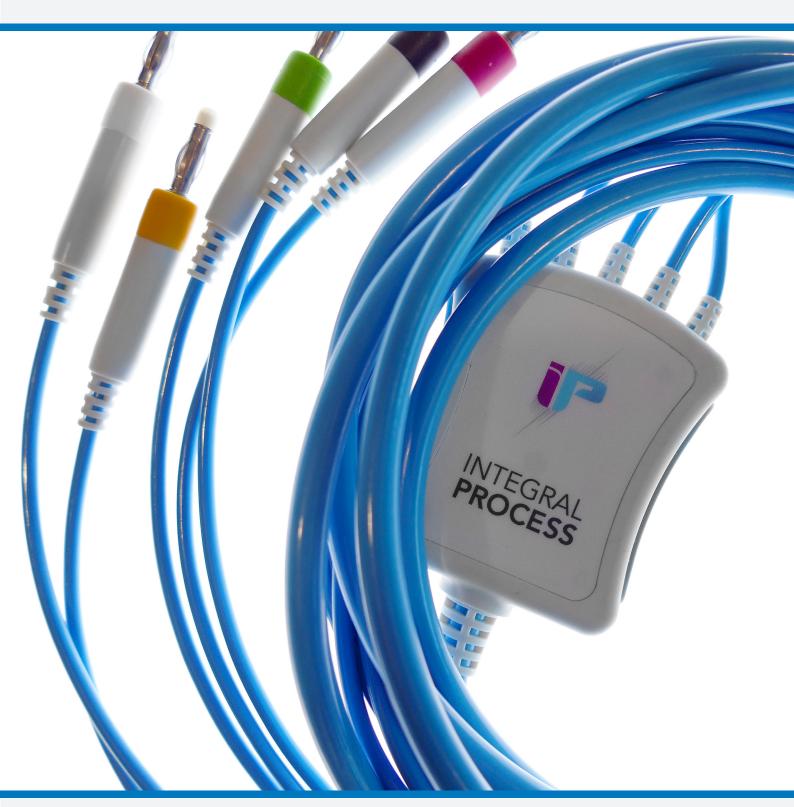


THE EFFICIENT & SELF-SUFFICIENT SOLUTION...



...THAT CAN HELP MINIMISE NOSOCOMIAL INFECTIONS





WHY CHOOSE IP CABLES & LEADWIRES?



INFECTION CONTROL – Life-long antibacterial coating on the cables greatly impair the survival of multidrugresistant hospital acquired bacterial pathogens¹

To help reduce patient morbidity, mortality¹ and save hospital cost², supporting the delivery of a high quality service



RELIABILITY & COST EFFECTIVENESS – Providing high quality cables & leadwires, continuously developed and improved over more than 30 years of experience in the field A trusted partner supplying high quality, cost effective solutions, supporting the reliable delivery of your service



COMPATIBILITY – We offer an extensive and fully compatible range, with the additional ability to quickly turn around new products upon request

As a manufacturer we can meet your needs and simplify procurement, supporting the efficiency of your service

Vermed aspire to support you in the delivery of a high quality, reliable and efficient service - your peace of mind - our commitment to quality and service



IP CABLES & LEADWIRES - BIO-ACTIVE CABLES

SELF-SUFFICIENT SOLUTION FOR MINIMISING BACTERIAL CONTAMINATION

Nosocomial (hospital acquired) infections or HCAI* are a major cause of patient morbidity and mortality.¹ Data from the US showed that nosocomial infections (NI) caused by multidrug-resistant organisms are commonly associated with up to 18 days longer hospital stays and annual estimated costs of between \$5.7 and \$6.8 billion.²

Reusable leads, e.g. ECG leads, have come under scrutiny as reservoirs for multidrug-resistant bacterial pathogens that may play an important role in serious NI in hospitalised patients.³

Key findings from a study, reported in Cardiology News, showed that after re-processing and immediately before planned use on other patients, 77% of the ECG cables were contaminated with one or more antibiotic-resistant nosocomial pathogens.³

BIO-ACTIVE CABLES CAN HELP REDUCE BACTERIAL CONTAMINATION

The IP Cables & Leadwires consist of a metalloacid material, molybdenum trioxide (MoO₃), which has been demonstrated to have an antimicrobial effect.^{1,4}

Mode of Action

The material surface of MoO_3 reacts with H_2O , forming an acidic surface. The acidic surface acts as an effective, nonspecific antimicrobial as the low pH deteriorates cell growth and proliferation.^{1,4}

Why Use Molybdenum Trioxide for Our Cables?

There are several advantages of MoO₃ coating compared to other antimicrobial solutions such as anti-adhesive, disinfectant or inorganic antimicrobial (e.g. silver or copper ions) surface coatings¹:



IP Bio-Active Cables has a life-long antibacterial coating – A Durable Solution MoO₃ is highly insoluble and stable⁵, resulting in a durable antimicrobial coating.



IP Bio-Active Cables are not affected by emerging resistance of bacteria – An Effective Solution The MoO₃ material is insensitive towards emerging resistance of bacteria.⁴



*IP Bio-Active Cables are non-cytotoxic*⁴ – *A Non-harmful Solution* Clinical tests show the non-cytotoxicity of MoO₃.⁴

Effectiveness of the Antimicrobial Properties of MoO₃

Assays have been undertaken to test the effectiveness of killing microorganisms. One study confirmed the highly efficient antimicrobial activity of MoO₃ towards severe infectious agents (S. aureus and P. aeruginosa), where cable surfaces were virtually free of bacteria within 6 hours after incubation with an infectious solution ⁴

Another study looking at nine bacterial strains and two fungi showed no difference vs control for the sporeforming microorganisms. However, the bacterial counts, after 2 to 24 hours of contact with the coated surface, were significantly lower (p<0.001) than those observed with non-coated surface.¹

The hospital environment poses a high risk of spreading microorganisms. The Bio-Active properties of IP Cables & Leadwires can, in addition to hospital specific cleaning procedures, help to reduce hospital acquired infections and may provide a permanent means of minimising microbial contamination between two cleaning procedures.

MANUFACTURER, NOT JUST DISTRIBUTOR

Being the manufacturer and not just a distributor we have great flexibility and ability to fulfill your product needs. In case we don't currently provide the product you require, please contact us.

We currently provide cables compatible with brands such as:

- Acuson
- Arrow
- Artema/SW
- Bard
- Bexen
- Biolight
- Bionet
- Bosch
- Cardiac Science
- Cardiette
- Cardioline
- Cas Medical
- Colin (IP)
- Colson
- Corometrics (GE)
- Corpuls
- Critikon (GE)

- CSI Criticare
- Datascope
- Datex Medical
- Diasonics Sonotron
- Divers
- Drager
- Drager Siemens
- Edan
- Esaote Biomedica
- Fukuda
- GE Corometrics
- GE Critikon
- GE Datex-Ohmeda
- General Electric
- GE Honeywell
- GE Marquette/Hellige
- Geterned

- Hewlett Packard
- HME
- Honeywell (GE)
- Invivo-MDE
- IVV
- Kontron
- Larsen Toubro
- Lohmeier
- Mediana
- Medtronic / Physio-Control
- Mennen
- Mindray
- Mortara
- Nellcor (Tyco)
- Nihon Kohden
- Philips ATL

- Philips Agilent Technologies
- Protocol (Welch Allyn)
- Ouinton-Burdick
- Respironics
- RGB Medical Devices
- Schiller
- Siemens
- Sorin
- Spacelabs
- St Jude Medical
- Toshiba
- Tyco Nellcor
- Welch Allyn
- Zoll

Please contact your local sales representative for further information

PACKAGING

IP Cables & Leadwires are individually packed in 100% Polyethylene, fully recyclable and environmentally friendly pouches. Vermed strives to utilise environmentally friendly packaging, whenever possible, to ensure:

- · Packaging can be widely recycled
- Fewer natural resources are used in production
- Fewer waste products are generated in production & disposal
- It is biodegradable (breaks down to carbon and hydrogen)
- · It does not generate toxic gases if burned



CONTACT INFORMATION



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References

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- 2. Reshamwala A et al., 'Microbial Colonization of Electrocardiographic Telemetry Systems Before and After Cleaning', Am J Crit Care, September, Vol 22(5), 2013, p. 382-9. doi: 10.4037/ajcc2013365 [Accessed on 3 January 2019].
- 3. Jancin B, 'Antibiotic-Resistant Pathogens Found on 77% of ECG Lead Wires', Cardiol News, March, Vol 2(3), 2004.
- 4. Zollfrank C et al., 'Antimicrobial activity of transition metal acid MoO₃ prevents microbial growth on material surfaces', Mat Sci Engin, 32, 2011, p. 47–54.
- 5. AMERICAN ELEMENTS, Molybdenum Oxide [online] 2019 https://www.americanelements.com/molybdenum-oxide-1313-27-5 [Accessed on 12 January 2019].