



High Resolution Platforms and Weighing Modules

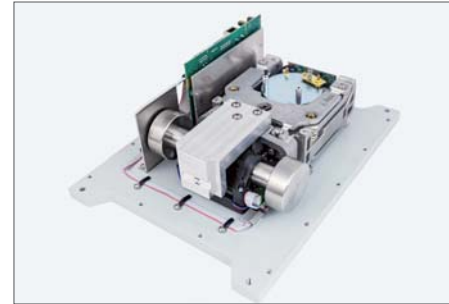
PRECISE MEASUREMENT IN INDUSTRY

HRP

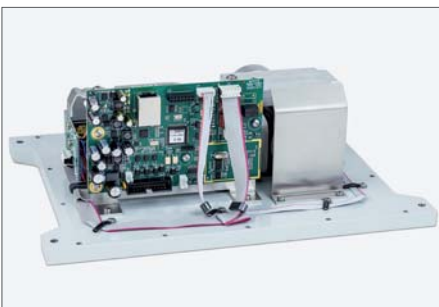
High Resolution Weighing Platforms



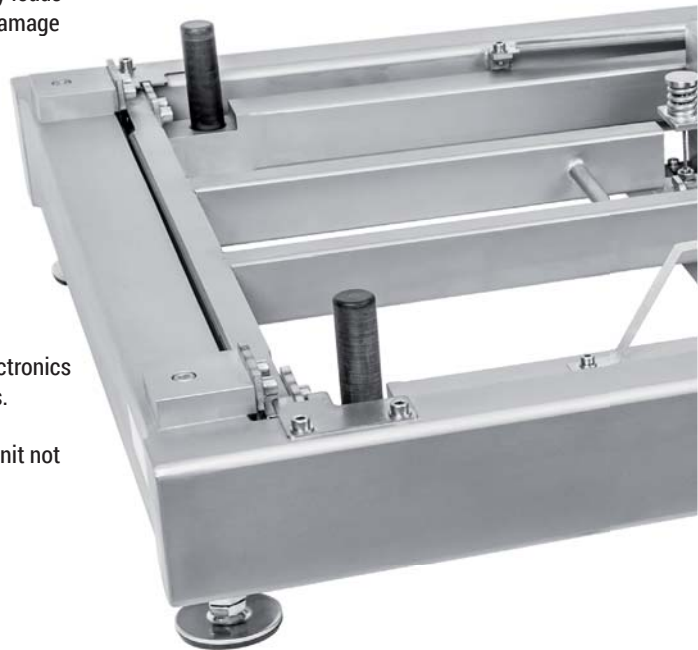
The HRP platform features electromagnetic force compensation module of high resolution. The module is housed in dust and water proof casing (IP67).



Mechanical levers system coupled to the weighing module enables precise measurement of heavy loads and facilitates resistance to damage of mechanical nature.



Integrated HRP platform's electronics store metrological parameters. With this, the platform can be an autonomous weighing unit not requiring use of a terminal.



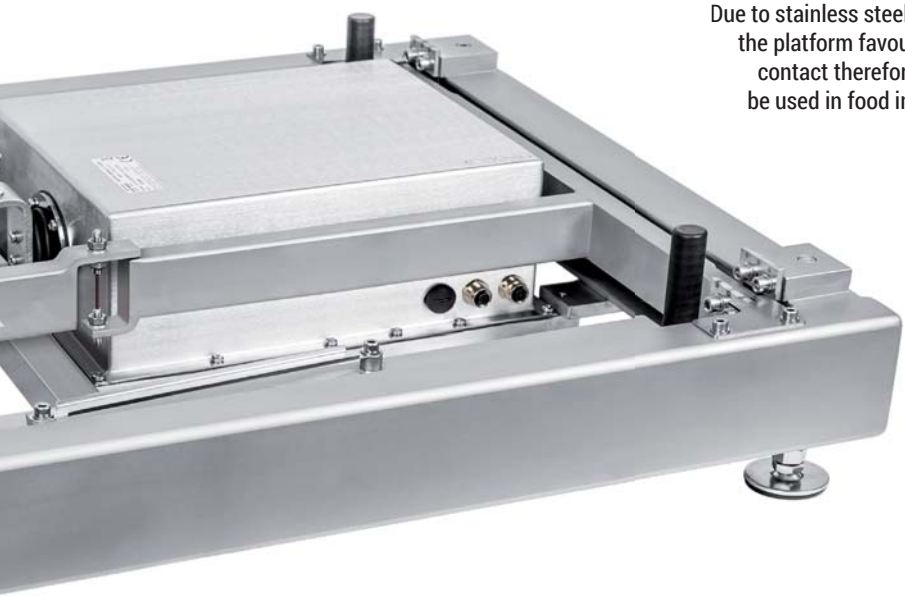
The HRP platform has been equipped with numerous communication interfaces facilitating cooperation with computer systems, terminals, indicators, large-size displays and PLC controllers.

MWMH Manager PC software has been designed to support operation of HRP platforms. The software enables easy and intuitive setup.



An internal automatic adjustment system guarantees measurement repeatability and precision even for unstable ambient conditions. Adjustment is carried out upon temperature change or passage of specified time interval. It can be also performed with reference to user-defined time-table.

System protecting against overloading and mechanical shocks is a warranty of reliable and safe operation.



Due to stainless steel design the platform favours food contact therefore it can be used in food industry.



Connecting a HRP platform to a terminal enhances platform's functionality. With this you can take advantage of numerous applications intended for industry. Go for this solution and enjoy user-friendly interface.



INDUSTRIAL WEIGHING MODULES

Series of Professional Magnetolectric Modules



The module features mounting holes enabling its integration into production line. As for the weighing pan, it has been equipped with openings which make installation of company-owned conveyor possible.

Due to innovative design solutions enabling proper measurement speed, the module can be applied in industry on automated production lines. The module provides throughput of 3200 samples per second.



With use of cable transferring electric signal to the weighing platform it is possible to install control components and actuators on it.

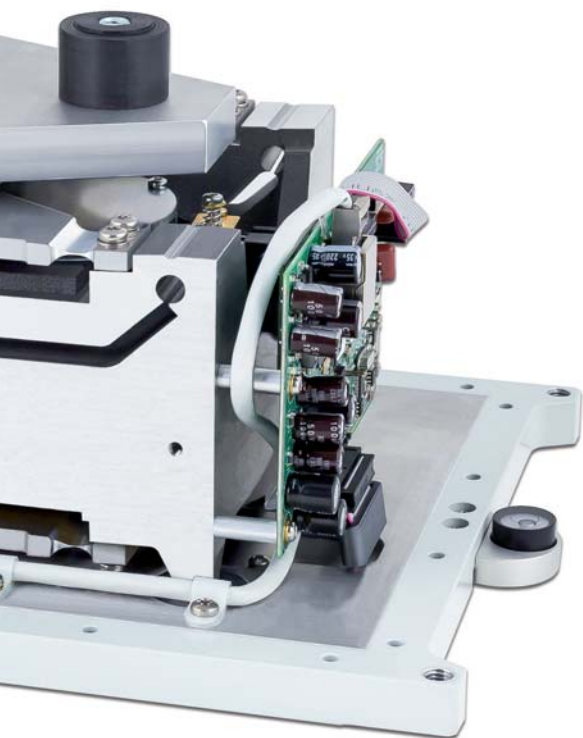


Numerous communication interfaces and communication protocols enable cooperation of weighing modules with PLC controllers, terminals, indicators, large-size displays and computers.



Weighing modules feature stainless steel housing. With IP65, IP67 or IP69K in-use, they can be operated under challenging industrial conditions. The mechanical design lacks sharp edges and recesses facilitating easy maintenance.

Fast operation of the module makes it a perfect tool for performance of dosing and checkweighing processes. Module's digital outputs enable control of devices such as valves and feeders.



MWSH module is the most compact device of the airtight weighing modules series. Using it you can weigh up to 6 kg heavy loads with $d=0.01$ g. An in-built internal adjustment system is a guarantee of highly precise measurements even when the device operates in unstable ambient conditions.



MWMH module allows weighing of up to 10 kg heavy loads. You can install even 15 kg conveyor on the module without worrying that the measuring range will be affected. MWMH has been equipped with cable transferring electric signal to the weighing platform. Due to this solution it is possible to control automatic systems installed directly onto the weighing pan without the need of using any external cables that might distract your attention in the course of the weighing process.



MWLH module, when compared to other devices of this product group, offers the highest capacity. It is intended for precise mass measurement of products weighing up to 35 kg.

MODULES AND HRP PLATFORMS

Mass Measurement with Maximum Possible Accuracy

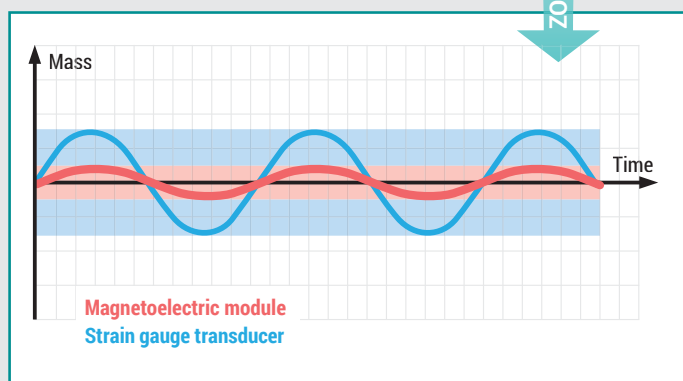
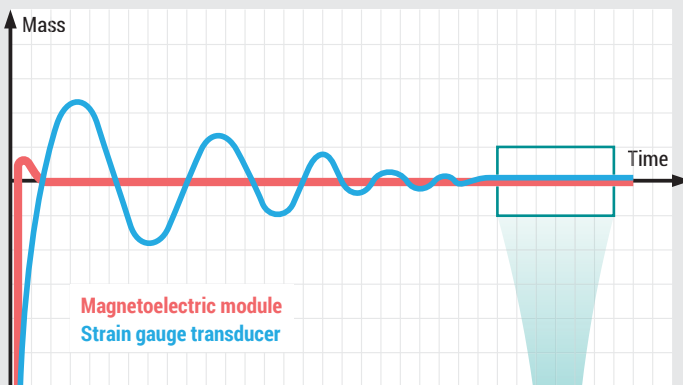
Mechanical design of magnetolectric laboratory balances has been developed and housed in a dust and water proof casing provided for use in industry under severe conditions.

The above solution has resulted with designing of a whole product group, i.e. industrial high resolution electromagnetic weighing modules.

Special platform design plus use of electromagnetic modules for mass measurement enabled developing HRP scales.



Magnetolectric Module



Measurement Speed

Magnetolectric measuring system has been equipped with hi-tech adjustment solutions which facilitate fast stabilisation. In case of strain gauge transducer use, stabilisation takes much more time.

Measurement Accuracy

Magnetolectric modules generate practically no measuring noise, this favours high resolution measurement.



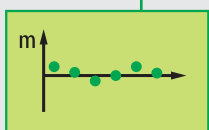
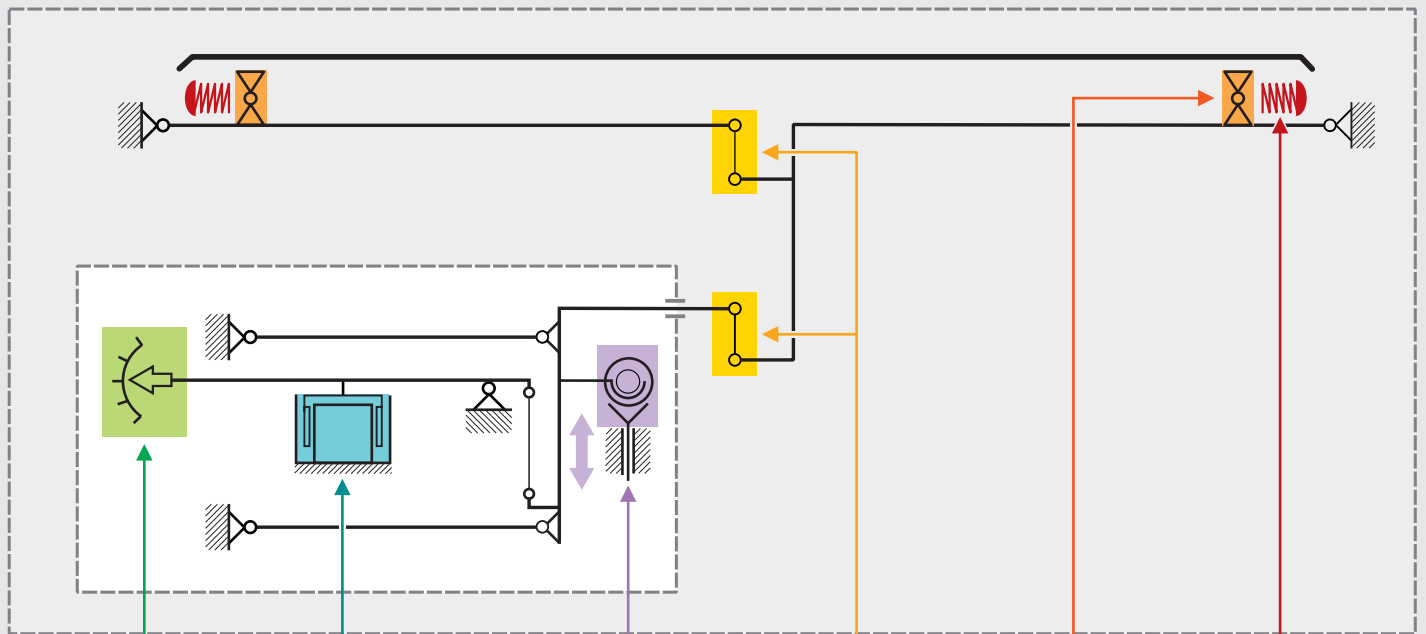
The HRP platforms enable adaptation of technology so far used exclusively in laboratory to industrial processes.

Dedicated design solutions, dust and water proof housing, vast capacity range, numerous communication interfaces and automatic adjustment mechanism redefine quality of mass measurement carried out in industry!

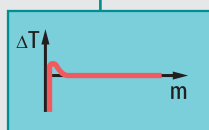
RADWAG-manufactured HRP platforms are intended for those who cannot rely on classic load cell platform, i.e. those who require high resolution measurement to be obtained within short time interval.

The HRP platforms facilitate performance of measurement with few hundred better accuracy than load cell platforms can offer.

HRP Platform



Differential position sensor:
- very high repeatability of indications



Magnetolectric converter:
- fast measurement,
- high resolution.



Internal adjustment weight:
- automatically carried out adjustment providing precise indication.



Stamina and reliability:
- optimised quantity of components and mechanical couplings



4 points of support:
- minimum eccentricity deviations



Anti-shock bumper:
- protection against side shocks.

HIGH RESOLUTION WEIGHING MODULES

Module-Terminal Sets



Advanced MUYA, MAS and MPS weighing modules are characteristic for high resolution measurement. They are intended to be a component of laboratory workstations and also to be integrated into production lines operating in dust-free industrial environment.

MAS and MPS modules are offered with two various panels:

- R panel, equipped with LCD featuring membrane keyboard and software offering functions typical for standard laboratory balance.
- 3Y panel, a multifunctional weighing terminal with numerous communication interfaces and colour 5.7" touchscreen.

MUYA module is offered with 3Y panel exclusively. Due to high resolution ($d=0.1 \mu\text{g}$) it meets even strict mass measurement requirements.

Functions and features:

- alibi memory allowing to store weighing records,
- weighing applications: differential weighing, dosing, SQC, other,
- automatic internal adjustment providing repeatability and precise indication,
- databases: users, products, etc.,
- cooperation with printers and scanners,
- customized printouts and reports,
- quick data exchange via USB port,
- compatibility with Rad-Key, PW-WIN, E2R System and Rad Connect (3Y series exclusively).

SOFTWARE Dedicated for Platforms and Modules



MWMH Manager program is a tool facilitating setup of HRP platforms and weighing modules. Connection between MWMH Manager and the device is established via RS232 or Ethernet ports. Using the program you can set communication parameters, filter rate, determine zero indication upon installation of a weighing pan and record measurements.

WEIGHING TERMINALS

Cooperating with Platforms and Weighing Modules

Full-featured RADWAG terminals advance functionality of HRP platforms and weighing modules. 'Terminal - weighing module' or 'terminal - HRP platform' set gives you high resolution scale offering numerous applications intended for industry. The terminal communicates with the module or the platform via RS232 and Ethernet interfaces



HY10 terminal enables designing multifunctional scales operating in industry. It features 10.1" touchscreen housed in a stainless steel casing. With use of HY10 terminal it is possible to perform processes such as dosing, parts counting, labelling, formulations, weight control, etc. Vast range of industrial interfaces allows for integration of the terminal and production line automatics. HY10 can be a component of a multiplatform workstation comprising HRP platforms, weighing modules, laboratory balances and load cell platforms.



PUE 5 terminal combines characteristic features of a scale and an industrial computer. Depending on a model, it can be equipped with either 15" or 19" touchscreen and a dust and water proof stainless steel housing. PUE5 provides you with the following applications: parts counting, formulations, weighing records and transactions. These applications cooperate with E2R system, created to enable complex support of the weighing process. PUE5 operating on the basis of Windows 7 facilitates cooperation with customer-designed applications. The terminal has been equipped with set of programming components by means of which communication between customer's application and platforms or weighing modules can be established. You can use PUE5 terminal as a base for multiplatform weighing system.



PUE 7.1 terminal has been equipped with 5.7" display and a plastic housing. Both PUE 7.1 and HY10 terminals offer the same set of weighing applications. PUE 7.1 can be a component of scale operating in dust-free industrial environment.

ACCESSORIES For Platforms and Weighing Modules



Communications cable, power suppliers



Adapter with roller conveyor



Ramps

RADWAG offer covers:

- positioning mat
- platform frame (pit version)
- cantilever arm
- platform frame

Technical Specifications

HRP Platforms and Weighing Modules

	PL.16.HRP PL.16.HRP.H	PL.32.HRP PL.32.HRP.H	PL.62.HRP PL.62.HRP.H	PL.120.HRP PL.120.HRP.H
Maximum capacity [Max]	16 kg	32 kg	62 kg	120 kg
Minimum capacity [Min]	5 g	5 g	25 g	50 g
Readability [d]	0.1 g	0.1 g	0.5 g	1 g
Tare range	- 16 kg	- 32 kg	- 62 kg	- 120 kg
Preload	4 kg	4 kg	30 kg	10 kg
Repeatability	0.1 g	0.1 g	0.3 g	0.3 g
Linearity	± 0.1 g	± 0.3 g	± 1 g	± 1 g
Weighing pan dimensions	360x280 mm	360x280 mm	500x500 mm	500x500 mm
Internal adjustment	YES	YES	YES	YES
Sensitivity drift	2 ppm / °C	2 ppm / °C	2 ppm / °C	2 ppm / °C
Working temperature	+10° ÷ +40°C	+10° ÷ +40°C	+10° ÷ +40°C	+10° ÷ +40°C
Atmospheric humidity	40% ÷ 80%	40% ÷ 80%	40% ÷ 80%	40% ÷ 80%
IP rating	IP 67	IP 67	IP 67	IP 67
Power supply	12 ÷ 24 V DC	12 ÷ 24 V DC	12 ÷ 24 V DC	12 ÷ 24 V DC
Interfaces	RS232, Ethernet, 3xIN, 2xOUT / optionally: Profibus, RS485, 2xIN, 2xOUT			
Communication protocols	Radwag, ASCII, Modbus			
Platform design	aluminium, SST	aluminium, SST	SST/powder-coat. steel	SST/powder-coat. steel
Platform dimensions	360x313x170 mm	360x313x170 mm	513x500x150 mm	513x500x150 mm

	MWSH 6000	MWMH 100	MWMH 200	MWMH 500	MWMH 1000	MWLH 10
Maximum capacity [Max]	6000 g	1000 g	2000 g	5000 g	10000 g	10 kg
Minimum capacity [Min]	500 mg	2 g	4 g	10 g	20 g	0.5 g
Verification unit	-	0.1 g	0.2 g	0.5 g	1 g	-
Readability [d]	0.01 g	0.05 g	0.1 g	0.5 g	0.5 g	0.01 g
Extended reading unit *	-	0.01 g	0.05 g	0.1 g	0.1g	-
Tare range	- 6000 g	- 1000 g	- 2000 g	- 5000 g	- 10000 g	- 10 kg
Preload	600 g	7 kg	10 kg	15 kg	15 kg	1 kg
Repeatability	15 mg	0.03 g	0.05 g	0.3 g	0.5 g	0.01 g
Linearity	± 30 mg	0.05 g	0.1 g	0.2 g	0.5 g	± 0.01 g
Measurement stabilization time	1.5 s	1 s	1 s	1.5 s	1.5 s	3 s
Weighing pan dimensions	100x100 mm	212x174 mm	212x174 mm	212x174 mm	212x174 mm	212x174 mm
Internal adjustment	YES	-	-	-	-	YES (option)
Sensitivity drift	2 ppm / °C	2 ppm / °C	2 ppm / °C	2 ppm / °C	2 ppm / °C	2 ppm / °C
Working temperature	+10° ÷ +40°C	+5° ÷ +40°C	+5° ÷ +40°C	+5° ÷ +40°C	+5° ÷ +40°C	+10° ÷ +40°C
Atmospheric humidity	40% ÷ 80%	40% ÷ 80%	40% ÷ 80%	40% ÷ 80%	40% ÷ 80%	40% ÷ 80%
IP rating	IP 65	IP65 / IP69K	IP65 / IP69K	IP65 / IP69K	IP65 / IP69K	IP65 / 69K
Power supply	12 ÷ 24 V DC	12 ÷ 24 V DC	12 ÷ 24 V DC	12 ÷ 24 V DC	12 ÷ 24 V DC	12 ÷ 24 V DC
Verification	-	YES	YES	YES	YES	-
Display	-	-	-	-	-	-
Interfaces	RS232, Ethernet, 3xIN, 2xOUT / optionally: Profibus, RS485, 2xIN, 2xOUT					
Communication protocols	Radwag, ASCII, Modbus					
Platform design	aluminium, SST	aluminium, SST	aluminium, SST	aluminium, SST	aluminium, SST	aluminium, SST
Platform dimensions	336x175x96 mm	242.5x350x164 mm	242.5x350x164 mm	242.5x350x164 mm	242.5x350x164 mm	341x236x164 mm

PL.150.HRP PL.150.HRP.H	PL.300.HRP PL.300.HRP.H	PL.300.1.HRP PL.300.1.HRP.H	PL.600.HRP PL.600.HRP.H	PL.1100.HRP PL.1100.HRP.H
150 kg	300 kg	300 kg	600 kg	1100 kg
50 g	100 g	100 g	250 g	500 g
1 g	2 g	2 g	5 g	10 g
- 120 kg	- 300 kg	- 300 kg	- 600 kg	- 1100 kg
30 kg	60 kg	60 kg	60 kg	100 kg
1.5 g	3 g	3 g	7.5 g	15 g
± 3 g	± 6 g	± 6 g	± 15 g	± 30 g
800x600 mm	800x600 mm	1000x800 mm	1000x800 mm	1000x800 mm
YES	YES	YES	YES	YES
2 ppm / °C	2 ppm / °C	2 ppm / °C	2 ppm / °C	2 ppm / °C
+10° ÷ +40°C	+10° ÷ +40°C	+10° ÷ +40°C	+10° ÷ +40°C	+10° ÷ +40°C
40% ÷ 80%	40% ÷ 80%	40% ÷ 80%	40% ÷ 80%	40% ÷ 80%
IP 67	IP 67	IP 67	IP 67	IP 67
12 ÷ 24 V DC	12 ÷ 24 V DC	12 ÷ 24 V DC	12 ÷ 24 V DC	12 ÷ 24 V DC
RS232, Ethernet, 3xIN, 2xOUT / optionally: Profibus, RS485, 2xIN, 2xOUT				
Radwag, ASCII, Modbus				
SST/powder-coat. steel	SST/powder-coat. steel	SST/powder-coat. steel	SST/powder-coat. steel	SST/powder-coat. steel
707x600x173 mm	707x600x173 mm	1011x800x175 mm	1011x800x175 mm	1011x800x175 mm

MWLH 25	MWLH 30	MWLH 35	MAS.Y MAS.R	MPS.Y MPS.R	MUYA 2.4Y	MUYA 5.4Y
25 kg	30 kg	35 kg	220 g	6000 g	2.1 g	5.1 g
5 g	5 g	5 g	10 mg	500 mg	0.01 mg	0.1 mg
-	-	-	-	-	-	-
0.1g	0.1g	0.1g	0.1mg	10 mg	0.1 µg	1 µg
-	-	-	-	-	-	-
- 25 kg	- 30 kg	- 35 kg	- 220 g	- 6000 g	- 2.1 g	- 5.1 g
2.5 kg	3 kg	3.5 kg	-	-	-	-
0.01 g	0.01 g	0.01g	0.1 mg	15 mg	0.25 µg	1µg
± 0.1 g	± 0.3 g	± 0.3 g	± 0.2 mg	± 30 mg	± 1.5 µg	± 5 µg
2 s	2 s	2 s	3.5 s	1.5 s	10 ÷ 20 s	~5 s
212x174 mm	212x174 mm	212x174 mm	ø 42 mm	ø 115 mm	ø 16 mm	ø 26 mm
YES (option)	YES (option)	YES (option)	YES	YES	YES	YES
2 ppm / °C	2 ppm / °C	2 ppm / °C	1 ppm / °C	2 ppm / °C	1 ppm / °C	1 ppm / °C
+10° ÷ +40°C	+10° ÷ +40°C	+10° ÷ +40°C	+15° ÷ +35°C	+10° ÷ +40°C	+10° ÷ +40°C	+10° ÷ +40°C
40% ÷ 80%	40% ÷ 80%	40% ÷ 80%	40% ÷ 80%	40% ÷ 80%	40% ÷ 80%	40% ÷ 80%
IP65 / 69K	IP65 / 69K	IP65 / 69K	IP32	IP32	IP32	IP32
12 ÷ 24 V DC	12 ÷ 24 V DC	12 ÷ 24 V DC	13,5 ÷ 16 V DC [MAS.Y, MPS.Y, MUYA.4Y] / 12 ÷ 16 V DC [MAS.R, MPS.R]			
-	-	-	-	-	-	-
-	-	-	colour 5.7" touchscreen [MAS.Y, MPS.Y, MUYA.4Y] backlit LCD [MAS.R, MPS.R]			
RS232, Ethernet, 3xIN, 2xOUT / optionally: Profibus, RS485, 2xIN, 2xOUT			2×RS232, 2×USB, 1×Ethernet, 4×IN, 4×OUT [MAS.Y, MPS.Y, MUYA.4Y] 2×RS232, 2×IN PRINT/TARE [MAS.R, MPS.R]			
Radwag, ASCII, Modbus			ASCII	ASCII	ASCII	ASCII
aluminium, SST	aluminium, SST	aluminium, SST	aluminium	aluminium	aluminium	aluminium
341x236x164 mm	341x236x164 mm	341x236x164 mm	248x180x117 mm	293x190x112 mm	248x180x117 mm	293x190x112 mm



Local Dealer:



RADWAG Balances and Scales

www.radwag.com