

# Hello, we are Sycous.

Providers of innovative metering, remote data collection and billing solutions.















We believe in leading the way in creating a sustainable future with transparent and accessible data at the heart of it.

We champion both innovation and education, to help drive positive change in the world of metering and billing and help keep costs as low as possible for consumers.

We are experts in delivering an industry leading metering and billing solution that is compliant and exceeds UK regulations and Heat Trust requirements.





Mr John Smith New York House 1 Harper St Leeds LS2 7EA



### Hello Mr John Smith welcome to mySycous!

Welcome to mySycous! Your utility supplier has appointed mySycous to provide you with a billing solution for your utilities.

This means we will be responsible for charging your account based on your usage, as well as managing your account and answering any questions that you may have.

# Who is your utility supplier?

are your utility supplier at New York House and provide the supplies listed on the reverse of this letter.



and gupport

and support we can offer at

1111111111144444444

Your payment barcode & number

Find your payment barcode in the mySycous app

Register online with your sign up code!

MEOM-MUD-MOSH

Visit mysycous.comlonline and click Register.

Date:

01/02/2023

0333 880 3115

hello@mysycous.com 8:00 - 18:00 Monday to Friday

8:00 - 16:00 Saturday

Our mySycous app makes managing your utility accor even easier.

> Download today!

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#### **OUR BRANDS**

#### **mySycous**

Our consumer brand is built for residents to be able to manage their online account, find helpful answers to frequently asked questions, update tenancy details, keep updated through our blog and contact our team.



#### Mabdeck

Our metering and billing deck software, designed for heat network operators, private utility suppliers and metering and billing companies, to manage all of their installed assets and infrastructure.



#### **HIU Service**

Our HIU maintenance and repair team are experts in operating, servicing, and repairing HIU's, as well as other systems for homes connected to heat networks. With a nationwide team of engineers, trained and endorsed by all the leading HIU Manufacturers in the UK.



#### **Orbit**

Our Orbit system provides the same functionality as a traditional PAYG solution, without the limitations associated with in-home hardware.





ABOUT US B CORP

#### **B CORP**



Sycous are delighted to become one of the first metering and billing providers in the UK to certify as a B Corporation.





#### What is a B Corp?

A certified B Corp is a company that is unlocking business as a force for good to positively impact all stakeholders in the community. By completing the B impact assessment, businesses are certified for operating at a high standard of social and environmental performance, transparency and accountability. There are now over 6,000 B Corps around the world and over 1,000 B Corps in the UK all working towards the same common goals.

#### **Our Score**

Sycous have achieved an overall B Impact score of 94.9! To certify as a B Corp, businesses must achieve a score of 80 to qualify, with the average score for ordinary businesses being around 50.9. The B Impact score takes a range of categories into account including Governance, Workers, Community, Environment and Customers, with the highest scoring Sycous categories including Workers and the Environment.



#### What this means for our clients

Our B Corp certification shows to our clients and partners that they can trust Sycous to provide products and solutions in an ethical manner. Compared to alternative sustainability accreditations, B Corp certification is a rigours process and considers documentation of a company's business model, information about operations, structure, work processes as well as review of potential public complaints and possible site visits. This matched with need for maintaining our B Corp certification by re-certifying every 3 years ensures to our clients and partners that Sycous are conducting business operations in the correct way.





# OUR EXPERTS

For expert technical support please contact:

info@sycous.com +44 (0) 113 360 4776 We have a large team of experts from software developers to engineers.

For more information: sycous.com

Our team of product and solution experts is built around supporting your organisation with industry-leading products, solutions, support and service delivery. ABOUT US OUR EXPERTS

#### **OUR EXPERTS**

#### **Onboarding and Success Management**

We recognise that getting things started right ensures longer term success.

We have dedicated on-boarding managers who ensure a successful onboarding onto our services, making sure we deliver on our commitments and work collaboratively with you and your team.

Our onboarding team will support you each step of the way, as well as sharing their own experiences and insights, especially with key topics such as resident communication, compliance and tariff management.



#### **Operational Management**

We have an experienced leadership team that ensure our teams continue to deliver and improve our services to you and your consumers.

Our team are accessible for any escalated topics, as well as sharing their knowledge and experience of best practise, regulation and what works best. We believe in working together with you to deliver the best solutions for your metering and billing needs.

We carefully monitor our KPIs on a business and client level, ensuring we maintain our service-centric ethos.



#### **Support and Service Delivery**

We believe in a service-centric approach, and that starts with our Operations and Support Team.

We have a dedicated Support Team that works with both residents and our clients, as well as a nationwide team of engineers who are able to install, repair and maintain installed equipment.

Our team are empowered and encouraged to offer a flexible and personalised service. Our team are available during working hours, with 24/7 emergency support in place.



ABOUT US OUR EXPERTS

#### **OUR EXPERTS**

#### **Health, Safety and Technical Support**

We recognise the importance of not simply being able to deliver our services but also ensure we provide the necessary technical and safety support to all stakeholders.

Our HSEQ team are field and office based, ensuring they are on-hand through every stage of our solutions, as well as undertaking quality and safety audits to maintain all expected standards of quality and safety.



#### **Business Development**

We are here to support you through every step of your journey with us.

Our product and solution experts will always be on-hand, to support you in getting the most out of your hardware and equipment. Starting with our first contact, we always aim to understand what your metering and billing needs are, so we can learn how to best support you.



#### **Development and Innovation**

We are constantly developing our software – just check out our roadmap at **help.mabdeck.com.** 

This means that our systems and services are innovative and focused around delivering for you and your consumers. We achieve this through our own team of in-house developers.





## **CAPABILITIES**

For expert technical support please contact:

info@sycous.com +44 (0) 113 360 4776 We believe in our experience, knowledge and focus on innovation to deliver best value solutions to you and your consumers.

For more information: sycous.com

Our team have the credentials to make your solutions happen.
We've built a team of experts in every area of heat network
metering and billing, including product support, customer
support, technical services and in-house development.

#### **CAPABILITIES**

#### **Product Support**

We share our experience and knowledge to make sure the products and solutions we provide are the right ones for your application.

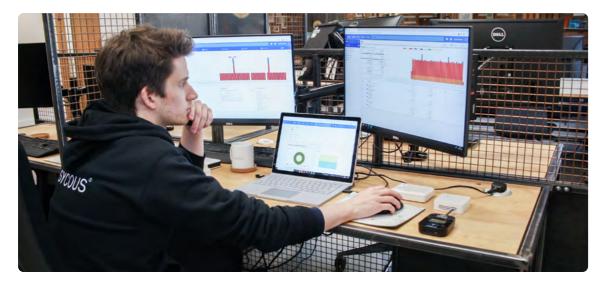
This support starts from our first contact, where we want to understand what your needs are, so we learn how we can best support you.

We provide extensive technical and operational pre-sales, installation, project management and ongoing operational support across all our products and solutions.

We want you to get the most out of your products and equipment, so whether we supplied a product or not, we can help support you in getting the most value from it.

We are here to help you solve your metering and billing issues.







#### **CAPABILITIES**

#### **Customer Support**

We recognise the important role we play in providing support to you but also to your consumers. This might include arranging appointments for a retrofit project, or supporting your consumers as part of our Customer Billing Services for billing and PAYG operation.

Your consumers are key to the successful operation of heat networks and private utility networks. Our team have the training, knowledge and experience to provide the very best service, supported with resources such as our mySycous online portal which allows them to access support whenever they need it.

Our customer support isn't limited to making sure we can help when things go wrong, or just to your consumers, we want to be proactive and support you. We want to make things go right. This includes coordinating all our projects, whatever the size or scope, from a single meter installation to commissioning thousands of PAYG units, through one of our project delivery experts. Our project delivery experts can help ensure every aspect of your project goes smoothly and provides you with a single point of contact from order to handover.







#### **CAPABILITIES**

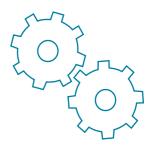
#### **Technical Services**

Our Technical Services team provides training, installation, commissioning, and maintenance services, covering all the products and solutions that we supply and support.

Our team are based across the UK, ensuring we can offer comprehensive coverage and deliver our solutions effectively. We have the infrastructure to support our Technical Services from health and safety compliance to remote diagnostics and support.

We equip our experienced team with the knowledge and training to undertake their role, as well as the necessary supporting technologies, such as ByBox for overnight stock replenishments, guaranteeing we deliver a customer-focused and industry-leading experience.

Our Maintenance Services can include site-wide provisions on behalf of heat network operators and private utility suppliers, as well as HIU Maintenance and Repairs to individual householders who may be responsible for maintaining some elements of their installed systems.







#### **CAPABILITIES**

#### **In-House Development**

As we move towards a more connected world, the technologies we use are becoming smarter and more complex. In terms of metering, data collection and operational solutions this includes a focus towards IoT and connected technologies.

We believe, however smart or complex the solution or product, we need to make it empower the user, as well as being accessible. We treat the complexity as our problem, so we can deliver simple and intuitive products and services to you.

We develop all our software platforms in-house, with an industry leading internal development team, making sure what we develop is right for our products, solutions and you.







# SOLUTIONS

For expert technical support please contact:

info@sycous.com +44 (0) 113 360 4776 We provide complete end-to-end openprotocol metering and billing solutions.

For more information: sycous.com

You never have to be alone in solving your metering and billing issues! Our innovative solutions cover every aspect of heat network metering and billing, from selecting the correct equipment for your network right through to making sense of your data and on-going services.

#### **METER HARDWARE**

#### Sycous provide innovative metering options, providing the right solution for any application.

Our hardware comes in a variety of outputs for remote reading such as MBus, Wireless MBus, LoRaWAN and NB-IoT, making it suitable for both domestic and commercial applications.

#### Heat and Cooling Meters (see page 25)

Zenner C5-IUF Diehl Sharky 774



**B-Meters Hydrosonis-ULC** 



#### Water Meters (see page 31)

Zenner ETKD/ETWD



B-Meters GMDM-I







#### Electricity Meters (see page 36)

ABB B21 Single Phase Direct

ABB A44 Three Phase CT

ABB C11 Single Phase Direct







**Clamp-on Meters** (see page 46)

U1000-HM



**Flow Meters** (see page 49)

U1000-FM



**Heat Cost Allocation** (see page 51)

Zenner VMT-IUF



#### **Hardware Manufactures**

Sycous offer meters from the world's leading manufacturers, ensuring robust, reliable and accurate metering of your utility supplies.





















#### Data Collection (see page 68)

Elvaco CMe2100

Elvaco CMe3100

Elvaco CMeX







#### Meter Accessories (see page 58)

**Ball Valves** 

Couplings

**Temperature Sensors** 







#### Pay-As-You-Go (see page 81)

Secure Liberty

Guru Hub

Orbit









#### **DATA COLLECTION**

Data collection solutions help you get the most out of installing meters and does so in the most cost-effective way.

We design our solutions to be open-protocol, meaning you're not locked to Sycous, or anyone else to access your data – it's your data, you own it, and you control it.

View our Data Collection hardware range on page 68.

#### **MBus and Wireless MBus**

OMS MBus is an open-protocol wired or wireless solution allowing you to select the data collection and AMR infrastructure that most suits your application. The heart of this solution is the central data collector, where cables or wireless signals terminate. This data collector can be 4G, GSM or TCP/IP (broadband) connected, allowing data to be remotely accessed through applications, such as our Mabdeck software or another 3rd party application.

MBus and Wireless MBus is ideal for use on heat networks and private utility networks as it is simple to install and robust in operation. This is also ideal where metering locations need to be localised such as on a heat network, in a single building or area, allowing meters to be connected together, or where wireless signals are possible.



#### IoT Technology

Sycous support IoT solutions such a LoRaWAN, NB-IoT. Our IoT solutions can interface with your existing gateways and network servers, or be stand-alone.

We supply and support a range of gateways, have existing network server capabilities and we've definitely got the application server sorted allowing data to be made available to our Mabdeck software, or another 3rd party application.



#### **Elvaco Premium Partner**

We're a Premium Partner and the largest partner in the UK of Elvaco, a world-leading manufacturer of data collection solutions, including Meter Communication Modules (MCM) for leading meter manufacturers including Diehl, Kamstrup and Landis & Gyr.

This Premium Partner relationship means that not only can we sell at the lowest prices, but we provide the best solution for your application and the exceptional levels of technical support both remotely and on-site to make sure it's delivered effectively.



To learn more about how our Wired MBus, Wireless MBus, LoRaWAN and NB-IoT data collection systems work turn to page 53.



#### **PAY-AS-YOU-GO SYSTEM (PAYG)**

Our range of 'transferable-protocol' PAYG solutions and 'open-protocol' PAYG cloud solution, allows you to effectively manage your utilities cash-flow, reduce the level of administration and provide additional in-home functionality to consumers.

View our PAYG hardware range on page 81.

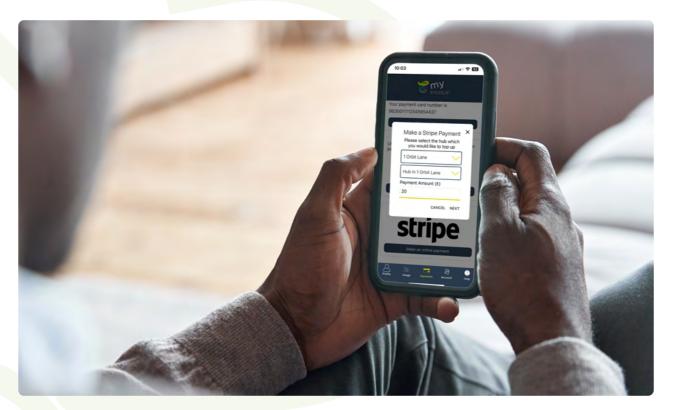
#### **Secure Liberty**

The Secure Liberty 100 is a utility-grade PAYG solution, offering functionality for heat, electricity and gas. This device operates in either a PAYG or credit mode and can be remotely switched between the two.

As a smart meter provider, with over 2 million operational smart meters, choosing their solution for heat networks and private utility networks means you're choosing a solution with proven security, reliability and operational capabilities.









#### Orbit

Our Orbit system provides the same functionality as a traditional PAYG solution, without the limitations associated with in-home hardware.

Orbit utilises cloud technology and is hardware agnostic, meaning you can select your metering, data collection equipment and technologies, including open-protocol MBus and Wireless MBus as well as IoT LoRaWAN and NB-IoT, without losing the ability to reduce debt-risk.





#### **Guru Systems**

The Guru Hub II provides an award-winning solution to two of the biggest issues faced by heat networks and private utility operators; consumer debt and hidden inefficiencies.

Guru has become established as a leader in innovation, looking beyond the simplicities of metering to providing an eco-system for managing heat networks and improving efficiencies.







#### **IOT TECHNOLOGY**

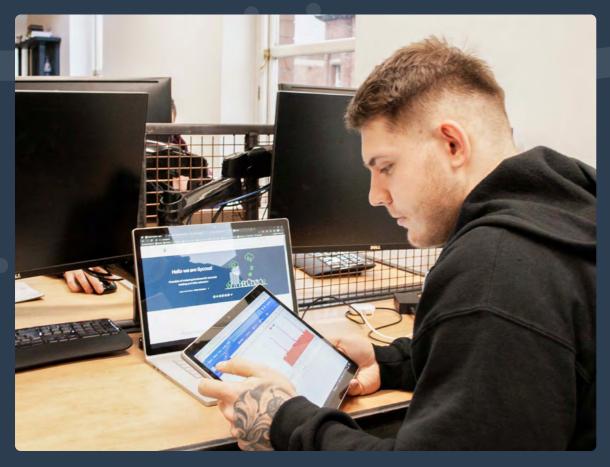
IoT networks and connected devices enable a low cost, open protocol way of measuring, monitoring and controlling your heat and utility networks.

The long-range networks enable encrypted and secure two-way communication with devices across your entire energy network. The versatile networks can be used to collect data from a huge range of compatible devices, increasing the end use cases and applications beyond the world of conventional metering and billing.

Whether you've got a small communal heat network, or a city wide, multi-utility district network to manage, we can help guide you into this new world of connected devices and services.

We'll help you select the right IoT technology, survey your location to advise on optimum network layout, and guide you through the devices and application

- Signal surveying
- Device installation, commissioning, and maintenance
- » Network management and operation
- » IoT enabled applications





#### **IoT Devices**

Diehl LoRaWAN Module

Kamstrup LoRaWAN Module

Zenner Smoke Alarm







View our IoT hardware range on page 53.

To learn more about how our IoT systems work, visit sycous.com





SOLUTIONS INSTALLATION & COMMISSIONING

#### **INSTALLATION & COMMISSIONING**

#### Retrofitting

Our Project Delivery team can help manage every aspect of your retrofit project from selecting the right solution, to consultation with consumers or businesses, project planning, health and safety management and installation monitoring. We provide support from order to handover with a single point of contact.

We know the unique challenges that can be faced on retrofit projects, not least of which can be accessing properties or businesses. We work with you to maximise levels of access and be flexible to the needs of your consumers to ensure retrofit projects can be delivered effectively and on budget.

#### **New-Build**

We often work with M&E contractors on newbuild schemes who are looking to undertake HIU, metering and PAYG installation. We are happy to provide training and support to all M&E contractors wishing to undertake these works, as well as providing commissioning for verifying completed works.

All new-build works are undertaken by our directly employed team of CSCS verified mechanical engineers, electricians, metering, PAYG and data collection experts. All our work is conducted to the highest standards with electronic records and jobsheets being maintained, as well as planned and unplanned audits of completed works.

For help and advice on installation, including selecting the correct topology and cabling, please contact one of our product and solution experts.





#### Wired Network

A wired data collection network, such as an MBus Network can be installed by an M&E contractor or by Sycous.

Our Project Delivery team are happy to share knowledge and experience, as well as providing best practice information on correct installations.

Additionally, our own team can carry out installation and commissioning of wired networks, including cabling and the data collection system.

#### Wireless Network

Wireless networks are common in retrofit projects, where the installation of existing cabling may not be cost-effective, or practical.

A wireless network generally consists of the meters within, or outside, properties, with signals being transmitted sometimes with the help of repeaters, to a central data collector.

Our Project Delivery team can survey and design the necessary infrastructure to allow you to read 100% of your meters.

Additionally, our own team can carry out installation and commissioning of wireless networks, including infrastructure and the data collection system.

Our knowledge and experience in operating wireless systems, as part of our Customer Billing Services, ensure we focus on long-term and future-proofed solutions, making sure they remain robust and operational throughout their life cycle.

#### **CUSTOMER BILLING SERVICES**

Our Customer Billing Service solution allows us to operate some, or all, of your heat network and private utility network metering, PAYG and data collection systems on your behalf.

#### **Flexible Solutions**

You can start with Customer Billing Services and transfer to in-house management with support from our expert team whenever you want.



#### mySycous.com

Visit **mysycous.com** to view our consumer portal.



Here you will be able to browse our Help & Support section, mySycous blog, access contact information and view our change of tenancy forms.

#### What is included?

Our range of services are flexible and can be designed around you, as can our pricing models.

Our services include:

#### » Meter Data Management (MDM)

We make sure the data you use is valid for charging purposes

#### » Credit Billing

We generate monthly or quarterly statements to your consumers

#### » PAYG Operation

We manage all payments and communication with your PAYG units

#### » Consumer Support

Our team deliver great support to your consumers for their utilities

#### » Payment Facilities

Flexible payment options for your consumers with cash-collection

#### » Credit Control

Proactively reduce your debt risk and minimise bad-debts

#### » Reporting and Visualisation

Transparent access to financial and energy data, including efficiencies

#### » Online Account Management

By web or mobile app for your consumers to manage their accounts

#### » Tariff Management

We can help set your tariffs effectively and against industry best practice

#### Want to know more?

View our mySycous Client Experience Pack today at sycous.com/mysycous!

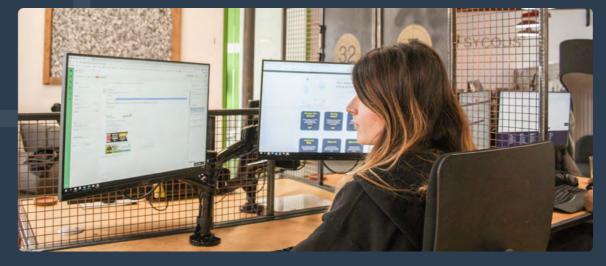
#### White Labelling

- Full suite of digital resources for consumers, from fully branded consumer websites to mobile account management apps
- Fully CMS enabled microsite for easy tailoring and updating of content - you even have access yourself to upload your own blogs, FAQs or pictures
- System generated email configuration to utilise your own email domain
- Phone numbers just for your consumers, and answered with your salutations
- Fully branded documentation, from statements to welcome and credit control letters





**CUSTOMER BILLING SERVICES** 





#### **HIU MAINTENANCE & REPAIR**

# Are you responsible for the HIU maintenance in your property, or a property you manage?

If so, our HIU Service team have been trained and selected by leading HIU Manufacturers to provide a service agreement for one or more HIU's.

Our service agreement includes:

- » Annual Service to your HIU
- » Repairs to your HIU or heating controls
- Unlimited call outs, subject to a £100 excess per call out
- » 24/7 remote support
- » Nationwide team of engineers
- » Labour visits up to £1,500 by qualified engineers
- » Replacement parts up to a total of £400 in any annual period
- » 12 month guarantee on most repairs
- » Group HIU booking if required

Additionally, where a system such as an unvented cylinder is installed, this will be included within the annual maintenance check.

Visit **hiuservice.co.uk** to find out more about our HIU Service packages.

This service agreement does not cover:

- Faults caused by sludge or debris from the primary system
- » Faults caused by limescale or corrosion
- Clearing air-locks or balancing required outside the HIU
- » Radiators and valves
- Pre-existing faults or defects with the system
- Works to upgrade your system to current standards
- » Accidental damage

If you would prefer an annual HIU service carried out without an ongoing service agreement, this can also be provided and arranged by our customer support team. Please contact our sales team for more information.

#### Got a problem with your HIU?

If you have a problem with your HIU and don't have a service agreement, our HIU Service team are still able to help. You can arrange for a callout by one of our HIU engineers, which includes up to 3 hours labour to investigate and repair. This callout doesn't include any parts or labour above 3 hours. Please contact our sales team for more information.

Please note this is a service agreement and not an insurance product and is not regulated by the FCA.









SOLUTIONS

NETWORK MAINTENANCE & REPAIR

#### **NETWORK MAINTENANCE & REPAIR**

Our Maintain solutions are designed to respond effectively to issues, maximising the useful life of your assets, as well as complying with best practice and regulatory requirements.

We provide a flexible solution for 24/7 repair and maintenance across the UK, covering all heat networks and private utility networks.

All our Maintain solutions are available on an all-inclusive or schedule-of-rate basis, allowing you to manage and control your repair and maintenance costs.

#### **Plant Room Maintenance**

Sycous have partnered with Plant Room Maintenance specialists Cleanheat (www. cleanheat.co.uk) to offer a complete installation, service and maintenance solution for:

- » Gas Fired Boilers
- CHP Units (Combined Heat and Power)
- » Pumps
- » Heat Plate Exchangers
- » Vessels
- » Pipework
- » Closed Water Treatment

Cleanheat are a highly accredited Commercial Heating, Air Conditioning, Water Quality and Electrical company with extensive experience working with some of the UK's most prestigious and well-respected buildings and companies across London and the Home Counties.





#### Metering, AMR, Data Collection System and PAYG System Maintenance

Sycous Engineers receive specific manufacturer training alongside their mechanical and electrical training to provide a complete installation, service and maintenance solution for:

- » Heat Meters
- Cold Water Meters
- » Hot Water Meters
- Electricity Meters
- Clamp-On-Meters
- » Wired MBus Data Collection Systems
- Wireless MBus Data Collection Systems
- » LoRaWAN Data Collection Systems
- Guru Hub II PAYG System
- » Secure Liberty 100 II PAYG System

#### Air Conditioning Maintenance

Sycous have partnered with Air Conditioning Maintenance specialists Cleanheat (www. cleanheat.co.uk) to offer a complete installation, service and maintenance solution for:

- Chillers
- » Indoor Units
- Pipework
- » Air Source Heat Pumps
- » Air Handling Units

#### Water System Maintenance

Sycous have partnered with Water System
Maintenance specialists Cleanheat (www.
cleanheat.co.uk) to offer a complete installation,
service and maintenance solution for:

- Cold Water Storage Tanks
- » Booster Pumps
- » Pressurisation Units
- Clean and Chlorination
- » Legionella/Bacteria Testing



#### **WELCOME TO MABDECK**



Mabdeck puts you in control.

Mabdeck allows you to manage all your installed assets from meters, PAYG solutions to data collection and AMR infrastructure.

Mabdeck enables you to automatically generate bills to your residents, operate PAYG solutions, collect payments, manage debt, report on your operations and give your consumers online and mobile App access to their accounts.

#### What is Mabdeck?

Mabdeck is our online software platform that is designed for heat network operators, private utility suppliers and metering and billing companies.

It offers an off-the-shelf solution ready to allow you to automate and manage your metering systems, as well as your consumer interactions, payments, billing and much more.

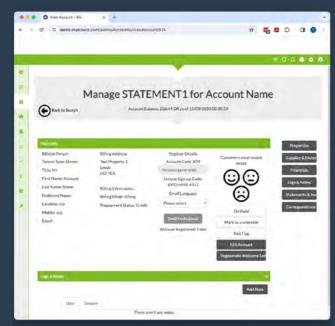
Mabdeck also gives you the functionality to offer and operate PAYG solutions, as well as operating your own 'open-protocol' PAYG Cloud.

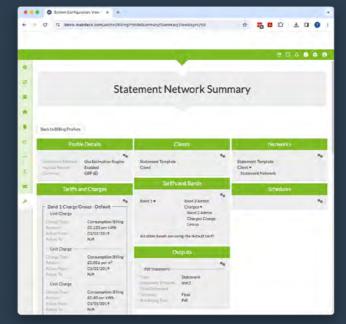
As a cloud-based platform, we're constantly developing and giving greater functionality to our customers, we can also provide bespoke functionality to meet your specific business requirements.

#### help.mabdeck.com

Visit <u>help.mabdeck.com</u> to find information on how to best manage and get the most out of your Mabdeck Solution! Also featuring our latest announcements, releases and our exciting upcoming roadmap!







#### **Features**

We're constantly developing Mabdeck to improve and offer new features. Current features and functionality include:

- » Data importation for meter and sensor data
- » Management of meters, sensors and data collection devices
- » Data validation including user-set rules and criteria against meter and sensor data
- » Generation of charging reports or individual consumption bills
- » PAYG solution management, including PAYG Cloud
- Online web and mobile App's for property and business users
- » Payment functionality for importing payments and accepting online payments
- » Credit control functionality by email, letter and telephone
- » Reporting and visualisation functionality for financial and other data via email and secure server transfer
- » API for integration to your other business systems
- » Unlimited users
- » Localisation for time/date, currency, language and data storage







please contact:

info@sycous.com +44 (0) 113 360 4776 We've partnered with industry leading metering equipment manufacturers to offer best value hardware solutions for your application.

For more information: sycous.com

Our experts can make sure the products and solutions we provide are the right ones for your application or problem. We want you to get the most out of your products and equipment, so whether we supplied a product or not, we can help support you in getting the most value from it.



# HEAT AND COOLING METERS

For expert technical support

info@sycous.com +44 (0) 113 360 4776 High quality open-protocol metering devices designed to meet regulation.

For more information:

sycous.com

Our range of heat meters are suitable for domestic and commercial applications, including for uses under the Heat Network (Metering and Billing) Regulations 2014 such as building entry meters and can be pre-installed in heat interface units (HIU).

#### **ZENNER C5-IUF**



The Zenner C5 ultrasonic heating and cooling meter operates with an innovative ultrasonic technology, specially developed for a broad scope of application from submetering to district heating.

#### Click here to view the Data Sheet for Zenner C5-IUF

- » Available as heat, cooling or combined heat/cooling meters
- » DN15-DN40
- » Low design height prefect for HIU's
- » MBus, Wireless MBus or LoRaWAN available as an option
- 3 inlets or 2 pulse inputs or outputs (optional)
- » Any installation position (even overhead)
- » 11-year battery service life Meter is powered by MBus line once connected
- » New battery can be retrofitted if required
- » Precise, long-term stable, wear-free
- » MID Class 2



Part Code	Name	Size	QP (m³/h)	Output
ZE101C5	Zenner C5 IUF Heat	DN15	0.6	MBus & Pulse
ZE102C5	Zenner C5 IUF Heat	DN15	1.5	MBus & Pulse
ZE112C5	Zenner C5 IUF Heat	DN15	0.6	Wireless MBus & Pulse
ZE107C5	Zenner C5 IUF Heat	DN15	1.5	Wireless MBus & Pulse
ZE015C5	Zenner C5 IUF Heat	DN15	1.5	MBus
ZE016C5	Zenner C5 IUF Heat	DN15	1.5	MBus
ZE103C5	Zenner C5 IUF Heat	DN20	2.5	MBus & Pulse
ZE104C5	Zenner C5 IUF Heat	DN20	2.5	Wireless MBus & Pulse
ZE020C5	Zenner C5 IUF Heat	DN20	2.5	MBus
ZE025C5	Zenner C5 IUF Heat	DN25	3.5	MBus & Pulse
ZE026C5	Zenner C5 IUF Heat	DN25	6	MBus & Pulse
ZE027C5	Zenner C5 IUF Heat & Cooling	DN25	3.5	MBus & Pulse
ZE028C5	Zenner C5 IUF Heat	DN25	3.5	Wireless MBus & Pulse
ZE029C5	Zenner C5 IUF Heat	DN25	6	Wireless MBus & Pulse
ZE033C5	Zenner C5 IUF Heat	DN32	6	MBus & Pulse
ZE034C5	Zenner C5 IUF Heat	DN32	6	Wireless MBus & Pulse
ZE040C5	Zenner C5 IUF Heat	DN40	10	MBus & Pulse
ZE041C5	Zenner C5 IUF Heat	DN40	10	Wireless MBus & Pulse



#### **B-METERS HYDROSONIS-ULC**



The B Meters Ultrasonic thermal energy meter, designed to measure heating and cooling.

It can be used for commercial metering of energy consumption for local heating systems: in dwelling houses, office buildings, energy plants and similar applications.

The meter is light-in-weight, compact/robust, economic efficiency, and is user-friendly.

#### Click here to view the Data Sheet for B-Meters Hydrosonis-ULC

- Available as heat, cooling or combined heat/cooling meters
- » DN15-DN20
- Low design height prefect for HIU's
- » MBus, Wireless MBus or LoRaWAN available as an option
- » Any installation position (even overhead)
- » Precise, long-term stable, wear-free
- » MID Class 2



Part Code	Name	Size	QP (m³/h)	Output
ВМ015НМ	15MM Hydrosonis - ULC Ultrasonic Heat Meter MBus	15	1.5	MBus
вм016нм	15MM Hydrosonis - ULC Ultrasonic wMBus Heat Meter	15	1.5	WIRELESS MBus
ВМ017НМ	15MM Hydrosonis - ULC Ultrasonic LoRaWAN Heat Meter	15	1.5	LoRaWAN



#### **DIEHL SHARKY 774**



Sharky 774 compact ultrasonic energy meter is designed for measuring the energy consumption in heating or combined (heating/cooling) application for billing purposes.

It offers many benefits: no moving parts (reduces wear and tear of the metering components), low pressure loss, wide dynamic measuring range, low start flow rate and insensitiveness to suspended particles.

The meter is available with either MBus output or Wireless MBus.

#### Click here to view the Data Sheet for Diehl Sharky 774

- » Available as heat, cooling or combined heat/cooling meters
- » DN15-DN20
- » Low design height perfect for HIU's
- » MBus or Wireless MBus Output
- » Any installation position (even overhead)
- » 12-year battery service life
- » Precise, long-term stable, wear-free
- » MID Class 2



Part Code	Name	Size	QP (m³/h)	Output
DI015HM	DN15 Sharky 774 Ultrasonic Heat Meter MBus	15	1.5	MBus
DI020HM	DN20 Sharky 774 Ultrasonic Heat Meter MBus	20	2.5	MBus
DI016HM	DN15 Sharky 774 Ultrasonic Heat Meter WMBus	15	1.5	WIRELESS MBus
DI021HM	DN20 Sharky 774 Ultrasonic Heat Meter WMBus	20	2.5	WIRELESS MBus
DI774MO	Wall Fixing Bracket Sharky 774	-	-	-



#### **DIEHL SHARKY 775**



The Sharky 775 is a ultrasonic compact energy meter designed for measuring the energy consumption in heating and bi-functional (heating/cooling) application, for billing purposes. The measurement principle is static and based on the measurement of the transit time.

Ultrasonic technology offers many benefits: no moving parts (prevents wear and tear of the metering components), low pressure loss, large metering dynamics and low start flow rate, insensitiveness to suspended particles.

#### Click here to view the Data Sheet for Diehl Sharky 775

- » Available as heat, cooling or combined heat/cooling meters
- » DN15-DN100
- » Modular version, MBus, RS232, RS485, Modbus RTU RS485, Analog outputs 4-20mA, pulse outputs and inputs
- » 2 output modules Ie: Allows for 2 separate MBus outputs
- » Integrated Wireless MBus option
- » Any installation position (even overhead)
- 16 Year Battery Life or Mains 230v Powered option
- » New battery can be retrofitted if required
- » Precise, long-term stable, wear-free
- » MID Class 2



Part Code	Name	Size	QP (m³/h)	Output
DI515HM	DN15 Sharky 775 Ultrasonic Heat Meter Selectable F	15	1.5	-
DI520HM	DN20 Sharky 775 Ultrasonic Heat Meter Selectable F	20	2.5	-
DI523HM	DN20 Sharky 775 Wireless MBus Select F or R	20	2.5	WIRELESS MBus
DI525HM	DN25 Sharky 775 Ultrasonic Heat Meter Return Mount	25	6	-
DI526HM	DN25 Sharky 775 Ultrasonic Heat Meter Flow Mounted	25	6	-
DI532HM	DN32 Sharky 775 Ultrasonic Heat Meter Return Mount	32	6	-
DI533HM	DN32 Sharky 775 Ultrasonic Heat Meter Flow Mounted	32	6	-
DI540HM	DN40 Sharky 775 Ultrasonic Heat Meter Return Mount	40	10	-
DI541HM	DN40 Sharky 775 Ultrasonic Heat Meter Flow Mounted	40	10	-
DI550HM	DN50 Sharky 775 Ultrasonic Heat Meter Return Mount	50	15	-
DI551HM	DN50 Sharky 775 Ultrasonic Heat Meter Flow Mounted	50	15	-
DI565HM	DN65 Sharky 775 Ultrasonic Heat Meter Return Mount	65	15	-
DI566HM	DN65 Sharky 775 Ultrasonic Heat Meter Flow Mounted	65	15	-
DI580HM	DN80 Sharky 775 Ultrasonic Heat Meter Return Mount	80	40	-
DI581HM	DN80 Sharky 775 Ultrasonic Heat Meter Flow Mounted	80	40	-
DI510HM	DN100 Sharky 775 Ultrasonic Heat Meter Return Mount	100	60	-
DI511HM	DN100 Sharky 775 Ultrasonic Heat Meter Flow Mounted	100	60	-
DI752MB	Sharky 775 MBus Module	-	-	MBus
DI752PU	Sharky 775 Pulse Output Module	-	-	PULSE
DI232MO	Sharky 775 RS232 Module	-	-	RS232
EL775LR	Diehl Sharky 775 LoRaWAN Module	-	-	LoRaWAN
DI753MA	Sharky 775 230V Power Supply Module	-	-	-
DI753BA	Sharky 775 Battery 3.6v D Cell	-	-	-



#### **ZENNER WR3**



The energy calculator multidata WR3 from Zenner is designed for heat and cooling meters.

All relevant data is permanently stored at regular intervals using non-volatile memory. As standard, the energy calculator also has freely programmable data loggers.

The multifunctional display permanently displays the current consumption data. With the split energy calculator, all relevant measurement data can be retrieved via a control key in three self-explanatory display loops.

The energy calculator multidata WR3 functions together with all sizes of volumetric flow sensor. A special version is available for connection with static ultrasonic volumetric flow sensor. multidata WR3 covers the flow range from Qn 0.6 to Qn 250 without a problem.

All standard units can be connected to two additional pulsers, e.g. a cold and hot water meter, in addition to the volumetric flow sensor. The heat meter/ cooling meter readings can be retrieved via the menu on the unit or via a data collection system.

#### Click here to view the Data Sheet for Zenner WR3

- » Available with MBus output
- » 2 additional pulse inputs / outputs as standard
- » Large LCD Display
- 2-wire or 4-wire temperature measuring principle
- » MID Approved for billing purposes
- » Wall and DIN rail mounting



Part Code	Name	Output
ZE301WR	WR3 Energy Calculator, 1L, 100Hz, MBus, Pulse, PT5	MBus & Pulse
ZE302WR	WR3 Energy Calculator, 10L, 100Hz, MBus, Pulse, PT	MBus & Pulse
ZE303WR	WR3 Energy Calculator, 100L, 100Hz, MBus, Pulse, P	MBus & Pulse
ZE501WR	WR3 Energy Calculator, 1L, 100Hz, MBus, Pulse	MBus & Pulse
ZE502WR	WR3 Energy Calculator, 10L, 100Hz, MBus, Pulse	MBus & Pulse
ZE401WR	WR3 Energy Calculator, 10L, 1Hz, MBus, Pulse, PT50	MBus & Pulse
ZE402WR	WR3 Energy Calculator, 100L, 1Hz, MBus, Pulse, PT5	MBus & Pulse
ZE601WR	WR3 Energy Calculator, 25L, 1Hz, MBus, Pulse	MBus & Pulse
ZE602WR	WR3 Energy Calculator, 250L, 1Hz, MBus, Pulse	MBus & Pulse
ZE343WR	Zenner WR3 Battery	-





## WATER METERS

For expert technical support

info@sycous.com +44 (0) 113 360 4776 High quality, open-protocol, metering devices designed to be compliant for their application.

For more information: sycous.com

Our range of cold-water meters are suitable for domestic and commercial applications. For cold water meters we advise selecting a WRAS approved meter when being used for drinking water and always recommend a MID approved meter to ensure highest levels of accuracy.

WATER METERS B-METERS GSD8-RFM

#### **B-METERS GSD8-RFM**



Single jet, dry dial, direct reading on 8 numerical rolls.

Produced in the versions for cold water and hot water in the diameters DN15 and DN20 mm (1/2"- 3/4"). 360° rotating dial.

Optical data communication modules for MBus wired, wireless OMS and LoRaWAN and NB-IoT capabilities.

#### Click here to view the Data Sheet for B-Meters GSD8-RFM

- » R100-H ↑ R50-VH →
- » Available for cold water 0,1°C-50° C and for hot water 30°C-90°C
- Magnetic transmission
- » Direct reading on 8 numeric rolls
- 360° rotating dry dial
- » Anti-magnetic fraud protection
- » Available with either MBus, Wireless MBus, LoRaWAN or NB-IoT



Part Code	Name	Size	Qp (m³/h)	Output
BM215CW	15MM Cold Water Meter MBus	15	2.5	-
BM215HW	15MM Hot Water Meter MBus	15	2.5	-
BM220CW	20MM Cold Water Meter MBus	20	4	-
BM220HW	20MM Hot Water Meter MBus	20	4	-
BM001MB	B Meters Wired MBus Communication Module	-	-	MBus



WATER METERS ZENNER ETKD/ETWD

#### **ZENNER ETKD/ETWD**



The ETKD/ETWD single jet cold water meters by Zenner are suitable for use with either cold or hot water.

The single jet water meter is MID approved for fiscal billing purposes and is available with a range of outputs for remote communication including Pulse, MBus, Wireless MBus and LoRaWAN.

#### Click here to view the Data Sheet for Zenner ETKD/ETWD

- Available in either DN15 or DN20
- » Available for cold water up to 30° C and for hot water up to 90°C
- » MID Approved
- » WRAS Approved
- Available with either MBus, Wireless MBus, LoRaWAN



Part Code	Name	Size (mm)	Qp (m³/h)	Output
ZE015CW	15MM ETKD-N Cold Water Meter	15	2.5	-
SY216CW	15MM Zenner ETKD-M CW Meter MBus - 80MM Body Le	15	2.5	MBus
SY215CW	15MM Zenner ETKD-M Cold Water Meter with MBus	15	2.5	MBus
SY315CW	15MM Zenner ETKD-M Cold Water Meter with Wireless	15	2.5	WIRELESS MBus
SY415CW	15MM Zenner ETKD-M Cold Water Meter with LoRaWAN	15	2.5	LoRaWAN
ZE015HW	15MM ETWD-N Hot Water Meter	15	2.5	-
SY215HW	15MM Zenner ETWD-M Hot Water Meter with MBus	15	2.5	MBus
SY315HW	15MM Zenner ETWD-M Hot Water Meter with Wireless	15	2.5	WIRELESS MBus
SY415HW	15MM Zenner ETWD-M Hot Water Meter with LoRaWAN	15	2.5	LoRaWAN
ZE020CW	20MM Single-Jet Cold Water Meter Q3 4	20	4	-
SY220CW	20MM Zenner ETKD-M Cold Water Meter with MBus	20	4	MBus
SY320CW	20MM Zenner ETKD-M Cold Water Meter with Wireless	20	4	WIRELESS MBus
SY420CW	20MM Zenner ETKD-M Cold Water Meter with LoRaWAN	20	4	LoRaWAN
ZEO21HW	20MM Single-Jet Hot Water Meter Q3 4	20	4	-
SY220HW	20MM Zenner ETWD-M Hot Water Meter with MBus	20	2.5	MBus
SY221HW	20MM Zenner ETWD-M Hot Water Meter with MBus	20	4	MBus
SY320HW	20MM Zenner ETWD-M Hot Water Meter with Wireless	20	4	WIRELESS MBus
SY420HW	20MM Zenner ETWD-M Hot Water Meter with LoRaWAN	20	4	LoRaWAN
ZE002MB	Zenner Wireless MBus EDC Communication Module	-	-	WIRELESS MBus
ZE001PU	Pulse Counter 1/10L	-	-	PULSE
ZE001MB	Zenner MBus EDC Communication Module	-	-	MBus



WATER METERS B-METERS GMDM-I

#### **B-METERS GMDM-I**



Multi-jet meter, dry dial, magnetic transmission with 360° rotating lid.

Versions for cold water and hot water.

Inductive pre-equipment for the installation of data communication modules MBus wired, wireless OMS, LoRaWAN, and non-magnetic pulse output.

#### Click here to view the Data Sheet for B-Meters GMDM-I

- » R100-H↑ R50-VH →
- » Magnetic transmission
- » Pre-equipment for pulse emitter device mounting
- » Dry dial
- » Direct reading on 5 numeric rolls (6 rolls on DN40 and DN50)
- Available for Cold Water up to 50° C or Hot Water up to 90° C
- 360 degrees rotating lid (DN15-DN32)
- » MBus, Wireless MBus, Pulse and LoRaWAN output



Part Code	Name	Size (mm)	Qp (m³/h)	Output
BM015MJ	15mm GMDM-I Multijet Cold Water Meter Pulse	15	2.5	PULSE
BM016MJ	15mm GMDM-I Multijet Cold Water Meter MBus	15	2.5	MBus
BM015MH	15mm GMDM-I Multijet Hot Water Meter Pulse	15	2.5	PULSE
ВМ016МН	15mm GMDM-I Multijet Hot Water Meter MBus	15	2.5	MBus
BM020MJ	20mm GMDM-I Multijet Cold Water Meter Pulse	20	4	PULSE
BM021MJ	20mm GMDM-I Multijet Cold Water Meter MBus	20	4	MBus
ВМ020МН	20mm GMDM-I Multijet Hot Water Meter Pulse	20	4	PULSE
BM021MH	20mm GMDM-I Multijet Hot Water Meter MBus	20	4	MBus
BM025MJ	25mm GMDM-I Multijet Cold Water Meter Pulse	25	6.3	PULSE
BM026MJ	25mm GMDM-I Multijet Cold Water Meter MBus	25	6.3	MBus
ВМ025МН	25mm GMDM-I Multijet Hot Water Meter Pulse	25	6.3	PULSE
ВМ026МН	25mm GMDM-I Multijet Hot Water Meter MBus	25	6.3	MBus
BM032MJ	32mm GMDM-I Multijet Cold Water Meter Pulse	32	10	PULSE
BM033MJ	32mm GMDM-I Multijet Cold Water Meter MBus	32	10	MBus
ВМ032МН	32mm GMDM-I Multijet Hot Water Meter Pulse	32	10	PULSE
ВМ033МН	32mm GMDM-I Multijet Hot Water Meter MBus	32	10	MBus
BM040MJ	40mm GMDM-I Multijet Cold Water Meter Pulse	40	16	PULSE
BM041MJ	40mm GMDM-I Multijet Cold Water Meter MBus	40	16	MBus
BM040MH	40mm GMDM-I Multijet Hot Water Meter Pulse	40	16	PULSE
BM041MH	40mm GMDM-I Multijet Hot Water Meter MBus	40	16	MBus
BM050MJ	50mm GMDM-I Multijet Cold Water Meter Pulse	50	25	PULSE
BM051MJ	50mm GMDM-I Multijet Cold Water Meter MBus	50	25	MBus
ВМ050МН	50mm GMDM-I Multijet Hot Water Meter Pulse	50	25	PULSE
вмо51МН	50mm GMDM-I Multijet Hot Water Meter MBus	50	25	MBus



WATER METERS B-METERS WDE-K50

#### **B-METERS WDE-K50**



Horizontal Woltmann meter with removable insert. Sealed counter mechanism with magnetic transmission.

Inductive pre-equipment for the installation of optional data communication modules wireless, including OMS MBus, LoRaWAN and non-magnetic pulse output.

#### Click here to view the Data Sheet for B-Meters WDE-K50

- » R100-H R50-VH \_
- Available for cold water 0,1°C-50°C and for hot water 30°C-90°C
- » Magnetic transmission
- » Direct reading on 7 numeric rolls
- With removable insert
- » 360° rotating dry dial
- » MBus, Wireless MBus, Pulse and LoRaWAN output



Part Code	Name	Size (mm)	Qp (m³/h)	Output
BM050BC	DN50 WDE-K50 Flanged Cold Water Meter Pulse	50	40	PULSE
BM051BC	DN50 WDE-K50 Flanged Cold Water Meter MBus	50	40	MBus
вмо50вн	DN50 WDE-K50 Flanged Hot Water Meter Pulse	50	40	PULSE
BM051BH	DN50 WDE-K50 Flanged Hot Water Meter MBus	50	40	MBus
BM065BC	DN65 WDE-K50 Flange Cold Water Meter Pulse	65	63	PULSE
BM066BC	DN65 WDE-K50 Flange Cold Water Meter MBus	65	63	MBus
ВМО65ВН	DN65 WDE-K50 Flange Hot Water Meter Pulse	65	63	PULSE
ВМО66ВН	DN65 WDE-K50 Flange Hot Water Meter MBus	65	63	MBus
ВМ080ВС	DN80 WDE-K50 Flange Cold Water Meter Pulse	80	100	PULSE
BM081BC	DN80 WDE-K50 Flange Cold Water Meter MBus	80	100	MBus
ВМ080ВН	DN80 WDE-K50 Flange Hot Water Meter Pulse	80	100	PULSE
BM081BH	DN80 WDE-K50 Flange Hot Water Meter MBus	80	100	MBus
BM100BC	DN100 WDE-K50 Flange Cold Water Meter Pulse	100	160	PULSE
BM101BC	DN100 WDE-K50 Flange Cold Water Meter MBus	100	160	MBus
вм100вн	DN100 WDE-K50 Flange Hot Water Meter Pulse	100	160	PULSE
BM101BH	DN100 WDE-K50 Flange Hot Water Meter MBus	100	160	MBus
BM125BC	DN125 WDE-K50 Flange Cold Water Meter Pulse	125	160	PULSE
BM126BC	DN125 WDE-K50 Flange Cold Water Meter MBus	125	160	MBus
BM125BH	DN125 WDE-K50 Flange Hot Water Meter Pulse	125	160	PULSE
BM126BH	DN125 WDE-K50 Flange Hot Water Meter MBus	125	160	MBus
BM150BC	DN150 WDE-K50 Flange Cold Water Meter Pulse	150	250	PULSE
BM151BC	DN150 WDE-K50 Flange Cold Water Meter MBus	150	250	MBus
вм150вн	DN150 WDE-K50 Flange Hot Water Meter Pulse	150	250	PULSE
ВМ151ВН	DN150 WDE-K50 Flange Hot Water Meter MBus	150	250	MBus
BM200BC	DN200 WDE-K50 Flange Cold Water Meter Pulse	200	400	PULSE
BM201BC	DN200 WDE-K50 Flange Cold Water Meter MBus	200	400	MBus
ВМ200ВН	DN200 WDE-K50 Flange Hot Water Meter Pulse	200	400	PULSE
BM201BH	DN200 WDE-K50 Flange Hot Water Meter MBus	200	400	MBus



# ELECTRICITY METERS

For expert technical support please contact:

info@sycous.com +44 (0) 113 360 4776 High quality, open-protocol metering devices designed for compliance to their application.

For more information: sycous.com

Our range of electricity meters, or energy meters, are available for a range of domestic and commercial applications, whether they are single-phase, three-phase, direct connected or CT connected. We only supply MID approved electricity meters suitable for wall-mounting or DIN-rail mounted for inclusion in electricity meter panels or consumer units.

## L+G E350 ELECTRIC METER



The Landis+Gyr E350 is a wall mounted electricity meter which provides information on a wide range of measurements with a high degree of accuracy.

The meter can be ordered for either 1-phase or 3-phase systems as well as with or without a breaker. You can use the E350 in conjunction with Elvaco's integrated meter connectivity modules CMi1020 or CMi1020w, all meter data can be converted to MBus or Wireless MBus and be collected by a Sycous data collection system.

#### Click here to view the Data Sheet for L+G E350 Electric Meter

- » Single or Three Phase
- » Direct Connected
- » MBus or Wireless MBus Output
- » MID Approved for billing purposes
- » Wall Mounted
- » Option for Internal breaker



Part Code	Name	Phase	Connection	Output
EL350SP	L+G E350 Single Phase Direct Electric Meter MBus	Single	Direct	MBus
EL351SP	L+G E350 Single Phase Direct Electric Meter MBus c/w Breaker	Single	Direct	MBus
EL352SP	L+G E350 Single Phase Direct Electric Meter Wireless MBus	Single	Direct	Wireless MBus
EL350TP	L+G E350 Three Phase Direct Electric Meter MBus	Three	Direct	MBus
EL351TP	L+G E350 Three Phase Direct Electric Meter MBus Breaker	Three	Direct	MBus
EL352TP	L+G E350 Three Phase Direct Electric Meter Wireless MBus	Three	Direct	Wireless MBus



## **ABB A41 SINGLE PHASE DIRECT**



The ABB A41 is an advanced DIN-rail electric meter with a large and easy to read back lighted pixel-oriented display. The meter is intended for use in the industry, commercial buildings etc. The meter can be used in 3 or 4 wire systems with a wide voltage range.

The meter has several instrumentation values, 25 possible alarms and event logs. Single phase direct connected for active energy. The meter comes complete with either Pulse or MBus Output.

Accuracy class 1.0 (or B for MID meters). The meter is IEC approved + MID approved and verified.

#### Click here to view the Data Sheet for ABB A41 Single Phase Direct

- » Single Phase
- » Direct Connected
- » Max 80A
- » MBus or Pulse Output
- » MID Approved for billing purposes
- » DIN Rail Mounted



Part Code	Name	Phase	Connection	Output
AB080SD	ABB Single Phase Direct Electricity Meter 80A	Single	Direct	Pulse
AB082SD	ABB Single Phase Direct Electricity Meter 80A	Single	Direct	MBus/Pulse



## **ABB A42 SINGLE PHASE CT**



The ABB A42 is an advanced DIN-rail electric meter with a large and easy to read back lighted pixeloriented display. The meter is intended for use in the industry, commercial buildings etc.

The meter can be used in 3 or 4 wire systems with a wide voltage range. The meter has several instrumentation values, 25 possible alarms and event logs. Single phase transformer connected for active energy. The meter comes complete with either Pulse, RS485 or MBus Output.

Accuracy class 1.0 (or B for MID meters). The meter is IEC approved + MID approved and verified.

#### Click here to view the Data Sheet for ABB A42 Single Phase CT

- » Single Phase
- OT Connected CT Sold Separately
- » MBus, RS485 or Pulse Output
- » MID Approved for billing purposes
- » DIN Rail Mounted



Part Code	Name	Phase	Connection	Output
AB001SC	ABB Single Phase CT Electricity Meter	Single	CT	Pulse
AB002SC	ABB Single Phase CT Electricity Meter	Single	CT	RS485/Pulse
AB003SC	ABB Single Phase CT Electricity Meter	Single	CT	RS485/Harmonics
AB004SC	ABB Single Phase CT Electricity Meter	Single	CT	MBus



## **ABB A43 THREE PHASE DIRECT**



The ABB A43 is an advanced DIN-rail electric meter with a large and easy to read back lighted pixeloriented display. The meter is intended for use in the industry, commercial buildings etc.

The meter can be used in 3 or 4 wire systems with a wide voltage range. The meter has several instrumentation values, 25 possible alarms and event logs. Three phase direct connected for active energy. The meter comes complete with either Pulse, RS485 or MBus Output.

Accuracy class 1.0 (or B for MID meters). The meter is IEC approved + MID approved and verified.

#### Click here to view the Data Sheet for ABB A43 Three Phase Direct

- » Three Phase
- » Direct Connected
- » Max 80A
- » MBus, RS485 or Pulse Output
- » MID Approved for billing purposes
- » DIN Rail Mounted



Part Code	Name	Phase	Connection	Output
AB080TD	ABB Three Phase Direct Electricity Meter 80A	Three	Direct	Pulse
AB081TD	ABB Three Phase Direct Electricity Meter 80A	Three	Direct	RS485
AB082TD	ABB Three Phase Direct Electricity Meter 80A	Three	Direct	MBus



## **ABB A44 THREE PHASE CT**



The ABB A44 is an advanced DIN-rail electric meter with a large and easy to read back lighted pixeloriented display. The meter is intended for use in the industry, commercial buildings etc.

The meter can be used in 3 or 4 wire systems with a wide voltage range. The meter has several instrumentation values, 25 possible alarms and event logs. Three phase transformer connected for active energy. The meter comes complete with either Pulse, RS485 or MBus Output.

Accuracy class 1.0 (or B for MID meters). The meter is IEC approved + MID approved and verified.

#### Click here to view the Data Sheet for ABB A44 Three Phase CT

- » Three Phase
- » CT Connected CT Sold Separately
- » MBus, RS485 or Pulse Output
- » MID Approved for billing purposes
- » DIN Rail Mounted



Part Code	Name	Phase	Connection	Output
AB004TC	ABB Three Phase CT Electricity Meter	Three	CT	Pulse
AB005TC	ABB Three Phase CT Electricity Meter	Three	CT	RS485/Pulse
AB006TC	ABB Three Phase CT Electricity Meter	Three	CT	RS485/Harmonics



## **ABB B21 SINGLE PHASE DIRECT**



The ABB B21 is an advanced compact DIN-rail meter with an easy to read back lighted display. The meter is intended for use in the commercial or residential buildings. The meter can be used in 3 or 4 wire systems.

The meter has several instrumentation values, 25 possible alarms and event logs. Single phase direct connected for active energy. The meter comes complete with either Pulse, RS485 or MBus Output. Accuracy class 1.0 (or B for MID meters). The meter is IEC approved + MID approved and verified.

#### Click here to view the Data Sheet for ABB B21 Single Phase Direct

- » Single Phase
- » Direct Connected
- » Max 65A
- » MBus, RS485 or Pulse Output
- » MID Approved for billing purposes
- » DIN Rail Mounted



Part Code	Name	Phase	Connection	Output
AB065SD	ABB Single Phase Direct Electricity Meter 65A	Single	Direct	Pulse
AB066SD	ABB Single Phase Direct Electricity Meter 65A	Single	Direct	RS485
AB067SD	ABB Single Phase Direct Electricity Meter 65A	Single	Direct	MBus/Pulse



## **ABB B23 THREE PHASE DIRECT**



The ABB B23 is an advanced compact DIN-rail meter with an easy to read back lighted display. The meter is intended for use in the commercial or residential buildings. The meter can be used in 3 or 4 wire systems.

The meter has several instrumentation values, 25 possible alarms and event logs. Three phase direct connected for active energy. The meter comes complete with either Pulse, RS485 or MBus Output. Accuracy class 1.0 (or B for MID meters). The meter is IEC approved + MID approved and verified.

#### Click here to view the Data Sheet for ABB B23 Three Phase Direct

- » Three Phase
- » Direct Connected
- » Max 65A
- » MBus, RS485 or Pulse Output
- » MID Approved for billing purposes
- » DIN Rail Mounted



Part Code	Name	Phase	Connection	Output
AB065TD	ABB Three Phase Direct Electricity Meter 65A	Three	Direct	Pulse
AB066TD	ABB Three Phase Direct Electricity Meter 65A	Three	Direct	RS485
AB083TD	ABB Three Phase Direct Electricity Meter 65A	Three	Direct	MBus/Pulse



ELECTRICITY METERS ABB B24 THREE PHASE CT

## ABB B24 THREE PHASE CT



The ABB B24 is an advanced compact DIN-rail meter with an easy to read back lighted display. The meter is intended for use in the commercial or residential buildings. The meter can be used in 3 or 4 wire systems.

The meter has several instrumentation values, 25 possible alarms and event logs. Three phase transformer connected for active energy. The meter comes complete with either Pulse, RS485 or MBus Output. Accuracy class 1.0 (or B for MID meters). The meter is IEC approved + MID approved and verified.

#### Click here to view the Data Sheet for ABB B24 Three Phase CT

- » Three Phase
- » CT Connected CT Sold Separately
- » MBus, RS485 or Pulse Output
- » MID Approved for billing purposes
- » DIN Rail Mounted



Part Code	Name	Phase	Connection	Output
AB001TC	ABB Three Phase CT Electricity Meter	Three	CT	Pulse
AB002TC	ABB Three Phase CT Electricity Meter	Three	CT	RS485/Pulse
AB003TC	ABB Three Phase CT Electricity Meter	Three	СТ	MBus/Pulse



## **ABB C11 SINGLE PHASE DIRECT**



The C11 is a basic compact meter for use in residential applications or in stand alone applications. To be used in a four wire system.

The meter has instrumentation values. Single phase direct connected for active energy. Pulse output. Accuracy class 1.0 (or B for MID meters). The meters is IEC approved + MID approved and verified. 100 imp/kWh.

#### Click here to view the Data Sheet for ABB C11 Single Phase Direct

- » Single Phase
- » Direct Connected
- » Max 40A
- » Pulse Output
- » MID Approved for billing purposes
- » DIN Rail Mounted



Part Code	Name	Phase	Connection	Output
AB040SD	ABB Single Phase Direct Electricity Meter 40A	Single	Direct	Pulse





# CLAMP-ON METERS

For expert technical support please contact:

info@sycous.com +44 (0) 113 360 4776 High quality open-protocol metering devices designed for non-intrusive installation and regulatory compliance.

For more information: sycous.com

Our range of clamp-on meters are ideal for short-term energy efficiency monitoring, long-term metering and compliance with building entry meters for the Heat Network (Metering and Billing) Regulations 2014.

**Featured Manufacturers: Micronics** 

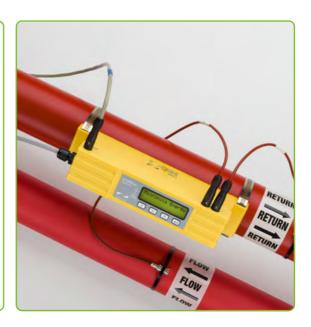
## **U1000-HM**

Micronics...

The U1000MKII-HM is an ultrasonic clamp-on thermal, heat/ energy meter that uses ultrasound to measure flow rate and PT100 temperature sensors to measure flow and return temperatures. The U1000MKII-HM displays energy rate and totalised energy with either pulse or MBus output.

## Click here to view the Data Sheet for U1000-HM

- » Larger pipe range 2 options, fully adjustable for 22mm -115mm and 125mm - 180mm (6") OD
- » Optional Modbus RTU slave, RS485 serial and MBus communication.
- » Cross correlation flow measurement system
- » 1Mhz transducers to get through poor/old thick wall pipes and larger pipework
- » Water/Glycol option
- » Simple to install: connect power and enter the pipe inside diameter, adjust the sensors and clamp-on the pipe, no specialist skills or tools required
- » A clamp-on non-invasive alternative heat meter to traditional in-line meter installation, plus dry servicing, providing minimum downtime and maximum availability.
- » LCD with backlight install & service information.



Part Code	Name	Size (mm)	Output
MI100HM	Sycous WR1000 Clamp on Heat Meter - A Transducers	22-115	Pulse & MBus
MI101HM	Sycous WR1000 Clamp on Heat Meter - B Transducers	125-180	Pulse & MBus
SY912CO	Clamp On Meter Site Visit and Survey	_	_



CLAMP-ON METERS U1000-FM

## **U1000-FM**

Micronics...

The U1000MKII-FM is a Fixed, clamp-on, pipe mounted, ultrasonic flow meter, which delivers significant installation savings and non-invasive, dry servicing benefits for pipe sizes ranging from 22mm – 180mm (6") OD.

## Click here to view the Data Sheet for U1000-FM

- » Large pipe range 2 options, fully adjustable for 22mm -115mm and 125mm - 180mm (6") OD
- » Optional Modbus RTU slave, RS485 serial
- » Cross correlation flow measurement system
- » 1Mhz transducers to get through poor/old thick wall pipes and larger pipework
- » Water/Glycol option
- » Simple to install: connect power and enter the pipe inside diameter, adjust the sensors and clamp-on the pipe, no specialist skills or tools required
- » A clamp-on non-invasive alternative to traditional in-line meter installation, plus dry servicing, providing minimum downtime and maximum availability.
- » LCD with backlight install & service information.
- Integrated pulse and optional 4-20mA output aM&T & BEM's compatible with Modbus.



Part Code	Name	Size (mm)	Output
MI100HM	Sycous WR1000 Clamp on Heat Meter - A Transducers	22-115	Pulse & MBus
MI101HM	Sycous WR1000 Clamp on Heat Meter - B Transducers	125-180	Pulse & MBus
SY912CO	Clamp On Meter Site Visit and Survey	-	-





## FLOW METERS

For expert technical support

info@sycous.com +44 (0) 113 360 4776 High quality flow sensors for robust commercial applications.

For more information: sycous.com

Our range of flow meters are high-quality and robust sensors, ideal for combining with the Zenner WR3 or other standard energy calculators from Sycous.

Featured Manufacturers: Zenne

FLOW METERS ZENNER VMT-IUF

## **ZENNER VMT-IUF**

## **ZENNER**

Introducing the ultrasonic flow sensor from Zenner available from DN50 to DN300 providing nominal flows from Qp 15m3/h to qp 600m3/h.

The robust and high-quality design can be permanently used up to a temperature of 130 °C. The recorded volume can be output either in the form of conventional volume pulses or via a modern data interface (type VMCP / Volume Meter Cycle Protocol).

The flow sensor has been designed with short body lengths to suit existing Woltman WP type flow sensors, meaning the existing mechanical flow sensors can now be easily replaced by ultrasonic technology without the need for pipe work changes which can be expensive and require large periods of shut down.

- » Available from DN50 to DN300
- » High-quality and durable housing, up to nominal size DN 100 made of stainless steel
- » 2 ultrasonic measuring paths for precise flow measurement
- » MID Class 2
- » No straight inlet or outlet sections required
- » Permanent temperature load up to 130 °C, temporarily up to 150 °C
- » Any installation position (even "head down")
- » Optional data interface for transmission of volume, flow rate, flow direction and device status
- » Continuous nominal diameters from DN 50 to 300, including DN 125
- » Ideal for calibration replacement of Woltman flow sensors of type WP and WS due to compatible overall lengths
- Can be combined with the Zenner WR3 or other standard energy calculators available from Sycous
- Possibility of integrating a temperature sensor or pressure sensor with threaded connection 1/2"



Part Code	Name	Size	Qp (m³/h)	Output
ZE050SO	50MM Ultrasonic Flow Sensor Q15	50	15	Pulse
ZE065SO	65MM Ultrasonic Flow Sensor Q25	65	25	Pulse
ZE080SO	80MM Ultrasonic Flow Sensor Q40	80	40	Pulse
ZE100SO	100MM Ultrasonic Flow Sensor Q60	100	60	Pulse
ZE125SO	125MM Ultrasonic Flow Sensor Q100	125	100	Pulse
ZE150SO	150MM Ultrasonic Flow Sensor Q150	150	150	Pulse
ZE200SO	200MM Ultrasonic Flow Sensor Q250	200	250	Pulse
ZE250SO	250MM Ultrasonic Flow Sensor Q400	250	400	Pulse
ZE300SO	300MM Ultrasonic Flow Sensor Q600	300	600	Pulse





For expert technical support please contact:

info@sycous.com +44 (0) 113 360 4776 Heat cost allocators designed for simple installation and long operative life.

For more information: sycous.com

Our range of Heat Cost Allocators are designed for compliance with the Heat Network (Metering and Billing) Regulations 2014, as well as being simple to install and operate.

**Featured Manufacturers: B-Meters** 

## **B-METERS HYDROCLIMA**



Heat cost allocator with 2 temperature sensors, recording of the ambient temperature, possibility of radio transmitting the collected data using the Wireless MBus EN13757-4 OMS protocol, availability of statistics on the detected temperatures, historical consumption and average temperatures of up to the 24 previous months, battery life > 10 years, supplied with mounting brackets for all types of radiators.

Approved according to the EN834 standard.

#### Click here to view the Data Sheet for B-Meters Hydroclima

- 2 sensors in accordance with EN834, EN60950-1, EN 13757-4, EMC
- » LCD Display
- » 10 Year Battery life
- » Wireless MBus OMS Output for remote reading
- » Tamper Alarms



Part Code	Name	Output
ВМ868НС	Hydro Heat Cost Allocator	WIRELESS MBus
BM868FB	Fixing Bracket/Glue for fixing of HCA	-
BM868SC	Fixing Screw Required for each HCA	-





## IoT

For expert technical support

info@sycous.com +44 (0) 113 360 4776 Explore the future world of open-protocol sensors, meters and control devices.

For more information: sycous.com

Whether you've got a small communal heat network, or a city wide, multi-utility district network to manage, we can help guide you into this new world of connected devices and services. We'll help you select the right IoT technology, survey your location to advise on optimum network layout, and guide you through the devices and application possibilities.

IOT KAMSTRUP LORaWAN MODULE

## KAMSTRUP LoRaWAN MODULE



The rapid growth of IoT ("Internet of things") has resulted in new communication techniques, specifically developed to meet the growing demand of high energy-efficiency and long range. LoRaWAN is one such technique.

CMi4140 is mounted inside a Kamstrup MULTICAL 403/603/803 to deliver meter data to a receiving server via a LoRaWAN network.

The product has 11 years of battery life, is energy-efficient, has a long communication range and is easily retrofitted inside an already deployed meter.

CMi4140 is easily configured through Elvaco OTC mobile app (via NFC). With CMi4140, Elvaco offers a meter communication module designed for customers that require a user-friendly and cost-effective solution.

## Click here to view the Data Sheet for Kamstrup LoRaWAN Module

- » Suitable for Kamstrup MULTICAL 403/603/803 meters
- » LoRaWAN Output
- » Battery Powered 11 Years



Part Code	Name	Meter	Output
EL403LR	Kamstrup 403/603/803 LoRaWAN Module CMi4140In	Kamstrup 403/603/803	LoRaWAN



IOT ZENNER SMOKE ALARM

## **ZENNER SMOKE ALARM**



The EASY PROTECT Radio smoke alarm was specially developed for use in radio remote reading systems and offers optimum protection.

The annual remote inspection via radio saves the annual on-site appointment.

Objects in the direct vicinity of the EASY PROTECT radio from 0 to at least 50 cm are detected and documented by the detector's innovative environment monitoring.

## Click here to view the Data Sheet for Zenner Smoke Alarm

- » Visual detection procedure with additional temperature sensor for reliable identification of all fire classes
- » Built-in, non-removable long-life battery with a service life of 10 years
- » Modern design 130 mm in diameter and 40 mm in depth
- » Loud alarm with min. 85 dB (A)
- Event log with all key equipment parameters
- » Self-monitoring with error signal
- » LoRaWAN radio interface for remote inspection



Part Code	Name	Output
ZE001SA	Zenner LoRaWAN Smoke Alarm Easy Protect	LoRaWAN



IOT DIEHL LORAWAN MODULE

## **DIEHL LORAWAN MODULE**



The rapid growth of IoT ("Internet of things") has resulted in new communication techniques, specifically developed to meet the growing demand of high energy efficiency and long range. LoRaWAN is one such technique.

The CMi4160 is mounted inside a Diehl Sharky 775 to deliver meter data to a receiving server via a LoRaWAN network

The product has 11 years of battery life, is energy-efficient, has a long communication range and is easily retrofitted inside an already installed meter.

CMi4160 is easily configured through Elvaco OTC (via NFC).

## Click here to view the Data Sheet for Diehl LoRaWAN Module

- Suitable for Sharky 775 type meter only
- » LoRaWAN Output
- » Battery Powered 11 years



Part Code	Name	Model	Power	Output
FI 775I R	Diehl Sharky 775 LoRaWAN Module	CMi4160Int	Battery Powered	LoRaWAN



## **LANDIS + GYR LoRaWAN MODULE**



The rapid growth of IoT ("Internet of things") has resulted in new communication techniques, specifically developed to meet the growing demand of high energy-efficiency and long range. LoRaWAN is one such technique.

CMi4110 is mounted inside a L+G UH50/UC50 to deliver meter data to a receiving server via a LoRaWAN network

The product is energy-efficient (battery-life of at least 11 years), has a long communication range (up to 25 km) and is easily retrofitted inside an already-deployed meter.

With CMi4110, Elvaco offers an MCM designed for customers that require a cost-effective solution with lesser demand for bandwidth.

## Click here to view the Data Sheet for L+G LoRaWAN Module

- » Suitable for L+G UH50/UC50 meters
- » LoRaWAN Output
- » Battery Powered 11 Years



Part Code	Name	Meter	Output
EL410DC	Elvaco CMi4110 L+G UH50 LoRaWAN MCM	L+G UH50	LoRaWAN





# **ACCESSORIES**

For expert technical support

info@sycous.com +44 (0) 113 360 4776 Meter accessories to simplify installation and maintenance.

For more information: sycous.com

Our range of meter accessories are supplied to assist with the installation of our range of meters, from fitting kits to unions or couplings, ball valves and M10 fittings. If you don't see the accessory you need for your application, please get in touch with our team who will be able to supply the meter accessory you need.

ACCESSORIES BALL VALVES

## **BALL VALVES**

The ball valve with drill bore M10x1 is ideally suited to the installation of direct sensors. If the ball valve is closed then the temperature sensor can be exchanged without draining the heating water.

When the ball valve is open the sensor is surrounded by the heat carrier and can react quickly and reliably to changes in temperature.

## Click here to view the Data Sheet for Ball Valves

- » Ball valves for hot water heating systems with sensor connection
- » M 10 x 1
- » Internal thread on both sides
- » Available from DN15 to DN40



Part Code	Name	Size	Connection (")	Sensor Connection
FE015BV	15MM Ball Valve	DN15	1/2	M10
FE020BV	20MM Ball Valve	DN20	3/4	M10
FE025BV	25MM Ball Valve	DN25	1	M10
FE030BV	30MM Ball Valve	DN30	11/4	M10
FE040BV	40MM Ball Valve	DN40	11/-	MIO



ACCESSORIES COUPLINGS

## **COUPLINGS**

Our range of brass couplings range from 1/2 inch to 2inch and are required for the installation of heat, cooling and water meters. All our couplings include poly or fibre washers, suitable for the meter application.

- » Available from 15mm to 50mm
- » Contains 2x nuts, 2x tailpieces & 2 gaskets
- Suitable for us with our range of water meters and heat meters



Part Code	Name	Size (mm)
RA015CO	15MM Couplings G3/4" R1/2" per pair	15
RA020CO	20MM Couplings. G1B R 3/4". per pair.	20
RA025CO	25MM Couplings G1 1/4" R1" per pair	25
RA030CO	30MM Couplings G11/2" R1 1/4" per pair	30
RA040CO	40MM Couplings G2" R1 1/2" per pair	40
ZE050CO	50MM Couplings G2 1/2" R2" per pair	50



## **ENCLOSURES**



ABB's enclosures from Sycous offer a first-class quality assortment of enclosures and accessories wherever electrical energy needs to be distributed, metered and controlled from the main distribution boards via the sub distribution boards to the smallest consumer unit for final distribution.

They are available in many different sizes, floor standing or wall mounting, as flush- or wall-mounting version, made of 100% recyclable thermoplastics or stainless steel.

ABB's enclosures provide simple, fast and flexible solutions complying with international standards and sectoral norms.

## **Click here to view the Instruction Manual for Enclosures**

- w Wide choice of sizes: from 4 up to 72 mod
- » Made in thermoplastic and available with 2 selfextinguishing degrees and cable entries solutions
- » Door available in 2 different finishing, reversible and with opening up to 180°
- » Adjustable DIN-Rail distance: at 125 mm or 150 mm to optimize space



Part Code	Name	Size
LE001DA	Plastic Lockable Enclosure for Data Loggers	-
LE001RP	Plastic Lockable Enclosure for AP868WM Repeater	-
AB004EN	ABB IP65 4 Module Enclosure	4 MODULE
AB008EN	ABB IP65 8 Module Enclosure	8 MODULE
AB012EN	ABB IP65 12 Module Enclosure	12 MODULE
AB072EN	ABB IP65 72 Module Enclosure	72 MODULE
AB018EN	ABB IP65 18 Module Enclosure	18 MODULE
AB024EN	ABB IP65 24 Module Enclosure	24 MODULE
AB048EN	ABB IP65 48 Module Enclosure	48 MODULE
AB054EN	ABB IP65 54 Module Enclosure	54 MODULE
AB036EN	ABB IP65 36 Module 2F Enclosure	36 MODULE
AB910BC	ABB DIN Blank Cover	-



ACCESSORIES FIBRE WASHERS

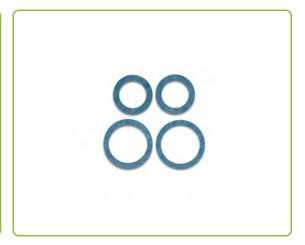
## **FIBRE WASHERS**

Sycous provide a range of fibre washers for use with heat, cooling and water meters.

Please note the majority of our meter range comes complete with suitable washers for installation.



- » Available in a range of sizes
- » Suitable for high temperature applications



Part Code	Name	Size (mm)
ZE015WA	15MM Fibre Washers	15
ZE020WA	20MM Fibre Washers	20



ACCESSORIES FITTING KITS

## **FITTING KITS**

The installation-kit consists of three ball valves, one spool piece corresponding to the length of the meter and two gaskets.

The ball valves with sensor adapter M10  $\times$  1 are used for the installation of the temperature sensors of the meter.

The special ball valves with internal thread and screw connections make the usual unions obsolete.

This reduces the time for replacement or maintenance of a meter to a process of only a few minutes.

- » Available in DN15 or DN20
- » DN15 comes with 110mm spool piece
- » DN20 comes with 130mm spool piece
- » Allows for local isolation for easy meter replacement or maintenance
- » Spool piece means system can be flushed without meters present



Part Code	Name	Size
ZE015FK	DN15 Fitting Kit	15
ZE020FK	DN20 Fitting Kit	20



ACCESSORIES M10 ADAPTOR

## M<sub>10</sub> ADAPTOR

Standard temperature sensors can be converted to direct sensors with the direct sensor M10 adapter available from Sycous.

The two plastic half-shells are placed around the temperature sensor. These create an M10 thread on the exterior and this allows the temperature sensor to be installed within a ball valve with a drilled M10 hole.

- » M10 Thread
- » Suitable for 5.0/5.2mm diameter temperature sensors
- » Heat resistant plastic suitable for heat & cooling meters



Part Code	Name	
ZE010PL	M10 Blanking Plug	
ZE001MA	M10 Adaptor	



ACCESSORIES SENSOR POCKETS

## **SENSOR POCKETS**

Sycous provide a range of sensor pockets for the installation of temperature sensors within pipework. They range from 50mm to 230mm and can be used with a wide range of temperature sensor types.

All pockets come complete with a clamping screw to secure the temperature sensor. Sealing of the clamping screw is also possible to ensure tamper evident seals can be utilised.

- » Available from 50mm to 230mm
- Available for temperature sensors from 5.0-6.0 diameter
- » 1/2" pocket connection including copper seal
- Come complete as a pair



Part Code	Name	Size (mm)
ZE050PO	50MM Pockets, MID, Per Pair 5.2,50mm,1/2"	50
ZE105PO	105MM Pockets, MID, Per Pair 6.0,105mm,1/2"	105
ZE140PO	140MM Pockets, MID, Per Pair 6.0,140mm,1/2"	140
ZE230PO	230MM Pockets, MID, Per Pair 6.0,230mm,1/2"	230



ACCESSORIES TEMPERATURE SENSORS

## **TEMPERATURE SENSORS**

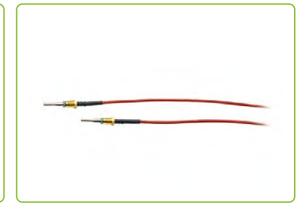
Sycous provide a range of temperature sensor pairs which determine the supply and return temperature in closed water circuits in heating and cooling systems. Depending on the measuring point requirements they can be installed in a pocket or directly in the pipe using a ball valve.

All the versions have an MID type testing certificate in accordance with guideline 2014/32/EU and are supplied with a corresponding conformity assessment.

A new kind of temperature sensor type 'Universal  $6 \times 60$  -230' that can be used for all standard sleeves for temperature sensors with an installation length of 50 to 210 mm and an internal diameter of 6 mm is now available.

## **Click here to view the Data Sheet for Temperature Sensors**

- » Available from 45mm to 230mm in length
- » MID Approved for billing purposes
- » RHI Complaint
- Available with various cable lengths
- » PT500
- » 2 wire. 4 wire available on special order



Part Code	Name	Size (mm)
ZE045TS	45MM Temperature Sensors Pair, PT500, MID, 5.2,45m	45
ZE046TS	45MM Temperature Sensors Pair, PT500, MID, 5.2,45m	45
ZEO47TS	45MM Temperature Sensors Pair, PT500, MID, 5.2	45
ZE105TS	105MM Temperature Sensors Pair, PT500, MID, 6.0	105
ZE106TS	105MM Temperature Sensors Pair, PT500, MID, 10m	105
ZE140TS	140MM Temperature Sensors Pair, PT500, MID, 6.0,14	140
ZE141TS	140MM Temperature Sensors Pair, PT500, MID, 10M	140
ZE230TS	230MM Temperature Sensors Pair, PT500, MID, 6.0	230
ZE231TS	230MM Temperature Sensors Pair, PT500, MID, 10M	230
ZE150TS	K150 Temperature Sensors 6x60-230 3m Cable PT500	60-230
ZE151TS	K150 Temperature Sensors 6x60-230 10m Cable PT500	60-230

ACCESSORIES SECURITY SEALS

## **SECURITY SEALS**

Sycous offer a range of security seals for heat, cooling and water meters. A security seal provides a tamper evident solution for metering installations to prevent tampering and fraud on your metering system.

- » Suitable for our full range of heat and cooling meters
- » Provides a tamper evident seal



Part Code	Name	
ZE001SS	Meter Security Seal/Tag	





# DATA

For expert technical support please contact:

info@sycous.com +44 (0) 113 360 4776 Unlock the potential of metering through wired or wireless connectivity systems.

For more information: sycous.com

Our range of data collection devices help you get the most out of installing meters and does so in the most cost-effective way. We're also a Premium Partner of Elvaco, meaning not only can we sell at the lowest prices but also provide the best solution for your application and exceptional levels of technical support.

DATA COLLECTION ELVACO CMEX

## **ELVACO CMEX**



CMeX range is an MBus Master which, by providing additional drive strength, extends the number of meters a CMe Series Gateway is able to use.

The product is equipped with a unique IR Pass Through feature which enables up to four CMe/CMeX Series devices to communicate via IR, by stacking them side-by side.

The S version will also support integration with existing MBus systems through RS232. This also allows for local reading through suitable software.

#### Click here to view the Data Sheet for Elvaco CMeX

- » CMeX range 32, 64, 128, 256
- » Mains powered 220-240VAC
- » DIN Rail Mounted
- Suitable enclosures available on request
- » To be used in conjunction with the CMe2100 or CMe3100



Part Code	Name	Size	Input
EL032DC	CMeX10 MBus Master 32 Connected Meters	32	MBus
EL033DC	CMeX10S MBus Master 32 Connected Meters	32	MBus
EL064DC	CMeX11 MBus Master 64 Connected Meters	64	MBus
EL065DC	CMeX11S MBus Master 64 Connected Meters	64	MBus
EL128DC	CMeX12S MBus Master 128 Connected Meters	128	MBus
EL250DC	CMeX13S MBus Master 256 Connected Meters	250	MBus
EL500DC	CMeX50 Wireless MBus Master 500 Connected Meters	250	Wireless MBus



DATA COLLECTION ELVACO CME3100

## **ELVACO CME3100**



CMe3100 is an MBus Metering Gateway for Fixed Network that reads up to 512 meters, compiles meter data in customized reports and delivers it to a receiving system by a set schedule and integration protocol via the fixed network.

It is compatible with all meters that use the MBus standard protocol and Elvaco's CMe/CMeX Series. CMe3100 is easily configured and updated through its web interface and supports a wide range of integration protocols, such as ModBus, DLMS, JSON and REST, which makes it a viable solution for many different types of metering projects.

Through the continuous readout feature, meter data can be delivered in real-time, which might for example be used in an automatic control system.

CMe3100 is equipped with a flexible licensing scheme, which allows for a cost-effective customization at the purchase point as well as the possibility to later extend the product functionality without changing the hardware.

#### Click here to view the Data Sheet for Elvaco CMe3100

- » Reads up to 512 MBus meters. Expanders required. Sold Separately.
- » Can read up to 32 meters without an expander
- » TCP/IP
- » DIN Rail Mounted
- » Suitable Enclosures available on request



Part Code	Name	Size	Input
EL318IP	Elvaco CMe3100 TCP/IP. 8 Slaves	8	MBus
EL313IP	Elvaco CMe3100 TCP/IP. 32 Slaves	32	MBus
EL316IP	Elvaco CMe3100 TCP/IP. 64 Slaves	64	MBus
EL311IP	Elvaco CMe3100 TCP/IP 128 Slaves	128	MBus
EL310DC	Elvaco CMe3100 TCP/IP 256 Slaves	250	MBus
EL332UP	CMe3100 Licence Upgrade 8-32	32	MBus
EL364UP	CMe3100 Licence Upgrade 8-64	64	MBus
EL356UP	CMe3100 Licence Upgrade 8-256	256	MBus
EL664UP	CMe3100 Slave upgrade 32-64	64	MBus



## IR TO WIRELESS MBUS CONVERTER



CMeX20w is an external meter connectivity module used to collect data from an ABB B21/B23/B24 electricity meter and deliver it to a receiving system by Wireless MBus.

The product communicates with the ABB meter by IR and will initiate collection of data immediately after start-up. It has a modular design, which makes it easy to extend an existing installation if needs are changing.

#### Click here to view the Data Sheet for IR to Wireless MBus Converter

- » IR to Wireless MBus OMS 868MHz Converter
- » Mains powered 220-240VAC
- » DIN Rail Mounted
- » For us with ABB Electric Meters
- » Available with external antenna. Sold separately



Part Code	Name	Input	Output
EL020WM	IR to Wireless MBus Converter	IR	Wireless MBus



## **WIRELESS MBUS ANTENNA**

Sycous offer a range of Wireless MBus (868MHz) antenna's to suit the Sycous range of data collection systems.

The magnetic mount antenna is used to increase the Wireless MBus communication range for a product. It is small and light and has a swivel feature which makes it very easy to mount.

The sticky-backed antenna can be used both indoors and outdoors to increase the Wireless MBus communication range for a product. The antenna is an ideal choice for projects where a discreet and reliable installation is required.

The Omni antenna is an external omnidirectional antenna which is used to increase the Wireless MBus communication range for a product. It can be mounted on vertical and horizontal mast tubes with an outer diameter of 16-54 mm.

#### Click here to view the Data Sheet for Wireless MBus Antenna

- » Wireless MBus Antenna to increase range
- » Available in sticky-backed or magnetic mounting type
- » SMA-m Connection
- » Range of cable lengths



Part Code	Name	
EL921AN	Wireless MBus Wall Mounted Antenna 1.5m	
EL868ON	Omni Antenna Wireless MBus 45cm	
EL867ON	Omni antenna Wireless MBus 145cm 8dBi	
EL868AN	Wireless MBus Cable for Omni Antenna 5m	
EL867AN	Wireless MBus Cable for Omni Antenna 10m	
EL855AN	WMBus Antenna	

## **PULSE TO MBUS CONVERTER 1 INPUT**

The 1-channel pulse adaptor PadPuls M1 allows the use of meters with pulse output as MBus slaves.

The device will convert pulses to MBus output.

Can be used with a range of pulsed output meters including water, heat, gas, oil & electric.

#### Click here to view the Data Sheet for Pulse to MBus Converter 1 Input

- » Power is supplied by MBus, or integrated battery at an MBus failure, needs no power supply unit externally.
- » Maximum pulse frequency 20Hz
- » Debouncing of pulses
- » Adjustable pulse values and pulse unit
- » MBus protocol according to EN1434-3
- » On-site programming by MBus, including overwrite protection
- » Wall mounted
- » Protective class IP 54



Part Code	Name	Input	Output
UK010PD	Pulse to MBus Converter 1 Input	Pulse	MBus



## **WIRELESS MBUS REPEATER**

The Wireless MBus repeater from Sycous is a ready-to-use device which will repeat radio frames from Wireless MBus meters. This repeater can double the range of Wireless MBus meters and thus ensuring a seamless transmission of radio frames when the data collector is located a fair distance from the furthest meter point.

Sycous can provide full on-site surveys to check for signal strengths and location of potential equipment to ensure a robust and reliable wireless system is installed. Please contact us for more information.

#### Click here to view the Data Sheet for Wireless MBus Repeater

- » Radio repetition of WMBus consumption meters
- » Supports T+C modes
- » Installation is simple and fast
- » Range up to 600m line of sight (T+C mode)
- Several repeaters can be associated
- » Mains powered
- » IP65 standard
- » Suitable enclosures available on request



Part Code	Name	Input	Output	
AP868WM	Wireless MBus Repeater (Mains)	Wireless MBus	Wireless MBus	



DATA COLLECTION ZENNER PDC MODULE

## ZENNER PDC MODULE



The PulseDataCapture by Zenner is a module for the integration of measuring instruments with pulse output in wireless MBus reading systems. The consumption data of water, heat, gas, oil and electricity meters with pulse output can be converted to Wireless MBus OMS 868MHz or LoRaWAN.

The PDC is battery powered and lifetime is depending on the version, the transmission interval and the ambient conditions but can reach up to 15 years.

#### Please Note:

Both, the potential-free (reed) contact and the electronic pulse output can be connected to the PDC. When the PDC module is connected to a meter with an electronic pulse output, we recommend to carry out a compatibility

#### Click here to view the Data Sheet for Zenner PDC Module

- » Pulse to Wireless MBus Converter or Pulse to LoRaWAN
  CONVERTER
- » 868MHz OMS Output
- » Plastic housing with mounting bracket
- » Battery Powered
- » IP54 Protection class (IP68 available as an option)



Part Code	Name	Input	Output	
ZE001PC	Zenner PDC Module	Pulse	Wireless MBus	



DATA COLLECTION ELVACO CME2100

## **ELVACO CME2100**



CMe2100 (gen.3) is an MBus Metering Gateway for Mobile Network that reads up to 128 MBus meters, compiles meter data into customized reports and delivers it to a receiving system by a set schedule and integration protocol via GPRS.

The product is equipped with an IR interface which enables it to communicate with other devices from Elvaco's CMe/CMeX Series as well as ABB electricity meters without using any cables. CMe2100 (gen.3) is further compatible with all other meters that use the MBus standard protocol.

The product can be configured and updated remotely through text messages or HTTP, which means that settings can easily be changed without having to visit the installation site.

#### Click here to view the Data Sheet for Elvaco CMe2100

- » Reads up to 128 MBus meters. Expanders required. Sold separately.
- » Can read up to 8 meters without an expander
- » GSM/GPRS
- » DIN Rail Mounted
- » Suitable Enclosures available on request



Part Code	Name	Size	Input
EL001DC	CMe2100 GSM/GPRS MBus Master Unit up to 1 Meter Point	1	MBus
SY001DC	GSM MBus Data Collector - 1 Meter	1	MBus
EL008DC	CMe2100 GSM/GPRS MBus Master	8	MBus
SY008DC	MBus Data Collector - 8 Meters	8	MBus
SY032DC	MBus Data Collector - 32 Meters	32	MBus
SY064DC	MBus Data Collector - 64 Meters	64	MBus
SY128DC	MBus Data Collector - 128 Meters	128	MBus
SY500DC	Wireless MBus Data Collector - 500 Meters	128	Wireless MBus
WL001SC	Data Collection Sim Card	-	-



DATA COLLECTION ELVACO CME2100 LTE

## **ELVACO CME2100 LTE**



CMe2100 LTE is an MBus Metering Gateway for Mobile Networks with support for LTE communication and automatic fallback function (2G/3G/LTE).

CMe2100 LTE reads up to 256 MBus meters, compiles meter data into customized reports and delivers it to a receiving system.

The product is equipped with an IR interface which enables it to communicate with other devices from Elvaco's CMe/CMeX Series.

CMe2100 LTE is compatible with all other meters that use the MBus standard protocol.

The product can be configured and updated remotely through text messages or HTTP, which means that settings can easily be changed without having to visit the installation site.

An external antenna is needed for CMe2100 LTE, sold separately.

#### Click here to view the Data Sheet for Elvaco CMe2100 LTE

- » Reads up to 256 MBus meters. Expanders required. Sold separately
- » Can read up to 16 meters without an expander
- » 2G/3G/LTE
- » DIN Rail Mounted
- » Suitable Enclosures available on request



Part Code	Name	Size	Input	Output
EL066DC	CMe2100 LTE GSM MBus Master 64 Meter	64	MBus	GSM
EL129DC	CMe2100 LTE GSM MBus Master 128 Meters	128	MBus	GSM
EL256DC	CMe2100 LTE GSM MBus Master 256 Meters	256	MBus	GSM
EL016DC	CMe2100 LTE GSM MBus Master 16 Meters	16	MBus	GSM
EL034DC	CMe2100 LTE GSM MBus Master 32 Meters	32	MBus	GSM



DATA COLLECTION ELVACO CMI

## **ELVACO CMI**



The CMi-Box is a flexible solution for collection of meter values which can be customised to meet each individual customer's needs.

CMi-Box is easy to mount and install and is ready to use with any meter following the MBus standard protocol.

The enclosure provides good protection and can be sealed for extra security.

#### Click here to view the Data Sheet for Elvaco CMi

- Wireless MBus Receiver mounted inside the unit
- » Option for external GSM and WMBus Antenna Sold separately
- » Supports individual meter encryption keys
- » Support GSM output for remote connectivity
- 230VAC Power Required option for 12-24VDC
- » Comes complete with mounting bracket



Part Code	Name	Size	Input
EL233CM	Elvaco CMi Box External GPRS & wMBus	128	Wireless MBus
EL240PS	CMi Box 240v Power Supply	-	-



DATA COLLECTION ELVACO CMI2110

## **ELVACO CMI2110**



CMi2110 is a powerful and versatile meter connectivity module which is mounted inside a Landis+Gyr UH50 / UC50 heat meter to act as a Gateway for the mobile network.

The module is easily installed via text messages, and is thereafter ready to read the meter and deliver customized meter data reports to a receiving system by a selected time schedule and integration protocol via the mobile network.

#### Click here to view the Data Sheet for Flyaco CMei2110

- » Module for Landis Gyr UH50/UC50 range of energy meters
- » Requires power supply sold separately
- » GSM Connectivity
- Option for 8 additional hardwired MBus meters to be connected to the CMi2110



Part Code	Name	Size	Input	Output
EL211MC	CMi2110 Integrated MCM for L+G UH50	L+G Meter	Meter	GSM
EL218MC	CMi2110 Integrated MCM for L+G UH50 + 8 Meters	L+G Meter & MBus	Meter + MBus	GSM
EL210PO	L&G UH50 230v Power Module + power Cmi2110	230v	-	-
EL212MC	CMi2110 MCM for L+G UH50 + 230v + wall antenna	L&G Meter	Meter	GSM
EL219MC	CMi2110 MCM for L+G UH50 + 8 Meters + 230v + wall	L&G Meter	Meter + GSM	GSM



DATA COLLECTION GSM ANTENNA

## **GSM ANTENNA**

Sycous provide a range of GSM Antennas to boost the signal for mobile networks.

The wall mount antenna can be used both indoors and outdoors to increase the range of communication for a product on the mobile network. The antenna is an ideal choice for projects where a discreet and reliable alternative is required.

The magnet mount antenna is used to increase the communication range of a product that transmits data over the mobile network. It is designed for mounting on metal surfaces and is delivered with a 2.5-meter-long cable.

The antenna cable is of high quality to ensure minimal cable losses. It is available in two different lengths: 5 or 10 meter.

#### Click here to view the Data Sheet for GSM Antenna

- » Range of different mounting options
- » SMA-m connections
- » Various cable lengths available. 1.5m, 2.5m, 5m & 10m.



Part Code	Name	Size (m)
EL910AN	GSM/GPRS Antenna Magnetic Base 2.5m	2.5
EL911AN	GSM/GPRS Wall Mounted Antenna 1.5m	1.5
EL912AN	GSM/ GPRS Wall Mounted Antenna 3m	3
EL931AN	GSM/GPRS Antenna Cable SMAf-SMAm 5m	5
EL932AN	GSM/GPRS Antenna Cable SMAf-SMAm 10m	10



## **PAYG**

For expert technical support

info@sycous.com +44 (0) 113 360 4776 Market leading transferable and open protocol PAYG solutions.

For more information: sycous.com

Our range of 'transferable-protocol' PAYG solutions and 'openprotocol' PAYG cloud solution, allows you to effectively manage your utilities cash-flow, reduce the level of administration and provide additional in-home functionality to consumers.

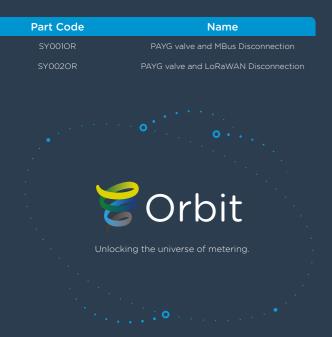
## **ORBIT**

### Unlocking the universe of metering.

Orbit connects communal and district heating networks to a modern, cost effective and openprotocol metering and PAYG system.

Utilising cloud technology, Orbit is hardware agnostic and provides everything expected from a traditional PAYG system, whilst modernising to reduce heat network costs and removing the need for in-home hardware.

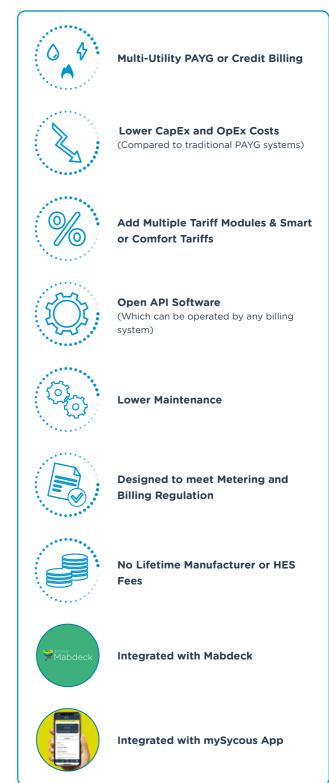
Orbit is fully integrated with our Mabdeck Metering and Billing software and mySycous app, ready to provide all the in-home display functionality expected from residents for a futureproofed metering and PAYG system.



Click here to view the Brochure for Orbit

## How Orbit works? (LoRaWAN° System)





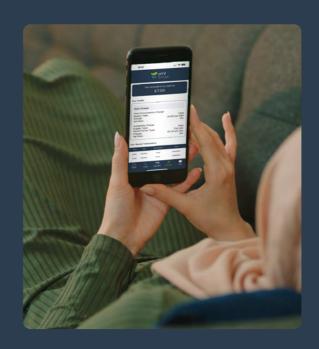
## mySycous App

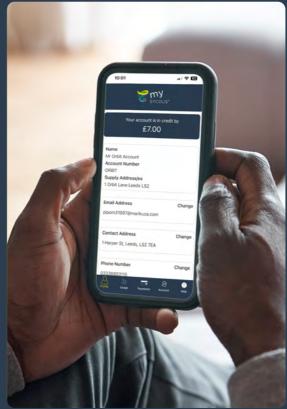
The mySycous App integrates seamlessly with Orbit to provide all the in-home display functionality expected from residents for a futureproof PAYG system.

mySycous puts the residents in complete control to self-serve their account and is available in both PAYG and Credit Billing

The mySycous App can be tailored directly to your consumers with complete whitelabelling available.









### Give control to customers:

- Ability to make payments and top-up
- Compare complete consumption history
- » View account correspondence including
- » Real time account notifications
- » Update meter readings in seconds



### Make payments simple:

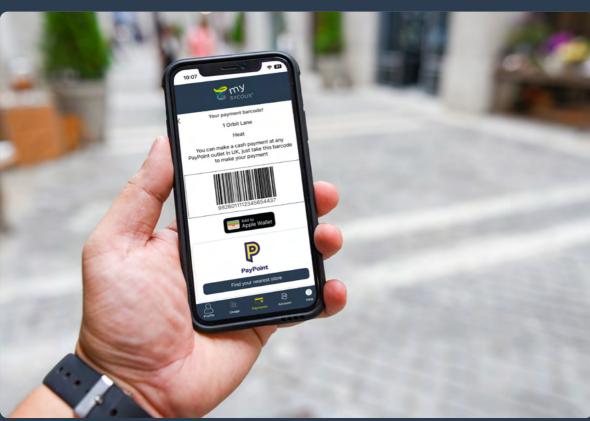
- » Set-up reoccurring payments and auto
- » Access account payment barcode and add to your Mobile Wallet
- » Variety of payment methods including Stripe, PayPoint and many more

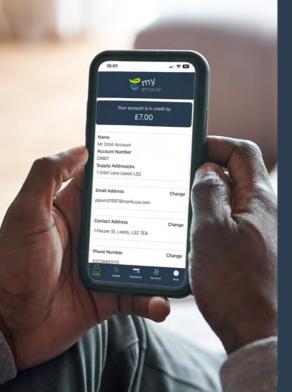


### Complete selfservice and support:

- » Self-service account management
- » Access mySycous customer support through online chat

Click here to view the Brochure for Orbit.





PAY-AS-YOU-GO GURU HUB II

## **GURU HUB II**



The Guru Hub II provides a single hub for multi-fuel credit or PAYG functionality across all supplies including, heat, hot water, electricity, gas and cold water. You can also operate some supplies, such as cold water, as credit whilst other supplies operate in PAYG mode with just a single Guru Hub.

The Guru solution works on an 868MHz wireless mesh networks with all hubs and repeaters being connected wirelessly to a central gateway and as a mesh each hub also improves the robustness of the overall network ensuring multiple paths of communication are always maintained with every hub.

The Guru solution offers both a wall-mounted or recessed wall-mounted options to make it ideal for both new-builds and retrofits.

#### Click here to view the Data Sheet for Guru Hub II

- » Multi-utility PAYG or Credit Billing
- » MBus, Pulse and PT1000 inputs
- » Large colour display
- » Touch screen
- Recessed or wall-mounted
- » Transferable protocol
- » Multiple top-up options
- » Wireless mesh no individual SIM required
- » Wireless mesh no site wide wiring required
- » Big Data analytics with Guru PinPoint
- Intelligent commissioning and maintenance



Part Code	Name	
GU007PP	On-site survey & RF Network Design - First Block	
GU009PP	On-site Survey & RF Network Design - Additional	
GU010PP	Guru Hub II - Dwelling Hubs	
GU011PP	Guru Hub II - Block Level Hubs	
GU012PP	Guru Hub II - Plant room Hub	
GU013PP	Guru Hub II - Recessed Wall Mount Kit	
GU014PP	Router Draytek 2862 - pre configured	
GU015PP	Digi ConnectPort X4 868 Gateway	
GU016PP	IP Power Switch	
GU017PP	Repeater for 868MHz network	
GU018PP	Secure Data Cabinet (Large)	
GU019PP	Secure Data Cabinet (Small)	
GU020PP	Network Switch (5, 8 or 16 port)	
GU008PP	Guru Hub Commissioning	
GU022PP	Project Management Site Delivery fee.	



PAY-AS-YOU-GO SECURE LIBERTY 100

## **SECURE LIBERTY 100**



The Secure Liberty 100 is a utility-grade PAYG solution, offering functionality for heat, electricity and gas. This device operates in either a PAYG or credit mode and can be remotely switched between the two.

The Secure solution works with an in-built SIM in every unit, meaning it can be rolled out in just a single property and relies on no other infrastructure to operate, as well as being remotely managed and updated.

As well as having a PAYG hub that can be located close to the heat meter, or for electricity and gas having the meter integrated into the hub, there is a wireless In-Home Display (IHD) which can be located in another location free-standing or wall mounted.

#### Click here to view the Data Sheet for Secure Liberty 100

- » Utility-grade PAYG
- » Suitable for heat, electricity and gas
- » Integrated roaming SIM card
- Wall mounted or portable IHD
- » Transferable protocol
- » Multiple top-up options
- » Big Data analytics
- » Intelligent commissioning and maintenance



Part Code	Name	
SY100PP	Sycous Liberty 100 Pay-as-you-go Unit	
SY910CO	Liberty 100 Commissioning	
SY911CO	Liberty 100 Installation	
SE100CH	Secure Liberty Pipet Charger	
SE100AN	Wall Mounted Antenna - 2G/3G/4G	
SE300PP	Secure Pipet In Home Display Unit	
SE200PP	Sycous Liberty 100 Unit NO Pipet	



PAY-AS-YOU-GO PREPAYMENT VALVE

## PREPAYMENT VALVE

Sycous offer a range of isolation valves suitable for PAYG applications on communal and district heating systems.

The isolation valves are suitable for use with our range of PAYG solutions and are suitable for new build or retrofit projects

#### Click here to view the Data Sheet for Prepayment Valve

- Available in either DN15 or DN20
- » 230v Powered
- » Normally Closed powered open
- » Solenoid type valve



Part Code	Name
EN40071/A	ACCO Duran month Automobile Inglation Colon aid Value

PAY-AS-YOU-GO THERMAL DISCONNECT

## THERMAL DISCONNECT

The CMeX40 from Sycous is an I/O module that reads an input signal and controls an output signal and can thereby be used as a remote relay. It is equipped with an IR interface which enables it to communicate with products from Elvaco's CMe/CMeX Series without using any cables.

#### Click here to view the Data Sheet for Thermal Disconnect

- » MBus Controlled Relay
- » DIN Rail Mounted
- » Open Protocol
- Suitable with the Sycous range of data collectors and Mabdeck



Part Code	Name
EM223VA	ASCO Prepayment Automatic Isolation Solenoid Valve



# ENERGY EFFICIENCY

For expert technical support

info@sycous.com +44 (0) 113 360 4776 Unlock heat network performance data through efficiency monitoring software.

For more information: sycous.com

Our range of heat network efficiency monitoring tools combined with the correct metering and data collection system can provide the whole picture of how your building is performing. This key data can be used to guide network tariff changes, provide efficiency data to regulatory bodies, and help networks become more cost effective for both residents and operators.

## **EWATCH HEAT**



eWatch heat service captures and analyses data to generate graphical reports about individual HIUs and overall network performance. Poorly performing properties that need attention are identified easily.

The service considers three key aspects:

- » Verification of appropriate commission
- » Monitoring on-going performance;
- » Improving through proactive service and maintenance.

Ongoing monitoring of the network and follow-up action as required, helps keep costs low for both operator and resident, and ensures reliable, adequate heat supply reaches all those connected, including tenants vulnerable to fuel poverty.

#### Click here to view the Brochure for eWatch Heat Services

#### **Features:**

Verify system performance

- » Mobile app to guide engineers with on-site verification.
- » Asset register verification reports.
- » Properties passed or failed based on design parameters.
- » Energy centre proving period, post verification.

Monitor system performance

- » Comprehensively monitors network efficiency.
- » Performance dashboards analyse every stage of the system - compare weekly, monthly and seasonal data.
- » Yearly and seasonal benchmarking.
- » Granular data drills down to every metering point (riser, apartment and plant room).

Improving system performance

- » Multi-site performance dashboards.
- » Benchmarking between sites.
- » Carbon emission reports.







## NETWORK OVERVIEW

For expert technical support

info@sycous.com +44 (0) 113 360 4776 High quality open-protocol metering devices designed to meet regulation.

For more information:

sycous.com

Our range of heat meters are suitable for domestic and commercial applications, including for uses under the Heat Network (Metering and Billing) Regulations 2014 such as building entry meters and can be pre-installed in heat interface units (HIU).

Featured Manufacturers: Zenner, B-Meters, Diehl

NETWORK OVERVIEW
WIRED NETWORK OVERVIEW

## WIRED NETWORK OVERVIEW

## M-Bus

#### What is MBus?

MBus (Meter-Bus) is a European standard (EN 13757-2 physical and link layer, EN 13757-3 application layer) for the remote reading of sub meters i.e., heat, water & electric. MBus is also usable for other types of consumption meters (e.g. Heat, Hot Water, Cold Water etc.).

The MBus interface is made for communication on two wires, making it very cost effective. A radio variant of MBus (Wireless MBus) is also specified in EN 13757-4.

#### Wired MBus Network Installation Guide

Our brochure is designed to provide guidance on the installation of an MBus network and suitable data logger. The guide will support in selecting the most appropriate topology for your MBus network and provide wiring details for the data logger



Click here to view the Wired MBus Network Installation Guide

## Advised installation of the MBus Network

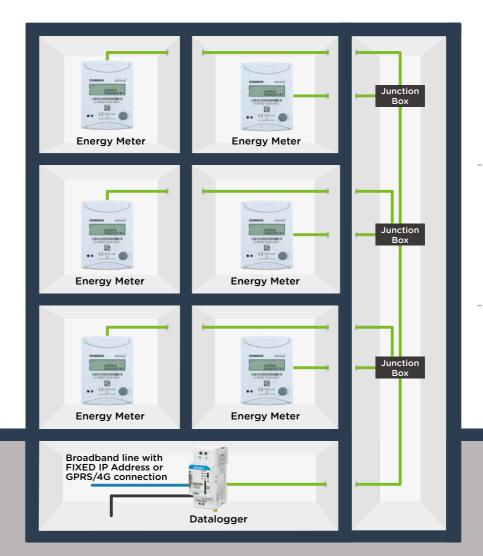
MBus unshielded Belden Cable No. 8444 (CAT 5 is not recommended)

LAN RJ45 (CAT 5/6 to broadband router/modem) or GPRS/4G connection depending on model selected

Mains Power, 230V AC, 50/60 Hz, 3A or 5A unswitched fused spur



A suitable 4G/GPRS connection is needed to be able to remotely read meters. Please ensure that signal is available in the location of the data logger. Sycous can provide a signal test on site. Please contact our sales team for further information.



2<sup>nd</sup> Floor

> 1<sup>st</sup> Floor

Ground Floor

NETWORK OVERVIEW WIRELESS NETWORK OVERVIEW

Floor

Floor

Floor

Wireless

## WIRELESS NETWORK OVERVIEW

#### What is Wireless MBus?

The Wireless MBus protocol is mainly used for communication between consumption meters and data loggers, as the technology enables remote and wireless readings of meters.

Wireless MBus can be used for electricity, gas, water, and heat meters. Meters with Wireless MBus transmit data to the data logger on a regular basis - typically a few seconds or minutes between each

The secure and encrypted Wireless MBus data can provide reliable billing data, as well as near real time visualisation data to the user.

The Wireless MBus protocol is a low power consumption protocol and is therefore very useful for battery-powered devices. Wireless M-Bus follows the European standard (EN 13757-4).

#### Wireless MBus Network Installation Guide

Our brochure is designed to provide guidance on the installation of an MBus network and suitable data logger. The guide will support in selecting the most appropriate topology for your MBus network and provide wiring details for the data logger



Click here to view the Wireless MBus Network Installation Guide

## Advised installation of the Wireless MBus Network



A suitable 4G/GRPS connection is needed to be able to remotely read meters. Please ensure that signal is available in the location of the data logger. Sycous can provide a signal test on site. Please contact our sales team for further information.



Wireless

Wireless



Wireless Water Meter

Wireless

Wireless

Energy

1 300

Wireless

Wireless Data

**Broadband line** with FIXED IP Address or GPRS/4G connection



Wireless MBus signal





Sycous billing/reporting system







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Metering and billing made easy. Metering and billing made easy. ABOUT US COMPANY DETAILS

## **COMPANY DETAILS**

#### **Registered Address**

New York House, 1 Harper Street, Leeds, LS2 7EA

#### **UTR Number**

29961 29959 - Gross Payment Status

#### **VAT Number**

187 8398 35

#### **EORI Number**

GB187839835000

#### **D-U-N-S Number**

21-982-4814

#### **Company Number**

08836039

#### **Company Policies**

Visit **sycous.com/about-us/company-policies** to find copies of our insurances and key company policies, including health and safety, environmental, data security and more.

#### **Company Information**

Visit **sycous.com/about-us/company-information** to find key information about Sycous, including VAT and D-U-N-S.

#### **Conditions of Sale and Purchase**

Visit sycous.com/about-us/conditions-of-sale-andpurchase to find copies of our company conditions for sale and how to apply for a credit account.



New York House, 1 Harper St, Leeds LS2 7EA



Telephone us on: +44 (0) 113 360 4776



E-mail us at: info@sycous.com



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