

h/p/cosmos®



diagnosticus
quasar med

sophisticated medical, diagnostics and rehabilitation treadmill line

ahead of time®



quasar® med MCU5 with standard handrails

reliable treadmills made in germany

German Engineering since 1988

Benefit from more than 33 years of experience in building and servicing standard and customized treadmill solutions around the globe.

h/p/cosmos standard

h/p/cosmos has been developing and building treadmills for more than 33 years in Germany for various fields including fitness, competitive sports, sports medicine, orthopedic and neurological rehabilitation, sport science, biomechanics, uniformed services, performance diagnostics and cardiopulmonary diagnostics and rehabilitation. This experience, maximum standards in quality and advanced technology are the foundation of our business and also reflected in the quasar® med treadmills. The outstanding level of h/p/cosmos products and service as well as attractive prices form the h/p/cosmos standard.

Stable and low-maintenance

With their stable frame, the quasar® treadmills are almost indestructible, very low-maintenance and offer both runner or patient a pleasant running feeling thanks to their state-of-the-art design. They also stand out due to their smooth running, their versatile functions, their powerful drive system and their timeless and user friendly design.

Medical device (Class IIb) and sports treadmills

quasar® treadmills are available as risk class IIb medical treadmills as well as sports treadmills. As a medical device, they are particularly suitable for the use in the fields of cardiology, neurology, neurological rehabilitation and physiotherapy. The interface via coscom v4 of the h/p/cosmos treadmill and ergometer series enables the connection to ECG, ergospirometry systems, blood pressure monitors and software programs. Depending on MCU5 or MCU6 UserTerminal, external devices can be connected via LAN, WiFi, Bluetooth®, USB, as well as the stable RS232 connection, using the coscom® v4 protocol. Also RFID/NFC communication is available for MCU6.

Customer-specific configuration for individual solutions

Treadmills off the peg can be many, at h/p/cosmos you can also get your individually assembled treadmill solution with a large selection of options and accessories. Too little budget for the desired configuration? Changed demands on the treadmill system due to new business areas or new areas of application? No problem, most options and accessories can also be retrofitted at a later date. With h/p/cosmos you are always on the right track, because you cannot make the wrong decision due to the flexible and modular design.



quasar® med with optional long handrails [cos103876]



quasar® med with optional long handrails [cos103876] and safety arch fall prevention [cos10079-01va02]



utmost flexible handrail system

The renewed h/p/cosmos handrail system allows quick and flexible adaptions of the treadmill to various demands.

Some of our best selling handrail configurations:



quasar® med MCU5
with optional very short handrails [cos103867]



quasar® med MCU6
with optional speed handrails [cos103651]



quasar® med MCU5
with standard handrails



quasar® med MCU6
with optional long handrails [cos103876]



quasar® med MCU5
with optional adjustable handrails [cos102550-01]



quasar® med MCU6
with optional speed handrails [cos103651] and extra
wide footboards left [cos16586] and right [cos102288].

Very short handrail

For special applications, the handrails can be completely removed. Due to safety reasons, a crossbar must then be used, which is mounted on two very short handrails or on speed handrails with additional grips for better jump-on and jump-off during hyperspeed sprint trainings. This variant makes sense, for example, if a video analysis is carried out in the sagittal plane or if an ECG stress test is carried out in cardiology (handrail disturbs cable routing).

Standard and long handrail

The ingeniously simple plug-in system makes it a child's play to change the handrails and adapt them to the required application. As standard we deliver the treadmills of the quasar series with handrails, which cover about half of the running surface length. By quickly loosening two hex head screws, the short handrail can be easily removed and replaced by the therapist or trainer with a long handrail (reaching to the end of the running surface), either on one side or on both sides (safety when mounting the running deck).

Adjustable handrail

The quasar treadmills can also be supplied with height and width adjustable handrails. This variant is ideal if you serve a heterogeneous clientele (adjustment range is from 765...1215 mm in height and 665...1315 mm in width, serving most subjects). They offer the different patient types (from children, to small and large persons as well as for obese patients) optimal conditions for therapy and/or training. In combination with the optional arm support, you also enable patients to train more safely and without fear. As an additional feature, the optional arm support offers the possibility of a manual unweighting by the patient relieving their partial body weight on these stable pads.



options



quasar® med MCU5 with adjustable handrails [cos102550-01], airwalk ap unweighting system [cos30028], robowalk front [cos30022-02va07] and back [cos30023-03]



quasar® med MCU5 with adjustable handrails [cos102550-01], airwalk ap unweighting system [cos30028], robowalk front [cos30022-02va07], back [cos30023-03] and reverse belt rotation [cos10181-03]



utility tray [cos100973] for all handrails (Ø 60 mm)



arm support with 3 joints [cos12013-01] for all handrails (Ø 60 mm) and additional keyboard [cos100680]

Additional options for your individual treadmill solution

The numerous additional options allow you to adapt h/p/cosmos treadmills exactly to your needs and your field of application. Some of our most successful options:

Safety arch fall prevention:

In the event of a fall, the patient is caught with a safety harness and the treadmill is automatically stopped.

Unweighting system airwalk® ap (with optional emergency stop):

Unweighting system (dynamic and continuously adjustable approx. 0.5 ... 80 kg) and optional emergency stop (patient is caught in a vest or neopren short and the treadmill stops). For operation of the airwalk® ap, a compressor is needed.

Reverse belt rotation:

The running belt runs in the opposite direction. With the incline set at the same time, downhill running can be simulated. The option is available for all h/p/cosmos treadmills with incline option.

robowalk® :

The h/p/cosmos robowalk® is a patented expander-pulley system for h/p/cosmos treadmills. The test person's legs are connected to the force level and force vector adjustable rubber cables via cuffs and offer support and resistance during the walking and running movement. Especially the traction support by the rubber cords is a valuable help for patients and therapists to perform exercises physiologically and longer, thus improving the therapy success.

Arm support:

With additional stop: the individually adjustable arm supports give the patient stability and a feeling of safety. Arm support with 3 joints for handrails with Ø 60 mm or arm support for adjustable handrails available.

Additional keyboard:

The patient can control the treadmill without removing the arms from the armrests. Therapists can control the treadmill externally from a comfortable position around the treadmill.

Wheelchair ramp:

Our wheelchair ramp enables patients to safely access the treadmill.



quasar® med with MCU5 [cos30003va20]



quasar® med with MCU6 [cos30003-01va02]

technical data

Discover the h/p/cosmos medical treadmills quasar® med series.

The quasar® med series offers a wide range of options and accessories. With the next generation UserTerminal MCU6 with a graphic user interface (GUI) as well as a widely advanced connectivity and additional features, a new milestone in treadmill experience has been set.

model name	quasar® med (MCU5)	quasar® med (MCU6)
Article number:	cos30003va20	cos30003-01-va02
Device dimensions:	L: 230 x W: 105 x H: 145 cm	L: 230 x W: 105 x H: 149 cm
Device weight:	309 kg	332 kg
Running surface:	L: 170 x W: 65 cm	L: 170 x W: 65 cm
Max. user weight:	300 kg	300 kg
Speed range:	0...25 km/h (optional: 0...30 or 40 km/h)	0...25 km/h (optional: 0...30 or 40 km/h)
Elevation:	0...+28% (optional: -28...+28%)	0...+28% (optional: -28...+28%)
Drive motor system:	3.3 kW (4.5 HP) 3-phase AC motor	3.3 kW (4.5 HP) 3-phase AC motor
Running belt:	reinforced running belt with profiled surface, ~ 5 mm thick	reinforced running belt with profiled surface, ~ 5 mm thick
Wireless heart rate:	5 kHz receiver incl. POLAR® chest belt	5 kHz receiver, Bluetooth® (optional)
Classification & safety:	medical device risk class IIb, IEC60601-1, C E 0123	medical device risk class IIb, IEC60601-1, C E 0123
Power supply:	230 Volt AC, 15...16A fuse, dedicated line	230 Volt AC, 15...16A fuse, dedicated line
UserTerminal, Features, Displays & Resolutions:	MCU5 with 6 LCD displays, 4 LEDs for operation modes, 20 LEDs for display of units & profile no., steps, etc. All UserTerminals have integrated Conconi, Cooper, Bruce, Balke, Naughton and UKK 2km Walk Tests, automatic and free definable programs.	MCU6 with 10.1“ TouchScreen (1280x800) & Windows® 10, 9 hardware keys for manual control with medical gloves or under sweaty conditions, interface coscom® v4, parameter: 1 or 2 decimal places, speed, time, elevation, distance, METS, energy consumption, altitude, power, pace, heart rate, heart rate variability (digital & scatter diagram), RFID / NFC Reader (optional), 4x USB 2.0 (1x USB 3.0 internal), Bluetooth® / WiFi / WLAN (optional) 1x LAN / RJ45, 1x HDMI connection, 1x RS232 1x connection for safety arch fall stop

system solutions cardiorespiratory diagnostics, rehabilitation and gait training



recommended configuration cardiorespiratory diagnostics, rehabilitation and gait training quasar® med MCU6

pos.	qty.	order number	product description		
1.	1	cos30003-01va02	h/p/cosmos treadmill ergometer quasar® med MCU6 running surface 170 x 65 cm, speed range 0 ... 25 km/h, elevation 0 ... 28 %, 10,1" TouchScreen with Windows 10, RS232 com1 interface, USB, LAN, para control® software		
2.	1	cos103815	Reverse belt rotation (downhill) 170/65 with MCU6 TouchScreen, for models with running surface 170/65 cm, incl. belt centering rolls, max. reverse speed: 5 km/h, with safety arch: 25 km/h		
3.	1	cos16586	Footboard left extra wide (speed) 170/65, for diagnostics and safe jumping on and off during sprint and co-ordination training		
4.	1	cos102288	Footboard right extra wide (speed) 170/65, for diagnostics and safe jumping on and off during sprint and co-ordination training		
5.	1	cos10079-01va02	Safety arch 65 with harness & chest belt / stop function, fall protection for all applications (mandatory for high risk applications): running surface 65 cm wide		
6.	3	cos14903-04-S/M/L	chest belt for safety arch, (chest circumference: S: 65-95 cm, color code: red, M: 85-115 cm, color code: blue, L: 105-135 cm, color code: yellow)		
7.	1	cos12769-01	USB to RS232 converter, converter from USB to serial port RS232 (Sub-D 9-pin male)		
8.	1	cos10177	Packing treadmill 170&190/65 (SA), packed part assembled on pallet with cardboard hood, incl. safety arch (L: 274 cm / W: 122 cm / H: 94 cm)		
9.	1	cos60098010021	transport / shipping charge (please specify if truck, sea or air freight; for overseas sea shipment is recommended)		
10.	1	cos10194	installation, commissioning and instruction through authorised and trained personnel		
			total price net, excluding VAT, excluding custom duties		
			VAT (19 % in Germany, other VAT and/or custom duties may apply in other countries)		
			system price h/p/cosmos solution for gait training: please ask your dealer for a quotation		

system solutions gait and motion analysis



recommended configuration gait and motion analysis quasar® med MCU6

pos.	qty.	order number	product description		
1.	1	cos30003-01va02	h/p/cosmos treadmill ergometer quasar® med MCU6 running surface 170 x 65 cm, speed range 0 ... 25 km/h, elevation 0 ... 28 %, 10,1" TouchScreen with Windows 10, RS232 com1 interface, USB, LAN, para control® software		
2.	1	cos103651	Handrail speed pluggable, pluggable handrail speed with special grip for left and right side		
3.	1	cos16586	Footboard left extra wide (speed) 170/65, for diagnostics and safe jumping on and off during sprint and co-ordination training		
4.	1	cos102288	Footboard right extra wide (speed) 170/65, for diagnostics and safe jumping on and off during sprint and co-ordination training		
5.	1	cos10079-01va02	Safety arch 65 with harness & chest belt / stop function, fall protection for all applications (mandatory for high risk applications): running surface 65 cm wide		
6.	1	cos14970-03	h/p/cosmos satellite PC med: DELL PC, 2x 24" LCD Monitor, COL Laser printer, potential isolation transformer, h/p/cosmos PC-rack with 4 casters, power bar, LAN isolator and data backup software incl. external HDD.		
7.	3	cos60098010004	labour costs pre-installation of computer hardware and software in factory		
8.	3	cos14903-04-S/M/L	chest belt for safety arch, (chest circumference: S: 65-95 cm, color code: red, M: 85-115 cm, color code: blue, L: 105-135 cm, color code: yellow)		
9.	1	cos102079	Simi® Aktisys para motion® 2D package solution, package solution for dynamic movement analysis with coloured LED markers incl. camera, hardware, software. Optional markerless and 3D-upgrades available.		
10.	1	cos102093	Simi® Aktisys para motion® system training, 1 day training and/or installation (6 h) on the Simi-System, excl. expenses such as flight, hotel, etc.		
11.	1	cos12769-01	USB to RS232 converter, converter from USB to serial port RS232 (Sub-D 9-pin male)		
12.	1	cos10177	Packing treadmill 170&190/65 (SA), packed part assembled on pallet with cardboard hood, incl. safety arch (L: 274 cm / W: 122 cm / H: 94 cm)		
13.	1	cos60098010021	transport / shipping charge (please specify if truck, sea or air freight; for overseas sea shipment is recommended)		
14.	1	cos10194	installation, commissioning and instruction through authorised and trained personnel		
			total price net, excluding VAT, excluding custom duties		
			VAT (19 % in Germany, other VAT and/or custom duties may apply in other countries)		
			system price h/p/cosmos solution for gait training: please ask your dealer for a quotation		

system solutions gait rehabilitation



recommended configuration
neurological and orthopaedic
rehabilitation and gait analysis
quasar® med MCU6



MCU6 Screenshot with parameters also including HRV (heart rate variability)
in chatter diagram and optional step count, step length and step frequency.



Free definable programs including
acceleration and deceleration levels for each individual program step.



system solutions gait rehabilitation

recommended configuration neurological and orthopaedic rehabilitation and gait analysis quasar® med MCU6

pos.	qty.	order number	product description		
1.	1	cos30003-01va02	h/p/cosmos treadmill ergometer quasar® med MCU6 running surface 170 x 65 cm, speed range 0 ... 25 km/h, elevation 0 ... 28 %, 10,1" TouchScreen with Windows 10, RS232 com1 interface, USB, LAN, para control® software		
2.	1	cos101277va02	„science port“ speed output with raw speed data excluding the "smoothing algorithms"		
3.	1	cos103815	Reverse belt rotation (downhill) 170/65 with MCU6 TouchScreen, for models with running surface 170/65 cm, incl. belt centering rolls, max. reverse speed: 5 km/h, with safety arch: 25 km/h		
4.	1	cos102550-01	Handrails adjustable 170/65, bar length 1500 mm, locking bar for height raster 25 mm for models with running surface 170/65 cm		
5.	1	cos102560	Arm supports for handrails adjustable, Forearm support with hand grip for adjustable handrails		
6.	1	cos102292	zebris® FDM platform 2i runningdeck 170/65, pressure distribution platform 132.1 x 55.9 cm, 4.576 sensors, 120 Hz, price only valid for initial fitting-out, incl. software zebriS FDM for gait analysis		
7.	1	cos101734	zebris® modular extension with 180 Hz for running deck 170/65, extension (must be ordered with the treadmill!) from standard 120 Hz by further 180 Hz to 300 Hz sampling rate in total		
8.	1	cos100384	zebris® FDM-Stance Module, Software extension for load analysis during standing.		
9.	1	cos100385a	zebris® SyncLightCam (camera and LED light without stand), camera 30 Hz and lighting unit with 10 power LEDs incl. software driver, synchronisation cable, USB cable and power supply unit		
10.	1	cos100385b	zebris® stand for SyncCam or SyncLightCam (mobile), mobile stand for SyncCam and SyncLightCam with integrated cable fixation		
11.	1	cos14664-03	Wheelchair ramp for treadmill 170&190/65, wheelchair ramp (L: 130 cm x W: 101 cm) for models with running surface 170&190/65 cm		
12.	1	cos14970-03	h/p/cosmos satellite PC med, DELL PC, 2x 24" LCD Monitor, COL Laser printer, potential isolation transformer, h/p/cosmos PC-rack with 4 casters, power bar, LAN isolator and data backup software incl. external HDD.		
13.	3	cos60098010004	labour costs pre-installation of computer hardware and software in factory		
14.	1	cos30028	airwalk® ap, unweighting device dynamic up to ca. 80 kg, compressor or compressed air supply required (max. 250 kg / 551 lbs body weight), incl. vest (cos10095-vest-M) size M		
15.	1	cos103058	Compressor for airwalk® ap, 8 bar for unweighting up to ca. 70 kg		
16.	1	cos102342-01	Option emergency stop for airwalk® ap, additional function of airwalk® ap also as fall prevention system (safety arch) with autom. treadmill belt stop		
17.	3	cos14903-04-S/M/L	chest belt size S/M/L (chest circumference: S: 65 - 98 cm, color code: red, M: 85 - 115 cm, color code: blue, L: 105 - 135 cm, color code: yellow)		
18.	3	cos10095-vest-S/M/L	vest for h/p/cosmos airwalk®, size S/M/L (thorax circumference: S: 85-92 cm, color code: red, M: 93-102 cm, color code: yellow, L: 106-114 cm, color code: green)		
19.	3	cos10095-neo-S/M/L	neoprene shorts for airwalk®, size S/M/L (waist: S: 55-92 cm, M: 93-105 cm, L: 106-114cm)		
20.	1	cos10107	Additional stop-button right, stop-button for hand grip in the arm support, right hand side		
21.	1	cos100815	mobile remote control with 6 keys with a approx. 2 m coiled cord - with magnet holder & Velcro strip for handrail 40-60 mm		
22.	1	cos12769-01	USB to RS232 converter, converter from USB to serial port RS232 (Sub-D 9-pin male)		
23.	1	cos102538va02	Packing airwalk® ap, part assembled, packed part assembled on pallet with cardboard hood (L: 230 cm / W: 109 cm / H: 90 cm)		
24.	1	cos10177	Packing treadmill 170&190/65 (SA), packed part assembled on pallet with cardboard hood, incl. safety arch (L: 274 cm / W: 122 cm / H: 94 cm)		
25.	1	cos15733-os	Inst.& Instruction treadm. 170&190/65 OS, Installation Overseas onsite at customer's facility, incl. traveling, hotel, labour costs and training		
26.	1	cos100925-os	Inst. & Instr. h/p/cosmos airwalk ap OS, Installation Overseas onsite at customer's facility, incl. traveling, hotel, labour costs and training		
27.	1	cos104174	zebris® software maintenance contract, The annual fee entitles licensee to receive available software updates and patches for the Pressure Distribution Suite.		
			total price net, excluding VAT, excluding shipping, EXW., excluding custom duties		
			VAT (19 % in Germany, other VAT and/or custom duties may apply in other countries)		
			system price h/p/cosmos solution for gait rehabilitation: please ask your dealer for a quotation		



MCU6 start screen. The camera icon creates a screenshot, automatically saved on the summary report and as individual image file on the USB stick.



Cardio mode allows target heart rate in combination with maximum speed range definition for controlling the physical load by means of a combination of speed & elevation.



Summary report can be saved in PDF and .csv format with automatically generated informative and editable file name to the connected USB stick.

specifications quasar® med (MCU5)

treadmill ergometer	quasar® med	heart rate monitoring:	POLAR chest belt & wireless transmitter, 1 channel receiver automatic control of speed and elevation according to programmed target heart rate („cardio mode“)
manufacturer:	h/p/cosmos sports & medical gmbh / Germany	digital interface:	1 x RS 232 com1 with 9600 bps: incl. PC-protocol, h/p/cosmos coscom® & printer protocol serial. option extra charge: USB-RS232-converter; com2; com3 with 115200 bps; com 4.
order number:	cos30003va20	programs:	42 programs / profiles - 6 exercise profiles (scalable, more than 100 variations) - 28 test profiles (UKK 2 km Walktest, Bruce, Graded test, Naughton, Ellestad, Gardner, Conconi, Ramp, etc.) - 8 free definable programs with 40 program steps each
applications:	endurance training walking and running, stress device for performance testing, gait analysis and gait training	PC software (incl.):	h/p/cosmos para control® for display & remote control; including 1 x RS232 interface cable 5m (16 ft 4.85")
control:	via UserTerminal MCU5 with keyboard and display, integrated interface or via optional remote control	PC software: (extra charge)	h/p/cosmos para graphics®, para analysis® & para motion®. PC software for control, monitoring, recording & analysis
keyboard:	6 keys for manual control, easily controllable with medical gloves and under sweaty conditions	accessory (incl.):	instruction for use on USB stick, drinking bottle holder, service box, special oil, PE potential equalization cable, POLAR chest belt
running surface:	L: 170 cm (5ft 6.9") B: 65 cm (2ft 1.6") access height: 23 cm (9.06") - shock load reduction for the joints - running belt with slip resistant surface - reinforced running belt with profiled surface, 5 mm thick - max. permissible load: 300 kg (660 lbs)	colour of frame:	pure white RAL 9010 (powder coated)
speed range:	0...25.0 km/h (0...6.9 m/s) (0...15.5 mph) special speed available at extra charge: 0...10 km/h (0...6.2 mph) 0...30 km/h (0...18.6 mph) 0...40 km/h (0...24.8 mph)	handrails:	steel tube handrails Ø 60 mm on both sides, over min. 1/3 of treadmill length with front-handrail crossbar other handrail designs at extra charge
acceleration:	7 acceleration / deceleration levels between 131 s and 3 s from 0 to max. or from max. to 0; equals 0.053 ... 2.315 m/s² programmable via para control® PC software	voltage supply:	230 Volt AC 1~/N/PE 50/60 Hz 15...16A fuse; dedicated circuit, line and protection;
elevation:	0%...+28.0 % (-15.6°...15.6°) motorized adjustment, (up to -28 % when using reverse belt rotation)	size of frame:	L: 230 (+/-1) cm (7ft 6.6" +/- 1/2") W: 105 cm (+/- 1) (3ft 5.3" +/- 1/2") H: 145 cm (+/- 1) (4ft 9.1" +/- 1/2")
running direction:	switch for reversing running belt direction at extra charge, max. permissible reverse speed 5 km/h (3.1 mph) if no safety-harness with fall-stop prevention system is used.	net. weight:	device approx. 309 kg (681 lbs)
motor systems:	3.3 kW (4.5 HP) 3-phase AC motor, maintenance free and brushless; 20 years warranty on main drive motor. For high-performance applications, we recommend models with a 3-phase 3x400 volt power supply and a running surface min. 190/65cm.	gross weight:	device approx. 530...580 kg (1166...1276 lbs)
power transmission:	frequency inverter, poly-V-belt, very quiet operation	Optionally available at extra charge are special frame colours, other handrail designs, special voltage supply and other options and accessories. Weight and package specifications can deviate according to options, accessories packing and way of transport. E&OE. Subject to alterations without prior notice. Please consider the natural and physical performance limitations of the single phase 230 volt power supply. The single phase 230 volt power supply is sufficient up to normal fitness or therapy applications. For all special high performance applications (speed running, controlled jump-ons, sidesteps, heavy subjects at higher speed, extreme elevations, etc.), we recommended models with a 3-phase, 3x400 volt power supply (for example model h/p/cosmos quasar med 3p, pulsar 3p, venus or saturn).	
safety systems:	CE 0123; medical device directive 93/42/EEC + 2007/47/EC; MDD; machinery directive 2006/42/EC; IEC 60601-1; EN 60601-1-2 (EMC approved); EN 60601-1-6; EN 62304; EN 62353; ISO 20957-1; EN 957-6; EN 14971; EN ISO 13485; emergency-off safety stop switch (mushroom push button for drive system power-off); emergency stop switch (safety lanyard with actuator, pull cord and clip); potential equalization bolt; transformer for potential-isolation from the mains.	Warning! Installation, commissioning, instruction, maintenance and repair work only to be conducted by h/p/cosmos trained and authorized personnel. For treadmills with oversized deck (width >65cm), for children, special applications, without sufficient safety space behind the treadmill, for subjects and / or patients with health or other limitations (e.g. visual impairment, etc.), for running at high speed and / or for all individuals, where a fall triggers a dangerous risk of injury or death (e.g. newly operated hip patients, invasive probes, etc.), a fall prevention system is obligatory (e.g. safety arch with chest belt and harness or a weight support system). For more information see the instructions for use. Safety space behind the treadmill: min. L: 2 m (6ft 6.74") x treadmill width. Children are only allowed to be on the treadmill, if under permanent supervision and secured by a fall prevention system.	
degree of protection:	appliance class I (ายน) / type B (人身) / IP 20		
classification:	medical device risk class IIb according to MDD, active therapeutic medical device and active diagnostic medical device		
usage class:	S, I according to ISO 20957-1		
accuracy class:	A (high accuracy) according to EN 957-6		
earth leakage current:	≤ 0.2 mA		
ambient condition:	temperature: +10...+40 °C (-30...+50 °C on request) humidity: 30...70 % (up to 100 % on request) air pressure: 700...1060 hPa; 3,000 m (~10,000 ft) max.altitude without pressurization		
display (resolutions) parameter:	6 LCD displays, 4 LEDs for operation modes, 20 LEDs for display of units & profile no., steps, etc. speed (0.1 km/h or m/s or m/min or mph), time (00:00) in hours, minutes & seconds, elevation (0.1 % or degrees) distance (1 m...999.9 km or miles), METS (1 MET) program step/number, energy (1 kJ/kcal), fitness index (1) power (1 Watt), heart rate (1 bpm / beat per minute)		
resolution:	1 decimal place		
units:	metric / imperial		

specifications quasar® med (MCU6)

treadmill ergometer	quasar® med	
manufacturer:	h/p/cosmos sports & medical gmbh / Germany	
order number:	cos30003-01va02	
applications:	endurance training walking and running, stress device for performance testing, gait analysis and gait training	
control:	via UserTerminal MCU6 with keyboard, touch display and Windows® 10 operating system, integrated interface coscom v4	
keyboard:	9 keys for manual control, easily controllable with medical gloves and under sweaty conditions	
running surface:	L: 170 cm (5ft 6.9") B: 65 cm (2ft 1.6") access height: 23 cm (9.06") - shock load reduction for the joints - running belt with slip resistant surface - reinforced running belt with profiled surface, 5 mm thick - max. permissible load: 300 kg (660 lbs)	
speed range:	0...25.0 km/h (0...6.9 m/s) (0...15.5 mph) special speed available at extra charge: 0...10 km/h (0...6.2 mph) 0...30 km/h (0...18.6 mph) 0...40 km/h (0...24.8 mph)	
acceleration:	7 acceleration / deceleration levels between 131 s and 3 s from 0 to max. or from max. to 0; equals 0.053 ... 2.315 m/s ² programmable via para control® PC software	
elevation:	0 %...+28.0 % (-15.6°...15.6°) motorized adjustment, (up to -28 % when using reverse belt rotation)	
running direction:	switch for reversing running belt direction at extra charge, max. permissible reverse speed 5 km/h (3.1 mph) if no safety-harness with fall-stop prevention system is used.	
motor systems:	3.3 kW (4.5 HP) 3-phase AC motor, maintenance free and brushless; 20 years warranty on main drive motor. For high-performance applications, we recommend models with a 3-phase 3x400 volt power supply and a running surface min. 190/65cm.	
power transmission:	frequency inverter, poly-V-belt, very quiet operation	
safety systems:	CE 0123; MDR medical device regulation (EU) 2017/745; machinery directive 2006/42/EC; ISO 20957-1; EN 957-6; EN 14971; EN ISO 13485; IEC 60601-1; EN 60601-1-2 (EMC tested); IEC 62304; emergency-stop switch (mushroom push button for drive systems power-off); emergency stop switch (safety lanyard with actuator, pull cord and clip); potential equalization bolt; transformer for potential-isolation from the mains.	
degree of protection:	appliance class I / type B / IP 20	
classification:	medical device risk class IIb according to MDR, active therapeutic medical device and active diagnostic medical device	
usage class:	S, I according to ISO 20957-1	
accuracy class:	A (high accuracy) according to EN 957-6	
earth leakage current:	≤ 0.2 mA	
ambient condition:	temperature: +10...+40 °C (-30...+50 °C on request) humidity: 30...70 % (up to 100 % on request) air pressure: 700...1060 hPa; 3,000 m (~10,000 ft) max.altitude without pressurization	
display (resolutions) parameter:	25.9 cm/10.1" (1280x800), color touch display parameter: speed, time, elevation, distance, METS, energy consumption, altitude, power, pace, heart rate, heart rate variability (digital and scatter diagram), diagram view of heart rate and load parameter parameter export to .pdf and .csv tables to USB	
resolution:	1 decimal place	
units:	metric / imperial	
heart rate monitoring:	pulse receiver incorporated (analogue 5kHz + digital Bluetooth®), incl. chest belt POLAR H10, automatic control of speed and elevation according to programmed target heart rate („cardio mode“)	

Warning! Installation, commissioning, instruction, maintenance and repair work only to be conducted by h/p/cosmos trained and authorized personnel. For treadmills with oversized deck (width >65cm), for children, special applications, without sufficient safety space behind the treadmill, for subjects and / or patients with health or other limitations (e.g. visual impairment, etc.), for running at high speed and / or for all individuals, where a fall triggers a dangerous risk of injury or death (e.g. newly operated hip patients, invasive probes, etc.), a fall prevention system is obligatory (e.g. safety arch with chest belt and harness or a weight support system). For more information see the instructions for use. Safety space behind the treadmill: min. L: 2 m (6ft 6.74") x treadmill width. Children are only allowed to be on the treadmill, if under permanent supervision and secured by a fall prevention system.



sports / athletics



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saturn® med 300/100r**



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airwalk® ap / mercury® med**



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