



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

## SmartForm TBS417

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 efficiency As 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 ( $W/m^2$  is very low). In this way, this Green Flagship range also reduces the overall cost of ownership as well as CO<sub>2</sub> levels, making SmartForm an environmentally friendly choice. SmartForm recessed TBS417 – 'light line beam' Slender SmartForm recessed continuous light-line luminaires are designed for integration in linear exposed T-bar and plaster ceilings. 'Light line beam' TBS417 1-lamp Continuous light line for micro-optics, asymmetrical optic and rimless MLO and Opal covers. All versions TL5: 14/24 W; 21/39 W; 28/54 W; 35/49/80 W. Luminaire width is 90 mm. 'Light line beam' TBS417 2-lamps Continuous light line for mini-optics, 2-lamps. All versions TL5: 14/24 W; 21/39 W; 28/54 W; 35/49/80 W. Luminaire width is 115 mm.

## Benefits

- Slender, recessed '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
- Micro- or mini-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

<b>Type</b>	TBS417 (semi-modular light beam, continuous line)
<b>Ceiling grid</b>	Exposed- T-bar ceiling and plaster (board) ceilings
<b>Light source</b>	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
<b>Lamp included</b>	Yes, TL5 ECO (lamp color 830 or 840) Yes, TL5 (lamp color 827, 830 or 840) In certain versions no lamps are included
<b>Gear</b>	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)

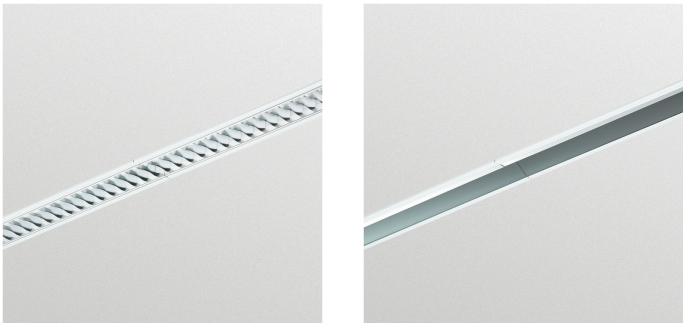
<b>Optic</b>	1-lamp version: - Micro OLC very high efficiency high-gloss optic (C8-VH) - Micro OLC very high efficiency high-gloss optic with top-reflector (T C8-VH) - Micro OLC performer high-gloss optic (C8) - Micro OLC excellent comfort high-gloss optic (C8-C) - Micro OLC very high efficiency semi-high-gloss 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 matt mirror, ribbed cross louvers (M2) - Micro high efficiency mirror, ribbed cross louvers (M2-H) - Micro high efficiency asymmetrical optic (A) 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)
<b>Optical cover (1-lamp version)</b>	Opal cover (O) OLC Micro Lens Optic in PC cover (MLO-PC)

## Specifications

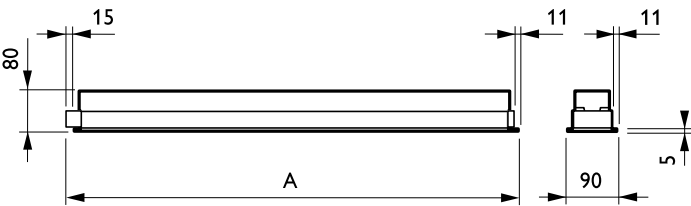
Connection (outside housing)	Push-in connector (PI) or with pull relief (PIP)
	Wieland connector GST 18, 3 or 4 poles (W, W4 respectively)
	Wago connector, 3 or 4 poles (WA, WA4 respectively)
	Ensto connector, 3 or 4 poles (EN, EN4 respectively)
	Cable, length 200 cm, with plug CEE7 (CCE)
Options	Emergency lighting: 1 hour (EL1), 3 hours (EL3)
	Lighting controls:
	- Luxsense daylight controller micro (LXM)
	- ActiLume multi controller (ACL)
	Through wiring, 1 phase, 3 wires (TRW1)
	Through wiring, 3 phase, 5 wires (TRW3)
	Internal PVC free wiring (PVCFR)
	Euro fuse (FU) included
	Safety cable (SC)

Materials and finishing	Housing: zinc-coated steel, white RAL 9016 based
	Optional white RAL 9010 or silver grey RAL 9006 based
	Rim detailing: linear rim, width 12 mm, height 5 mm, pre-lacquered
Accessories	Set of end plates for 1-lamp version: ZBS417 EP-S SET (SI and RAL9010)
	Set of end plates for 2-lamp version: ZBS417 EP-T SET (SI and RAL9010)
	Set of end plates for asymmetric version: ZBS417 EP-A SET (SI and RAL9010)
	Exposed ceilings: lay-in, no brackets needed
	Plaster ceilings: bracket ZBS460 SMB-PLC (12 pcs)
Remarks	Protection foil to protect the optic during installation
Main applications	Office, education, healthcare, recreation, retail, industry

Versions

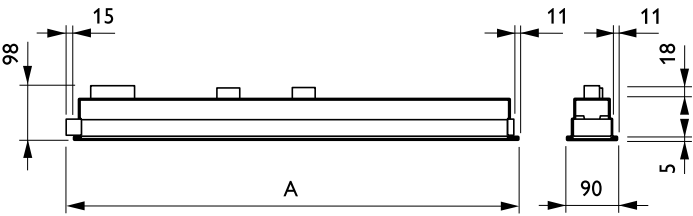


Dimensional drawing



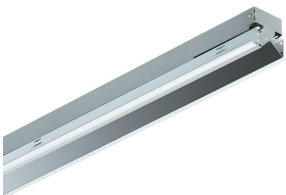
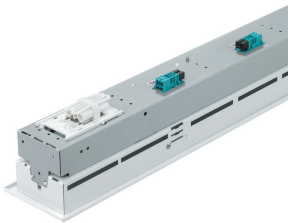
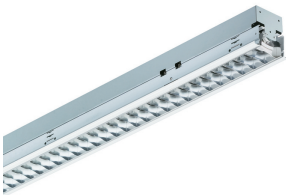
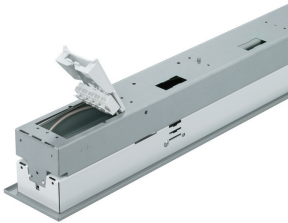
Product	A
TBS417 1x49W/840 HFP D8 PIP	1508 mm

Dimensional drawing



Product	A
TBS417 1x49W/840 HFP A W	1508 mm

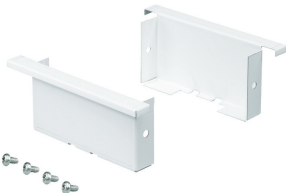
Product details



Accessories



Ordercode 910403204203



Ordercode 910403204303

Accessories

Image  
not yet  
available

Ordercode 910403204403

## Application Conditions

Ambient temperature range	+10 to +40 °C
Average ambient temperature	25 °C
Suitable for random switching	No

## Approval and Application

Mech. impact protection code	IK02
Ingress protection code	IP20

## Operating and Electrical

Input Voltage	220 to 240 V
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## General Information

Air-handling	No
Cap-Base	G5
CE mark	CE mark
Protection class IEC	Safety class I (I)
Optical cover/lens type	No
Emergency lighting	No
ENEC mark	ENEC mark
Flammability mark	F
Gear	HFP
Glow-wire test	850/5
Kombipack	Lamp(s) included
Lamp family code	TL5
Lamp power	49 W
Embedded control	No
Number of light sources	1
Product Family Code	TBS417
Safety bracket	-
Top reflector	No
Internal wiring	Standard

## Initial Performance (IEC Compliant)

Initial LED luminaire efficacy	100 lm/W
Initial luminous flux	4900 lm
Luminous flux tolerance	+/-10%
Initial input power	49 W

## Mechanical and Housing

Colour	White
Housing configuration 2	1-lamp housing

## Application Conditions

Order Code	Full Product Name	Maximum dim level
910501899003	TBS417 1x49W/840 HFP D8 PIP	1%
910501902003	TBS417 1x49W/840 HFP A W	Not applicable

## General Information

Order Code	Full Product Name	Optic type	UL mark	Order Code	Full Product Name	Optic type	UL mark
910501899003	TBS417 1x49W/840 HFP D8 PIP	D8	No	910501902003	TBS417 1x49W/840 HFP A W	A	-

