

INTEGRA

NG

THE NEXT GENERATION

New dimension of leakage tests



Leak tests · Flow tests · Functional tests

dr. wiesner
steuerungstechnik



numeric display	graphic display	ring buffer	statistics		
test method: differential pressure test		test program: Testprogramm 12, 12			
test pressure	differential pressure	end			
497.733	0.049	OK			
mbar	mbar				
step	time left	low limit	value	high limit	status
	sec	mbar	mbar	mbar	
pre filling	0.0	0.000	495.382	600.000	OK
filling	0.0	0.000	498.287	500.000	OK
stabilization	0.0	0.000	498.117	500.000	OK
	sec	mbar	mbar	mbar	
testing rewor	0.0	-4.0000	0.0491	4.0000	OK
testing NOK	0.0	-5.0000		5.0000	OK

to device selection
 device Fertigung 1
 network 1
 logged on: service

test results
 data sets
 calibration
 settings
 store and restore
 software update
 debugging

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INTEGRA NG

The next Generation

From the low-cost version up to the highly automated system, INTEGRA NG is the only system in the market to offer the highest level of flexibility in an identical version with respect to testing with only a small number of modules.

Thanks to the use of the most modern multi-processor technology with current operating systems, with the INTEGRA NG series, Dr. Wiesner has developed an extremely powerful leak test system with a high level of adaptability to your individual tasks.

Another unique characteristic is the comprehensive function monitoring for all tests without any loss in time.

INTEGRA NG guarantees maximum process security in all test sequences.

An improved measuring technology optimizes your tests with all procedures and test options.

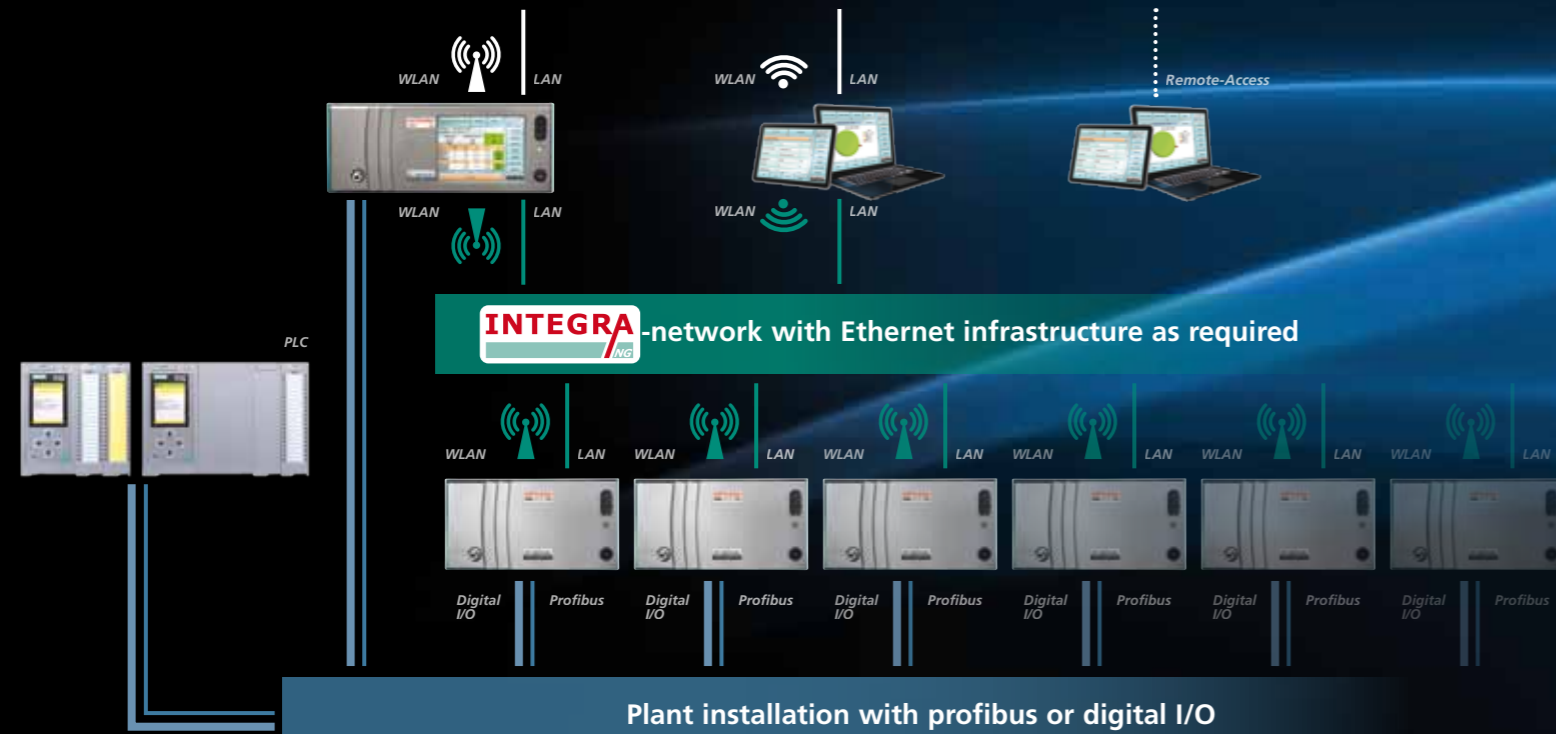
Additionally, the clear representation simplifies the operation and ensures a high level of usability.

INTEGRA base and smart – convincing performance characteristics

- ✓ The most modern micro-controller test circuit board with multi-processor system: 24 bit A/D converter, digital I/O, Ethernet connection, WLAN capability
- ✓ Large nominal width for the shortest test times possible
- ✓ High-precision sensors in connection with 24-bit analogue technology for the greatest measuring precision
- ✓ Permanent self-diagnostics integrated into the operation in each phase of the test sequence, thus leading to time-optimized and highly reliable test results.
- ✓ Low-energy valve technology with temperature insulation block for the lowest impact on temperature possible
- ✓ Quick coupling for measuring technology, optionally switchable test leak for the simplest testing of the entire equipment.



Company network with Ethernet infrastructure as required



Comfortable operation

State of the art user interface with Windows at INTEGRA *smart* or with the INTEGRA *manager / network manager* operating software for PC, laptop and tablets

Simple test programme creation with Windows input screen

Test process independent from the operating unit

Creation of new test programmes, evaluation of the test results storage, evaluation of the integrated statistics, graphical display of the test sequence during production

Graphical evaluation of the test sequence with freely scalable pressure curves for detailed development diagnostics of the process

Graphical representation of the evaluation of "OK / rework / Not OK" over the course of various periods

Communications environment and network capability



Individual connection of each test device (including in the network) to upstream control units via digital I/O interface or industrial bus (optional)

Test device networks of up to 32 independent test systems with central evaluation

INTEGRA *smart* can be integrated into company networks with cable or WLAN

INTEGRA *smart*, capable of monitoring, capable of remote-access via Ethernet cable or WLAN connection and Radmin®



INTEGRA network manager – PC tool software for INTEGRA base

Software package for manual operation, for the representation of measuring values and data administration of up to 32 INTEGRA base units in one network

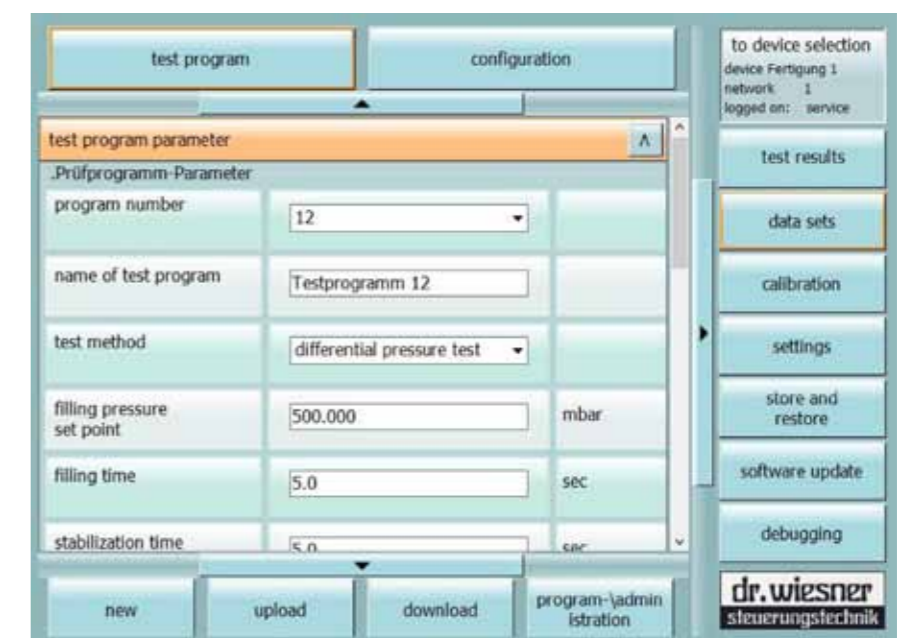
Clear software structure and clear display for operation with keyboard, mouse and touch screen

Operable with Windows 10, Windows 8 and Windows 7 on laptops, netbooks and tablets

Administration of up to 255 different test programmes

Display and evaluation of the 4,000 measuring values of the last tests stored in the ring memory

Coupling to the INTEGRA *base* via the front-side Ethernet interface for a quick data transfer or via WLAN (option)





Flexibility

INTEGRA NG provides a comfortable application and offers the highest level of flexibility.

- With vacuum and/or overpressure
- Numerous test programmes and electronic test pressure controller (with INTEGRA *base* optional)

Different selection procedures

- Pressure loss during the measuring time
- Pressure loss/time (e.g. Pa/s, mbar/min, adjustable)
- Leak rate adjustable (e.g. ml/min)
- Differential evaluation for highly reproducible measuring values



Numerous freely adjustable discharge options

- With or without pre-filling
- Pressure- or time-controlled pre-filling and filling process
- Additional rework limit values
- With or without emptying
- With or without OK parts labelling
- With or without Not OK parts acknowledgement

Gapless quality verifications

- Internal storage of the last 4,000 test results
- Permanent storage under any target address in the company network (only with INTEGRA *network manager*)

Test leaks

Test leaks are used for simulating leakages when setting or monitoring leak test units. They are integrated into the test line instead of a test specimen or in parallel to a tight test specimen. Through a glass capillary which is specifically adjusted to the desired leak rate, a specific flow resistance is prescribed.

The glass capillary is integrated into a metal housing and protected against contamination by means of a filter. Our test leaks are particularly characterised by their easy handling and long lifetime.



Accessories

I Industrial wide-range power supply unit
90...260V; 47...63 Hz; 150W

I Industrial wide-range power supply unit with UPS system and shut-down function
For the controlled deactivation and protection of the hard disk of INTEGRA *smart* devices when the supply voltage fails 100... 240 V; 47 .. 63 Hz; 240W

I INTEGRA manager
PC tool software for INTEGRA *base* units

I INTEGRA network manager
PC tool software for the network connection of INTEGRA *base* devices

I WLAN Access-Point – industrial version
Connection via Ethernet interface, including connection cable

I Network switch
for a maximum of 7 participants, connection via Ethernet interface

I Start/acknowledgement button
2 operating elements in the KM housing including 5m connection line

I 2-fold valve block
for the external switching of 2 test rooms, consisting of distributor panel with 2 pneumatically pilot-controlled valves and electrical control valve with 24 VDC connector.

I Installation kit
For the connection of a device to the pressure supply and/or the test unit, consisting of
- 2 x 3m hose line 4/6mm, including hose cutter
- 2 pieces of brass screw-in connections 4/6mm; G1/8"
- 2 pieces of brass screw-in connections 4/6mm; G1/4"
- 4 pieces of polyamide gaskets (G1/8"; G1/4")

Options

I Electronic pressure control
for INTEGRA *base* units

I Profibus interface (slave)

I Special test pressure range (vacuum + overpressure)
for vacuum devices, test pressure ranges
-1 ... +1; -1 ... +3; -1 ... +5 or
-1 ... +9 bar

I Vacuum generation via venturi nozzle
including automatic connection

I Test leak connection,
automatically connectible via the programme selection

I Additional cooling
with ventilator for extreme environmental conditions

Technical data

for all INTEGRA <i>NG</i> device versions	
• Test procedure:	Relative pressure procedure, differential pressure procedure or back pressure test
• Test pressure ranges:	-1...0 bar 0...1 bar 0...4 bar 0...6 bar 0...10 bar -1...+1 bar (optional) -1...+3 bar (optional) -1...+5 bar (optional) -1...+9 bar (optional) Other pressure ranges available upon request
• Test pressure control:	electronic (optional with INTEGRA <i>base</i> units) Control accuracy $\pm 1\%$ of the end value
Measured value resolution	
• Relative pressure:	1/500.000 of the test pressure range
• Differential pressure:	0.01 Pa
• Measuring electronics	Multi-processor system with ARM7 and AU1550 under Linux, completely Network-compatible, Intel® atom under Windows 10 (INTEGRA <i>smart</i> only)
• Interfaces:	Digital input/output, sub-D (25-pin); 8 IN/8 OUT 2x Ethernet 2x USB master (INTEGRA <i>smart</i> only) Profibus slave (optional)
• Network connection:	24VDC; max.150W (230V power supply unit available as accessory)
• Compressed air supply:	Hose connection 4/6 mm
• Test leak connection:	Stäubli RBE03 quick coupling in front plate
Desktop metal housing	
• Protection class:	IP40
• Dimensions (WxHxD):	INTEGRA <i>base</i> 340x185x380mm INTEGRA <i>smart</i> 450x185x380mm

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