

Datasheet

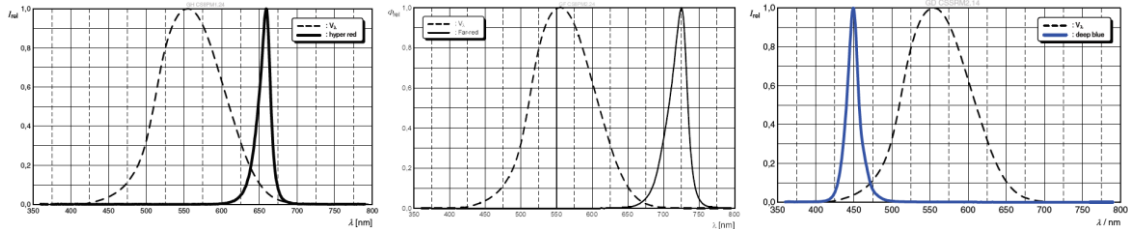
Horti ML R&D HW version2



Mechanical	
Length profile	L=1750mm x W=79mm x H=40mm
Weight	2930 grams
Material	PMMA + anodized alu + stainless steel
Potting	PUR 2 component black
Cable	1,5 meter, Hybrid with HF protected shield
IP Protection	Equal to IP67, end caps are sealed
Cooling	Smooth surface on air or by patented water cooling
Installing	Clickprofile
Electrical	
Voltage	48Vdc
Power consumption	Max 100W (80W without ageing correction)
Dim-protocol	Modbus Microchip controller
LED driving mode	Constant current 4 channel Modbus buck-driver
Ageing adaptive	20% reserve in software
Modbus communication	Channel 248 or value in register 15
Broadcast	Channel 0
Light technical	
LED manufacturer	OSRAM Oslon
Light source distribution	12 light sources pitch 166mm
LED distribution per light source	3x 660nm, 2x 450nm, 2x 730nm
Beam angle LED	120 degrees
Transparant protection material	Ultra clear – Altuglas PMMA
PWM frequency	1000hz
Efficiency Hyper Red led:	74% in system \pm 4,1 μ mol/W
Efficiency Far red led:	40% in system \pm 2,3 μ mol/W
Efficiency Blue led:	72% in system \pm 2,1 μ mol/W
Flux @ 80% Hyper red:	72 μ mol @ 23W consumed power
Flux @ 80% Far red:	59 μ mol @ 26W consumed power
Flux @ 80% Blue:	60 μ mol @ 28W consumed power
Dimmable	All colors dimmable independent accuracy 0,2%

--	--

Light spectrum Osram leds



Modbus registers

Holding register	Function	Range	Explanation
1	Setpoint for output 1, Far Red	0-2000 ‰	0=OFF, 1-2000=luminosity range
2	Setpoint for output 2, White	0-2000 ‰	0=OFF, 1-2000=luminosity range
3	Setpoint for output 3, Deep Blue	0-2000 ‰	0=OFF, 1-2000=luminosity range
4	Setpoint for output 4, Hyper Red	0-2000 ‰	0=OFF, 1-2000=luminosity range
5	Calibration for output 1	0-4095	Sets the nominal PWM value
6	Calibration for output 2	0-4095	Sets the nominal PWM value
7	Calibration for output 3	0-4095	Sets the nominal PWM value
8	Calibration for output 4	0-4095	Sets the nominal PWM value
9	PWM output 1	0-4095	Raw PWM output to LED driver
10	PWM output 2	0-4095	Raw PWM output to LED driver
11	PWM output 3	0-4095	Raw PWM output to LED driver
12	PWM output 4	0-4095	Raw PWM output to LED driver
13	Armature temperature	0-1500	Temperature x0.1 [C]
14	Max Power	0-2000	Maximum setpoint value
15	Modbus address	1-247	The programmed modbus address
16	Magic number	0-65535	Apply changes or write to EEPROM