

The Pin Index Oxygen Regulator CGA870 (VM-RPI) is a CGA870 pin-index medical oxygen regulator, original model MD870-UF, designed for small portable oxygen cylinders used in ambulances, emergency departments and patient transport. It features a pin-index (PISS) yoke connection, a 0–15 L/min flow range with 12 adjustment levels, a 50 PSI outlet pressure, and a lightweight anodised aluminium body, with a barb or DISS outlet. It is certified to ISO 13485, CE, FDA and ASTM G175-03. Available in South Africa from Vital Medical.

What Is a Pin Index Oxygen Regulator?

A pin index oxygen regulator is a pressure-reducing device that connects to a portable medical oxygen cylinder and delivers oxygen at a controlled flow rate. The VM-RPI (MD870-UF) uses the pin-index safety system (PISS), a pattern of pins on the regulator yoke that physically matches only the correct cylinder valve. This prevents the accidental connection of the wrong gas to the regulator. The VM-RPI is a CGA870 pin-index style regulator, the connection type used on small portable oxygen cylinders in ambulance, emergency and patient transport settings.

Clinical Applications

Pin-index regulators are a standard choice for portable oxygen cylinders in pre-hospital care, patient transport and bedside supplemental oxygen therapy in wards and clinics. The VM-RPI offers a 0–15 L/min flow range with 12 adjustment levels, which covers the main oxygen delivery modes: nasal cannula, simple mask, partial rebreather, non-rebreather, nebulisation and oxygen-powered resuscitation. Its lightweight anodised aluminium body keeps the cylinder assembly portable for paramedic and ambulance use. The outlet is available as a barb or DISS type, and the 50 PSI (approximately 345 kPa) outlet pressure suits standard oxygen delivery devices and driven resuscitators.

Safety and Certification

The pin-index design is a critical safety feature. Without it, a high-flow oxygen regulator could be connected to a cylinder of a different gas, such as nitrous oxide, with potentially fatal results. The VM-RPI is certified to ISO 13485, CE, FDA and ASTM G175-03, which supports its suitability for medical oxygen service. For South African hospitals, EMS providers, clinics, frail care facilities and occupational health teams that need a dependable portable oxygen regulator, the VM-RPI is a practical choice for emergency response and patient transport kits. Available in South Africa from Vital Medical.

TECHNICAL SPECIFICATIONS TABLE

Specification	Detail
SKU	VM-RPI
Model	MD870-UF (CGA870 Pin Index)
Connection	Pin Index (PISS, CGA870)
Flow Range	0–15 L/min
Flow Adjustment Levels	12
Outlet Pressure	50 PSI
Body Material	Lightweight anodised aluminium
Outlet Type	Barb or DISS
Certifications	ISO 13485, CE, FDA, ASTM G175-03
Application	Portable O2 cylinders, ambulance, patient transport

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