

SIWA^{CIS} PLAN LEAK offers you a fast and reliable method of detecting and localizing leakages in water pipelines and water networks. SIWA^{CIS} PLAN LEAK is a modular solution for expanding your existing control and automation system. As a completely integrated solution, SIWA^{CIS} PLAN LEAK not only interoperates with Siemens systems such as SIMATIC® PCS 7/WinCC but also with non-Siemens products.

SIWA^{CIS} PLAN LEAK saves costs doubly. Firstly, the existing sensors are utilized so that there is no need for additional instrumentation. Secondly, the system uses an intelligent analysis process that helps prevent unnecessary false alarms.

The challenge

The efficiency and profitability of water pipelines and water networks depends to a crucial extent on the reliable and fast detection and localization of leakages. At the same time, this increases the reliability of the water supply because the technical systems are protected from damage due to leakages promptly, safely and precisely, and unnecessary losses of drinking water are avoided. In order to accomplish this objective economically, the system used must be able to use the existing instrumentation for pressure, rate of flow and temperature measurements. Apart from the integration of hardware, it also has to be seamlessly incorporated in the system architecture of the existing process control system.

Because of its flexible architecture and open communications interfaces, SIWA^{CIS} PLAN LEAK can also be used without problem in existing systems and also as an integral component in a new system. SIWA^{CIS} PLAN LEAK monitors your system safety and reliably.



Good reasons for SIWA^{CIS} PAS eOD

- **High operational and supply safety** through automatic detection and localization of leakages
- **Avoidance of consequential damage** due, for example, to underwashing of foundations
- **Highly economical solution** through use of existing instrumentation and cabling
- **Low training costs** thanks to graphical user interface geared to the operator guidance system of SIMATIC PCS 7/WinCC
- **Modular configuration** facilitates adaptation of the system, e. g. in case of modifications and expansions

SIWA^{CIS} PLAN LEAK

Fast and reliable detection and localization of leakages in your water pipelines and water networks

Water Technologies

SIEMENS

Our solution

The SIWA^{CIS} PLAN LEAK leak detection system provides your operating personnel with continuous information about the condition of your water pipeline or your water network. This provides you with a reliable and precise basis for making decisions at all times, thereby enabling you to take the right action to deal with leakages.

Safe detection and localization of large and small leakages

Leakage detection systems have to fulfill two important requirements which are basically contradictory, firstly the ability to identify large water losses very quickly and secondly to detect small leaks and seepages. For this reason, SIWA^{CIS} PLAN LEAK does not base its analyses on a single method but rather on adjustable combinations of different, generally recognized methods. The algorithms applied by SIWA^{CIS} PLAN LEAK for detecting leakages use pressure, flow and temperature as the most important measurement quantities.

A tailored combination of the following processes guarantees the high efficiency of SIWA^{CIS} PLAN LEAK:

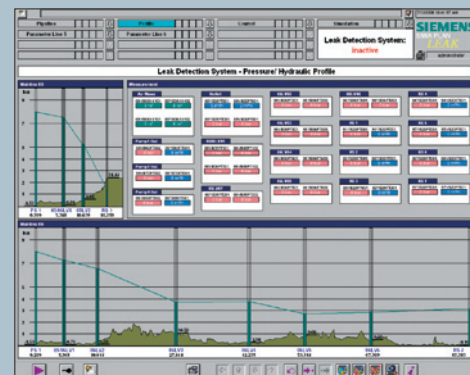
- Non-compensated/compensated line balance or mass balance
- Statistical mass balance
- Flow drop or rate of change of flow
- Low pressure monitoring
- Negative pressure wave
- Pressure gradient

The last two methods listed are used for localizing leakages.

Modular and individualized

A leakage detection system only operates efficiently and reliably if it has been optimally matched to your plant conditions. Precisely in this respect you can count on our considerable system know-how. We understand your plant and operating processes – and we know exactly how to match SIWA^{CIS} PLAN LEAK perfectly to your plant requirements.

SIWA^{CIS} PLAN LEAK is supplied installed on a commercial PC and can be linked to the existing process control system without problem via standardized interfaces such as OPC. Direct connection to the bus system is also possible.



Completely Integrated Solutions

Completely Integrated Solutions bundle our entire range of products and services for your plant.

In particular, they help you by

- **Optimizing** the entire process chain – with plant solutions including technology, automation, electrical engineering and environmental technologies
- **Connecting** all IT levels of your company – with IT and management solutions from production to the planning level
- **Supporting** you throughout the life cycle – from consulting through commissioning and training onward to modernization.

Siemens AG
Industry Sector
Industry Solutions
Water Technologies
Nonnendammallee 101
13629 Berlin, Germany
E-mail: water@siemens.com

© Siemens AG 2008
All rights reserved
Order No.: E10001-WTEA-A8-V1-7600
Printed in Germany
Dispo No.: 21617 K. No.: 3937
GB C-WTEA5208M04 DA 05081.5
Subject to chance without prior notice

SIWA^{CIS} is a trademark of Siemens AG
CIS = Completely Integrated Solutions

The information provided in this brochure contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.