



Howard Chambers Limited

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HCM25 Sub-sea/In air Portable MPI System

Specifications

HCM25 Yoke:

Lifting Pull:	25kg min. at 24V DC
Pole spacing:	230mm max. 85mm min.
Leg Articulation Axial:	90deg
Leg Articulation Radial:	360deg
Weights:	3.2kg - in air 2.4kg - in water
Depth Rating:	Infinite, limited only by connector rating
Hull:	Oil-filled, Pressure-Compensated
Power Requirement:	24V DC, 400mA (10w)
Duty Cycle:	100% in water or air
Connector:	1 pin 2-way male EO style in-line

HCM25 Lamp:

Peak Emission Wavelength:	360mm
Output power:	800 microwatts/cm sq. @ 100mm
Weights:	0.65kg - in air 0.25kg - in water
Depth Rating:	600m
Power Requirement:	24V DC, 550mA (13w)
Duty Cycle:	100% in water or air
Connector:	1 pin 2-way right angle EO style b/h

HCM25B Battery Pack:

Capacity & Type:	24V 2.3Ah sealed lead-acid with low battery detect/cut-off
Weights:	3kg - in air 1.3kg - in water
Dimensions:	116mm Dia, 240mm long
Duration:	4 hrs. Yoke only (continuous) 3.5 hrs. Lamp only (continuous) 1 hr 40 mins lamp+yoke (continuous)
Depth Rating:	600m

HCM25BC Battery Charger/Topside PSU:

Recharging Time:	4 hrs from full discharge
Charger Output:	29.3V, 800mA max.



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Auxiliary Output: 24.3V, 1100mA max.
Input: 120/240V AC

HCM25IF MPI Interface:

Voltages: 5.5-7V AC in, 24V DC out
Weights: 1kg - in air
0.8kg - in water
Dimensions: 116mm Dia, 70mm high
Depth Rating: 600m

HCM25P Ink Pump:

Capacity: Approx. 500ml
Reservoir Spec: Collapsible, operating at ambient pressure.
Non return valves to prevent seawater ingress.

Battery Pack:

The battery pack is a 24V 2.3Ah sealed lead-acid unit, fitted with an on/off switch and an indicator light - this shows green when the battery is good, orange when the battery has about 10 minutes use left, and red when the battery has reached full discharge. The output is automatically disconnected at this point to prevent both over-discharge and excessive reduction in field strength. The pack is fitted with a pressure relief valve that eliminates the need to vent it during charging, and has a thermal cutout to prevent over-heating, and an output protection fuse.

Battery Charger/Topside PSU:

The battery charger is a current-limited constant voltage unit, and will recharge a flat battery in about 4 hours. It has an auxiliary output that is designed to power the yoke and/or the lamp (via an umbilical) when not in use as a battery charger. The unit has a three-colour indicator, which shows red when the unit is charging, orange when the battery is charged (or

PI Transformer Interface:

The MPI interface power supply hooks onto the handle of the transformer pot, and is connected in place of the coils to the AC terminals. It has a red power-on lamp, and is controlled from the surface unit, exactly as the MPI coils would be. The output current control should be set to maximum, although little or no indication will show on the ammeter. Any device that will provide 6V AC at about 3 amps may be used to power this interface.

Ink Pump:

This economical unit solves the problem of seawater dilution of ink that is inherent in most other flexible ink dispensers. By utilising a collapsible reservoir in combination with a trigger-operated pump, the module prevents seawater from being drawn into the reservoir. The reservoir capacity is about half a litre, and the price of the module is such that several may be deployed at the same time without undue expense - this will obviously be an advantage where larger areas are to be inspected.