

Target gases in closed rooms

The following table indicates the gases and will help you to find the product you are looking for.

EX Combustible Gases

Gas*	Chem. formula	Max. range**
Acetic acid	C ₂ H ₄ O ₂	0-100 %LEL
Acetylene	C ₂ H ₂	0-100 %LEL
Acetone	C ₃ H ₆ O	0-100 %LEL
Ammonia	NH ₃	0-100 %LEL
Benzene	C ₆ H ₆	0-100 %LEL
Butyl acetate	C ₈ H ₁₆ O ₂	0-100 %LEL
Cyclohexane	C ₆ H ₁₂	0-100 %LEL
Cyclopentane	C ₅ H ₁₀	0-100 %LEL
Ethane	C ₂ H ₆	0-100 %LEL
Ethyl acetate	C ₄ H ₈ O ₂	0-100 %LEL
Ethyl alcohol	C ₂ H ₅ O	0-100 %LEL
Ethyl alcohol	C ₂ H ₅ O	0-100 %LEL
Ethylene	C ₂ H ₄	0-100 %LEL
Ethylene oxide	C ₂ H ₄ O	0-100 %LEL
Ethyl ether	C ₂ H ₅ O	0-100 %LEL
Hydrogen	H ₂	0-100 %LEL
Isobutane	C ₄ H ₁₀	0-100 %LEL
Isobutyl alcohol	C ₄ H ₁₀ O	0-100 %LEL
Isopentane	C ₅ H ₁₂	0-100 %LEL
Isopropanol alcohol	C ₃ H ₈ O	0-100 %LEL
Isopropyl alcohol	C ₃ H ₈ O	0-100 %LEL
JP8		0-100 %LEL
LPG		0-100 %LEL
Methane	CH ₄	0-100 vol%
Methanol	CH ₃ O	0-100 %LEL
Methyl ethyl ketone	C ₄ H ₁₀ O	0-100 %LEL
n-Butane	C ₄ H ₁₀	0-100 vol%
n-Heptane	C ₇ H ₁₆	0-100 %LEL
n-Hexane	C ₆ H ₁₄	0-100 %LEL
n-Octane	C ₈ H ₁₈	0-100 %LEL
n-Pentane	C ₅ H ₁₂	0-100 %LEL
Nitrogen trifluoride	NF ₃	5-50 ppm
Nonane	C ₉ H ₂₀	0-100 %LEL
Petrol vapours		0-100 %LEL
Propane	C ₃ H ₈	0-100 vol%
Propene	C ₃ H ₆	0-100 %LEL
Propyl alcohol	C ₃ H ₇ O	0-100 %LEL
Styrene	C ₈ H ₈	0-100 %LEL
Toluene	C ₇ H ₈	0-100 %LEL
Trimethylbenzene	C ₉ H ₁₂	0-100 %LEL
Vinyl acetate	C ₄ H ₈ O ₂	0-100 %LEL
Xylene	C ₈ H ₁₀	0-100 %LEL

TOX Toxic Gases

Gas*	Chem. formula	Max. range**
Ammonia	NH ₃	0-35000 ppm
Carbon dioxide	CO ₂	0-100 vol%
Carbon monoxide	CO	0-100 vol%
Chlorine	Cl ₂	0-20 ppm
Chlorine dioxide	ClO ₂	0-1 ppm
Ethylene	C ₂ H ₄	0-2000 ppm
Fluorine	F ₂	0-5 ppm
Formaldehyde	CH ₂ O	0-10 ppm
Freon*	R11	0-2000 ppm
Freon*	R22	0-2000 ppm
Freon*	R123	0-2000 ppm
Freon*	R125	0-2000 ppm
Freon*	R124	0-2000 ppm
Freon*	R134a	0-2000 ppm
Freon*	R401a	0-2000 ppm
Freon*	R401b	0-2000 ppm
Freon*	R402a	0-2000 ppm
Freon*	R402b	0-2000 ppm
Freon*	R404a	0-2000 ppm
Freon*	R407c	0-2000 ppm
Freon*	R408a	0-2000 ppm
Freon*	R409a	0-2000 ppm
Freon*	R410a	0-2000 ppm
Freon*	R411a	0-2000 ppm
Freon*	R416a	0-2000 ppm
Freon*	R507	0-2000 ppm
Hydrogen chloride	HCl	0-20 ppm
Hydrogen cyanide	HCN	0-100 ppm
Hydrogen fluoride	HF	0-10 ppm
Hydrogen sulfide	H ₂ S	0-200 ppm
Methyl bromide	CH ₃ Br	0-2.5 vol%
Nitric oxide	NO	0-20 ppm
Nitrogen dioxide	NO ₂	0-25 ppm
Nitrous oxide	N ₂ O	0-2000 ppm
Ozone	O ₃	0-5 ppm
Phosphine	PH ₃	0-5 ppm
Silane	SiH ₄	0-50 ppm
Sulphur dioxide	SO ₂	0-100 ppm
Sulphur hexafluoride	SF ₆	0-100 vol%
VOC + CO ₂	VOC	0-2000 ppm

* others on request
** please see corresponding datasheet for more

O₂ Oxygen

Gas*	Chem. formula	Max. range**
Oxygen	O ₂	0-25 vol%

Applications

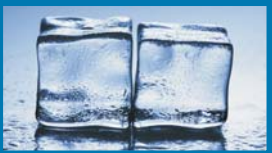
The interaction of the components makes fast and reliable monitoring possible for all applications. Not only possible error sources are decreased, but also planning and installation costs are reduced by up to 80%.

GARAGE/GARAGES



Permanente Überwachung von schädlichen CO / NOx / LPG - Anteilen in der Luft
Permanent monitoring of harmful concentrations of CO / NOx / LPG in the air

KÄLTE/CHILLER



Permanente Überwachung auf Leckage von NH₃ / Freon / CO₂ / C₂H₄ ...
Permanent monitoring of leakages from NH₃ / Freon / CO₂ / C₂H₄ ...

HEIZUNG/HEATING



Leckageüberwachung von Heizungsanlagen (Gas, Pelle...) und Gasverteilem
Detection of leakages in heating systems (gas, pellet...) and gas distributors

BÜRO/OFFICES



Überwachung der Luftqualität in Büros, Schulen und Fertigungsbereichen
Monitoring of the air quality in offices, schools and production areas

SCHANK/CELLAR



CO₂ / O₂ Überwachung von Schankkeller, Brauereien, Winzereien, Gärkeller...
CO₂ / O₂ monitoring of dispensing systems, breweries, wineries, fermenting cellars....

LABOR/LABORATORY



Einhaltung der MAK-Werte an Arbeitsplätzen und Überwachung von Lagerräumen
Compliance to the OEL values at workstations and monitoring of storage rooms

Weitere Applikationen:

BATTERIE RAUM
WERKSTATT
POOL & SPORT
HOCHSPANNUNG
ABWASSER- & PUMPSTATION
OP-SAAL
GROSSKÜCHE

More Applications:

BATTERY ROOMS
CAR REPAIR SHOPS
POOL & SPORT
HIGH VOLTAGE
WASTEWATER & PUMP STATIONS
OPERATING THEATRES
CATERING ESTABLISHMENT

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MSR

GAS ALARM SYSTEMS PERFECT SOLUTIONS IN GAS DETECTION



MSR Electronic offers products for the optimum protection in critical situations for life and health in closed areas.

Whether for commercial or for industrial applications - for combustible or toxic gases - MSR Electronic only uses well proven, but innovative technology.

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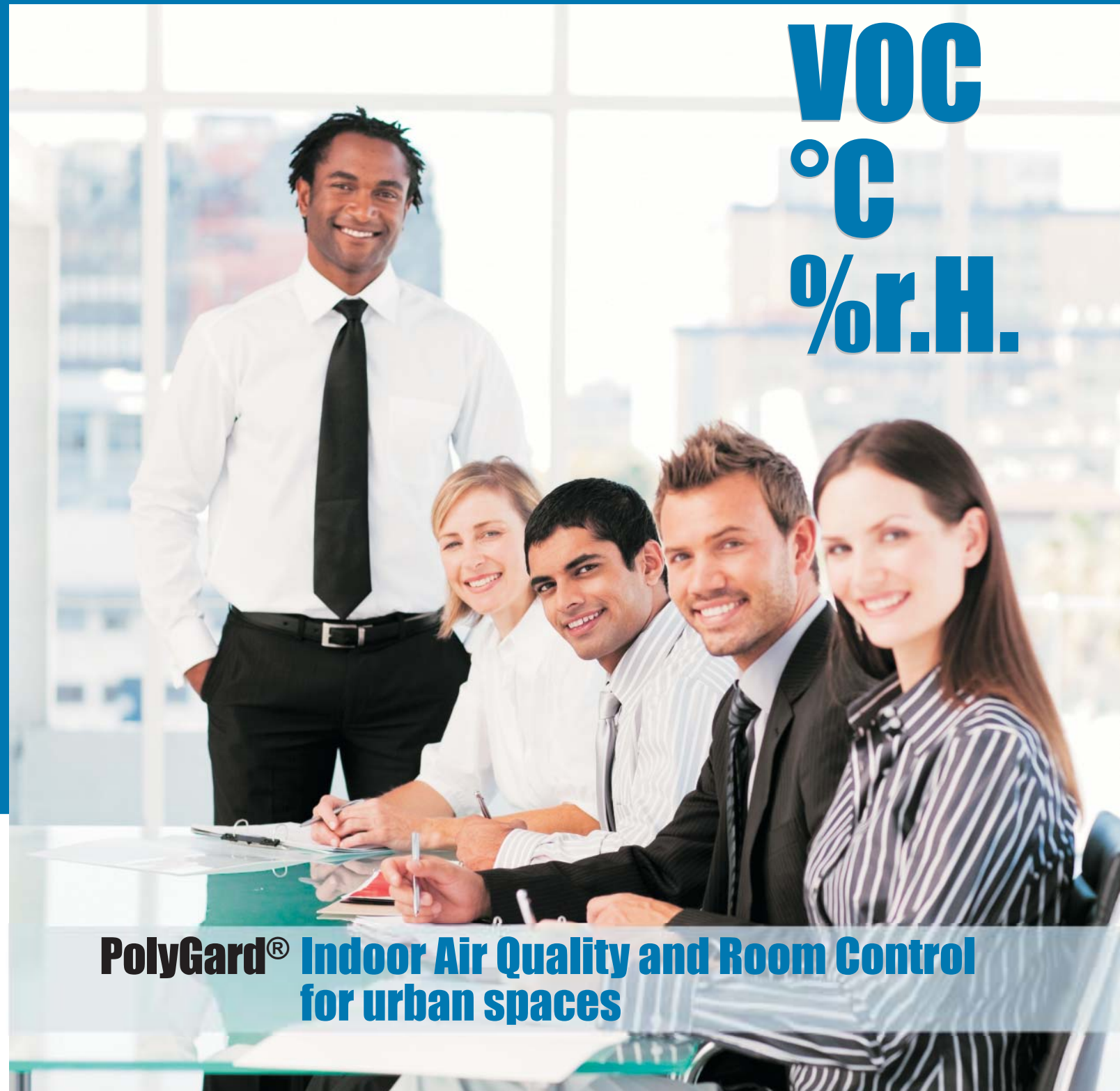
Subject to technological changes

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PARTNER

PolyGard® Indoor Air Quality and Room Control for urban spaces

VOC °C %r.H.





PolyGard® Indoor Air Quality and Room Control

Breathe healthy air and save energy

Der wichtigste Aspekt von Luftqualität in geschlossenen Räumen wie Büros, Wohnräumen oder Klassenzimmern ist die Reinheit der Luft. Schlechte Luft schränkt das Wohlergehen ein und beeinträchtigt die Produktion bzw. die Effizienz von Arbeitsabläufen bzw. Fertigungsprozessen. Die Klimatisierung wird meist über Temperatur-, Luftfeuchte- und CO₂-Messung gesteuert. Allerdings wird von den meisten Menschen die Luftqualität über die Menge der Volatile Organic Compounds (VOCs) wie z.B. Zigarettenrauch, Küchengerüche, menschliche Ausdünstungen und Luftverunreinigungen beurteilt.

Mit dem IAQ-Transmitter von MSR Electronic kann die Luftqualität analog dem menschlichen Empfinden gemessen werden. Zuverlässig zeigt das Gerät an, wenn die Luft nicht mehr gut ist und leitet die entsprechenden Informationen an die Heizung, die Klimaanlage oder das Lüftungssystem weiter. Aufgrund der individuellen Optionen und Einstellmöglichkeiten zur Temperatur- und Luftfeuchtemessung ist der IAQ-Transmitter von MSR Electronic für viele Anwendungsbereiche bestens geeignet.

EIGENSCHAFTEN

- Aufputz- oder Unterputzversion
- Messgrößen: VOC, °C, %r.F.
- Interne automatische Selbstdiagnose mit Autojustierung
- Wartungsintervall > 5 Jahre
- Sequenzregelung (max. 3-stufig, z.B. Heizen / Klappen / Kühlen)

Optionen:

- 2 Analogausgänge 0-10 V
- 2 Analogausgänge 4-20 mA
- Temperaturmessung aktiv
- Luftfeuchtemessung
- Zwei digitale Ausgänge
- Temperaturregelung mit Potentiometer
- Digitale Schnittstelle RS 485 ModBus oder BacNet
- Status LED
- Betriebsmodus Schalter (Eco - Nacht - Aus etc.)

The most important aspect of air quality in closed rooms like offices, living spaces and class rooms is the purity of air. Stale air reduces well-being and impairs productivity or the efficiency of work procedures and production processes. Mostly air conditioning is regulated through measuring of temperature, humidity and CO₂. However, most people ratify the quality of air through the quantity of Volatile Organic Compounds (VOC) as, for example, cigarette smoke, kitchen odour, human perspiration and the contamination of the air.

In general it is simple to measure temperature and humidity, but the measuring of CO₂ has always been very expensive and measuring VOC could hardly be implemented.

The MSR Electronic IAQ-Transmitter can detect the air quality on the lines of the human sensation. With a great reliability, the device reacts when the air turns bad and remits the corresponding information to the heating, the air conditioning or the ventilation system. Because of the individual options and setting possibilities for the detection of temperature and humidity, the MSR Electronic IAQ-Transmitter is perfectly suited to a great variety of applications.

CHARACTERISTICS

- On-wall and in-wall Version
- Measurands : VOC, °C, %r.H.
- Internal automatic auto-diagnosis and auto-adjusting
- Maintenance interval > 5 years
- Sequence control (max. 3 stages e.g. heating / valves / cooling)

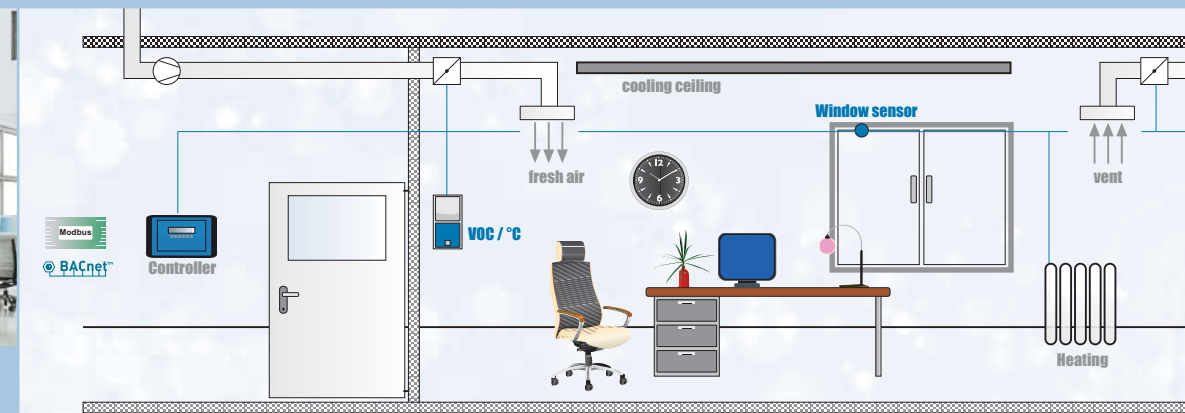
Options:

- 2 analog outputs 0-10 V
- 2 analog outputs 4-20 mA
- Measuring of temperature active
- Measuring of humidity
- Two digital outputs
- Temperature control with potentiometer
- Digital interface RS 485 ModBus or BacNet
- Status LED
- Operating mode switch (Eco - Night - Off etc.)

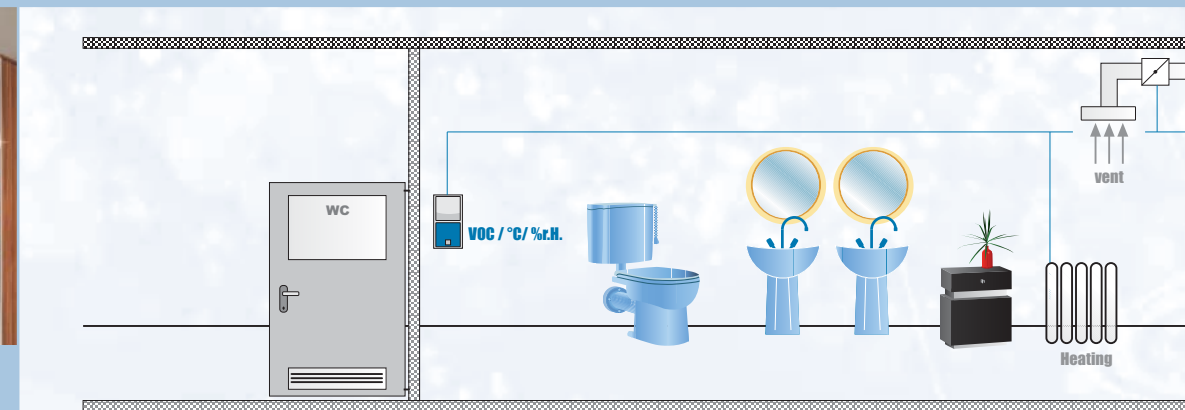
SCHEMES for urban spaces



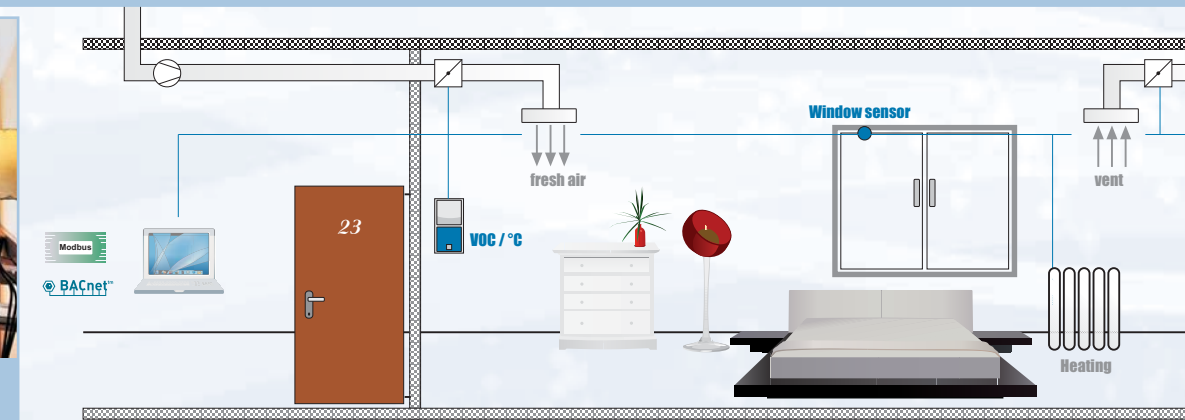
OFFICE



BATHROOM



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Please find more information on our homepage:

www.msr-electronic.de/applications/office

Kompatibel für folgende Marken:
 BERKER // BUSCH-JAEGER // GIRA // JUNG // MERTEN // PEHA // SEIMENS-DELTA

List of Approvals

ISO 9002 | TÜV - VDI 2053 | EC 61010
 UL 2075 | UL 2018 | GOST

