Compressed air is a very expensive form of energy. This is due to its efficiency: for every joule of mechanical work which is done with a pneumatic tool, approximately twenty times the amount of electrical energy must be spent. However, despite this poor yield, compressed air is practically indispensable in many industries because of its production-related advantages.

If you want to avoid waste it's necessary to measure. The reduction of losses caused by leaks comprises the biggest energy saving potential. Of secondary importance is the adaptation and alignment of the whole system and its processes to the real demands. But how do you best measure at an existing compressed air plant - e.g. the consumption of the pneumatic system that. Using our measuring technology and our know-how. FLEXIM can help you optimize energy efficiency in your buildings, plants and processes. Our application engineers will be happy to advise you in selecting a suitable measuring system.

Measurements create Transparency

For continuous monitoring and balancing of compressed air networks, fixed installation Fluxus G700® series gas flowmeters are available. Of course, the FLUXUS® G601 CA Energy also allows you to measure the flow of typical process gases such as nitrogen or ammonia. Of course, you can also rent our measuring systems. We also offer measurement services tailored specifically to your needs. Our experienced service technicians carry out flow measurements of heat and cold quantities or in the compressed air network - from occasional test measurements to comprehensive measuring campaigns. We provide you with detailed reports with traceable measurement results, which give specific information and recommendations for optimising energy efficiency.

As the user, you are at the centre of all our efforts. Our company motto is to offer you the most suitable and highest quality measuring system for your measuring task and to be a reliable partner at all times, providing you with the best possible support.

You don't necessarily have to buy to measure. If the building or plant size do not warrant purchasing one or more measuring systems, we're still happy to be by your side. Of course, you can also rent our measuring systems.

For continuous monitoring and balancing of compressed air networks, fixed installation Fluxus G700® series gas flowmeters are available.

Energy, Measurement, Knowledge. For you.

Develop new energy sources non-invasively: a source of savings. We can help you with that. Using our measuring technology and our know-how. FLEXIM can help you optimize energy efficiency in your buildings, plants and processes. Our application engineers will be happy to advise you in selecting a suitable measuring system.

Mobile and non-invasive. Compressed air measurement.

Compressed air is a very expensive form of energy. This is due to its efficiency: for every joule of mechanical work which is done with a pneumatic tool, approximately twenty times the amount of electrical energy must be spent. However, despite this poor yield, compressed air is practically indispensable in many industries because of its production-related advantages.

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Measuring data is required for energy management. FLUXUS® measures non-invasively.

Permanent and portable measuring systems for
- Facility management
- Energy consulting / audits
- Energy-Contracting

Non-invasive performance and energy measurements on
- Heating systems
- Boilers
- Refrigeration and air-conditioning systems
- Refrigeration compressors (also in the gas phase)
- Absorption chillers
- District heating transport pipelines and transfer stations

Advantages
- Reliable and wear-free measurement from outside
- Accurate energy measurement due to:
  - Highly accurate flow measurement with paired and transverse calibrated ultrasonic transducers
  - Highly accurate temperature measurement with paired and transverse calibrated temperature sensors
- Extremely high measuring dynamics from the lowest to the highest flow velocities
- Simple, cost-effective retrofitting without any disruption to supply
- Transparent and graphical output of measuring data

... in heating and air-conditioning technology
Whether in the boiler room of a family home or in the central air-conditioning unit of a major airport—measuring points can be set up easily and non-invasively with FLUXUS® Energy ultrasonic systems. These measuring points are used to measure energy consumption or to evaluate the efficiency of energy conversion processes.

The FLUXUS® Energy combines all the functions of a heat meter. Flux sensors, a pair of temperature sensors and a calculator which calculates the thermal output or the energy transported by integration. It does so using recorded measured values and by taking into account substance-specific data (enthalpy, thermal coefficient). Since clamp-on ultrasonic transducers are simply mounted on the outside of the pipe, a reliable heating and cooling supply is ensured at all times.

Non-invasive performance and energy measurement
In the industrial sector, energy has long been a key component factor. Clamp-on ultrasonic measurement with FLUXUS® Energy also offers impressing and unique solutions which can be used to tap efficiency potential non-invasively. Energy use on an industrial scale often goes hand in hand with particularly challenging conditions for people and technology. This is where the reliability of FLUXUS® can be seen. Particularly sturdy versions of transducers and measuring transmitters mean that this measuring method, which is almost free as a matter of principle, can be used even under extreme conditions. Regardless of whether they are installed in potentially explosive areas as well as at extreme temperature ranges (-40°C to 400°C). Permanently submersed under water or on the smallest and largest pipes—FLUXUS® Energy ultrasonic systems have proven themselves in the most demanding applications.

Pump monitoring
Pumps are essential elements of almost all energy processes. Whether in buildings or in the process industry, they are the heart of the system. A pump that is operating improperly...

... in industrial processes
- Efficiency monitoring on heat exchangers in line with preventative maintenance
- Comparison of the amount of energy produced and primary energy used in boilers and burners
- Permanent monitoring of energy flows
- Quantification and use of residual heat
- High temperature flow measurements of heat transport coils or radiant coils
Measuring data is required for energy management. FLUXUS® measures non-invasively.

Energy counts. In every respect. Whether for heating in the household, air-conditioning in the office, when transporting people and goods or in industrial production, energy is a key factor for human life, work and the economy. Safe supply and efficient management of this limited resource is just as important.

Saving energy pays off. Savings in energy consumption promote first-class returns. Every kilowatt hour saved in subject to internal energy taxes loses value. Whoever is able to save energy more efficiently saves on procurement costs and protects the environment – and anyone who sets up a certified energy management system will reap the financial benefits. Savings in energy consumption promise first-class returns. Every kilowatt hour saved is subject to internal energy taxes loses value. Whoever is able to save energy more efficiently saves on procurement costs and protects the environment – and anyone who sets up a certified energy management system will reap the financial benefits.

Knowledge comes from measuring. FLUXUS® Energy ultrasonic systems are the ideal solution for non-invasive determination of energy consumed during the transport of liquids or gases in pipelines. FLUXUS® measures the flow rate non-invasively using clamp-on ultrasonic transducers which are mounted on the outside of the pipe. There is no need to carry any awkward modification or interrupt operation. If the temperatures in the flow and return lines are recorded simultaneously, the energy transported by integration. It does so using recorded measured values and by taking into account substance-specific data (enthalpy, thermal coefficients). Since clamp-on ultrasonic transducers are simply mounted on the outside of the pipe, a reliable heating and cooling supply is ensured at all times.

Measuring non-invasively. Before deciding on any measures, simply begin with non-invasive measurements. The portable versions of FLUXUS® Energy measure non-invasively. Proven themselves in the most demanding applications, of pipes – FLUXUS® Energy ultrasonic systems have submerged under water or on the smallest and largest temperatures from -170 °C to over 400 °C, permanently in potentially explosive areas as well as at extreme conditions. Regardless of whether they are installed matter of principle, can be used even under extreme conditions. The FLUXUS® Energy combines all the functions of a heat meter. Flow sensor, a pair of temperature sensors and a calculator which calculates the thermal output or the energy transported by integration. It does so using recorded measured values and by taking into account substance-specific data (enthalpy, thermal coefficients). Since clamp-on ultrasonic transducers are simply mounted on the outside of the pipe, a reliable heating and cooling supply is ensured at all times.

Non-invasive performance and energy measurement

Permanently and portable measuring systems for

- Vehicle access
- Energy consulting / audits
- Energy-Contracting
Non-invasive performance and energy measurements on

- Heating systems
- Boilers
- Refrigeration and air-conditioning systems
- Refrigeration compressors
- Chiller and heat pumps
- Pipelines and transfer stations

... in heating and air-conditioning technology

Whether in the boiler room of a family home or in the central air-conditioning unit of a major airport - measuring points can be set up easily and non-invasively with FLUXUS® Energy ultrasonic systems. These measuring points are used to measure energy consumption or to evaluate the efficiency of energy conversion processes.

The FLUXUS® Energy calculates all the functions of a heat meter. Flow sensor, a pair of temperature sensors and a calculator which calculates the thermal output or the energy transported by integration. It does so using recorded measured values and by taking into account substance-specific data (enthalpy, thermal coefficients). Since clamp-on ultrasonic transducers are simply mounted on the outside of the pipe, a reliable heating and cooling supply is ensured at all times.

Advantages

- Reliable and non-invasive measurement from outside
- Accurate energy measurement due to
  - highly accurate flow measurement with paired and traceable validated ultrasonic transducers
  - highly accurate temperature measurement with paired and traceable validated temperature sensors (DIN EN 1434-1)
- Extremely high measuring accuracy from the lowest to the highest flow velocities
- Simple, cost-effective retrofitting without any disruption to supply
- Transparent and straightforward interpreting of measuring data

... in industrial processes

In the industrial sector, energy has long been a key factor. Clamp-on ultrasonic measurement with FLUXUS® Energy also offers impressing and unique solutions which can be used to tap efficiency potential non-invasively. Energy use on an industrial scale often goes hand in hand with particularly challenging conditions for people and technology. This is where the reliability of FLUXUS® can be seen. Particularly sturdy versions of transducers and measuring transmitters mean that this measuring method, which is non-invasive as a matter of principle, can be used even under extreme conditions. Regardless of whether they are installed in potentially explosive areas as well as at extreme temperatures (from -10 °C to over 400 °C) or permanently submerged underwater or on the smallest and largest pipes, FLUXUS® Energy ultrasonic systems have proven themselves in the most demanding applications, e.g.:
Measuring data is required for energy management. FLUXUS® measures non-invasively.

Energy counts. In every respect. Whether for heating in the household, air-conditioning in the office, when transporting people and goods or in industrial production, energy is a key factor for human life, work and the economy. Safe supply and efficient management of this limited resource is just as important.

Savings energy pays off. Savings in energy consumption promotes first-class returns. Every kilowatt-hour saved in subject to internal research studies over 100. Wherever it is possible to use energy more efficiently, savings on operating costs and the environment – and anyone who sets up a certified energy management system will reap the financial benefits.

Energy management requires knowledge. According to the requirements set out in ISO 50001:2011, energy management is a top priority. Top management establishes an energy policy and lays down operative and strategic energy goals as part of an energy planning process. This requires comprehensive recording and measurement of the current amounts of energy used. Energy efficiency begins with transparency in consumption.

Knowledge comes from measuring. FLUXUS® Energy ultrasonic systems are the ideal measurement solution for non-invasive determination of energy consumed during the transport of liquids or gases in pipes. FLUXUS® measures the flow rate non-invasively using clamp-on ultrasonic transducers which are mounted on the outside of the pipe. There is no need to carry out any paperwork modification or interrupt operation. If the temperatures in the flow and return lines are recorded simultaneously, it is also possible to determine the energy consumed by cutting into account substance-specific data (enthalpy, thermal coefficient). Since clamp-on ultrasonic transducers are simply mounted on the outside of the pipe, a reliable heating and cooling supply is ensured at all times.

Non-invasive performance and energy measurement on heating systems
- Bioderms
- Refrigeration and cooling systems
- Refrigeration compressors
- Adsorption chillers
- Distillation heating of transport pipelines and transfer stations

Advantages
- Reliable and invasive-free measurement from outside
- Accurate energy measurement due to:
  - Highly accurate flow measurement with paired and transverse calibrated ultrasonic transducers
  - Highly accurate temperature measurement with paired and transverse calibrated temperature sensors (DIN EN 1434-1)
- Extremely high measuring dynamics from the lowest to the highest flow velocities
- Simple, cost-effective retrofitting without any disruption to supply
- Timely and cost-effective measurement of measuring data

... in heating and air-conditioning technology
Whether in the boiler room of a family home or in the central air-conditioning unit of a major airport – measuring points can be set up easily and non-invasively with FLUXUS® Energy ultrasonic systems. These measuring points are used to measure energy consumed or to evaluate the efficiency of energy conversion processes.

The FLUXUS® Energy ultrasonic systems can also be used as energy meters. They are particularly suitable for measuring the flow rate of heat transfer oils in absorption chillers and in refrigeration units or for analysing compressed air supplies. Stationary FLUXUS® Energy measuring systems are used to permanently monitor consumption.

Permanent and portable measuring systems for
- Facade monitoring
- Energy consulting / audits
- Energy-Energy

Non-invasive performance and energy measurements on cooling systems

... in industrial processes
In the industrial sector, energy has long been a key competitive factor. Clamp-on ultrasonic measurement with FLUXUS® Energy allows off-take and unique solutions which can be used to tap efficiency potential non-invasively.

Energy use on an industrial scale often goes hand in hand with particularly challenging conditions for people and technology. This is where the reliability of FLUXUS® can be seen. Particularly sturdy versions of transducers and measuring transmitters mean that this measuring technology, which is sheer-free as a matter of principle, can be used even under extreme conditions. Regardless of whether they are installed in potentially explosive areas as well as at extreme temperatures (-40°C to +260°C). Temporary submerged under water or on the smallest and largest of pipes, FLUXUS® Energy ultrasonic systems have proven themselves in the most demanding applications, e.g.:
Mobile and non-invasive. Compressed air measurement.

Compressed air is a very expensive form of energy. This is due to its efficiency: for every joule of mechanical work which is done with a pneumatic tool, approximately twenty times the amount of electrical energy must be spent. However, despite this poor yield, compressed air is practically indispensable in many industries because of its production-related advantages. This makes it all the more important to use the valuable medium as efficiently as possible.

Measurement creates Transparency

If you want to avoid waste it’s necessary to measure. The reduction of losses caused by leaks comprises the biggest energy saving potential. Of secondary importance is the adaptation and alignment of the whole system and its processes to the real demands. But how do you best measure at an existing compressed air plant - e.g. the consumption of the pneumatic system or the leakage of compressed air networks?

For continuous monitoring and balancing of compressed air networks, fixed installation Fluxus G700® series gas flowmeters are available.

For continuous monitoring and balancing of compressed air networks, fixed installation Fluxus G700® series gas flowmeters are available.

The portable FLUXUS® G601 CA Energy ultrasonic system is an all-purpose instrument, which can be used to non-invasively measure the flow rate of liquids, gases and liquid-based heat or cold quantities. FLEXIM’s clamp-on ultrasonic technology is unique in that it can be applied to measure gas flow rates even at low pressures. For this reason, the FLUXUS® G601 CA Energy is ideal for mobile and non-invasive applications and for the simultaneous measurement of both circuits at individual points of consumption. Of course, the FLUXUS® G601 CA Energy can also be used to measure the flow of typical process gases such as nitrogen or ammonia.

FLEXIM GmbH

Berlin, Germany
Phone: +49 30 93 66 76 60
Fax: +49 30 93 66 76 80
info@flexim.de
www.flexim.de

FLEXIM Instrumenta UK Ltd

Hartford, UK
Phone: +44 1463 781 439
Fax: +44 1463 781 524
sales@uk.flexim.co.uk
www.flexim.co.uk

FLEXIM Instrumenta Benelux B.V.

Netherlands
Phone: +31 20 65 12 032
Fax: +31 20 65 12 039
benelux@flexim.com
www.flexim.com

FLEXIM Instrumenta Asia Pte Ltd. Singapore
Phone: +65 67 16 53 25
Fax: +65 62 30 26 34
sales@flexim.com
www.flexim.com

Shanghai, China
Phone: +86 21 54 15 70 20
shanghai@flexim.com
www.flexim.com

Manage energy effectively using non-invasive measuring technology

FLUXUS® Energy

Heat usage, chilled flows and compressed air flow rate


Developing new energy sources non-invasively is a source of savings. We can help you with that. Using our measuring technology and our know-how, FLEXIM can help you optimize energy efficiency in your buildings, plants and processes. Our application engineers will be happy to advise you in selecting a suitable measuring system.

You don’t necessarily have to buy a meter. If the building or plant size does not warrant purchasing one or more measuring systems, we’re still happy to be your aide. Of course, you can also rent our measuring systems.

We also offer measurement services tailored specifically to your needs. Our experienced service technicians carry out flow measurements of heat and cold quantities or in the compressed air network - from occasional test measurements to comprehensive measuring campaigns. We provide you with detailed reports with traceable measurement results, which give specific information and recommendations for optimizing energy efficiency.

As the user, you are at the centre of all our efforts. Our company motto is to offer you the most suitable and highest quality measuring system for your measuring task and to be a reliable partner at all times, providing you with the best possible support and service.
Mobile and non-invasive. Compressed air measurement.

Compressed air is a very expensive form of energy. This is due to its efficiency: for every joule of mechanical work which is done with a pneumatic tool, approximately twenty times the amount of electrical energy must be spent. However, despite this poor yield, compressed air is practically indispensable in many industries because of its production-related advantages.

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The portable FLUXUS® G601 CA Energy ultrasonic system is an all-purpose instrument, which can be used to non-invasively measure the flow of liquids, gases and liquid-based heat or cold quantities. FLEXIM’s clamp-on ultrasonic technology is unique in that it can be applied to measure gas flow rates even at low pressures. For this reason, the FLUXUS® G601 CA Energy is particularly suitable for non-invasively detecting leaks in compressed air networks or for measuring quantities drawn off at individual points of consumption. Of course, you can also rent our measuring systems.

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As the user, you are at the centre of all our efforts. Our company motto is to offer all aspects of energy measurement, from comprehensive measuring campaigns to non-invasive determination of energy efficiency. Our team is happy to advise you in selecting the most suitable and highest quality measuring system for your measuring task.

Manage energy effectively using non-invasive measuring technology

FLUXUS® Energy

Heat usage, chilled flows and compressed air flow rate

Consumption and leakage detection in compressed air networks

FLEXIM

In Partnership


Developing new energy strategies is non-invasively a source of savings. We can help you with that. Using our measuring technology and our know-how. FLEXIM can help you optimise energy efficiency in your buildings, plants and processes. Our application engineers will be happy to advise you in selecting a suitable measuring system.

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FLEXIM GmbH
Berlin, Germany
Phone: +49 30 70 146 76 40
Fax: +49 30 70 146 76 80
info@flexim.de
www.flexim.de

FLEXIM Instruments UK Ltd
Harlow, UK
Phone: +44 1249 761 420
Fax: +44 1249 761 524
sales@uk.flexim.co.uk
www.flexim.co.uk

FLEXIM Instruments Benelux B.V.
Netherlands
Phone: +31 76 01 318
Fax: +31 76 01 319
benelux@flexim.com
www.flexim.com

FLEXIM Instruments Asia Pte Ltd, Singapore
Phone: +65 67 76 50 25
Fax: +65 67 76 50 34
salesasia@flexim.com
www.flexim.com

Shanghai, China
Phone: +86 13 54 15 75 20
shanghai@flexim.com
www.flexim.com

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FLEXIM can help you optimise energy efficiency in your buildings, plants and processes.

Use our measuring technology and our know-how. FLEXIM can help you optimise energy efficiency in your buildings, plants and processes.

Application engineering.

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