

Flexible, Rigid and Retractable Pendants

SPECIFICATION

Rigid & Retractable Pendants

The pendant shall be designed for installation into operating theatres and anaesthetic rooms, providing medical gases, electrical power, data and extra low voltage services as specified by the customer, in a convenient prefabricated assembly. The pendant shall be supplied pre-piped, pre-wired and fully tested. Pendants shall be manufactured and installed to provide a 2000mm clearance above finished floor level (in retracted position for retractable pendants). The pendant shall fully comply with HTM 2022, HTM02-01 NHS Model Engineering Specification C11, BS EN ISO 11197 and the IEE Wiring

Regulations.

The pendant shall be capable of surface or concealed mounting, with a shroud extension being provided for surface installations. A separate shroud shall be supplied to enclose the 1st fix mounting arrangement, electrical terminations and gas service connections. The shroud shall be adjustable to compensate for variation in the finished ceiling thickness.

The body of the pendant shall be manufactured from 1.6mm thick Zintec steel. The pendant body shall be supplied with an 'easy clean' high quality RAL9002 polyester powder coated finish. The gas fascia plate shall be manufactured in 2mm thick grade 304 stainless steel and shall have a non-reflective satin brushed grain finish. All pendants shall have a soft bumper strip around the bottom edge.

The pendants shall be octagonal in section, capable of mounting up to 8 medical gas/vacuum terminal units plus an anaesthetic gas scavenging terminal unit, along with 8 double gang and 8 single gang electric sockets/devices. Medical gas/vacuum services shall incorporate BeaconMedaes GEM terminal units and the anaesthetic gas scavenging disposal system shall incorporate a BeaconMedaes terminal unit to BS EN ISO 9170-2. Medical gas/vacuum services shall be arranged in accordance with HTM 2022 and HTM02-01 recommendations. Electrical installations shall conform to the IEE wiring regulations and BS EN ISO 11197, routed through flexible conduit and terminate in a junction box.

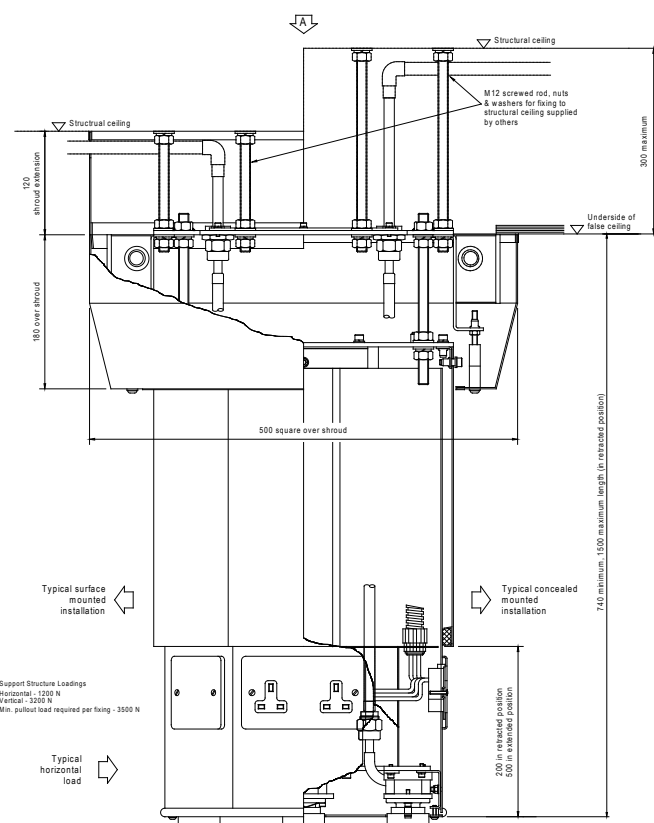
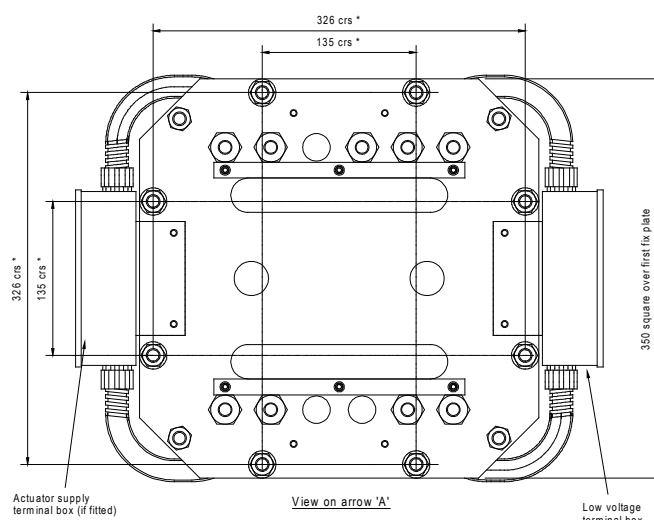
CE Marking

The standard range of BeaconMedaes Flexible, Rigid and Retractable Pendants are 'CE' marked under the Medical Devices Directive 93/42/EEC with approval from notified body no. 0088 (Lloyd's Register Quality Assurance). Under this directive, the specified products are classified as Class IIa Medical Devices.

Retractable Pendant

The Retractable Pendant shall be supplied with flexible hoses manufactured to BS EN ISO 5359, with NIST connectors manufactured to BS EN ISO 18082. Gas-specific NIST fittings shall be permanently attached. Pressure gas systems shall incorporate a self-closing check valve in the 1st fix termination to enable hose replacement without disruption of the system. Hoses shall have a minimum internal bore of 6.35mm (1/4") for all pressure gases except surgical air, which shall have a minimum internal bore of 8.02mm in order to provide a higher flow/lower pressure drop for surgical tools. Vacuum hoses shall also have a minimum internal bore of 8.02mm.

Retractable Pendants



The retractable pendant shall extend and retract through a vertical range of 300mm at an approximate rate of 20mm/s and shall be powered by a single-phase linear actuator. The linear actuator shall operate from a 230V, 50 Hz electrical power supply (110V, 60 Hz also available) fused at 5A. An extra-low voltage (12V) remote hand controller shall operate the pendant and internal micro-switches shall break the control circuit at the limits of travel. Thermal overload protection with automatic reset shall be incorporated within the linear actuator control circuits.

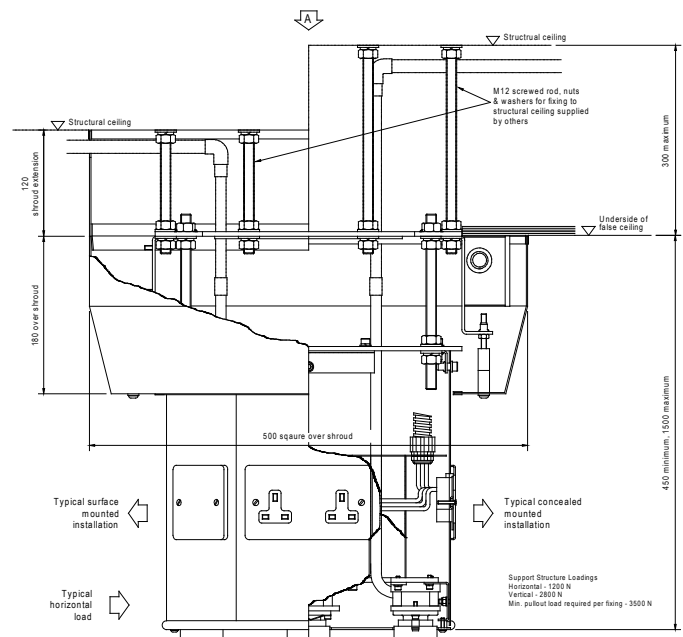
Rigid Pendant

The Rigid Pendant shall be rigidly piped in accordance with the requirements of BS EN ISO 11197. Flexible hose assemblies shall not be used. The compartment for housing medical gas pipes shall be capable of running up to 9 gas pipes generously spaced to facilitate simple on-site brazing to the piped distribution system. Copper pipes shall be manufactured from phosphorous de-oxidised non-arsenical copper to BS EN 1412: grade CW024A and be manufactured to metric outside diameters in accordance with BS EN 13348: R250 (half hard). Rigid pipes shall be cleaned and degreased to satisfy the requirements of BS EN ISO 15001.

Flexible pendants

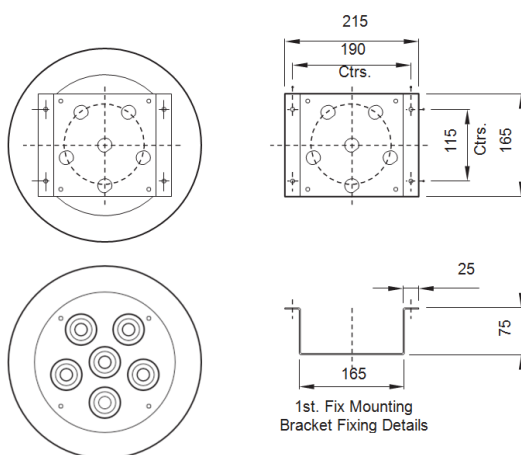
Flexible pendants are intended for use in operating theatres, anaesthetic rooms and similar medical locations. They are an ergonomic solution for the provision of medical gases at the point of use and are intended to overcome trip hazards associated with trailing hoses. Flexible pendants are supplied pressure and leak tested, and comply with the United Kingdom Department of Health (DoH) publications HTM 02-01, HTM 2022, NHS Model Engineering Specification C11.

Rigid Pendants

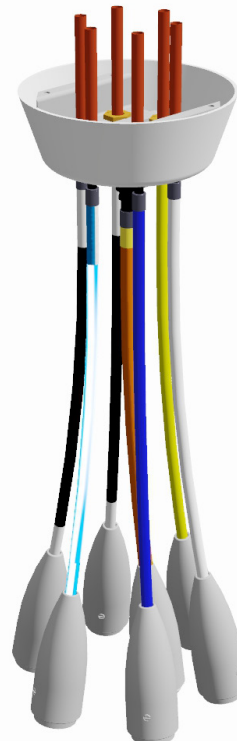


Flexible Pendants

Flexible pendants mounting plate



All dimensions are in millimetres





Rigid/Retractable Pendant Order Sheet

Pendant Type

Company Name

Date Added

Customer/Project

Contact Person

Required Date

Pendant quantity of this configuration

Dim. 'A' mm

Dim. 'B' or 'C' mm (2000 recommended by HTM02-01)

Surface Mounted Pendant ? Yes / No

i.e. Mounted on a Solid Ceiling

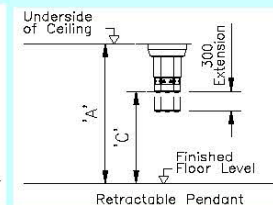
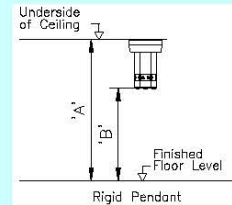
Pendant Style : Painted (RAL9002) / Stainless Steel

Accessories:

Medical Rail* Yes / No

IV Hooks Yes / No

*Note: All Retractable Pendants have a single piece of Medical Rail fitted for Hand Controller Placement



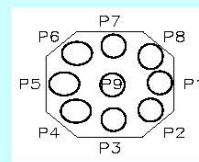
Gases Section

Maximum number of gases = 8 plus AGS (if reqd. always positioned at P9).

Terminal Unit Type
Terminal Unit Gas Selection

Input/Selection Required

BS or DIN
Oxygen
Nitrous Oxide
O2/N2O
Medical Air
Surgical Air
Vacuum
Carbon Dioxide
Nitrogen
AGS - BS6834 (only at P9)
AGS - EN9170 Active (only at P9)

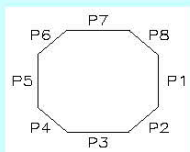


Gases will always be arranged with the highest ranking gas situated at P1 and will then be arranged in a clockwise arrangement from this position when viewed from the underside of the Pendant.

Electrical Section

Possible components:

UK- Single or Twin Switched (White or Red)
UK- Single or Twin Unswitched (White or Red)
UK- Single or Twin Isolated Supply Socket (Blue)
UK- Single or Twin Unswitched (Red)
RJ45 Cat 5e Single Gang
RJ45 Cat 5e Twin Gang
Single Equipotential Socket
Twin Equipotential Socket
Single Gang ELV Provision
Single Gang LV Provision
German- Single 2P+E 10/16A - White



Viewed from Underside of Pendant

Note! Upto 4-Twin plus 4-Single components will be mounted on single row pendant, components above these numbers will be fitted to a double row pendant. UK Sockets are taken from the Legrand range as standard supply. Low Voltage components and Extra Low Voltage components not available on the same face of pendant.

Single Gang Faces (P1-->P8)	Position on Pendant	Circuit Name i.e. Ring/Radial 1
	P1 Lower Row	
	P2 Lower Row	
	P3 Lower Row	
	P4 Lower Row	
	P5 Lower Row	
	P6 Lower Row	
	P7 Lower Row	
	P8 Lower Row	
	P1 Top Row	
	P2 Top Row	
	P3 Top Row	
	P4 Top Row	
	P5 Top Row	
	P6 Top Row	
	P7 Top Row	
	P8 Top Row	

Rings:

Ring 1
Ring 2
Ring 3
Ring 4
Radial 1
Radial 2
Radial 3
Radial 4

Other Items (Specify)

Select One of Electrical Sockets Wiring:

Ring Mains-Blue/Brown/Earth- 2.5 sq.mm
Ring Mains-Blue/Brown/Earth- 4.0 sq.mm
Radial Circuits

Notes!

1. All Equipotential Circuits will be 6 sq.mm Radials
2. Only Draw Wires will be provided for ELV components



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Part of the Atlas Copco Group

In an effort to continuously improve our products, the right is reserved to change the specification of the items described herein at any time. Please contact us for further information and up to date specifications.

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Flexible Pendant Order Sheet

Note! Please complete yellow boxes only.

Company Name:

Contact Person:

Date 1st Fix Required:

Purchase Order No.:

Customer/Project:

Date 2nd Fix Required:

Pendant Type: mm

1st Fix Part No's	Qty.	Part No. Ordered

Pendant Hose & Terminal Un	Qty.	Part No. Hose Assy.	Term Unit
Oxygen			
Nitrous Oxide			
O2/N2O			
Medical Air			
Surgical Air			
Vacuum			
Nitrogen			
Carbon Dioxide			
AGS			

Service Kit Part No's	Qty.	Part No.
Oxygen		
Nitrous Oxide		
O2/N2O		
Medical Air		
Surgical Air		
Vacuum		
Nitrogen		
Carbon Dioxide		
AGS		

