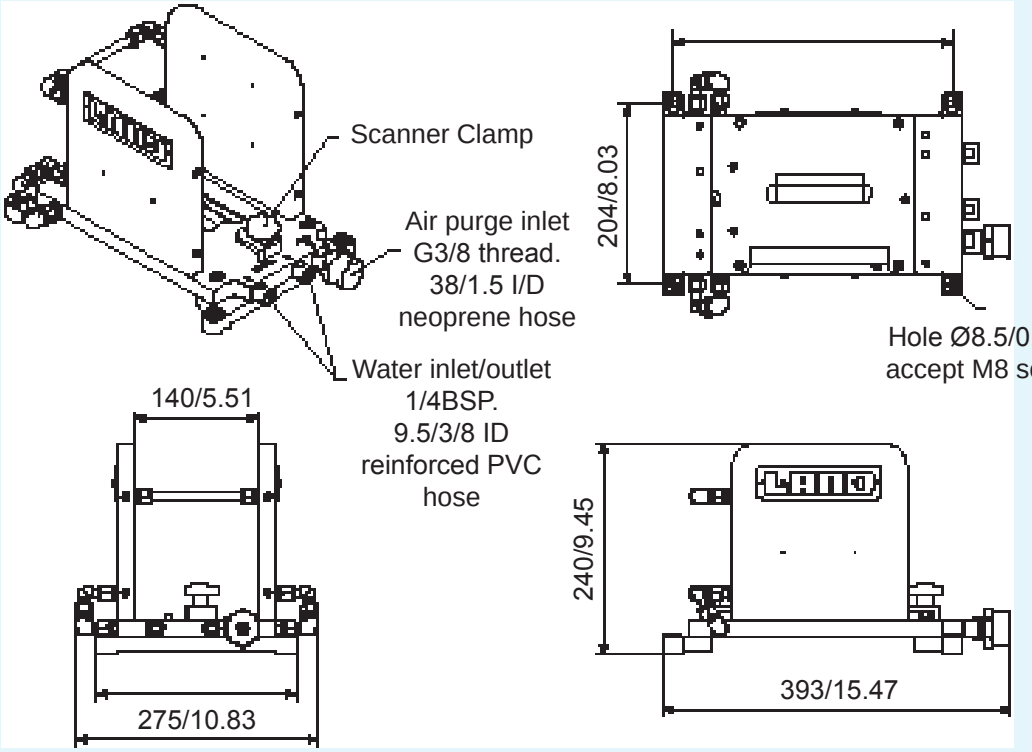
The water flow rate required depends upon each individual application, however 1l/min/0.26GPM is an absolute minimum at 30°C/86°F maximum water temperature.

The base plate is fitted with a G3/8 air connector, which is suitable for 38mm/1.5in I/D neoprene air hose, through which the purge air is supplied.

The flow rate depends upon local conditions and scanner orientation, but a rate of 300l/min/12.36SCFM at an inlet pressure of 1m WG/1.42psi/0.1bar is typically sufficient.

Water cooled, air purged base plate with sides

All dimensions in mm/in



LSP FLOATLINE MOUNTINGS

LSP float line mountings provide protection for the LSP linecanner, against high ambient temperatures and heavy contamination associated with glass float line environments.

They also give flexibility for alignment when setting up and rigidity and adjustability during scanner mounting.

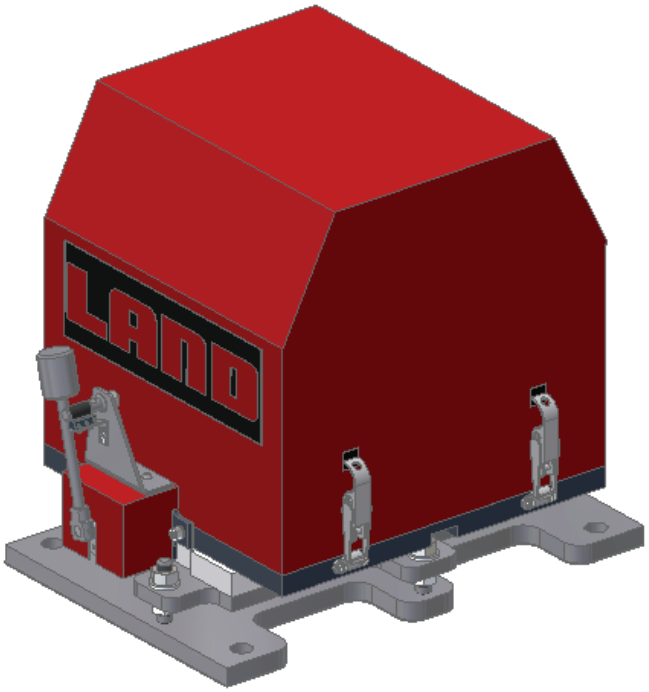
To counter high ambient temperatures, a water-cooling system is employed.

This requires a constant, clean water supply to be available. The cooling water flows through the side and base plates and is supplied via 1/4in BSP inflow and outflow connectors, suitable for 9.5mm/3/8in bore reinforced PVC water hose.

The water flow rate required depends upon each individual application, however 1l/min/0.26GPM is an absolute minimum at 30°C/86°F maximum water temperature.

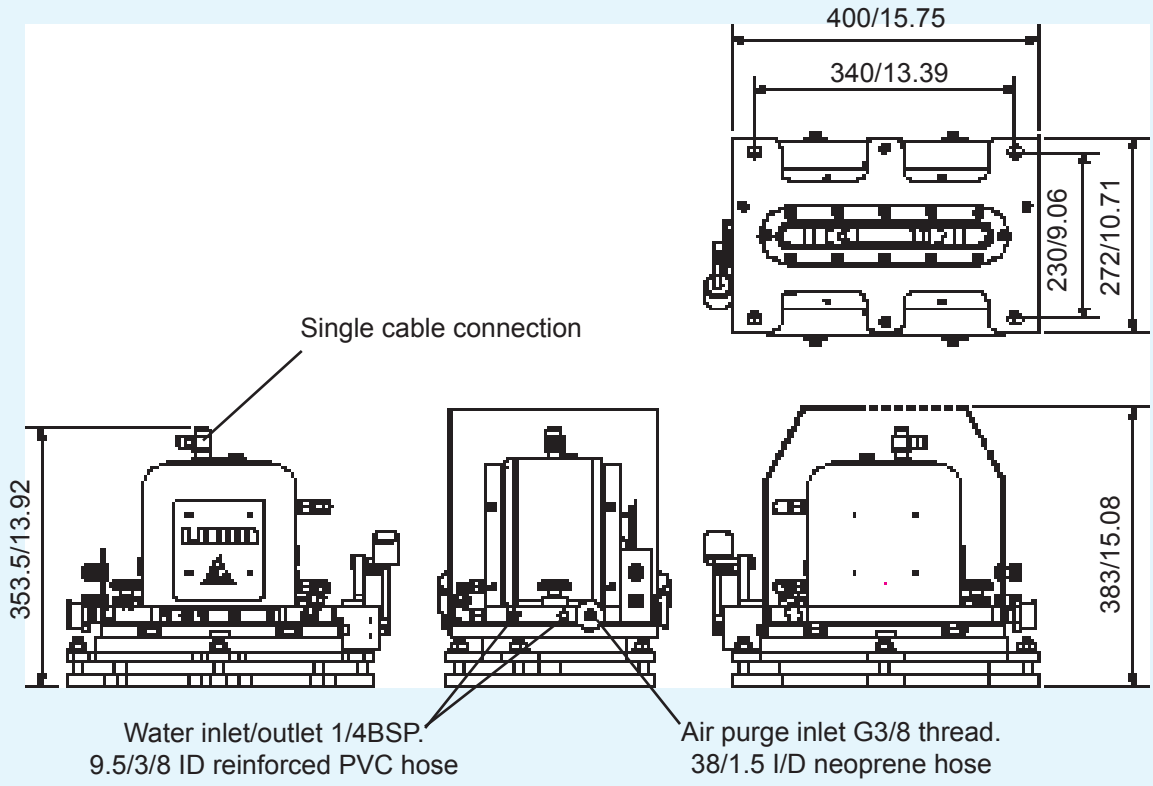
An air purge system is also utilized to protect the scanner from contamination and the hostilities of the process under observation.

A G3/8 air connector in the mounting plate accommodates 38mm/1.5in I/D neoprene air hose, through which the purge air is supplied. The flow rate depends upon local conditions and scanner orientation, but a rate of 300l/min/12.36SCFM at an inlet pressure of 1m WG/1.42psi/0.1bar is typically sufficient.



LSP float line mounting assembly

All dimensions in mm/in



LSP FLOATLINE SYSTEM SERVICE PANEL

The LSP linescanner float line system service panel provides mains power to all components of the LSP system, isolation facilities for servicing access and real-time system status information.

The display panel can be supplied with a choice of languages to suit the local application.

It provides a real-time indication of system status, including:

Power On (24V) - status indication

Over Temperature - warning indication

Low Purge Pressure - warning indication

High Purge Pressure - warning indication

Shutter Not Open - status indication

Manual Close - status indication

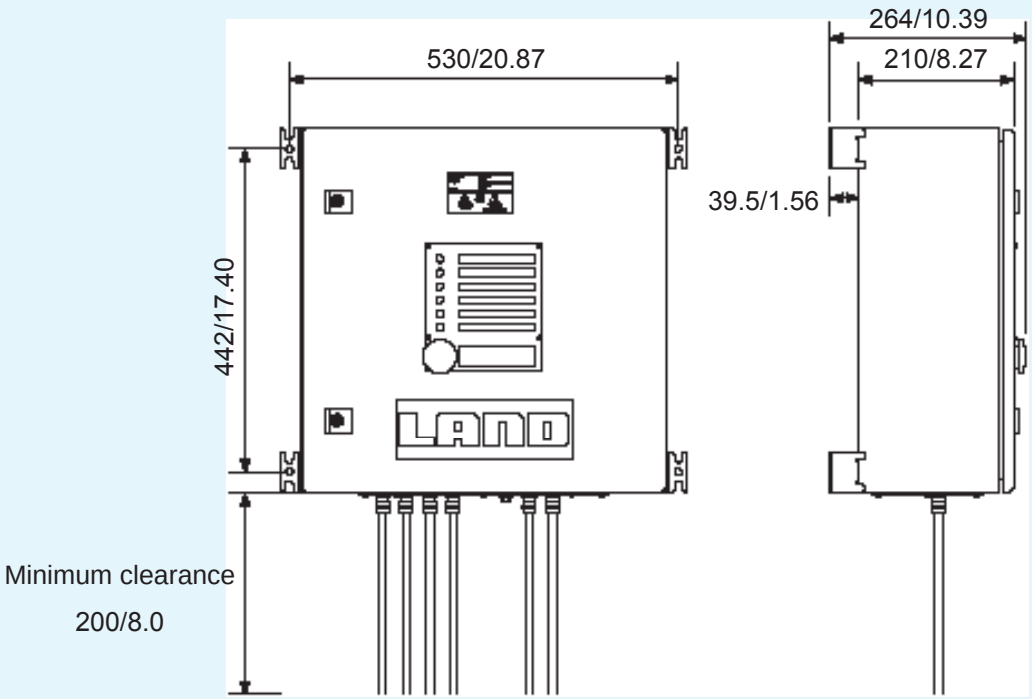
Push For Manual Close - manual operation

Any chosen installation site for the service panel must have low vibration, low contamination and must be within ambient temperature specification at all times (max. 50°C/90°F).

The maximum cable run between the service panel installation site and the float line mountings should not exceed 15m/50ft, taking into account the safe routing of the cable.

LSP float line system service panel

All dimensions in mm/in



LSP MINI SERVICES PANEL

The LSP Mini Services Panel provides mains power to all components of the LSP system, isolation facilities for servicing access and system status information. It is primarily utilized when a cable extension is required, allowing up to 300m/1000ft of additional cable run from initial 15m/50ft installation point.

Any chosen installation site for the service panel must have low vibration, low contamination and must be within ambient temperature specification at all times (max. 50°C/122°F).

The maximum cable run between the mini services panel installation site and the LSP must not exceed 15m/50ft, taking into account the safe routing of the cable.

LSP MINI SERVICES PANEL

All dimensions in mm/in

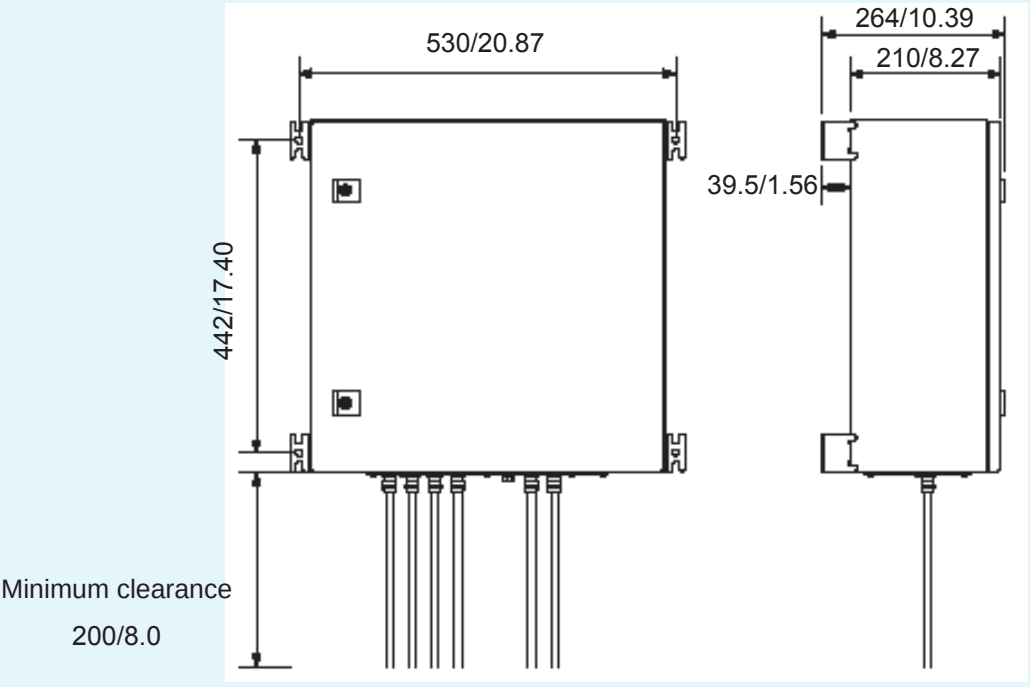


PLATE MOUNTED BLOWER UNIT

The plate mounted blower unit provides air to linescanning and thermal systems, where the specified application requires a controlled, conditioned air source for instrument cooling and/or optical air purging in order to maintain a clear sight path to the target. Optional weatherproof cover available.

Specifications

	Option 1	Option 2	Option 3
Power supply:	230V a.c.	110V a.c.	220V a.c.
Frequency:	50Hz	60Hz	60Hz
Power consumption:	400W	500W	500W
Circuit breaker (type C):	10A	16A	10A

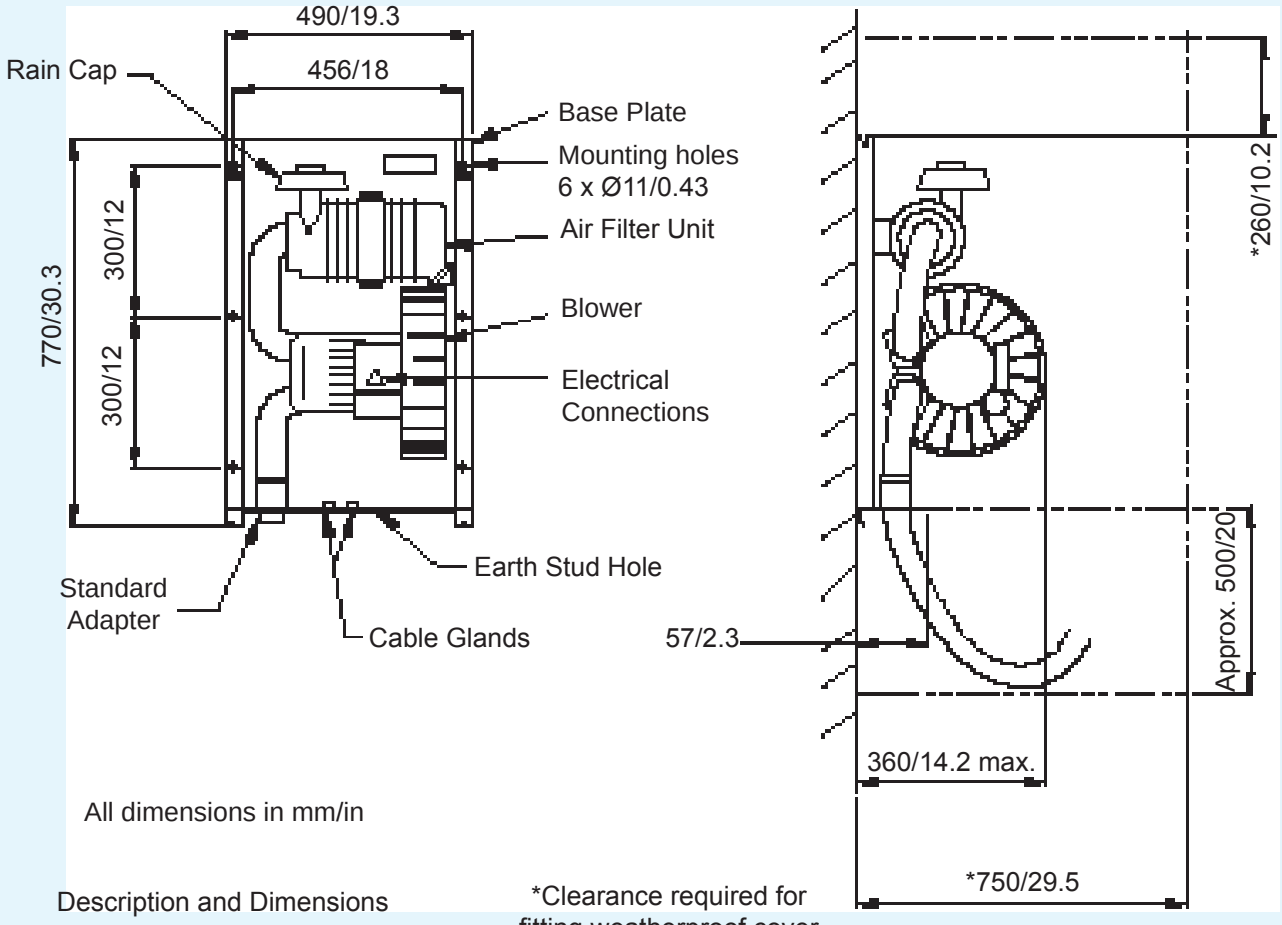
Operating temperature: -20 to 50°C/-4 to 122°F (-40 to 50°C/-40 to 122°F with optional air heater fitted)

Environmental rating: IP55/NEMA 4 (IP55/NEMA 4X (with weatherproof cover fitted)

CE marking: 89/336/CEE; 73/23/CEE

Weather proofing: In accordance with EN 60034-5

Plate mounted blower unit



RECOMMENDED CABLE ASSEMBLIES

The following cabling schedules are intended to provide a guide to recommended cable arrangements for typical industrial applications encountered. For specific recommendations on your application contact Land Instruments International for further advice before ordering.

Light Industrial - General Purpose

Key	Connection	Cable Length	Description	Part Number
Ⓐ	LSP to LSC-B/C	up to 15m/50ft	Standard cable	031-402
Ⓑ	LSP to LSC-B	15m/50ft to 150m/500ft	Special order cable	N/A
Ⓐ	LSP to LSC-B/C	150m/500ft to 300m/1000ft	Standard cable +	031-402
			Mini service panel +	ZT7198
Ⓔ			Belden 8162 (2-pair) or	203-849
Ⓕ			Belden 8163 (3-pair)	203-852

Heavy Industrial - Hostile Environments

Key	Connection	Cable Length	Description	Part Number
Ⓐ	LSP to LSC-B/C	up to 15m/50ft	Standard cable or	031-402
Ⓓ			High temperature cable	031-794
Ⓑ	LSP to LSC-B	15m/50ft to 150m/500ft	Special order cable or	N/A
Ⓓ			High temperature cable +	031-794
		All lengths	Mini service panel +	ZT7198
Ⓔ		All lengths	Belden 8162 (2-pair) or	203-849
Ⓕ		All lengths	Belden 8163 (3-pair)	203-852

Glass Float Line Applications

Key	Connection	Cable Length	Description	Part Number
Ⓓ	LSP to LSC-B/C	all lengths	High temperature cable +	031-794/795
			Float line service panel +	092-733
			Data cable -	ZT7198
Ⓔ			Belden 8162 (2-pair) or	203-849
Ⓕ			Belden 8163 (3-pair) +	203-852
Ⓖ			Service cable -	
			Belden 8777 (3-pair) min.	203-891

For further information, please contact the appropriate office or visit our website at: www.landinst.com

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Non-Contact Temperature Measurement Solutions

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