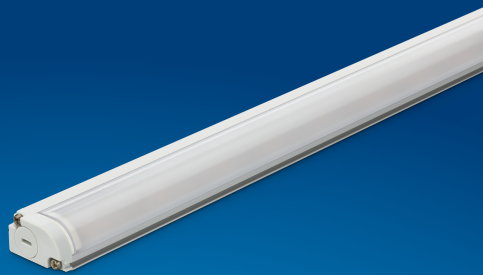


PHILIPS

InteGrade

LED

InteGrade engine value
PW G4



Datasheet

Key features and benefits

- Miniaturized slim design for aesthetic integration
- Premium color consistency up to 3SDCM over lifetime
- Natural merchandise color with specially formulated LEDs up to CRI95
- State of the Art LED diode delivering up to 190 lm/W
- Modules performing up to 128 lm/w meeting SLR (Single Lighting Regulation)
- Unique Premium White light for brightest whites and outstanding merchandise attractiveness
- Maximum design flexibility with extensive range of engine lengths
- Color temperatures (3000 PW, 4000 PW)
- True System proposition with five-year system warranty with Philips LED Power Drivers
- Reduced power consumption for energy saving
- Long lifetime: >50,000 hours
- Dimmable

September 2021



Ordering data

Commercial product name	EOC	12NC	Box quantity
Integrade engine Va 140mm 930 PW G4	8718699 742621 00	9290 021 56906	24
Integrade engine Va 140mm 940 PW G4	8718699 742645 00	9290 021 57006	24
Integrade engine Va 575mm 930 PW G4	8718699 742669 00	9290 021 57106	24
Integrade engine Va 575mm 940 PW G4	8718699 742683 00	9290 021 57206	24
InteGrade engine Va 760mm 930 PW G4	8718699 756819 00	9290 021 84906	24
InteGrade engine Va 760mm 940 PW G4	8718699 756796 00	9290 021 84806	24
Integrade engine Va 855mm 930 PW G4	8718699 742706 00	9290 021 57306	24
Integrade engine Va 855mm 940 PW G4	8718699 742720 00	9290 021 57406	24
Integrade engine Va 1150mm 930 PW G4	8718699 742744 00	9290 021 57506	24
Integrade engine Va 1150mm 940 PW G4	8718699 742768 00	9290 021 57606	24

Key Specifications at Nominal conditions

Name	12NC	Power (W)	Luminous Flux (lm)	Useful Flux (lm)	CRI
Integrade engine Va 140mm 930 PW G4	9290 021 56906	0.77	85	85	93
Integrade engine Va 140mm 940 PW G4	9290 021 57006	0.74	91	91	94
Integrade engine Va 575mm 930 PW G4	9290 021 57106	3.26	374	374	93
Integrade engine Va 575mm 940 PW G4	9290 021 57206	3.26	417	417	94
InteGrade engine Va 760mm 930 PW G4	9290 021 84906	4.34	497	497	93
InteGrade engine Va 760mm 940 PW G4	9290 021 84806	4.22	540	540	94
Integrade engine Va 855mm 930 PW G4	9290 021 57306	4.80	544	544	93
Integrade engine Va 855mm 940 PW G4	9290 021 57406	4.74	599	599	94
Integrade engine Va 1150mm 930 PW G4	9290 021 57506	6.52	748	748	93
Integrade engine Va 1150mm 940 PW G4	9290 021 57606	6.52	834	834	94

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _a (ambient temperature)	5	30	50	°C

* Nominal value at which typical performance is specified

** Value at which life time is specified

*** Maximum value for safe operation, do not operate above this value

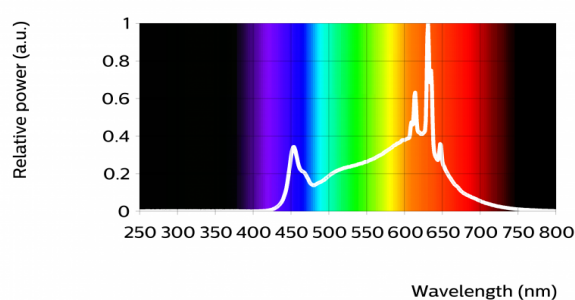
Optical characteristics - table per color (CCT)

Integrate engine Va 140mm 930 PW G4

Parameter	Min	Typ	Max	Unit
Luminous flux	78	85	102	lm
Module efficacy		110		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.419, 0.381)		-
Color consistency			3	SDCM
CRI	91	93		
R9	75			
Photometric code		930/359		
Peak intensity		38		cd
Photobiological safety			RG1 unlimited	



Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5

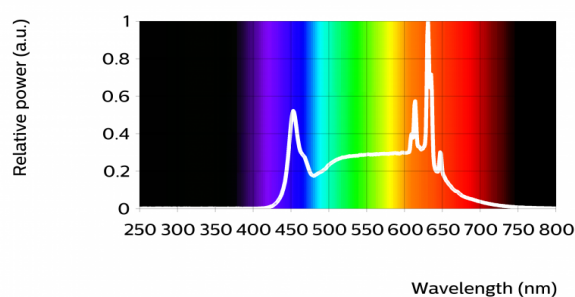


Integrate engine Va 140mm 940 PW G4

Parameter	Min	Typ	Max	Unit
Luminous flux	84	91	109	lm
Module efficacy		123		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.372, 0.359)		-
Color consistency			3	SDCM
CRI	92	94		
R9	85			
Photometric code		940/359		
Peak intensity		41		cd
Photobiological safety			RG1 unlimited	



Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5

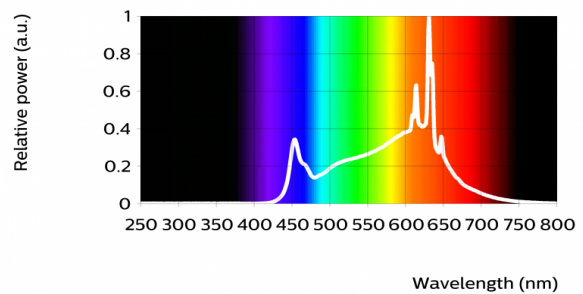


Integrade engine Va 575mm 930 PW G4

Parameter	Min	Typ	Max	Unit
Luminous flux	346	374	449	lm
Module efficacy		115		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.419, 0.381)		-
Color consistency			3	SDCM
CRI	91	93		
R9	75			
Photometric code		930/359		
Peak intensity		169		cd
Photobiological safety			RG1 unlimited	



Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5

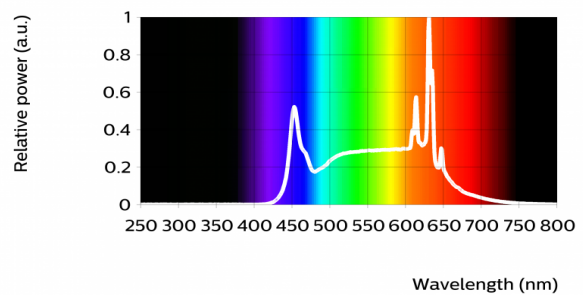


Integrade engine Va 575mm 940 PW G4

Parameter	Min	Typ	Max	Unit
Luminous flux	386	417	501	lm
Module efficacy		128		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.372, 0.359)		-
Color consistency			3	SDCM
CRI	92	94		
R9	85			
Photometric code		940/359		
Peak intensity		188		cd
Photobiological safety			RG1 unlimited	



Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5

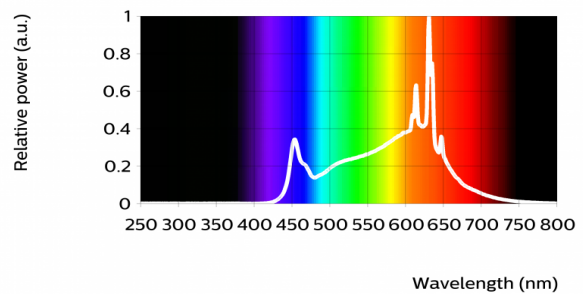


InteGrade engine Va 760mm 930 PW G4

Parameter	Min	Typ	Max	Unit
Luminous flux	460	497	597	lm
Module efficacy		115		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.419, 0.381)		-
Color consistency			3	SDCM
CRI	91	93		
R9	75			
Photometric code		930/359		
Peak intensity		224		cd
Photobiological safety			RG1 unlimited	



Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5

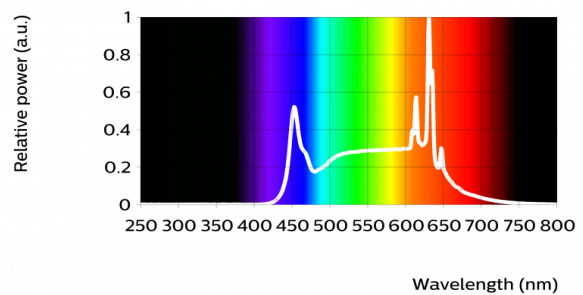


InteGrade engine Va 760mm 940 PW G4

Parameter	Min	Typ	Max	Unit
Luminous flux	500	540	648	lm
Module efficacy		128		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.372, 0.359)		-
Color consistency			3	SDCM
CRI	92	94		
R9	85			
Photometric code		940/359		
Peak intensity		243		cd
Photobiological safety			RG1 unlimited	



Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5

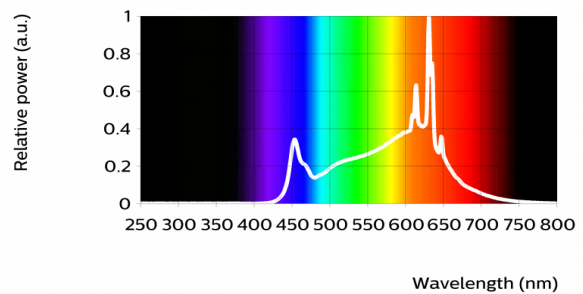


Integrade engine Va 855mm 930 PW G4

Parameter	Min	Typ	Max	Unit
Luminous flux	503	544	652	lm
Module efficacy		113		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.419, 0.381)		-
Color consistency			3	SDCM
CRI	91	93		
R9	75			
Photometric code		930/359		
Peak intensity		245		cd
Photobiological safety			RG1 unlimited	



Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5

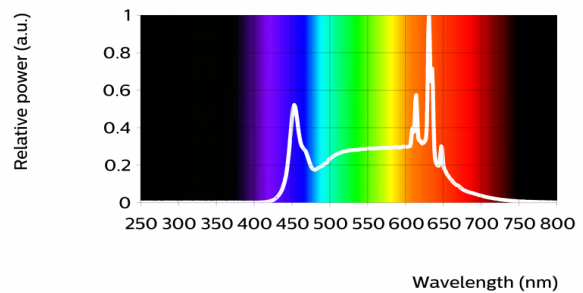


Integrade engine Va 855mm 940 PW G4

Parameter	Min	Typ	Max	Unit
Luminous flux	554	599	719	lm
Module efficacy		126		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.372, 0.359)		-
Color consistency			3	SDCM
CRI	92	94		
R9	85			
Photometric code		940/359		
Peak intensity		270		cd
Photobiological safety			RG1 unlimited	



Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5

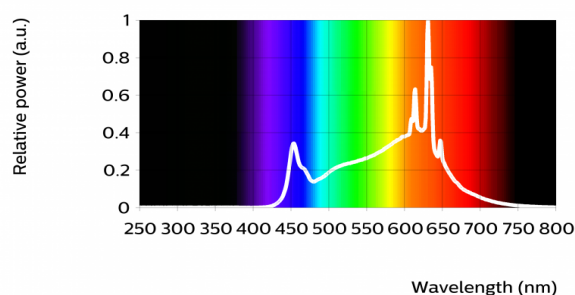


Integrade engine Va 1150mm 930 PW G4

Parameter	Min	Typ	Max	Unit
Luminous flux	692	748	898	lm
Module efficacy		115		lm/W
Correlated color temperature (CCT)		3000		K
Color coordinates (CIEx, CIEy)		(0.419, 0.381)		-
Color consistency			3	SDCM
CRI	91	93		
R9	75			
Photometric code		930/359		
Peak intensity		337		cd
Photobiological safety			RG1 unlimited	



Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5

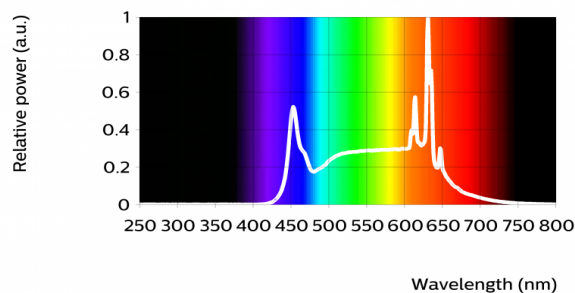


Integrade engine Va 1150mm 940 PW G4

Parameter	Min	Typ	Max	Unit
Luminous flux	772	834	1001	lm
Module efficacy		128		lm/W
Correlated color temperature (CCT)		4000		K
Color coordinates (CIEx, CIEy)		(0.372, 0.359)		-
Color consistency			3	SDCM
CRI	92	94		
R9	85			
Photometric code		940/359		
Peak intensity		376		cd
Photobiological safety			RG1 unlimited	

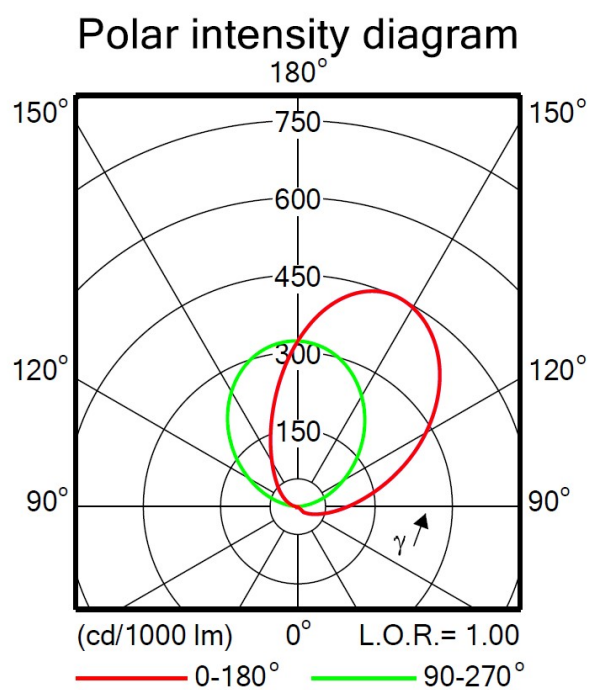


Measurement precision for flux +/- 5%, for efficacy +/- 6%., for x, y +/- 0.005, for CRI +/- 1.5



Beam shape

Light distribution, scaled to cd per 1000lm



Electrical characteristics

Integrate engine Va 140mm 930 PW G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		0.77		W = kWh/1000h
Number of modules per chain			50	

Integrate engine Va 140mm 940 PW G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		0.74		W = kWh/1000h
Number of modules per chain			50	

Integrate engine Va 575mm 930 PW G4

Integrate engine Va 575mm 940 PW G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		3.26		W = kWh/1000h
Number of modules per chain			12	

Integrate engine Va 760mm 930 PW G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		4.34		W = kWh/1000h
Number of modules per chain			9	

Integrate engine Va 760mm 940 PW G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		4.22		W = kWh/1000h
Number of modules per chain			9	

Integrate engine Va 855mm 930 PW G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		4.80		W = kWh/1000h
Number of modules per chain			8	

Integrate engine Va 855mm 940 PW G4

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		4.74		W = kWh/1000h
Number of modules per chain			8	

Parameter	Min	Typ	Max	Unit
Forward voltage		24.0		V
Power consumption		6.52		W = kWh/1000h
Number of modules per chain			6	

Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70			L80		
		B50	B20	B10	B50	B20	B10
	Ta -20°C	>100	>100	>100	>100	>100	>100
	Ta 5°C	>100	>100	>100	>100	>100	>100
	Ta 30°C	>100	>100	>100	>100	>100	>100

Lifetime

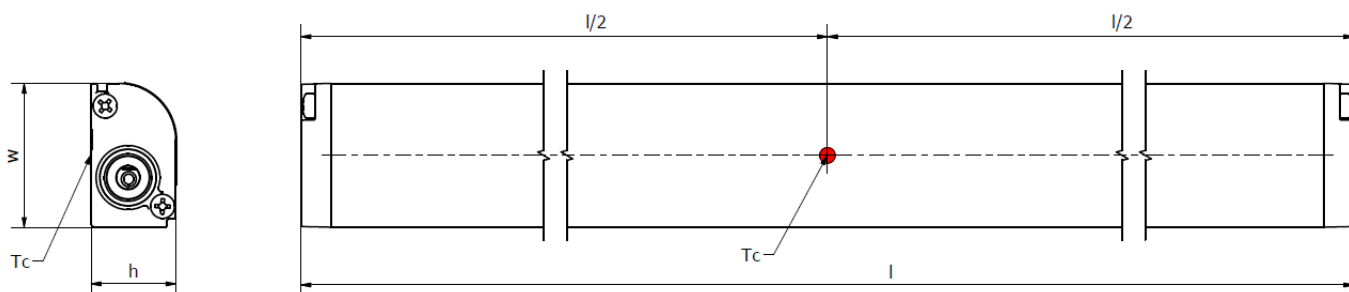
Parameter	Value	Unit
M70F50 nominal	100000	hours
M70F50 life	100000	hours

Mechanical characteristics

Integrate engine Va 140mm 930 PW G4
Integrate engine Va 140mm 940 PW G4

Parameter	Min	Typ	Max	Unit
Length	136	140	144	mm
Width	18.2	18.5	18.7	mm
Height total	10.5	11	11.5	mm
Product mass		30		gram

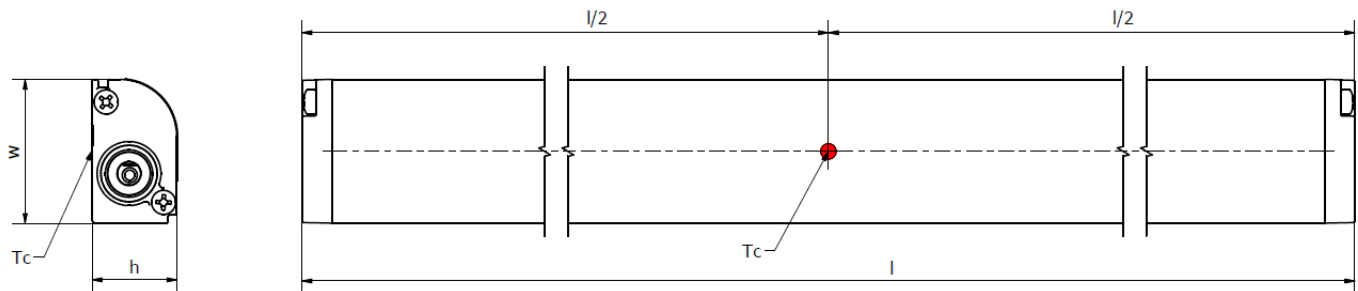
Thermal expansion from -30°C to +30°C is included in the tolerances



Integrade engine Va 575mm 930 PW G4
Integrade engine Va 575mm 940 PW G4

Parameter	Min	Typ	Max	Unit
Length	571	575	579	mm
Width	18.2	18.5	18.7	mm
Height total	10.5	11	11.5	mm
Product mass		120		gram

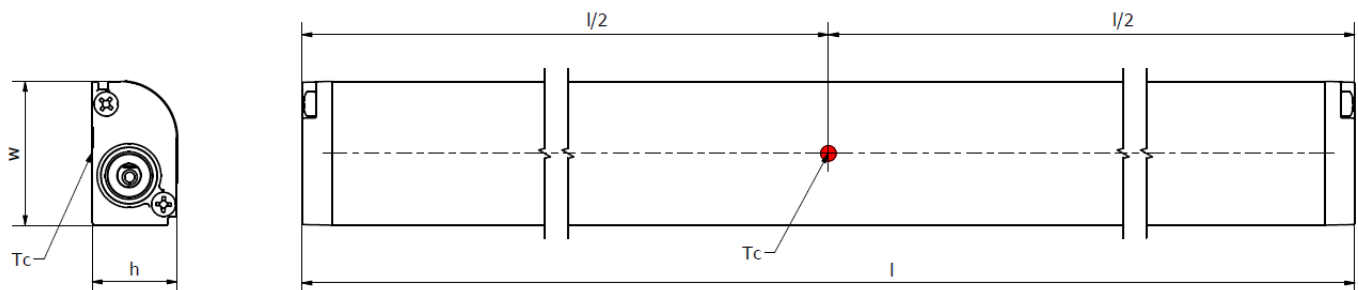
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine Va 760mm 930 PW G4
InteGrade engine Va 760mm 940 PW G4

Parameter	Min	Typ	Max	Unit
Length	756	760	764	mm
Width	18.2	18.5	18.7	mm
Height total	10.5	11	11.5	mm
Product mass		172		gram

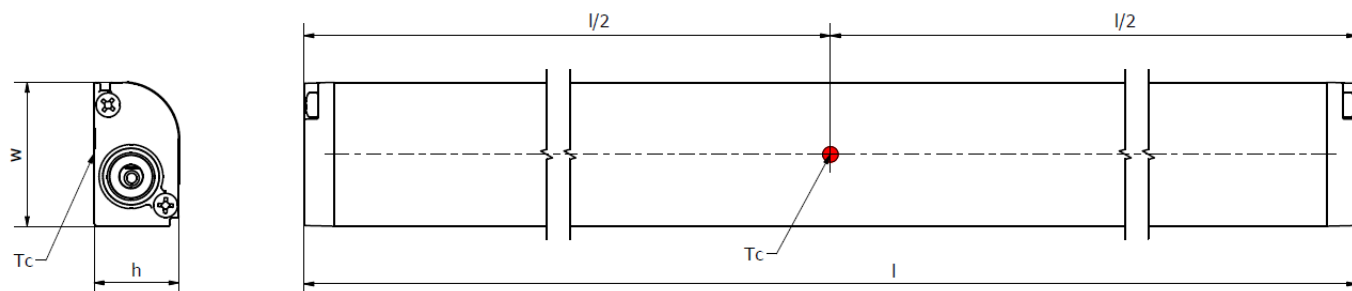
Thermal expansion from -30°C to +30°C is included in the tolerances



Integrade engine Va 855mm 930 PW G4
Integrade engine Va 855mm 940 PW G4

Parameter	Min	Typ	Max	Unit
Length	851	855	859	mm
Width	18.2	18.5	18.7	mm
Height total	10.5	11	11.5	mm
Product mass		180		gram

Thermal expansion from -30°C to +30°C is included in the tolerances

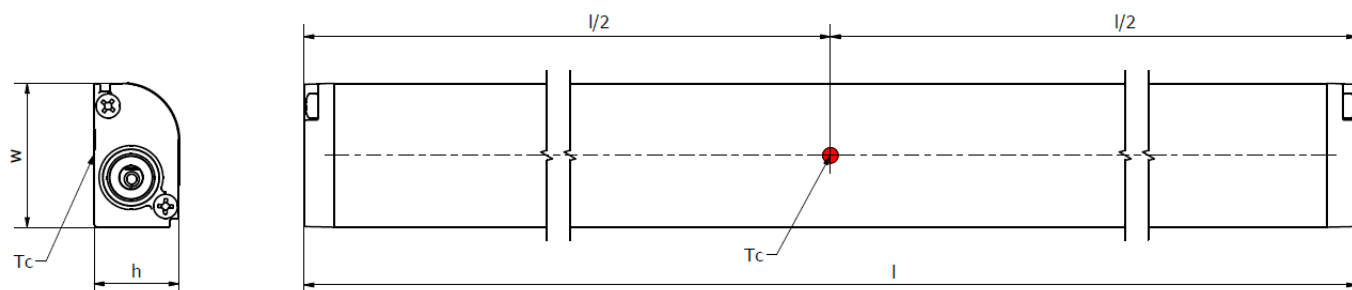


Integrate engine Va 1150mm 930 PW G4

Integrate engine Va 1150mm 940 PW G4

Parameter	Min	Typ	Max	Unit
Length	1146	1150	1154	mm
Width	18.2	18.5	18.7	mm
Height total	10.5	11	11.5	mm
Product mass		230		gram

Thermal expansion from -30°C to +30°C is included in the tolerances



Absolute ratings

Parameter	Min	Max	Unit
Case temperature (Tc-max)		70	°C
Ambient temperature	-30	50	°C

Application information

Certificates and Standards

IEC/EN 62031

Relevant clauses of IEC/EN 60335-1

Annex BB of IEC/EN 60335-2-89

Annex CC of IEC/EN 60335-2-24

CSA C22.2 No.250.0-08

UL 2108

NSF

Application

IP rating	No IP-rating, fit for use in coolers and freezers - suitable for damp locations
Overheating protection	No protection
Luminaire class	IEC Class III if connected to a SELV driver
Dimming	Yes

Do not use in highly polluted areas. Surface mounting only.



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