SmartForm – the new standard for office lighting with slender recessed luminaires

SmartForm TBS415

Reflecting Philips' drive for simplicity and sustainability, SmartForm recessed is a complete family of highly versatile modular and semi-modular luminaires. These luminaires are available with a choice of LED or MASTER TL5 light sources in very small, slender versions. Designed to fit in a wide range of ceiling types, this complete family can fulfill the majority of project requirements in most applications.Energy efficiencyAs well as incorporating energy-efficient LED or TL5 light sources and a range of Philips electronic ballasts, the SmartForm recessed family can be equipped with lighting controls for presence detection and daylight regulation (ActiLume) or daylight regulation only (Luxsense) in order to reduce energy consumption (W/m2 is very low). In this way, this Green Flagship range also reduces the overall cost of ownership as well as CO_2 levels, making SmartForm an environmentally friendly choice.SmartForm recessed TBS415 – 'light beam' semi-modular – 600 mm moduleSmartForm recessed luminaires are designed for integration in linear ceiling systems with a width of 148 mm (half module 300 mm) for exposed and concealed T-bar and the extended versions for bandraster ceilings.'Light surface' TBS415 1-lampMLO and asymmetrical optic in 1/2 modular concept, width 148 mm. Modular length 600, 900, 1200 and 1500 mm. To extend till 2400 mm. 'Light beam' TBS415 1-lamp: micro-optics in 1/2 modular concept with AIR function, width 148 mm. Modular length 600, 900, 1200 and 1500 mm. To extend till 2400 mm.'Light beam' TBS415 2-lampsMini-optics, 2-lamps in 1/2 modular concept with AIR function, width 148 mm. Modular length 600, 900, 1200 and 1500 mm. To extend till 2400 mm.

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Benefits
- Slender, recessed 'light surface' luminaires with MLO Micro Lens Optics or 'light beam' luminaires with micro- or mini-optics for unobtrusive ceiling integration
- Complete family of linear luminaires designed to fit a wide range of ceiling types
- Available with either 1 or 2 TL5 lamps for excellent, energy-efficient office lighting solutions

Features
- Choice of LED or MASTER TL5 light sources
- MLO optics
- Electronic ballast
- Can be equipped with lighting controls for presence detection and daylight regulation (ActiLume) or daylight regulation only (Luxsense)

Application
- Offices
- Education
- Healthcare
- Recreation
- Retail
- Industry

Specifications

Type	TBS415 (semi-modular light beam)
Ceiling grid	Width of all luminaires is 150 mm; module size in length: 600 mm for exposed- and symmetrical concealed- T-bar ceiling and plaster (board) ceilings
	Extended versions, length max. 2400 mm, for bandraster ceilings
Light source	Fluorescent:
	- 1 x or 2 x MASTER TL5 ECO / G5 / 13, 20, 25, 32, 45, 50, 73 W
	- 1 x or 2 x MASTER TL5 / G5 / 14, 21, 24, 28, 35, 39, 49, 54, 80 W
Lamp included	Yes, TL5 ECO (lamp color 830 or 840)
	Yes, TL5 (lamp color 827, 830 or 840)
	In certain versions no lamps are included
Gear	Electronic, 220-240 V / 50-60 Hz:
	- High Frequency Performer (HFP)
	- High Frequency Performer, intelligent, multi-watt (HFPI)
	- High Frequency Regulator, DALI (HFD)
	- High Frequency Regulator, 1-10 V (HFR)
	- High Frequency Regulator, touch-DALI (HFD-T)

Optic	1-lamp version:
	- Micro OLC very high efficiency high-gloss optic (C8-VH)
	- Micro OLC very high efficiency high-gloss optic with top-reflector (T C8-VH)
	- Micro OLC performer high-gloss optic (C8)
	- Micro OLC excellent comfort high-gloss optic (C8-C)
	- Micro OLC very high efficiency semi-high-gloss optic (D8-VH)
	- Micro OLC very high efficiency semi-high-gloss optic with top-reflector (T D8-VH)
	- Micro OLC performer semi-high-gloss optic (D8)
	- Micro OLC excellent comfort semi-high-gloss optic (D8-C)
	- Micro OLC performer semi-high-gloss bi-directional optic with top-reflector (T D8-BD)
	- Micro matt mirror, ribbed cross louvers (M2)
	- Micro high efficiency mirror, ribbed cross louvers (M2-H)
	- High efficiency asymmetrical optic (A), no AIR function
	2-lamp version:
	- Mini OLC performer high-gloss optic (C6)
	- Mini OLC very high efficiency high-gloss optic (C6-VH)
	- Mini OLC performer semi-high-gloss optic (D6)
	- Mini OLC very high efficiency semi-high-gloss optic (D6-VH)
Optical cover (1-lamp version)	OLC Micro Lens Optic in PC cover with top-reflector (T MLO-PC), no AIR function

Specifications

SmartForm TBS415

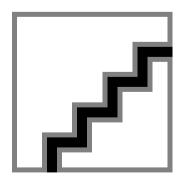|				
Connection (outside housing)	Push-in connector (PI) or with pull relief (PIP)		Accessories	Exposed ceilings: lay-in, no brackets needed
	Wieland connector GST 18, 3 or 4 poles (W, W4 respectively)			Concealed ceilings: bracket ZBS415 SMB SET
	Wago connector, 3 or 4 poles (WA, WA4 respectively)			Plaster ceilings: bracket ZBS460 SMB-PLC (12 pcs)
	Ensto connector, 3 or 4 poles (EN, EN4 respectively)			Bandraster ceilings:
	Cable, length 200 cm, with plug CEE7 (CCE)			- SB1 for standard bandraster (GPS200)
Options	Air handling, slots besides optics, (AIR)			- SB2 for GPS100
	Emergency lighting: 1 hour (EL1), 3 hours (EL3)			- SB3 for C/U-profile bandraster, metal ceiling
	Lighting controls:		Remarks	Protection foil to protect the optic during installation
	- Luxsense daylight controller micro (LXM)			Dedicated luminaires available with air-handling functionality (AIR), 50 m³/hour/luminaire
	- ActiLume multi controller (ACL)			
	Internal PVC free wiring (PVCFR)		Main applications	Office, education, healthcare, recreation, retail, industry
	Euro fuse (FU) included			
	Safety cable (SC)			
Extended versions (bandraster ceilings)	Symmetrical extended variable length, max. 2400 mm (L2400.0)			
	Asymmetrical extended variable length, max. 2400 mm (L2400.0)			
Materials and finishing	Housing: zinc-coated steel, white RAL 9016 based			
	Optional white RAL 9010 or silver grey RAL 9006 based			
	Rim detailing:			
	- standard versions: width 12 mm, height 5 mm, post-lacquered			
	- extended versions: width 12 mm, height 11 mm, pre-lacquered			

Versions

SmartForm TBS415 recessed semi-modular luminaire, width 148 mm, with OLC micro-lens optic in polycarbonate cover (MLO-PC)

Product details

SmartForm TBS415