Weighing Modules

Precision and Efficiency of Measurements



radwag.com

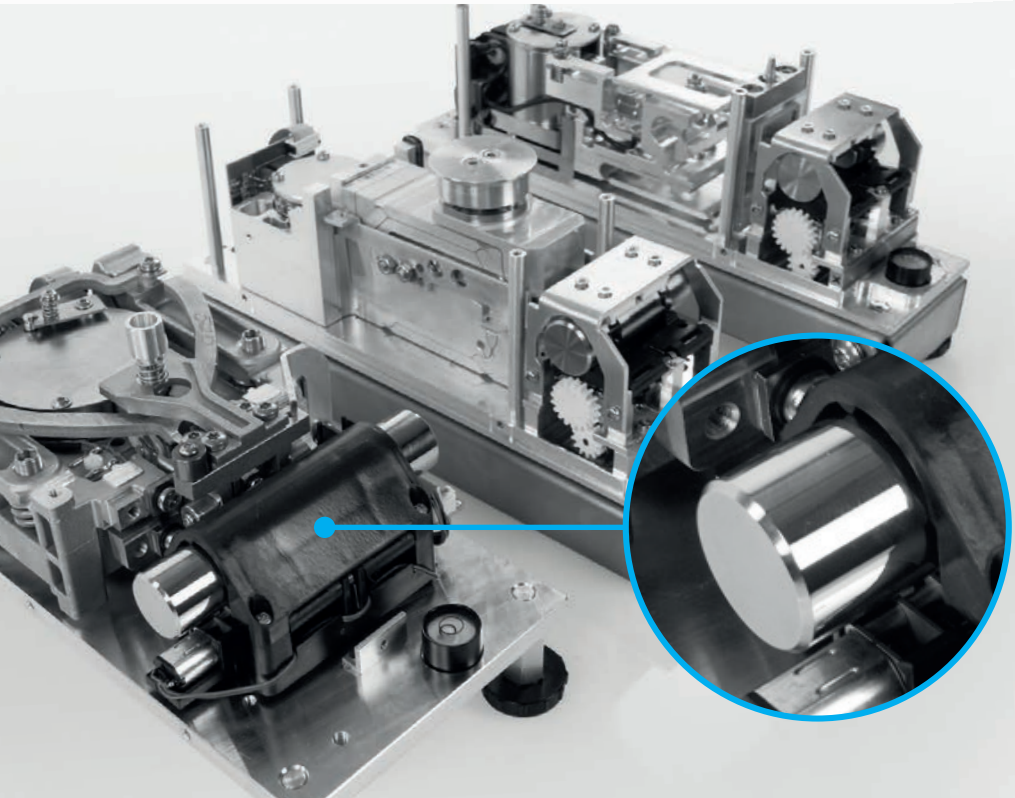
Y SERIES Weighing Modules

The Y series weighing modules are characterized by high precision and measurement speed.

The series includes a group of three devices with an IP43 protection rating: **MAS.Y, MAS.2M.Y** and **MPS.M.Y**, featuring different weighing systems and offering a readability starting from 0.01 mg. The Y series also includes **MAS.1.Y** modules with an increased IP54 protection rating, as well as the **MMYA 5Y** with a readability of 1 µg.



Depending on requirements, **they can operate as standalone devices** without a weighing terminal or with a 5Y weighing terminal.



Measuring Mechanism

The **MAS.2M.Y** group uses an innovative monolithic measuring system, while the **MPS.M.Y** group features a monoblock measuring system.

The **MAS.Y** group is based on a traditional electromagnetic measuring mechanism.

Adjustment

Y modules are equipped with an Internal adjustment mechanism, which ensures high measurement accuracy without the need for user intervention.

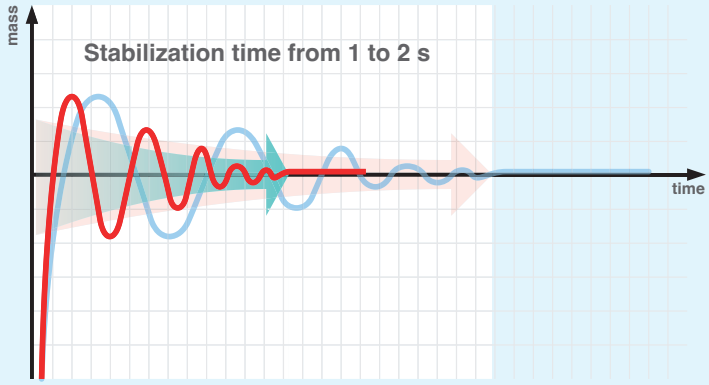


Communication Interfaces

The Y series modules are equipped, depending on the model, with communication interfaces such as RS232, Ethernet, RS485, and digital I/O (3IN/3OUT). Thanks to the available interfaces and the dedicated DIN rail "DIN Interface Adapter," Y modules offer wide integration possibilities with the customer's automation systems.

Weighing Speed

Y series weighing modules feature a stabilization time of 1–2 s, enabling fast acquisition of a stable weighing result. The short response time supports efficient execution of measurement series in applications requiring high dynamic performance.





RConfig Software

The parameters of multiple modules can be configured using the 5Y weighing terminal or the dedicated RConfig Studio computer software.

Technical Specification

	MAS.2M.Y	MAS.Y	MPS.M.Y	MAS.1.Y
Max capacity [Max]	50 – 220 g	50 – 1000 g	3300 – 10000 g	82 / 220 g
Preload range	5 – 22 g	5 – 100 g	330 – 1000 g	22 g
Readability [d]	0.01 mg / 0.1 mg	0.01 – 1 mg	10 – 50 mg	0.01 / 0.1 mg
Standard repeatability	0.02 - 0.1 mg	0.02 – 1.5 mg	7 – 50 mg	0.1 mg
Stabilization time	1 – 2 s	1 – 2 s	1 – 2 s	6 / 2 s
Adjustment	Internal (automatic)	Internal (automatic)	Internal (automatic)	Internal (automatic)
Protection class	IP 43	IP 43	IP 43	IP 54 (IP 43 terminal)
Mode of operation	Standalone and With the weighing terminal	Standalone and With the weighing terminal	Standalone and With the weighing terminal	With the weighing terminal
Device dimensions WxDxH	289x70x104mm	231x115x120mm	266x70x105mm	289×143×125mm
Communication interfaces	RS232, Ethernet TCP/IP. Optional: RS485, 3 IN/3 OUT			2×USB-A, USB-C, RS232 (COM3), HDMI, Ethernet, Wi-Fi®, Hotspot

R SERIES Weighing Modules

The R series of modules is an ideal solution for those seeking an economical option.

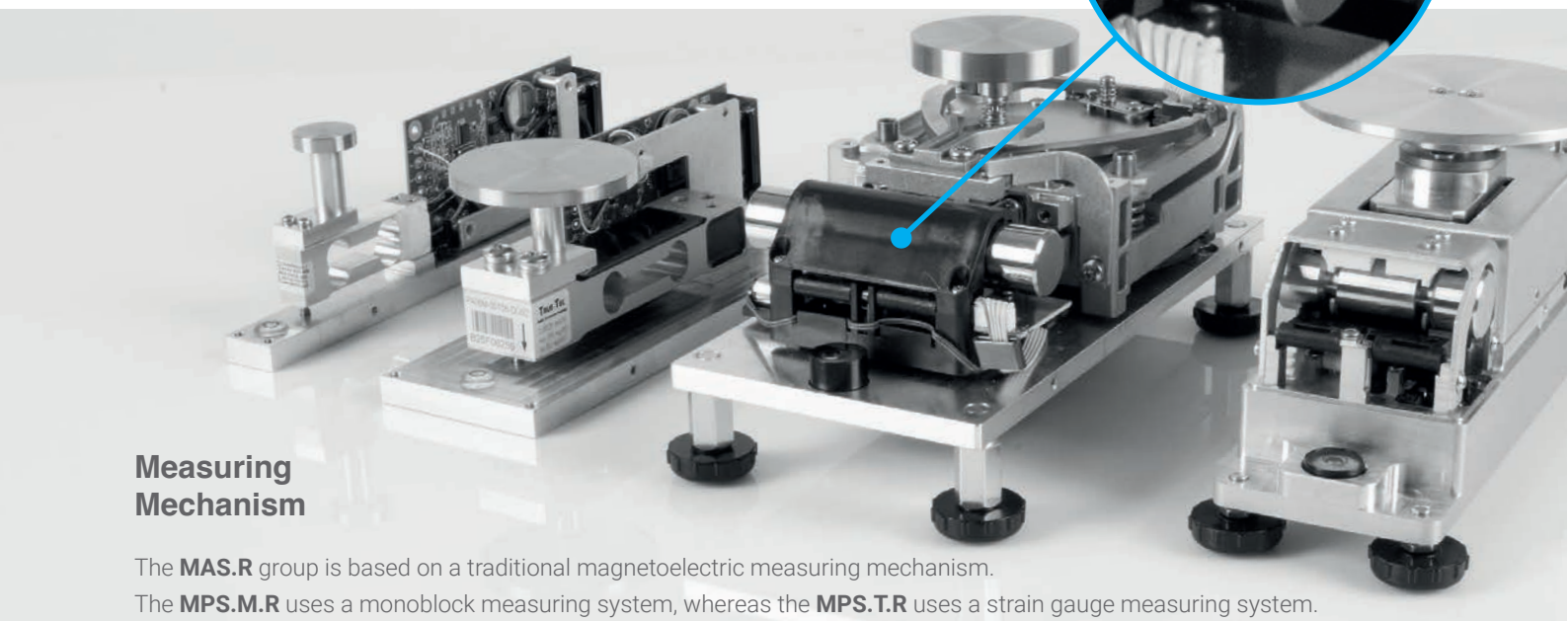
The series includes three devices with an IP43 protection rating: **MAS.R, MPS.M.R**, and **MPS.T.R**, which differ in the measuring system used and offer readability starting from 0.01 mg.



Depending on requirements, they can operate as standalone devices without a weighing terminal or with an R weighing terminal.

Adjustment

Modules in the R2 version are equipped with an Internal adjustment mechanism.
Modules in the R1 version require External calibration.



Measuring Mechanism

The **MAS.R** group is based on a traditional magnetoelectric measuring mechanism.
The **MPS.M.R** uses a monoblock measuring system, whereas the **MPS.T.R** uses a strain gauge measuring system.

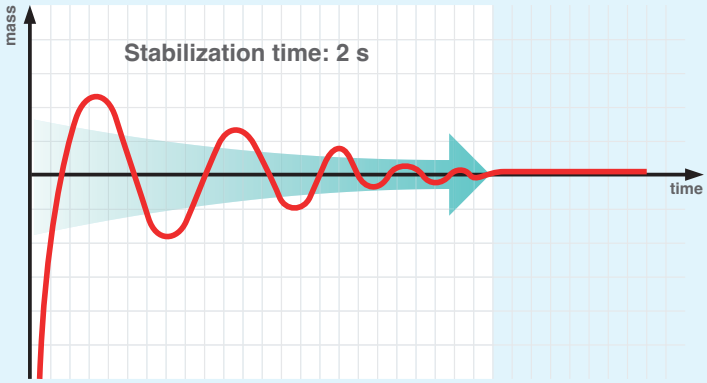
Communication Interfaces

Communication with R series weighing modules can be achieved via the RS232 port using the ASCII character communication protocol.



Weighing Speed

The R series weighing modules feature a short stabilization time of 2 seconds, enabling a fast acquisition of a stable and reliable weighing result. This helps increase process efficiency and improve performance in applications that require frequent and dynamic measurement





R-Panel Software

The module parameters can be configured using the R terminal or with the dedicated R-Panel computer software.

Technical Specification

	MAS.R2	MAS.R1	MPS.M.R2	MPS.M.R1	MPS.T.R1
Max capacity [Max]	220 – 1000 g	220 – 1000 g	3300 – 10000 g	3300 – 10000 g	500 – 10000 g
Preload range	22 – 100 g	22 – 100 g	330 – 1000 g	330 – 1000 g	50 – 1000 g
Readability [d]	0.1 – 1 mg	0.1 – 1 mg	10 – 50 mg	10 – 50 mg	0,01 – 0,1 g
Standard repeatability	0.1 – 1.5 mg	0.12 – 1.5 mg	7 – 50 mg	7 – 50 mg	0,01 – 0,15 g
Stabilization time	2 – 3.5 s	2 – 3.5 s	2 s	2 s	2 – 3 s
Adjustment	Internal (automatic)	External	Internal (automatic)	External	External
Protection class	IP 43	IP 43	IP 43	IP 43	IP 43
Mode of operation	Standalone and With the weighing terminal	Standalone and With the weighing terminal	Standalone and With the weighing terminal	Standalone and With the weighing terminal	Standalone and With the weighing terminal
Device dimensions WxDxH	254x127x138mm	254x127x138mm	266x70x105mm	266x70x105mm	220x70x75mm, 220x25x75mm
Communication interfaces	RS232	RS232	RS232	RS232	RS232

MWMH and MWLH Weighing Modules

A series of high-resolution modules for industrial applications, providing high weighing precision and IP65 or IP69K protection (stainless steel housing).

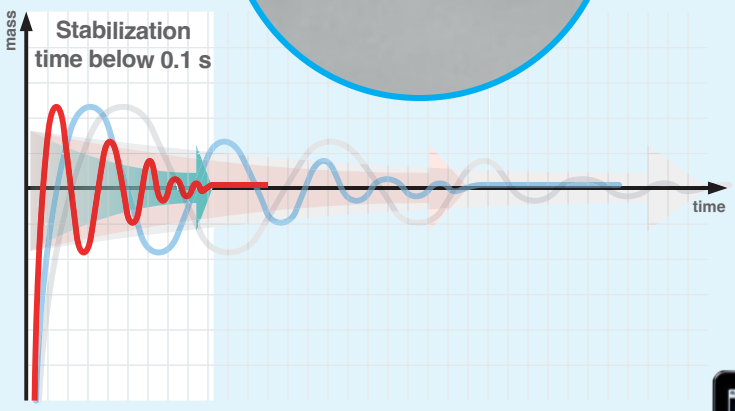
The **MWLH** module is designed for precise weighing of large masses, while the **MWMH** is intended for applications with a high dead load (e.g. a conveyor), making it ideal for fast, dynamic processes and automatic weighing systems.





Communication Interfaces

The modules offer a wide range of communication interfaces available via hermetically sealed connectors.



Weighing Speed

MWMH weighing modules feature a very short weighing time—even under 1 second—making them ideal for high-performance applications. The **MWLH** module is mainly designed for precise measurement of large masses.



MWMH Manager Software

The module parameters can be configured using the dedicated MWMH Manager computer software.

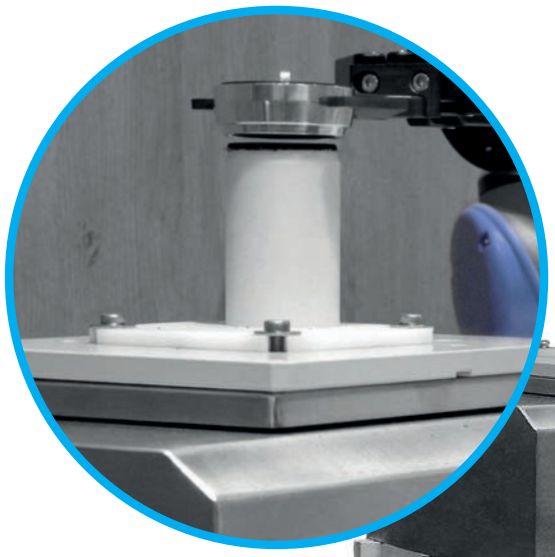
Technical Specification

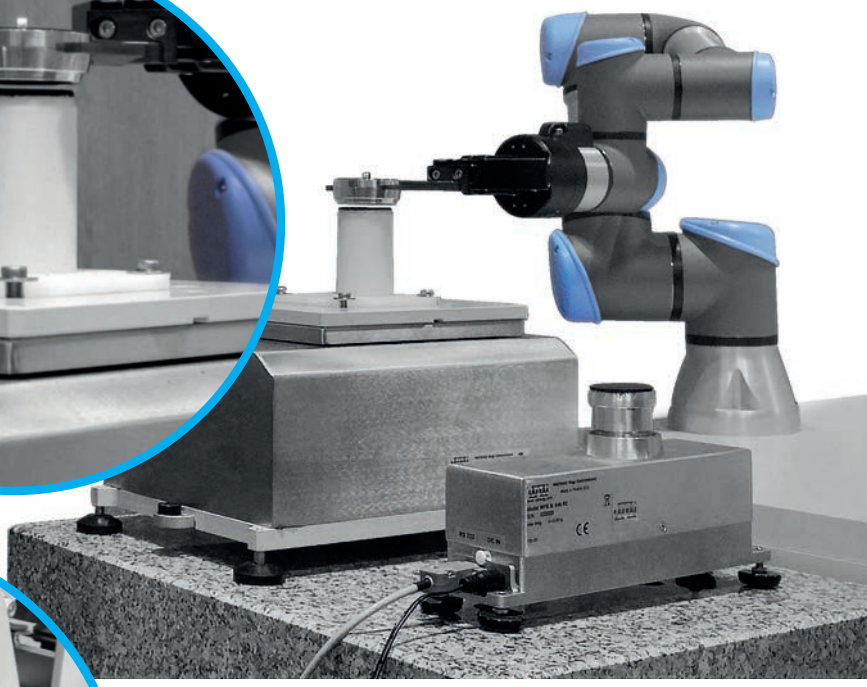
	MWMH	MWLH
Max capacity [Max]	1 – 10 kg	10 – 35 kg
Preload range	4 – 9 kg	1 – 3.5 kg
Readability [d]	0.01 – 0.1 g	0.01 – 0.1 g
Standard repeatability	0.01 – 0.1 g	0.01 – 0.1 g
Stabilization time	<0.1 – 0.1 s	2 – 3 s
Adjustment	External	External
Protection class	IP 65, IP 69K	IP 65
Mode of operation	standalone and MWMH Manager software	standalone and MWMH Manager software
Device dimensions WxDxH	344×224×166mm	341×236×164mm
Communication interfaces	RS232, Ethernet, 2 IN/2 OUT	RS232, RS485, Ethernet, 2 IN/2 OUT

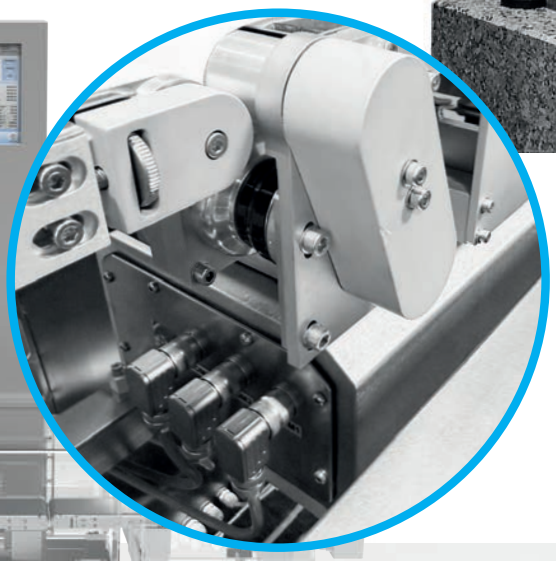
APPLICATIONS of Weighing Modules

Robotic Weighing

The weighing modules are used in robotic applications. They ensure precise and repeatable measurements in automated weighing processes.







Dynamic Weighing

The weighing modules are also used in high-speed industrial automatic weighing systems. They ensure precise mass measurements while maintaining high process throughput.



Dosing

The weighing modules are used in automatic dosing systems, including mass production and pharmaceutical processes. They enable precise and repeatable dosing of ingredients.

Model	Product code	Maximum capacity [Max]	Preload range	Readability [d]	Standard Repeatability	Stabilization time
MMYA SERIES Weighing Modules with Internal calibration						
MMYA 5.5Y	WX-016-0388	5.1 g	0.51 g	1 µg	1,6 µg	5 s
Y SERIES Weighing Modules with Internal calibration						
MAS.2M.50.Y	WX-016-0382	50 g	5 g	0.01 mg	0.02 mg	1 – 2 s
MAS.2M.80.Y	WX-016-0383	80 g	8 g	0.01 mg	0.04 mg	1 – 2 s
MAS.2M.220.Y	WX-016-0384	220 g	22 g	0,1 mg	0.1 mg	1 – 2 s
MAS.50.Y	WX-016-0358	50 g	5 g	0.01 mg	0.02 mg	1 – 2 s
MAS.80.Y	WX-016-0359	80 g	8 g	0.01 mg	0.04 mg	1 – 2 s
MAS.220.Y	WX-016-0360	220 g	22 g	0.1 mg	0.1 mg	1 – 2 s
MAS.220/440.Y	WX-016-1007	220 / 440 g	44 g	0.1 / 1 mg	0.2 / 0.8 mg	1 – 2 s
MAS.640.Y	WX-016-0362	640 g	64 g	1 mg	1.5 mg	1 – 2 s
MAS.1000.Y	WX-016-0363	1000 g	100 g	1 mg	1.5 mg	1 – 2 s
MAS.1.82/220.Y	WX-016-0166	82 / 220 g	22 g	0.01 / 0.1 mg	0.1 mg	6 / 2 s
MPS.M.3300.Y	WX-016-0375	3300 g	330 g	10 mg	7 mg	1 – 2 s
MPS.M.5100/10000.Y	WX-016-1004	5100 / 10000 g	1000 g	0.01/0.05 g	0.01/0.05 g	1 – 2 s
MPS.M.6300.Y	WX-016-0370	6300 g	630 g	10 mg	8 mg	1 – 2 s
R2 SERIES Weighing Modules with Internal calibration						
MAS.220.R2	WX-016-0333	220 g	22 g	0.1 mg	0.1 mg	2 s
MAS.220/440.R2	WX-016-1006	220 / 440 g	44 g	0.1 / 1 mg	0.2 / 0.8 mg	3.5 s
MAS.640.R2	WX-016-0356	640 g	64 g	1 mg	1.5 mg	2 s
MAS.1000.R2	WX-016-0357	1000 g	100 g	1 mg	1.5 mg	2 s
MPS.M.3300.R2	WX-016-0336	3300 g	330 g	10 mg	7 mg	2 s
MPS.M.5100/10000.R2	WX-016-1003	5100 / 10000 g	1000 g	0.01/0.05 g	0.01/0.05 g	2 s
MPS.M.6300.R2	WX-016-0337	6300 g	630 g	10 mg	8 mg	2 s
R1 SERIES Weighing Modules with External calibration						
MAS 220.R1	WX-016-0340	220 g	22 g	0.1 mg	0.12 mg	2 s
MAS 220/440.R1	WX-016-1005	220 / 440 g	44 g	0.1 / 1 mg	0.2 / 0.8 mg	3.5 s
MAS 640.R1	WX-016-0365	640 g	64 g	1 mg	1.5 mg	2 s
MAS 1000.R1	WX-016-0364	1000 g	100 g	1 mg	1.5 mg	2 s
MPS.T.500.R1	WX-016-0346	500 g	50 g	0.01 g	0.01 g	2 s
MPS.T.3000.R1	WX-016-0349	3000 g	300 g	0.1 g	0.1 g	2 s
MPS.T.6000.R1	WX-016-0350	6000 g	600 g	0.1 g	0.15 g	3 s
MPS.T.10000.R1	WX-016-0351	10000 g	1000 g	0.1 g	0.15 g	3 s
MPS.M.3300.R1	WX-016-0343	3300 g	330 g	10 mg	7 mg	2 s
MPS.M.5100/10000.R1	WX-016-1002	5100 / 10000 g	1000 g	0.01/0.05 g	0.01/0.05 g	2 s
MPS.M.6300.R1	WX-016-0344	6300 g	630 g	10 mg	8 mg	2 s

Adjustment	Protection class	Mode of operation	Device dimensions WxDxH	Communication interfaces
Internal (automatic)	IP 32	with the weighing terminal	148×325×126mm	2×USB-A, USB-C, RS232 (COM3), HDMI, Ethernet, Wi-Fi®, Hotspot
Internal (automatic)	IP 43	standalone and with the weighing terminal	289x70x104 mm	RS232, Ethernet TCP/IP. Optional: RS485, 2 IN/2 OUT
Internal (automatic)	IP 43	standalone and with the weighing terminal	289x70x104 mm	RS232, Ethernet TCP/IP. Optional: RS485, 2 IN/2 OUT
Internal (automatic)	IP 43	standalone and with the weighing terminal	289x70x104 mm	RS232, Ethernet TCP/IP. Optional: RS485, 2 IN/2 OUT
Internal (automatic)	IP 43	standalone and with the weighing terminal	254x127x138mm	RS232, Ethernet TCP/IP. Optional: RS485, 2 IN/2 OUT
Internal (automatic)	IP 43	standalone and with the weighing terminal	254x127x138mm	RS232, Ethernet TCP/IP. Optional: RS485, 2 IN/2 OUT
Internal (automatic)	IP 43	standalone and with the weighing terminal	254x127x138mm	RS232, Ethernet TCP/IP. Optional: RS485, 2 IN/2 OUT
Internal (automatic)	IP 43	standalone and with the weighing terminal	254x127x138mm	RS232, Ethernet TCP/IP. Optional: RS485, 2 IN/2 OUT
Internal (automatic)	IP 43	standalone and with the weighing terminal	254x127x138mm	RS232, Ethernet TCP/IP. Optional: RS485, 2 IN/2 OUT
Internal (automatic)	IP 43	standalone and with the weighing terminal	254x127x138mm	RS232, Ethernet TCP/IP. Optional: RS485, 2 IN/2 OUT
Internal (automatic)	IP 54	with the weighing terminal	289x143x125 mm	2×USB-A, USB-C, RS232 (COM3), HDMI, Ethernet, Wi-Fi®, Hotspot
Internal (automatic)	IP 43	standalone and with the weighing terminal	266x70x105 mm	RS232, Ethernet TCP/IP. Optional: RS485, 2 IN/2 OUT
Internal (automatic)	IP 43	standalone and with the weighing terminal	266x70x105 mm	RS232, Ethernet TCP/IP. Optional: RS485, 2 IN/2 OUT
Internal (automatic)	IP 43	standalone and with the weighing terminal	266x70x105 mm	RS232, Ethernet TCP/IP. Optional: RS485, 2 IN/2 OUT
Internal (automatic)	IP 43	standalone and with the weighing terminal	254x127x138mm	RS232
Internal (automatic)	IP 43	standalone and with the weighing terminal	254x127x138mm	RS232
Internal (automatic)	IP 43	standalone and with the weighing terminal	254x127x138mm	RS232
Internal (automatic)	IP 43	standalone and with the weighing terminal	254x127x138mm	RS232
Internal (automatic)	IP 43	standalone and with the weighing terminal	266x70x105 mm	RS232
Internal (automatic)	IP 43	standalone and with the weighing terminal	266x70x105 mm	RS232
Internal (automatic)	IP 43	standalone and with the weighing terminal	266x70x105 mm	RS232
External	IP 43	standalone and with the weighing terminal	254x127x138mm	RS232
External	IP 43	standalone and with the weighing terminal	254x127x138mm	RS232
External	IP 43	standalone and with the weighing terminal	254x127x138mm	RS232
External	IP 43	standalone and with the weighing terminal	254x127x138mm	RS232
External	IP 43	standalone and with the weighing terminal	220x25x75 mm	RS232
External	IP 43	standalone and with the weighing terminal	220x70x75 mm	RS232
External	IP 43	standalone and with the weighing terminal	220x70x75 mm	RS232
External	IP 43	standalone and with the weighing terminal	220x70x75 mm	RS232
External	IP 43	standalone and with the weighing terminal	266x70x105 mm	RS232
External	IP 43	standalone and with the weighing terminal	266x70x105 mm	RS232
External	IP 43	standalone and with the weighing terminal	266x70x105 mm	RS232

Model	Product code	Maximum capacity [Max]	Preload range	Readability [d]	Verification unit [e] (OIML Class III)	Standard Repeatability	Stabilization time
MWLH Weighing Modules with External calibration							
MWLH 10	WX-016-0108	10 kg	1 kg	0.01 g	-	0.01 g	3 s
MWLH 25	WX-016-0109	25 kg	2.5 kg	0.1 g	-	0.1 g	2 s
MWLH 30	WX-016-0110	30 kg	3 kg	0.1 g	-	0.1 g	2 s
MWLH 35	WX-016-0111	35 kg	3.5 kg	0.1 g	-	0.1 g	2 s
MWMH Weighing Modules with External calibration							
MWMH 100-1	WX-016-0061	1 kg	6 – 9 kg	0.01 g	0.1 g	0.01 g	0.1 s
MWMH 100-2	WX-016-0216	1 kg	6 – 9 kg	0.01 g	0.1 g	0.01 g	0.1 s
MWMH 100-3	WX-016-0217	1 kg	6 – 9 kg	0.1 g	0.1 g	0.1 g	0.1 s
MWMH 100-4	WX-016-0218	1 kg	6 – 9 kg	0.1 g	0.1 g	0.1 g	0.1 s
MWMH 200-1	WX-016-0083	2 kg	4 – 7 kg	0.02 g	0.2 g	0.1 g	<0.1 s
MWMH 200-2	WX-016-0220	2 kg	4 – 7 kg	0.02 g	0.2 g	0.1 g	<0.1 s
MWMH 200-3	WX-016-0221	2 kg	4 – 7 kg	0.1 g	0.2 g	0.1 g	<0.1 s
MWMH 200-4	WX-016-0222	2 kg	4 – 7 kg	0.1 g	0.2 g	0.1 g	<0.1 s
MWMH 500-1	WX-016-0114	5 kg	4 – 7 kg	0.1 g	0.5 g	0.1 g	<0.1 s
MWMH 500-2	WX-016-0224	5 kg	4 – 7 kg	0.1 g	0.5 g	0.1 g	<0.1 s
MWMH 500-3	WX-016-0225	5 kg	4 – 7 kg	0.1 g	0.5 g	0.1 g	<0.1 s
MWMH 500-4	WX-016-0226	5 kg	4 – 7 kg	0.1 g	0.5 g	0.1 g	<0.1 s
MWMH 1000-1	WX-016-0062	10 kg	4 – 7 kg	0.1 g	1 g	0.1 g	<0.1 s
MWMH 1000-2	WX-016-0228	10 kg	4 – 7 kg	0.1 g	1 g	0.1 g	<0.1 s
MWMH 1000-3	WX-016-0229	10 kg	4 – 7 kg	0.1 g	1 g	0.1 g	<0.1 s
MWMH 1000-4	WX-016-0230	10 kg	4 – 7 kg	0.1 g	1 g	0.1 g	<0.1 s



Adjustment	Protection class	Mode of operation	Device dimensions WxDxH	Communication interfaces
External	IP 65	standalone and MWMH Manager software	341×236×164 mm	RS232, RS485, Ethernet, 2 IN / 2 OUT, Optional: Modbus, TCP/IP, PROFIBUS, PROFINET
External	IP 65	standalone and MWMH Manager software	341×236×164 mm	RS232, RS485, Ethernet, 2 IN / 2 OUT, Optional: Modbus, TCP/IP, PROFIBUS, PROFINET
External	IP 65	standalone and MWMH Manager software	341×236×164 mm	RS232, RS485, Ethernet, 2 IN / 2 OUT, Optional: Modbus, TCP/IP, PROFIBUS, PROFINET
External	IP 65	standalone and MWMH Manager software	341×236×164 mm	RS232, RS485, Ethernet, 2 IN / 2 OUT, Optional: Modbus, TCP/IP, PROFIBUS, PROFINET
External	IP 65	standalone and MWMH Manager software	344×224×166 mm	RS232, Ethernet, 2xIN / 2xOUT
External	IP 65	standalone and MWMH Manager software	344×224×166 mm	RS232, Ethernet, 2xIN / 2xOUT
External	IP 69 K	standalone and MWMH Manager software	344×224×166 mm	RS232, Ethernet, 2xIN / 2xOUT
External	IP 69 K	standalone and MWMH Manager software	344×224×166 mm	RS232, Ethernet, 2xIN / 2xOUT
External	IP 65	standalone and MWMH Manager software	344×224×166 mm	RS232, Ethernet, 2xIN / 2xOUT
External	IP 65	standalone and MWMH Manager software	344×224×166 mm	RS232, Ethernet, 2xIN / 2xOUT
External	IP 69 K	standalone and MWMH Manager software	344×224×166 mm	RS232, Ethernet, 2xIN / 2xOUT
External	IP 69 K	standalone and MWMH Manager software	344×224×166 mm	RS232, Ethernet, 2xIN / 2xOUT
External	IP 65	standalone and MWMH Manager software	344×224×166 mm	RS232, Ethernet, 2xIN / 2xOUT
External	IP 65	standalone and MWMH Manager software	344×224×166 mm	RS232, Ethernet, 2xIN / 2xOUT
External	IP 69 K	standalone and MWMH Manager software	344×224×166 mm	RS232, Ethernet, 2xIN / 2xOUT
External	IP 69 K	standalone and MWMH Manager software	344×224×166 mm	RS232, Ethernet, 2xIN / 2xOUT
External	IP 65	standalone and MWMH Manager software	344×224×166 mm	RS232, Ethernet, 2xIN / 2xOUT
External	IP 65	standalone and MWMH Manager software	344×224×166 mm	RS232, Ethernet, 2xIN / 2xOUT
External	IP 69 K	standalone and MWMH Manager software	344×224×166 mm	RS232, Ethernet, 2xIN / 2xOUT
External	IP 69 K	standalone and MWMH Manager software	344×224×166 mmw	RS232, Ethernet, 2xIN / 2xOUT

Scna the **QR Code**

or **visit** our website at **radwag.com**

to explore **our range of weighing modules**

radwag.com