



WATER MANAGEMENT SYSTEM (WMS)

FM MATTSSON GOES »INTERNET OF THINGS«

FM Mattsson

THE BENEFITS OF OUR SMART MIXERS

Internet of Things (IoT) based mixers by FM Mattsson help operators of public facilities (e.g. clinics or sports centres) to program mixers centrally and conveniently, analyse costs/benefits and ensure compliance with hygiene requirements.

By using the latest IoT technology, we have developed a future-oriented system that utilises the potential for digital networking of products, thereby enabling operators to obtain useful information and ensure smooth operation of their drinking water system.

Meet statutory requirements

The specifications of mixers installed in public areas, such as hospitals and swimming pools, are subject to stringent requirements.

With regard to maintenance and drinking water hygiene, manual maintenance of mixers in a building can be inefficient. Regular hygienic flushing may be difficult to document and faults at individual taps or fittings are often only discovered late in the day, to the recurring detriment of smooth operation of the sanitary system.

Central control of hygienic flushing

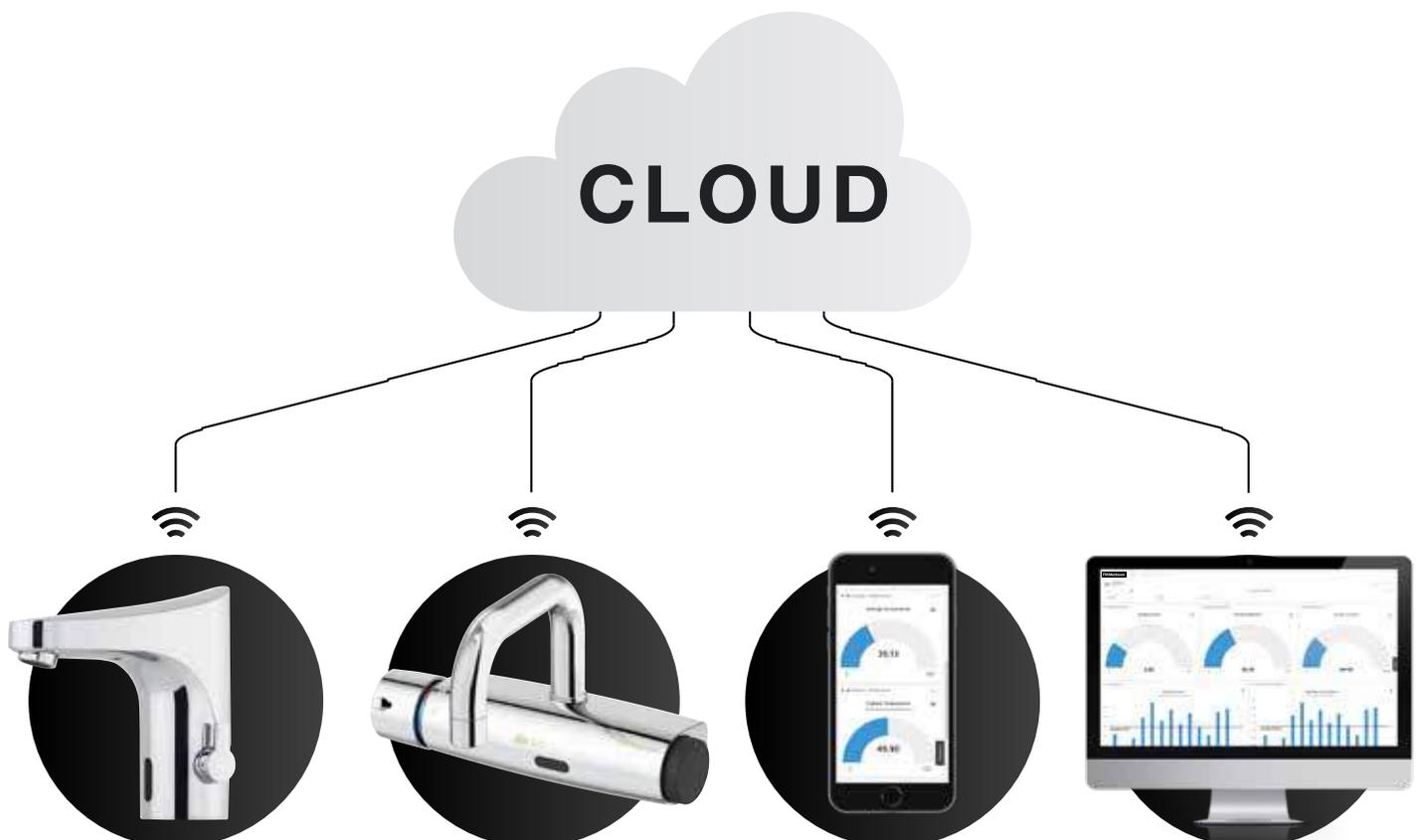
This is where the WMS from FM Mattsson comes in. Hygienic flushing throughout the building can be configured and managed centrally via a web browser. Regular logs document flushes that have been completed. Alerts in the event of operating errors that are sent automatically by e-mail or SMS enable the operator to perform targeted fault elimination at an early stage, before a hygiene problem and/or expensive issue arises.

Central control from any location

The electronic products from FM Mattsson for public buildings are connected to our cloud platform via the mobile network. The usage data is automatically transferred in anonymised form via secure radio frequencies and can be easily accessed by you at any time. Wherever you are, you have central access to the control system for all your mixers, even if you are the operator of multiple buildings. You'll have everything under one roof with the FM Mattsson Tronic WMS

Wirelessly installed via Plug&Play

WMS mixers are installed wirelessly via Plug&Play, using the same tools that you would use to install conventional mixers. That really is "smart".



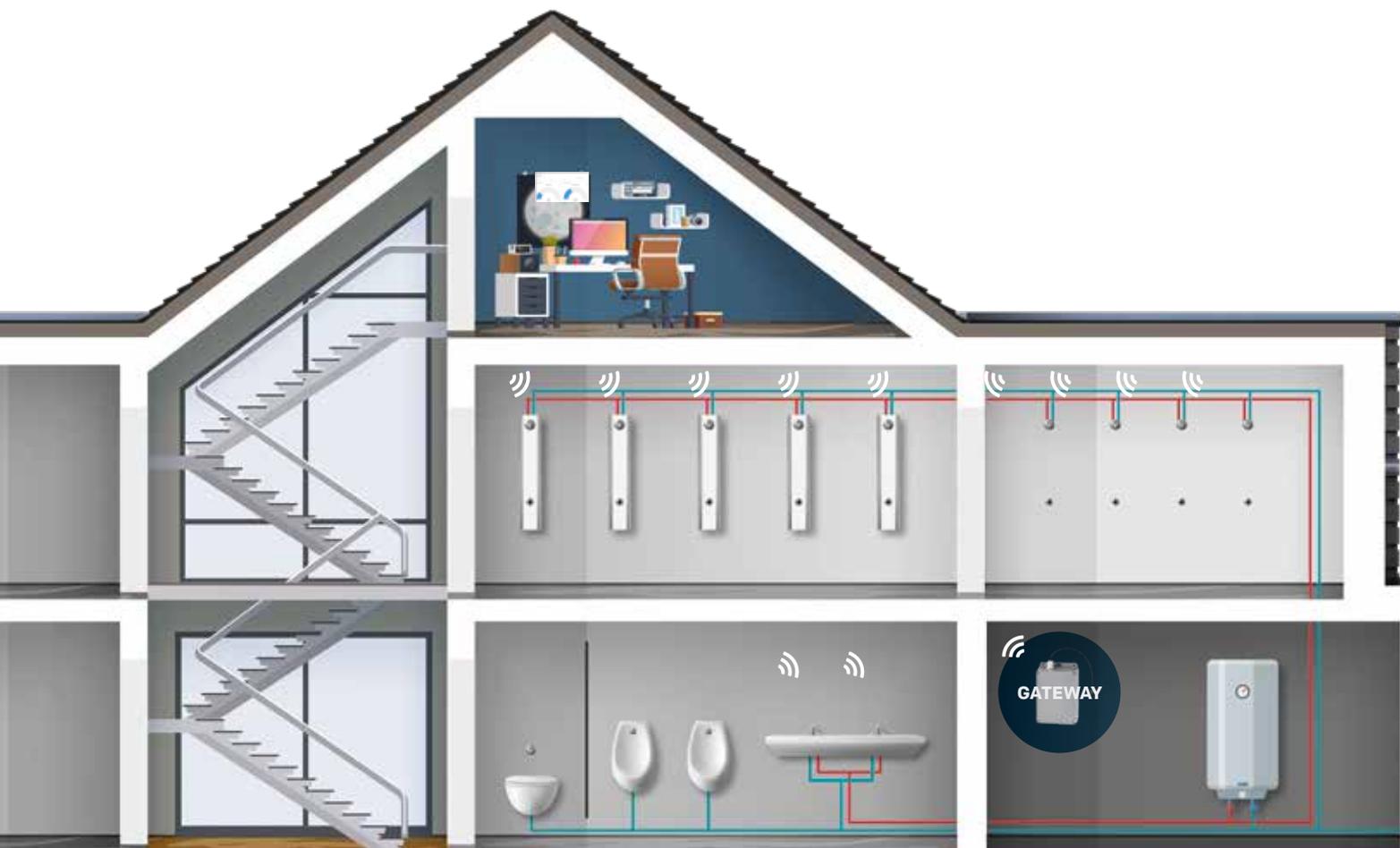
EASY TO INSTALL WIRELESS FOR RENOVATIONS AND NEW BUILDS

A distinctive benefit of FM Mattsson Tronic WMS is the fact that the mixers are connected wirelessly. Installation is therefore quick and inexpensive. This means the system is also ideal for upgrading or renovating existing facilities, since time-consuming and expensive drilling and cable routing are avoided.

FM Mattsson's electronic mixers are installed in the same way as conventional ones. Once commissioned, each tap or fitting connects automatically in service mode through Plug&Play to the central

receiver unit (GSM gateway for Tronic WMS or USB wireless module for Dongle Programmer). It will then transmit/receive data on a stand-alone basis that can be used for programming or other purposes.

The mixers connect to the gateway and cloud independently, with each forming a closed system, so that integration in an existing IT infrastructure (e.g. WLAN) is not needed. If required, FM Mattsson Tronic WMS can be integrated in existing building management systems (BMS) via an API interface.



A WIRELESS SYSTEM IN TWO VERSIONS

Secure, stable and stand-alone connection of components; inexpensive and easy to install. Programmer can be updated to Tronic WMS at a later date.

FEATURES	DONGLE PROGRAMMER	TRONIC WMS
DONGLE PROGRAMMER/ TRONIC WMS	Programmable via PC/tablet*	Includes cloud connection & web portal
Easy to install: wireless and Plug&Play	✓	✓
Convenient programming of taps and fittings via PC/tablet	✓	✓
Individually adjustable hygienic flushing and thermal disinfection	✓	✓
Flushing logs can be accessed at any time via web portal		✓
Alerts via SMS/e-mail (battery status, stagnation etc.)		✓
Cost optimisation of the system via customised evaluations		✓

*System requirement: Win10

CONVENIENT AND CUSTOMISED PROGRAMMING

GROUP/INDIVIDUAL PROGRAMMING

Taps or fittings can be simultaneously programmed both in a group and individually – that's efficiency.

FLEXIBILITY

You can custom-program all flushing parameters to suit the exact requirements of your building's structure and its sanitary system.

PROGRAMMABLE VIA PC, TABLET OR SMARTPHONE*

FM Mattsson Tronic WMS allows you to control and monitor your mixers via different devices, at a time and location of your choosing.



868 MHz



LTE 2G/4G



LTE 2G/4G



DON'T SCALD YOUR FINGERS THE INTEGRATED DIGITAL HOT WATER CUT-OFF

Only FM Mattsson Tronic WMS mixers provide the additional option of adjustable protection against scalding. The temperature sensor integrated in the taps or fittings constantly measures the temperature of the exiting water. You can program a maximum temperature (e.g. 43°C in accordance with DIN 806-2) via the FM Mattsson Tronic WMS portal.

If e.g. the cold water feed fails, so that the water exiting the tap is too hot, the solenoid valve closes

automatically, preventing any more water from coming out until its temperature drops below the limit. Painful scalding is thus avoided.

The FM Mattsson Tronic WMS system sends an alert to the facility manager in real time by SMS and/or e-mail. This means we also facilitate rapid and targeted elimination of a problem issue and help ensure safe and smooth operation of the system.



COMPLETELY GERM-FREE LEGAL CERTAINTY THROUGH WRITTEN DOCUMENTATION

Flushing logs for individual taps/fittings or groups of taps/fittings can be created and downloaded in various file formats via the FM Mattsson Tronic WMS portal (Tronic WMS).

This allows you to meet your obligations as a facility operator and ensure continuous documented compliance with the flushing intervals required to maintain drinking water hygiene.



Asset Name	Last Activation	Last Test	Last Duration	Is	Water Temp Min [°C]	Temp [°C]	Water Temp Max [°C]	Ylloase IV	Activation	UV-LED	UV Alarm	UV Cancel
1 Damer sön 2 kappor	2019-09-19 07:40:36	Hygiene	05,2		218	28,3	27,2	5,90	7257	NA	No	No
2 Damer sön 2 kappor	2019-09-19 07:40:37	Hygiene	05,2		215	22,4	24,3	5,89	7109	NA	No	No
3 Hensar sön 2 Trappor	2019-09-19 07:44:53	Hygiene	05,2		217	31,8	40,1	5,76	8461	NA	No	No
4 Hensar sön 2 Trappor	2019-09-19 07:44:50	Hygiene	05,2		22,3	29,2	29,6	5,77	8430	NA	No	No
5 Reception-Höger	2019-09-19 12:01:52	Hygiene	05,2		29,7	42	44,6	5,76	9362	NA	No	No
6 Reception-Höger	2019-09-19 12:01:51	Hygiene	05,2		22,9	31,9	42,4	5,76	9122	NA	No	No
7 Reception-Höger	2019-09-19 12:01:47	Hygiene	05,2		22,7	22,7	24,4	5,76	878	NA	No	No
8 Reception-Höger	2019-09-19 12:01:46	Hygiene	05,2		214	22,2	24,9	5,77	878	NA	No	No
9 Hensar sön 2 kappor	2019-09-19 07:39:56	Hygiene	05,2		217	22,7	27,3	5,74	4392	NA	No	No
10 Hensar sön 2 kappor	2019-09-19 07:39:56	Hygiene	05,2		219	22,1	22,3	5,74	4329	NA	No	No
11 Reception-nakt fram	2019-09-19 12:04:29	Hygiene	05,2		23,9	25,3	26,6	5,75	9295	NA	No	No
12 Reception-nakt fram	2019-09-19 12:04:29	Hygiene	05,2		23,4	25,4	26,6	5,79	9292	NA	No	No
13 Reception-nakt fram	2019-09-19 12:04:26	Hygiene	05,2		23,4	25	26,2	5,79	9291	NA	No	No
14 UV-Boostpanel H om	2019-09-19 04:04:23	Hygiene	30,9		19,2	38,8	41,1	6,94	2554	Yes	No	No
15 UV-Boostpanel H om	2019-09-19 04:04:23	Hygiene	30,9		19,7	38,5	41	6,94	2529	Yes	No	No
16 UV-Boostpanel H om	2019-09-17 04:04:24	Hygiene	30,9		19,7	38,2	40,3	6,94	2522	Yes	No	No
17 UV-Boostpanel H om	2019-09-19 04:04:23	Hygiene	30,9		20,2	38	40,9	6,94	2496	Yes	No	No
18 UV-Boostpanel H om	2019-09-19 04:04:24	Hygiene	30,9		20	38	40,8	6,94	2495	Yes	No	No
19 UV-Boostpanel H om	2019-09-14 04:04:24	Hygiene	30,9		19,4	37,8	40,3	6,94	2494	Yes	No	No
20 UV-Boostpanel H om	2019-09-13 04:04:24	Hygiene	30,9		19,9	38,3	41,9	6,94	2477	Yes	No	No
21 Damer mot Trappor	2019-09-19 09:40:29	Hygiene	05,2		26,7	35,1	38,2	5,77	7497	NA	No	No
22 Damer mot Trappor	2019-09-19 09:40:32	Hygiene	05,2		22,2	34	25,8	5,77	7247	NA	No	No
23 Tvätt korridor kor2	2019-09-19 08:57:29	Hygiene	05,2		19,5	33,7	39,7	5,75	8990	NA	No	No
24 Tvätt korridor kor2	2019-09-19 08:57:29	Hygiene	05,2		22,6	30,7	35,9	5,77	8963	NA	No	No
25 Tvätt korridor kor2	2019-09-17 08:57:29	Hygiene	05,2		14,6	37,4	39,6	5,76	8937	NA	No	No

YOUR PERSONAL ALERT SYSTEM PREVENT OPERATING PROBLEMS AND REPAIRS BEFORE THEY OCCUR

FM Mattsson Tronic WMS (Tronic WMS) carries out monitoring of your sanitary system for you. The integrated alert system informs you of any problems encountered by individual taps or fittings, even sending you an alert by SMS and/or e-mail if desired.

You are kept informed of when and exactly where a problem has occurred in the building, allowing you to have it attended to immediately. In this way, extended outages are prevented and scheduled maintenance can be optimised, so that e.g. batteries are not replaced until you are alerted to their imminent discharge.

ALERTS THAT CAN BE ACTIVATED

SCALD ALERT

DISCHARGED BATTERY



HYGIENIC FLUSHING NOT COMPLETED

STAGNATION ALERT

THE SMART WAY OF REDUCING COSTS UNLOCK POTENTIAL SAVINGS THROUGH DATA EVALUATION

Several times an hour the FM Mattsson Tronic WMS mixers transmit consumption data via the GSM gateway to the FM Mattsson cloud (Tronic WMS), to be stored and prepared there.

You can access the data via the FM Mattsson Tronic WMS portal. The following are measured and/or calculated:



**NUMBER OF
ACTIVATIONS**



**AVERAGE
TEMPERATURE**



**WATER
CONSUMPTION**

The data is prepared for viewing and interpretation in various diagrams and displayed in the FM Mattsson Tronic WMS portal. In this way, consumption values can even be obtained for individual draw-off points. So, for the first time operators can systematically optimise the consumption of resources, e.g. by adapting tap run-on times or by raising/lowering the temperature limit on individual taps or fittings.

The usage data can also help in matching the duty schedules of cleaning staff to periods of statistical low-frequency use.



OUR WMS PRODUCTS IN DETAIL

FM MATTSSON TRONIC WMS COMPACT SHOWER HEAD

Uncompromising water hygiene for public shower areas

Water held in tap or fitting reduced to a minimum

Optimum hygiene characteristics thanks to shortest feed routes to tap/fitting and programmable flushing via WMS

Uncompromising thermal disinfection thanks to thermostat with Legiosafe®

Outstanding hygiene characteristics thanks to programmable flushing via WMS

Protection against vandalism thanks to a small number of extremely robust components that are concealed out of sight

Thermostatic protection in accordance with DIN 806-2 with additional digital hot water cut-off

Quick and easy to clean

IR sensor with pressure trigger





**EXPLODED VIEW OF THE
COMPACT SHOWER HEAD**

**POWER AND CONTROL
MODULE**

**VOLUMETRIC FLOW
REGULATOR AND TEM-
PERATURE SENSOR**

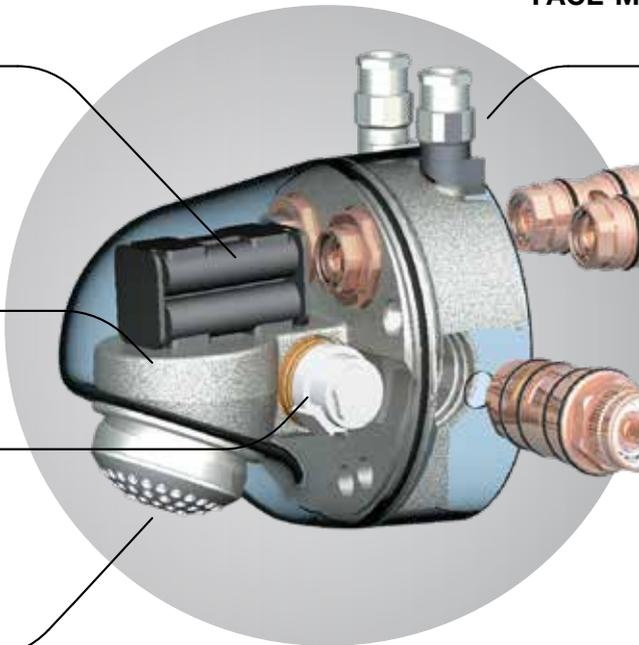
**SOLENOID VALVE WITH
SOFT CLOSING**

**ADJUSTABLE EASY-
CLEAN SHOWER-HEAD
PLATE**

**CONNECTION GLANDS FOR SUR-
FACE-MOUNTED PIPE CONNEC-
TION (OPTIONAL)**

**INTEGRATED
ISOLATING
VALVES WITH
FILTER SCREENS
(OPTIONAL)**

**THERMOSTAT
CARTRIDGE WITH
LEGIOSAFE®**



**IR PRESSURE
SENSOR WITH CONTROL
ELECTRONICS**

FM MATTSSON TRONIC WMS SHOWER PANELS

**Comfort and drinking water
hygiene combined**

Robust design in high-grade stainless steel

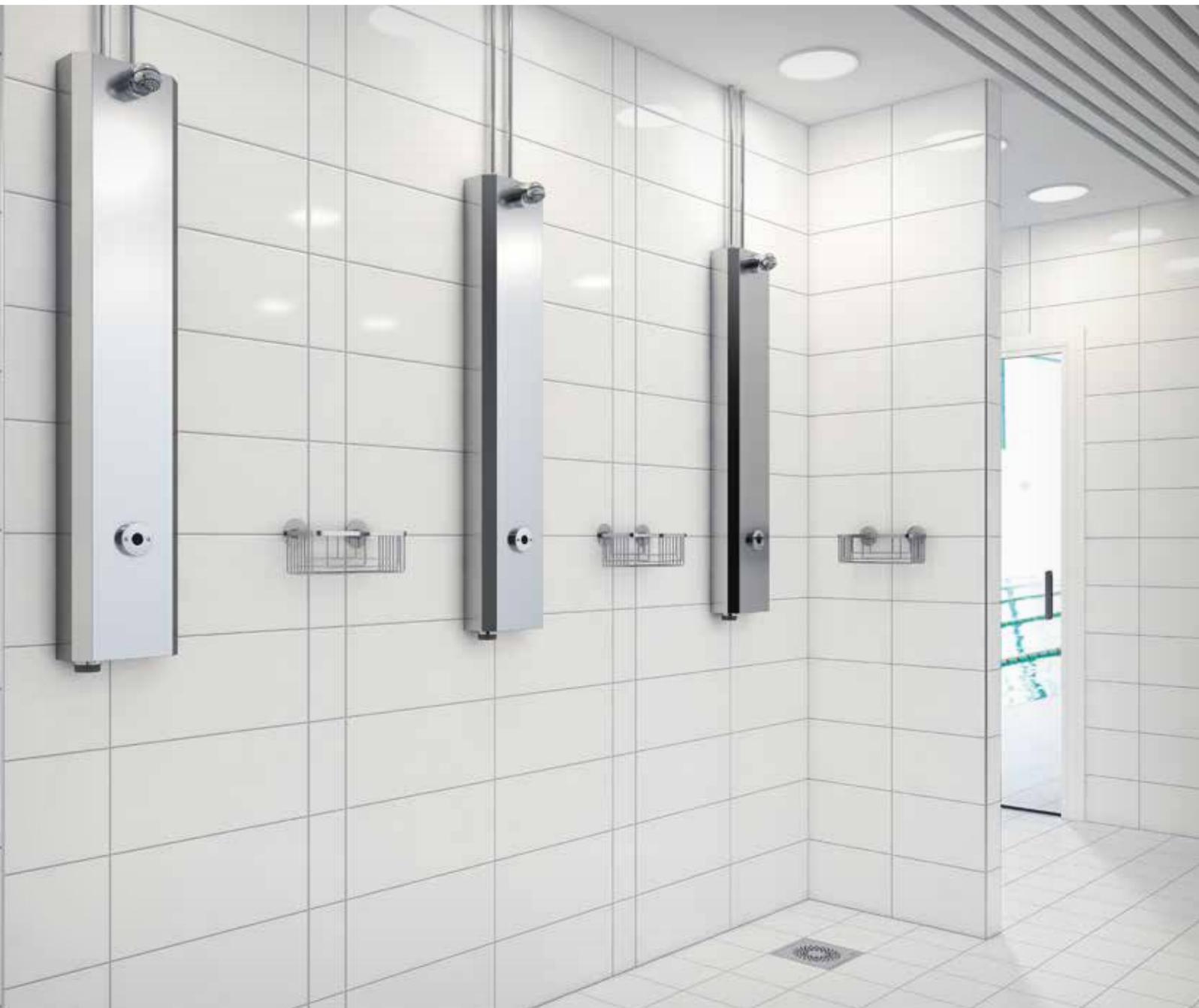
Outstanding hygiene characteristics thanks
to programmable flushing via WMS

Customisable temperature setting for
showering comfort

Uncompromising thermal disinfection thanks
to thermostat with Legiosafe©

Thermostatic safety restriction at 42°C in
accordance with DIN 806-2 and integrated
digital hot water cut-off

IR sensor with pressure trigger



FM MATTSSON TRONIC WMS SHOWER THERMOSTAT

With comfort and safety

Robust design for wall mounting

Safe-touch surface prevents scalding

Customisable temperature setting for showering comfort

Thermostatic safety restriction at 42°C in accordance with DIN 806-2 and integrated digital hot water cut-off

Outstanding hygiene characteristics thanks to programmable flushing via WMS

Uncompromising thermal disinfection thanks to thermostat with Legiosafe[®]

Easily visible red/blue marking

IR sensor – Start/Stop operation by holding your hand in front of it



FM MATTSSON TRONIC WMS WALL THERMOSTAT

Safety and hygiene

Robust design for wall mounting

Safe-touch surface prevents scalding

Customisable temperature setting for handwash comfort

Thermostatic safety restriction at 42°C in accordance with DIN 806-2 and integrated digital hot water cut-off

Outstanding hygiene characteristics thanks to programmable flushing via WMS

Uncompromising thermal disinfection thanks to thermostat with Legiosafe®

Easily visible red/blue marking

IR sensor with proximity electronics for non-contact tap operation



FM MATTSSON TRONIC WMS BASIN MIXER

Water-savings and comfort in one

Robust design

With/without temperature regulator

Digital hot water cut-off

Outstanding hygiene characteristics thanks to programmable flushing via WMS

Easy battery replacement

Soft-closing solenoid valve prevents water hammering

IR sensor with proximity electronics for non-contact tap operation



OUR WMS PRODUCTS IN SUMMARY



FM Mattsson Tronic WMS Compact shower head

Chrome, with cartridge for thermal disinfection against legionella, with thermostatic function, connection at the back

Battery operation

Included battery, excluded mounting plate
Article No. 9517-7000

Mains operated

Included 5 m extension cable
Article No. 9517-7100



FM Mattsson Tronic WMS Compact shower head

Chrome, with cartridge for thermal disinfection against legionella, with thermostatic function, connection from above

Battery operation

Included battery and mounting plate
Article No. 9517-6000

Mains operated

Included 5 m extension cable
Article No. 9517-6100



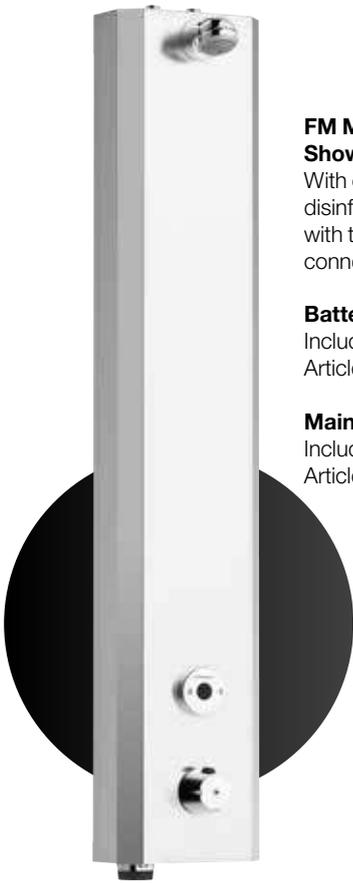
FM Mattsson Tronic WMS Compact shower head

Chrome, for premixed water, connection from above

Battery operation

Included battery and mounting plate
Article No. 9516-0000

Can be converted to mains operation



**FM Mattsson Tronic WMS
Shower panel**

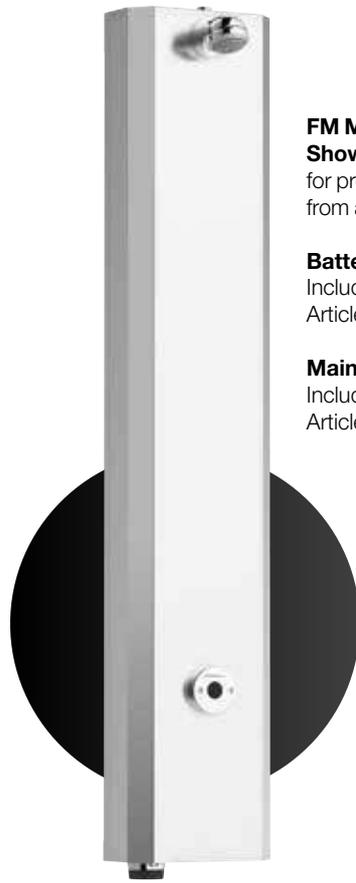
With cartridge for thermal
disinfection against legionella,
with thermostat function,
connection from above

Battery operation

Included battery
Article No. 9501-6000

Mains operated

Included 5 m extension cable
Article No. 9501-6100



**FM Mattsson Tronic WMS
Shower panel**

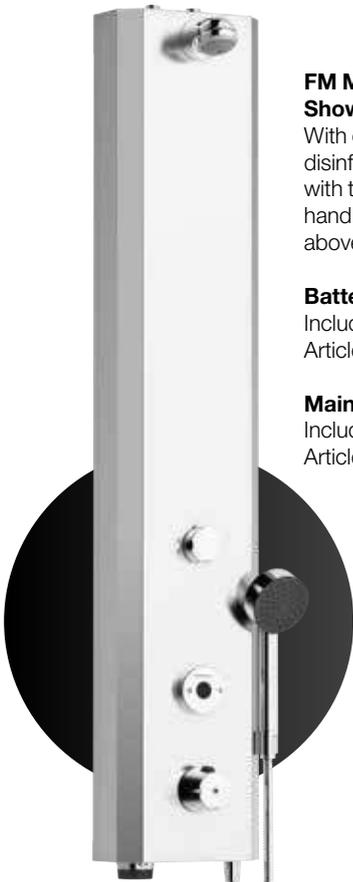
for premixed water, connection
from above

Battery operation

Included battery
Article No. 9500-0000

Mains operated

Included 5 m extension cable
Article No. 9500-0100



**FM Mattsson Tronic WMS
Shower panel**

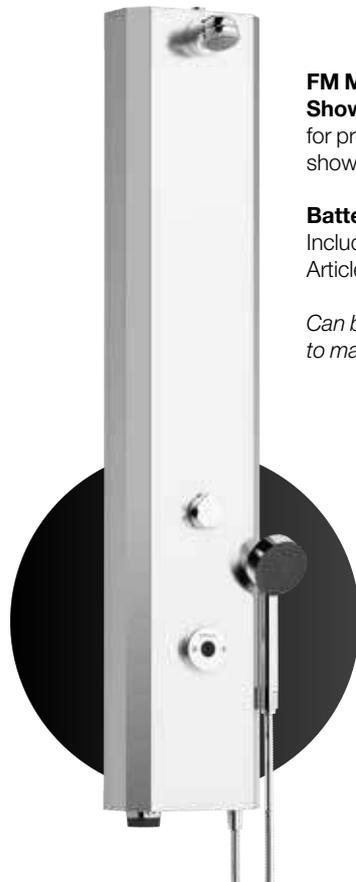
With cartridge for thermal
disinfection against legionella,
with thermostatic function and
hand shower, connection from
above

Battery operation

Included battery
Article No. 9507-6000

Mains operated

Included 5 m extension cable
Article No. 9507-6100



**FM Mattsson Tronic WMS
Shower panel**

for premixed water and hand
shower, connection from above

Battery operation

Included battery
Article No. 9500-0700

*Can be converted
to mains operation*



FM Mattsson Tronic WMS shower mixer with cartridge for thermal disinfection against legionella
Chrome, included battery
Article No. 1680-2500



FM Mattsson Tronic WMS shower mixer with cartridge for thermal disinfection against legionella
Chrome, included battery
Article No. 1681-2500



FM Mattsson Tronic WMS hospital mixer with cartridge for thermal disinfection against legionella
Chrome, included battery
Article No. 1661-2500



FM Mattsson Tronic WMS hospital mixer with cartridge for thermal disinfection against legionella
Chrome, included battery
Article No. 1660-2500



FM Mattsson Tronic WMS basin mixer
Chrome, included battery
Article No. 1651-2500



FM Mattsson Tronic WMS basin mixer
Chrome, included battery
Article No. 1650-2500



FM Mattsson 9000E Tronic WMS Basin mixer

Chrome, with temperature lever

Battery operation

Included battery
Article No. 1641-6000

Mains operated

Article No. 1641-6100



FM Mattsson 9000E Tronic WMS Basin mixer

Chrome, for cold or premixed water

Battery operation

Included battery
Article No. 1640-6000

Mains operated

Article No. 1640-6100



**Gateway
Tronic WMS**

Article No. 1616-0000



USB wireless module

for programming electronically
controlled mixers
Article No. 1616-1000

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