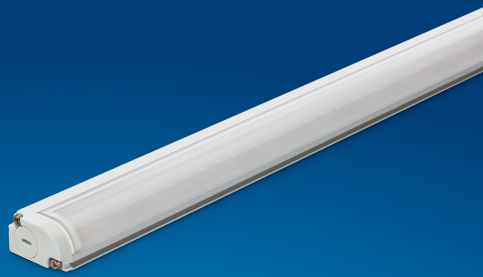


PHILIPS

InteGrade

LED

InteGrade engine Value
G5



Datasheet

Key features and benefits

- Miniaturized slim design for aesthetic integration
- Premium color consistency up to 5 SDCM over lifetime
- Natural merchandise color with specially formulated LEDs up to CRI95
- Modules performing up to 164 lm/W
- Maximum design flexibility with extensive range of engine lengths
- Color temperatures (3000 PW, 4000 PW, 5600K, WWR & Rose)
- True System proposition with five-year system warranty with Philips LED Power Drivers
- Reduced power consumption for energy saving
- Long lifetime: >100,000 hours
- Dimmable

December 2025



Ordering data

Commercial product name	EOC	12NC	Box quantity
InteGrade engine Va 140mm 930 PW G5	8720169 348110 00	9290 039 80706	24
InteGrade engine Va 140mm 940 PW G5	8720169 348134 00	9290 039 80806	24
InteGrade engine Va 140mm 956 G5	8720169 347991 00	9290 039 77606	24
InteGrade engine Va 140mm WWR G5	8720169 347977 00	9290 039 77206	24
InteGrade engine Va 140mm Rose G5	8720169 348332 00	9290 039 89706	24
InteGrade engine Va 575mm 930 PW G5	8720169 348516 00	9290 039 80906	24
InteGrade engine Va 575mm 940 PW G5	8720169 348530 00	9290 039 81006	24
InteGrade engine Va 575mm 956 G5	8720169 348394 00	9290 039 77706	24
InteGrade engine Va 575mm WWR G5	8720169 348370 00	9290 039 77306	24
InteGrade engine Va 760mm 930 PW G5	8720169 348776 00	9290 039 86706	24
InteGrade engine Va 760mm 940 PW G5	8720169 348752 00	9290 039 86606	24
InteGrade engine Va 760mm 956 G5	8720169 348790 00	9290 039 86806	24
InteGrade engine Va 760mm WWR G5	8720169 348813 00	9290 039 86906	24
InteGrade engine Va 855mm 930 PW G5	8720169 349971 00	9290 039 81106	24
InteGrade engine Va 855mm 940 PW G5	8720169 349995 00	9290 039 81206	24
InteGrade engine Va 855mm 956 G5	8720169 349858 00	9290 039 77806	24
InteGrade engine Va 855mm WWR G5	8720169 349834 00	9290 039 77406	24
InteGrade engine Va 855mm Rose G5	8720169 350212 00	9290 039 89806	24
InteGrade engine Va 1150mm 930 PW G5	8720169 349193 00	9290 039 81306	24
InteGrade engine Va 1150mm 940 PW G5	8720169 349216 00	9290 039 81406	24
InteGrade engine Va 1150mm 956 G5	8720169 349056 00	9290 039 77906	24
InteGrade engine Va 1150mm WWR G5	8720169 349032 00	9290 039 77506	24
InteGrade engine Va 1150mm Rose G5	8720169 349537 00	9290 039 89906	24

EPREL Registration Number

Name	12NC	Light Source 1	Light Source 2	Light Source 3	Light Source 4	Light Source 5
InteGrade engine Va 140mm 930 PW G5	9290 039 80706	2461886				
InteGrade engine Va 140mm 940 PW G5	9290 039 80806	2461907				
InteGrade engine Va 140mm 956 G5	9290 039 77606	2462048				
InteGrade engine Va 140mm WWR G5	9290 039 77206	2462027				
InteGrade engine Va 140mm Rose G5	9290 039 89706	2461962				
InteGrade engine Va 575mm 930 PW G5	9290 039 80906	2462031				
InteGrade engine Va 575mm 940 PW G5	9290 039 81006	2462043				
InteGrade engine Va 575mm 956 G5	9290 039 77706	2462019				
InteGrade engine Va 575mm WWR G5	9290 039 77306	2462070				
InteGrade engine Va 760mm 930 PW G5	9290 039 86706	2461929	2461954			
InteGrade engine Va 760mm 940 PW G5	9290 039 86606	2461980	2462004			
InteGrade engine Va 760mm 956 G5	9290 039 86806	2461852	2462050			
InteGrade engine Va 760mm WWR G5	9290 039 86906	2462009	2462011			
InteGrade engine Va 855mm 930 PW G5	9290 039 81106	2461879	2462034	2461889		
InteGrade engine Va 855mm 940 PW G5	9290 039 81206	2461914	2462045	2461938		
InteGrade engine Va 855mm 956 G5	9290 039 77806	2461845	2462023	2461864		
InteGrade engine Va 855mm WWR G5	9290 039 77406	2462046	2462073	2462066		
InteGrade engine Va 855mm Rose G5	9290 039 89806	2461979	2462063	2462003		
InteGrade engine Va 1150mm 930 PW G5	9290 039 81306	2462037	2462040			
InteGrade engine Va 1150mm 940 PW G5	9290 039 81406	2462053	2462055			
InteGrade engine Va 1150mm 956 G5	9290 039 77906	2462025	2462028			
InteGrade engine Va 1150mm WWR G5	9290 039 77506	2462075	2461847			
InteGrade engine Va 1150mm Rose G5	9290 039 89906	2462065	2462067			

Key Specifications at Nominal conditions

Name	12NC	Power (W)	Luminous Flux (lm)	Useful Flux (lm)	CRI
InteGrade engine Va 140mm 930 PW G5	9290 039 80706	0.7	81	81	94
InteGrade engine Va 140mm 940 PW G5	9290 039 80806	0.7	86	86	95
InteGrade engine Va 140mm 956 G5	9290 039 77606	0.8	104	104	90
InteGrade engine Va 140mm WWR G5	9290 039 77206	0.6	67	67	90
InteGrade engine Va 140mm Rose G5	9290 039 89706	0.6	64	64	88
InteGrade engine Va 575mm 930 PW G5	9290 039 80906	3.0	370	370	94
InteGrade engine Va 575mm 940 PW G5	9290 039 81006	3.0	396	396	95
InteGrade engine Va 575mm 956 G5	9290 039 77706	3.0	410	410	90
InteGrade engine Va 575mm WWR G5	9290 039 77306	2.5	294	294	90
InteGrade engine Va 760mm 930 PW G5	9290 039 86706	4.0	479	479	94
InteGrade engine Va 760mm 940 PW G5	9290 039 86606	4.0	513	513	95
InteGrade engine Va 760mm 956 G5	9290 039 86806	4.0	545	545	90
InteGrade engine Va 760mm WWR G5	9290 039 86906	3.4	386	386	90
InteGrade engine Va 855mm 930 PW G5	9290 039 81106	4.4	531	531	94
InteGrade engine Va 855mm 940 PW G5	9290 039 81206	4.4	569	569	95
InteGrade engine Va 855mm 956 G5	9290 039 77806	4.6	617	617	90
InteGrade engine Va 855mm WWR G5	9290 039 77406	3.7	427	427	90
InteGrade engine Va 855mm Rose G5	9290 039 89806	3.7	415	415	88
InteGrade engine Va 1150mm 930 PW G5	9290 039 81306	6.0	739	739	94
InteGrade engine Va 1150mm 940 PW G5	9290 039 81406	6.0	792	792	95
InteGrade engine Va 1150mm 956 G5	9290 039 77906	6.0	819	819	90
InteGrade engine Va 1150mm WWR G5	9290 039 77506	5.0	587	587	90
InteGrade engine Va 1150mm Rose G5	9290 039 89906	5.0	574	574	88

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T _a (ambient temperature)	25	30	30	°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 and electrical characteristics

[InteGrade engine Va 140mm 930 PW G5](#)

[InteGrade engine Va 140mm 940 PW G5](#)

[InteGrade engine Va 140mm 956 G5](#)

[InteGrade engine Va 140mm WWR G5](#)

[InteGrade engine Va 140mm Rose G5](#)

CCT	3000K PW	4000K PW	5600K	WWR	2200K Rose	Unit
Average Luminous flux (tolerance -9% + 22%)	81	86	104	67	64	lm
Flux within 120° cone	81	86	104	67	64	lm
Average Efficacy	116	123	130	112	107	lm/W
Max. Efficacy	141	144	156	133	123	lm/W
Color consistency	3	3	5	3	3	SDCM
Color coordinates (CIEx, CIEy)	0.424, 0.386	0.377, 0.365	0.335, 0.350	0.390, 0.331	0.478, 0.382	
Min. CRI	94	95	90	90	88	
Min. R9	65	85	65	90	40	
Peak intensity	37	39	47	30	29	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	24	24	24	V
Power consumption	0.7	0.7	0.8	0.6	0.6	W
Max. # of modules per chain	50	50	50	50	50	
Product contains light sources of energy class:	E	D	D	not applicable	E	

[InteGrade engine Va 575mm 930 PW G5](#)

[InteGrade engine Va 575mm 940 PW G5](#)

[InteGrade engine Va 575mm 956 G5](#)

[InteGrade engine Va 575mm WWR G5](#)

CCT	3000K PW	4000K PW	5600K	WWR	Unit
Average Luminous flux (tolerance -9% + 22%)	370	396	410	294	lm
Flux within 120° cone	370	396	410	294	lm
Average Efficacy	123	132	137	118	lm/W
Max. Efficacy	150	155	164	140	lm/W
Color consistency	3	3	5	3	SDCM
Color coordinates (CIEx, CIEy)	0.424, 0.386	0.377, 0.365	0.335, 0.350	0.390, 0.331	
Min. CRI	94	95	90	90	
Min. R9	65	85	65	90	
Peak intensity	167	179	185	133	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	24	24	V
Power consumption	3.0	3.0	3.0	2.5	W
Max. # of modules per chain	12	12	12	12	
Product contains light sources of energy class:	D	D	D	not applicable	

[InteGrade engine Va 760mm 930 PW G5](#)
[InteGrade engine Va 760mm 940 PW G5](#)
[InteGrade engine Va 760mm 956 G5](#)
[InteGrade engine Va 760mm WWR G5](#)

CCT	3000K PW	4000K PW	5600K	WWR	Unit
Average Luminous flux (tolerance -9% + 22%)	479	513	545	386	lm
Flux within 120° cone	479	513	545	386	lm
Average Efficacy	120	128	136	114	lm/W
Max. Efficacy	146	150	164	135	lm/W
Color consistency	3	3	5	3	SDCM
Color coordinates (CIEx, CIEy)	0.424, 0.386	0.377, 0.365	0.335, 0.350	0.390, 0.331	
Min. CRI	94	95	90	90	
Min. R9	65	85	65	90	
Peak intensity	216	231	246	174	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	24	24	V
Power consumption	4.0	4.0	4.0	3.4	W
Max. # of modules per chain	9	9	9	9	
Product contains light sources of energy class:	E	D	D	not applicable	

[InteGrade engine Va 855mm 930 PW G5](#)
[InteGrade engine Va 855mm 940 PW G5](#)
[InteGrade engine Va 855mm 956 G5](#)
[InteGrade engine Va 855mm WWR G5](#)
[InteGrade engine Va 855mm Rose G5](#)

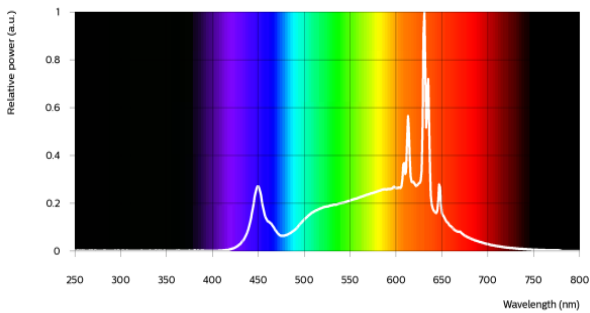
CCT	3000K PW	4000K PW	5600K	WWR	2200K Rose	Unit
Average Luminous flux (tolerance -9% + 22%)	531	569	617	427	415	lm
Flux within 120° cone	531	569	617	427	415	lm
Average Efficacy	121	129	134	115	112	lm/W
Max. Efficacy	147	152	161	138	130	lm/W
Color consistency	3	3	5	3	3	SDCM
Color coordinates (CIEx, CIEy)	0.424, 0.386	0.377, 0.365	0.335, 0.350	0.390, 0.331	0.478, 0.382	
Min. CRI	94	95	90	90	88	
Min. R9	65	85	65	90	40	
Peak intensity	239	257	278	193	187	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	24	24	24	V
Power consumption	4.4	4.4	4.6	3.7	3.7	W
Max. # of modules per chain	8	8	8	8	8	
Product contains light sources of energy class:	D,E	D,E	D	not applicable	E	

[InteGrade engine Va 1150mm 930 PW G5](#)
[InteGrade engine Va 1150mm 940 PW G5](#)
[InteGrade engine Va 1150mm 956 G5](#)
[InteGrade engine Va 1150mm WWR G5](#)
[InteGrade engine Va 1150mm Rose G5](#)

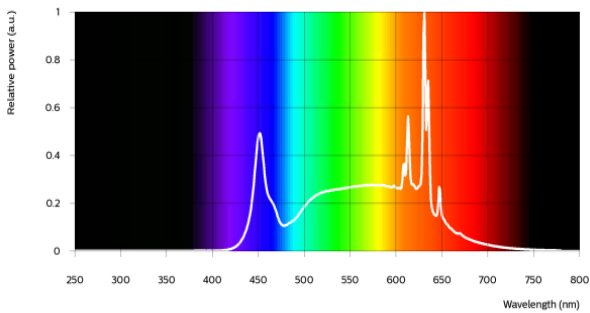
CCT	3000K PW	4000K PW	5600K	WWR	2200K Rose	Unit
Average Luminous flux (tolerance -9% + 22%)	739	792	819	587	574	lm
Flux within 120° cone	739	792	819	587	574	lm
Average Efficacy	123	132	137	117	115	lm/W
Max. Efficacy	150	155	164	140	133	lm/W
Color consistency	3	3	5	3	3	SDCM
Color coordinates (CIEx, CIEy)	0.424, 0.386	0.377, 0.365	0.335, 0.350	0.390, 0.331	0.478, 0.382	
Min. CRI	94	95	90	90	88	
Min. R9	65	85	65	90	40	
Peak intensity	333	357	369	265	259	cd
Max. Photobiological safety	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	RG1 unlimited	
Input voltage	24	24	24	24	24	V
Power consumption	6.0	6.0	6.0	5.0	5.0	W
Max. # of modules per chain	6	6	6	6	6	
Product contains light sources of energy class:	D	D	D	not applicable	E	

Measurement precision for flux +/- 5%. Measurement precision for efficacy +/- 6%. Measurement precision for x, y +/- 0.005. Measurement precision for CRI 1.5.
 Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%.

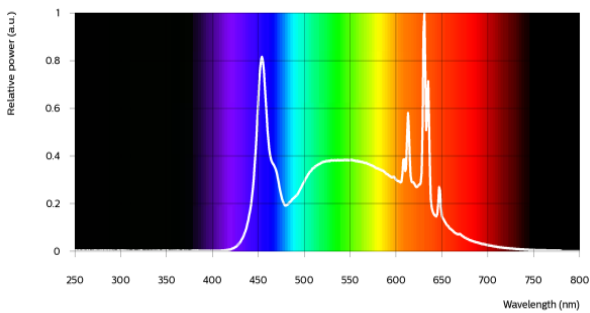
3000K PW



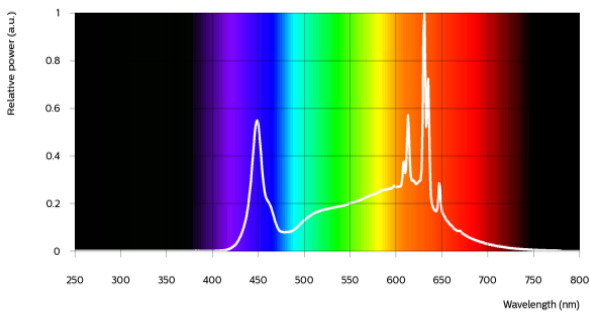
4000K PW



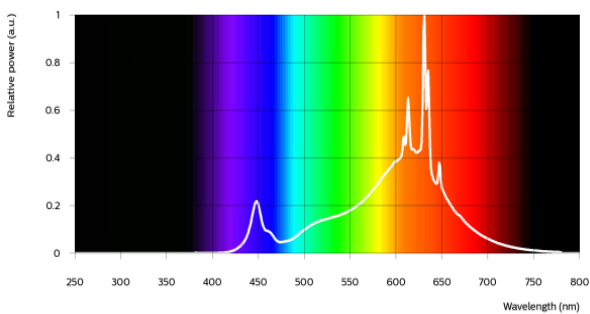
5600K



WWR

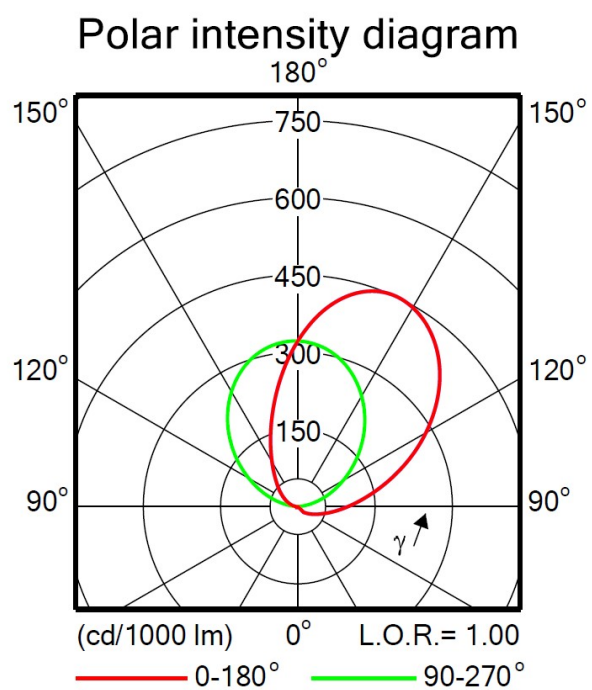


2200K Rose



Beam shape

Light distribution, scaled to cd per 1000lm



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

We use a Philips designed lifetime model, which uses LM80 data as only one of its inputs and assumes a continues operation of the module.

*B20 and B10 values are calculated by means of statistical techniques.

Lifetime

Parameter	Value	Unit
M70F50 nominal	100000	hours

@Ta=30°C

Mechanical characteristics

InteGrade engine Va 140mm 930 PW G5

InteGrade engine Va 140mm 940 PW G5

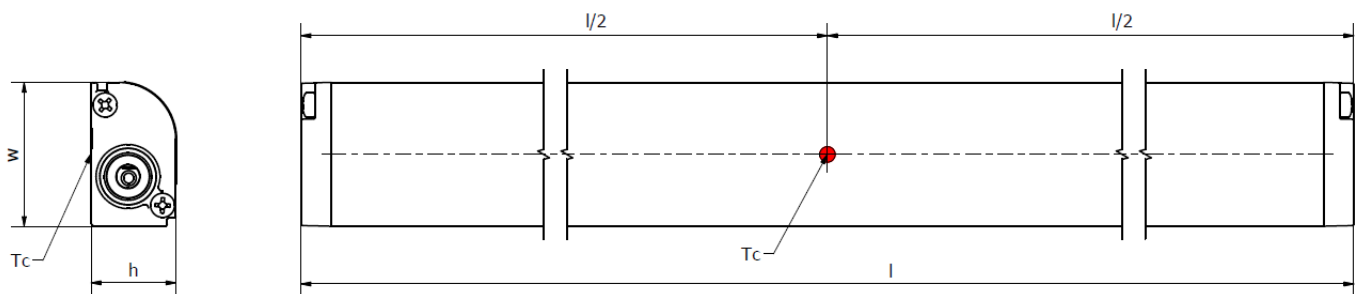
InteGrade engine Va 140mm 956 G5

InteGrade engine Va 140mm WWR G5

InteGrade engine Va 140mm Rose G5

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		32		gram

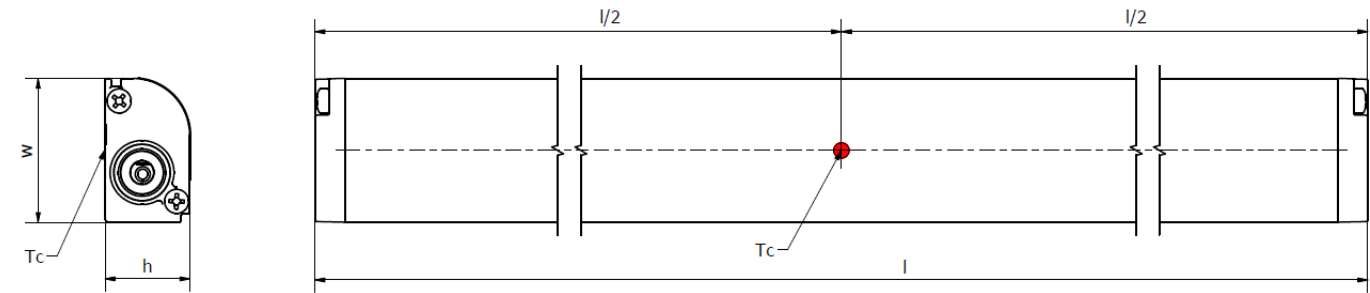
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine Va 575mm 930 PW G5
 InteGrade engine Va 575mm 940 PW G5
 InteGrade engine Va 575mm 956 G5
 InteGrade engine Va 575mm WWR G5

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

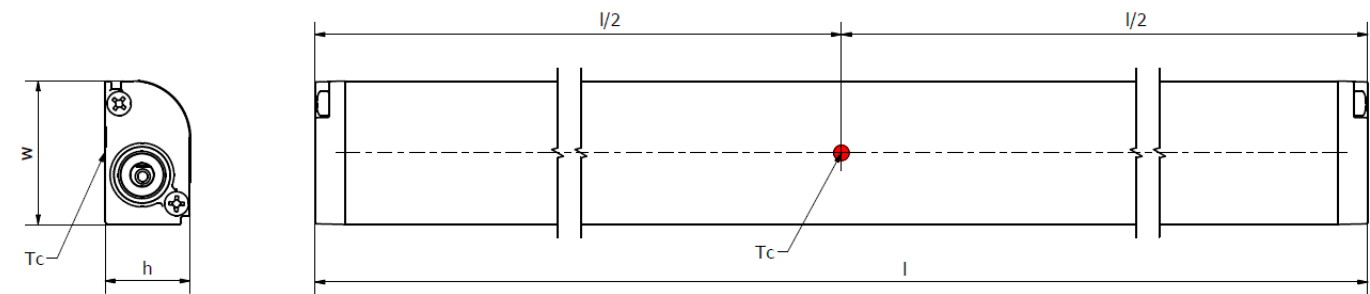
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine Va 760mm 930 PW G5
 InteGrade engine Va 760mm 940 PW G5
 InteGrade engine Va 760mm 956 G5
 InteGrade engine Va 760mm WWR G5

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		150		gram

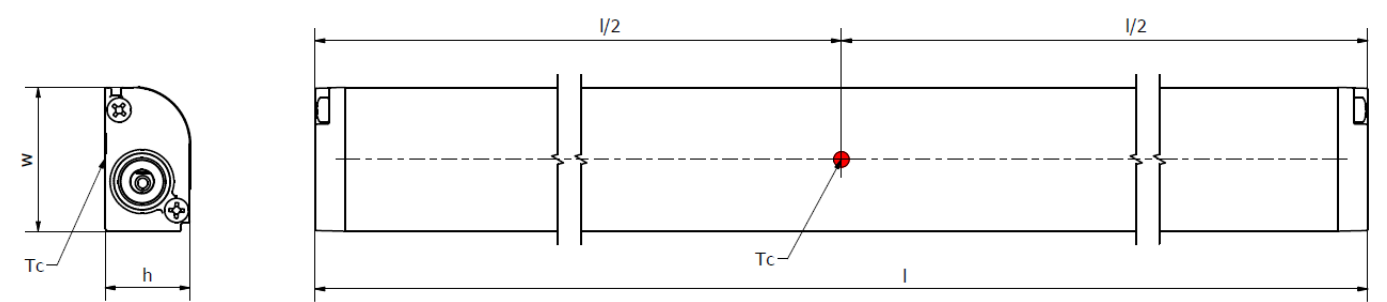
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine Va 855mm 930 PW G5
 InteGrade engine Va 855mm 940 PW G5
 InteGrade engine Va 855mm 956 G5
 InteGrade engine Va 855mm WWR G5
 InteGrade engine Va 855mm Rose G5

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

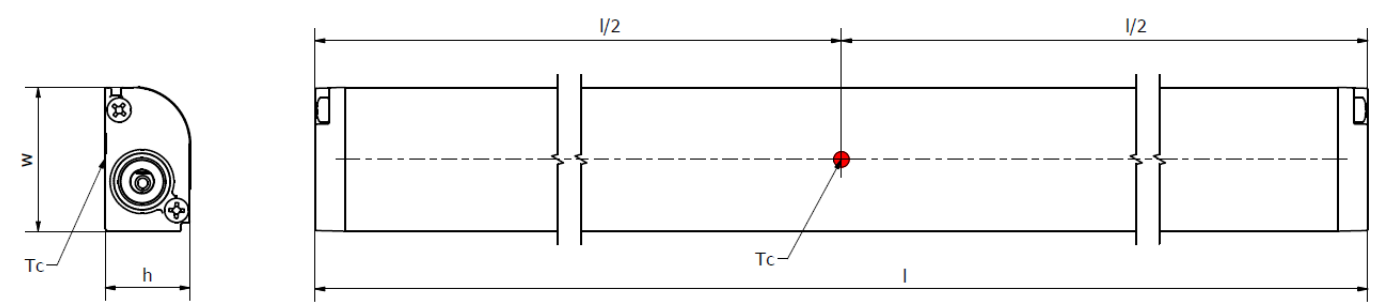
Thermal expansion from -30°C to +30°C is included in the tolerances



InteGrade engine Va 1150mm 930 PW G5
 InteGrade engine Va 1150mm 940 PW G5
 InteGrade engine Va 1150mm 956 G5
 InteGrade engine Va 1150mm WWR G5
 InteGrade engine Va 1150mm Rose G5

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		240		gram

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



Absolute ratings

Parameter	Min	Max	Unit
Case temperature (T _c -max)		50	°C
Working voltage		24	V _{dc}
Ambient temperature	-30	30	°C

Application information

Certificates and Standards

IEC/EN 62031

ENEC

Relevant clauses of IEC/EN 60335-1

Relevant clauses of IEC/EN 60335-2-89

Clause 5.3 of IEC/EN 60079-7 as required by clause 22.112 of IEC/EN 60335-2-89

Relevant clauses of IEC/EN 60335-2-24

CSA C22.2 No. 250.2

UL 2108

IK02 (IEC 62262 and IEC 60068-2-75)

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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05/12/2025

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