



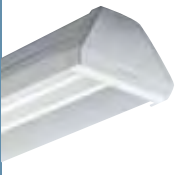



Trunking systems
and batten

Selection guide – Trunking systems and battens

Luminaire family	Family picture	Page	Protection	Shock resistance	Emergency lighting solution	Mounting possibilities	Lamps	
Trunking systems			IP class 	IK class 			TL5	TL-D
TTX400		7.4	IP20	IK02	•	• -	•	•
Tetrix		7.44	IP20	IK02	•	- -	-	•
Battens								
TMS023		7.46	IP20	IK02	•	• -	-	•

Luminaire family	Design	Wiring				Reflectors	Integrated lighting controls
		5-wire 2.5 mm ²	7-wire 2.5 mm ²	9-wire 2.5 mm ²	White	Aluminium	
Trunking systems							
TTX400	+	•	•	•	•	•	•
Tetrix	-	•	-	--	•	-	-



TTX400 – Clicks in seconds, flexible fit



Fast and flexible

TTX400 is the world's fastest-to-install flexible trunking system thanks to the 5-click installation principle and the complete range of interchangeable components that can accommodate most complex lighting layouts.

Miniaturisation

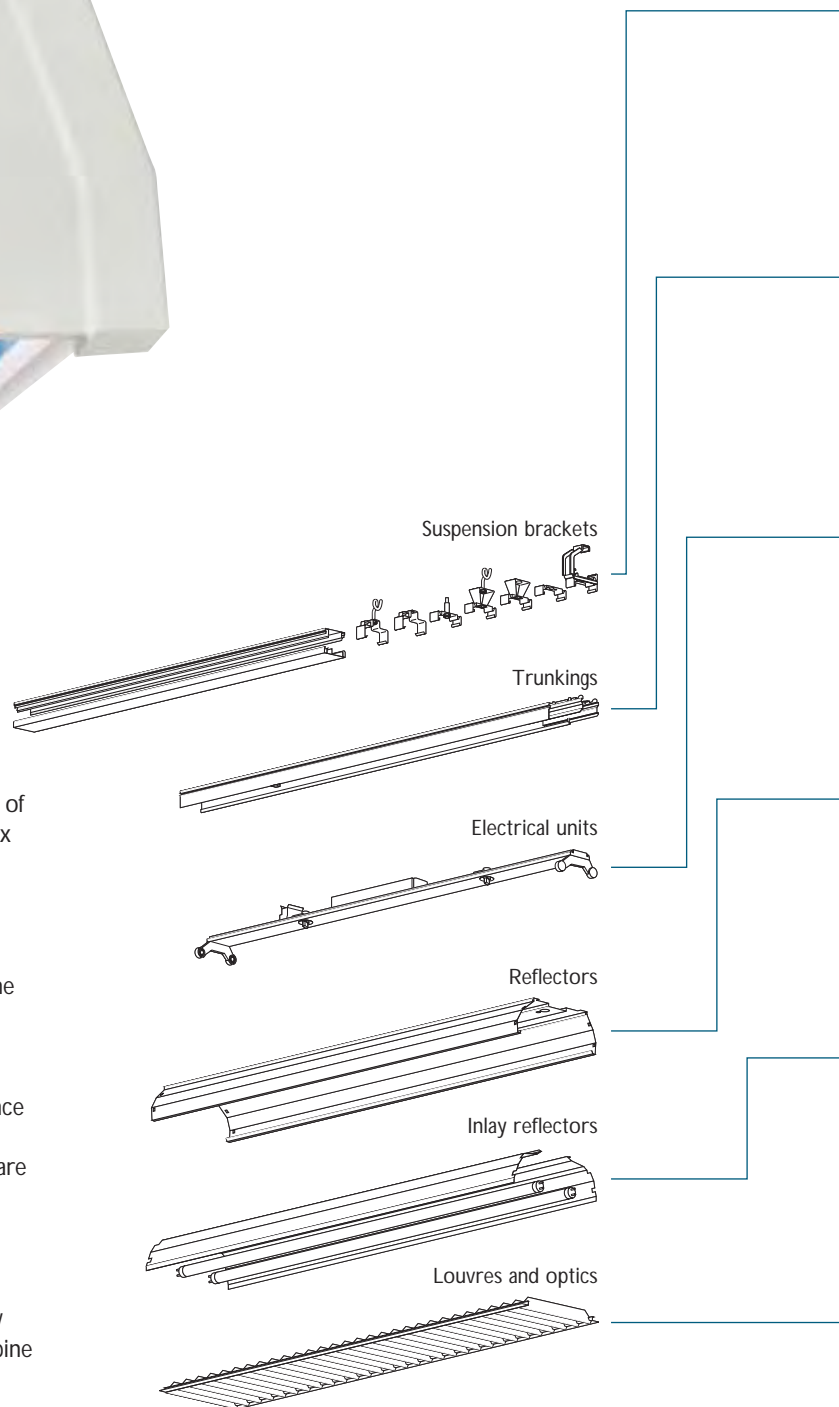
The new range of TL5 reflectors has been optimised around the small TL5 lamp. The result: a truly compact design, ensuring that the TTX400 is easy to integrate into your application.

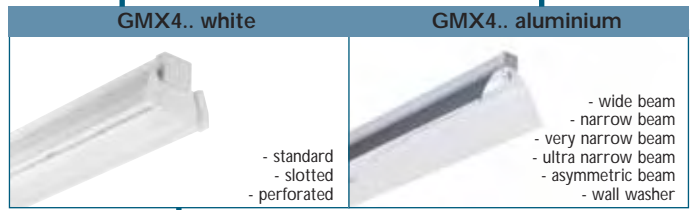
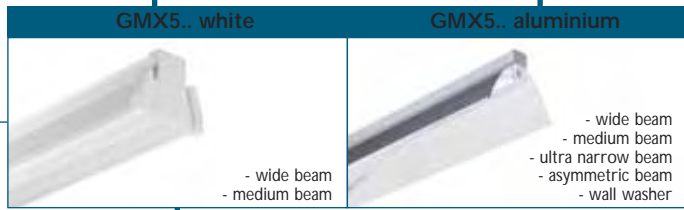
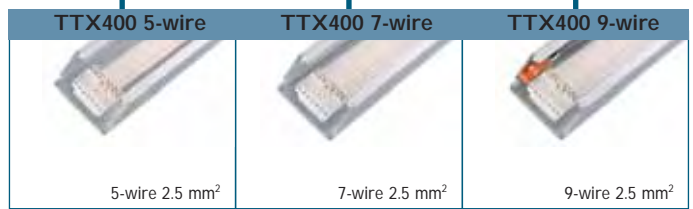
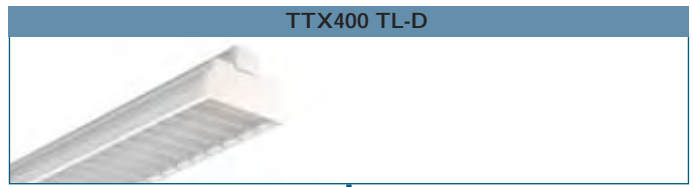
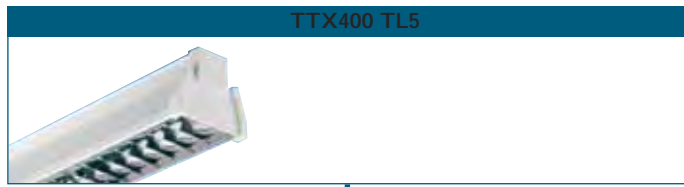
OLC Optics

While Philips originally developed OLC (Omnidirectional Luminance Control) optics for recessed and surface-mounted luminaires, we now use the same optics for TTX400. OLC optics offer superb glare control and efficiency, making it possible to use the TTX400 in applications such as libraries and universities.

9 wires

As well as the standard 5 and 7 pre-wired trunkings, TTX400 now offers 9 wires as a clicks-only solution. This makes it easy to combine emergency lighting with control functions.







TTX400 7

TTX400 TL5 trunking sections

This trunking system for both continuous trunking and individual mounting consists of prewired (TTX400) sections. The sections can be easily clicked together using the integrated electrical/mechanical coupling pieces. The trunking is available with a complete range of interchangeable components to offer outstanding flexibility.

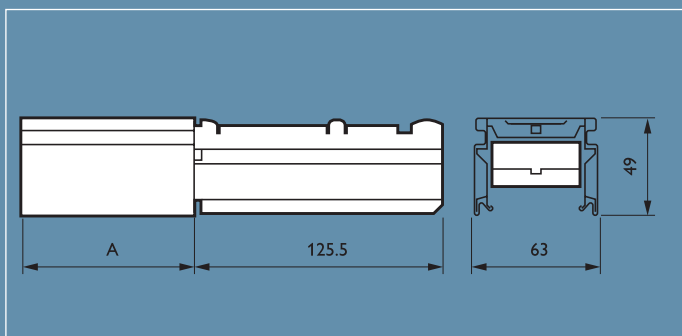
All the trunking sections are made of white prelaquered steel. Round edges reduce the risk of injury. Flat ribbon cable (7 or 9 wires), integrated phase selection switch, and contact blocks with click connection, make electrical connection and connection to the mains quick, simple and safe (if 3 phases are used equalised the maximum current is 16 A). The great stability of the sections and coupling pieces, limit the number of mounting brackets needed (max. 3 metres when using 493 trunking sections).

The electrical unit is clicked simply into the trunking for both mechanical and electrical connection.

The prewired section TTX400 is equipped standard with a 7- or 9-wire 2.5 mm² ribbon cable. The 7-wire flat ribbon cable is used especially for the integration of the light regulation or emergency lighting functions. Hence, no extra contact blocks or wiring needs to be installed.

Both versions are available in length of 1, 2 and 3 electrical units 49 W and 54 W.

Dimensions in mm



Product ID	A
TTX400 491	1474
TTX400 492	2949
TTX400 493	4424
TTX400 541	1174
TTX400 542	2348
TTX400 543	3524

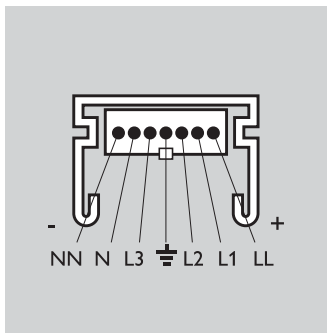
Preferred selection

Product ID	European Order Code (EOC)
TTX400 491 7	29027099
TTX400 491 9	68500799
TTX400 492 7	29029499
TTX400 493 7	29031799
TTX400 541 7	30502899
TTX400 542 7	30504299
TTX400 543 7	30506699

For associated accessories, see from page 7.37 onwards.



TTX400 7



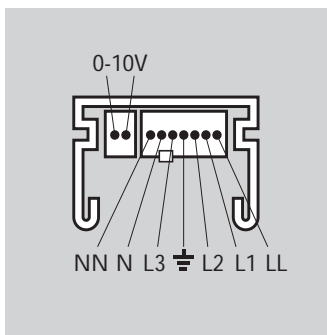
7 wires

7 wires

Solution for dimming or DALI or emergency lighting.



TTX400 9

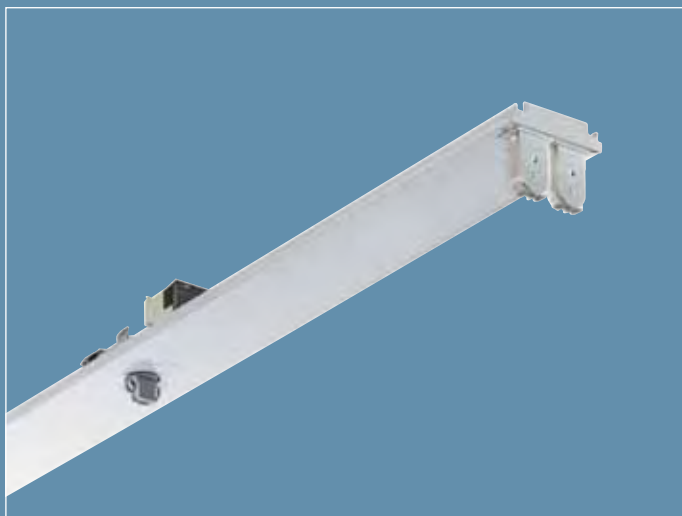


9 wires

9 wires

Solution for a combination of emergency lighting, dimming or DALI.





TMX400 2x TL5

TMX400 TL5 electrical units

These electrical units are designed for quick click mounting in TTX400/410 trunking sections. They are for use with one or two TL5 lamps, with electronic (dimming) ballast, in emergency lighting version and in versions for the mounting of projectors. They contain all the necessary electrical and mechanical functions. All components are screwed onto the electrical unit. The units can be combined with any type of reflector, and are made of white sheet steel.

Electronic ballasts

TMX400 is delivered with electronic ballast HFP. The dimmable version of the TMX400 is delivered with the electronic ballast HFR, allowing the light output of the TL5 lamps to be regulated from 3 % to 100 %. This unit is ideal for (day)light-dependent control, and must be mounted to the prewired TTX400 section with 7-wire ribbon cable.

For more control options the TMX400 can be equipped with DALI ballasts. Especially in combination with the Linesense controls DALI solutions offer even more control and energy savings.

Emergency lighting

TMX400 is deliverable in versions with built in 3-hour emergency lighting equipment. The 49 W versions are mounted in the same way as all the other TMX400 electrical units and must be used with the prewired TTX400 trunking section with 7-wire ribbon cable. 54 W and 80 W versions with emergency lighting are available.

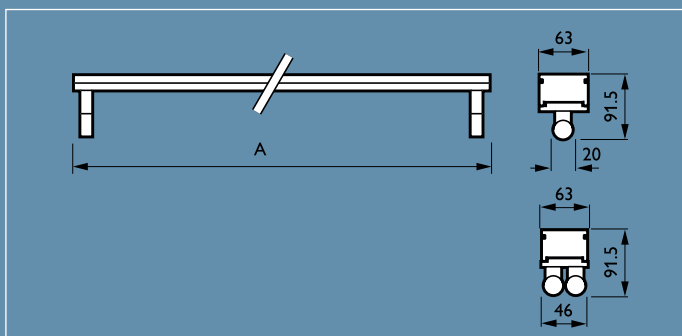
Technical description

- Gear/power supply: HF: 220 V - 240 V
- Lamps: 1 and 2x TL5 fluorescent.

Installation

Simple click-in method.

Dimensions in mm



Product ID	A
TMX400 28W/54W	1174
TMX400 35W/49W/80W	1474



2-lamps TL5 electrical unit.

TMX400 2x TL5



1-lamp TL5 electrical unit.

TMX400 1x TL5

Preferred selection

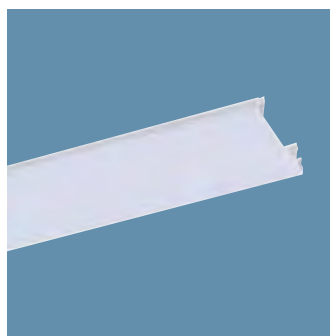
Product ID

European Order

Code (EOC)

TMX400 1xTL5-35W HFP	30512799
TMX400 1xTL5-35W HFP EL3	30508099
TMX400 1xTL5-35W HFR	30498499
TMX400 1xTL5-49W HFD	30331499
TMX400 1xTL5-49W HFP	29109399
TMX400 1xTL5-49W HFP EL3	29117899
TMX400 1xTL5-49W HFR	29113099
TMX400 1xTL5-54W HFP	30472499
TMX400 1xTL5-54W HFR	30480999
TMX400 1xTL5-80W HFP	10545199
TMX400 1xTL5-80W HFR	30564699
TMX400 2xTL5-35W HFP EL3	30510399
TMX400 2xTL5-35W HFR	30500499
TMX400 2xTL5-49W HFD	30333899
TMX400 2xTL5-49W HFP	29111699
TMX400 2xTL5-49W HFP EL3	29119299
TMX400 2xTL5-49W HFR	29115499
TMX400 2xTL5-54W HFP	30474899
TMX400 2xTL5-54W HFR	30482399

Accessory



ZTX400 BC

Blind covers are used to close the trunking in cases where no electrical unit is mounted.

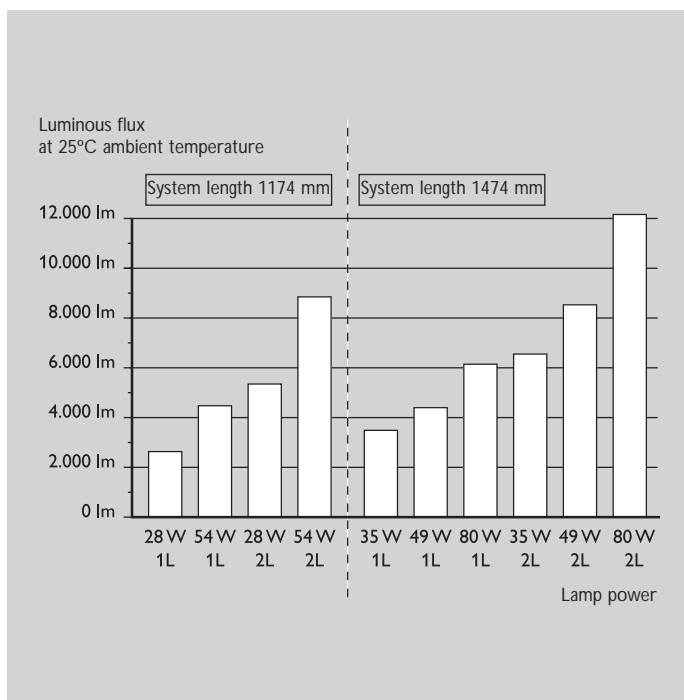
Accessory

European Order

Code (EOC)

ZTX400 BC49	29010299
ZTX400 BC54	30573899
ZTX400 BC58	09463299





The basic unit is mounted on the trunking section with a simple click movement.



Electrical/mechanical connection of basic units with a 5-wire ribbon cable.



Electrical/mechanical connection of the EL3 basic unit in a prewired trunking section with a 7-wire ribbon cable.

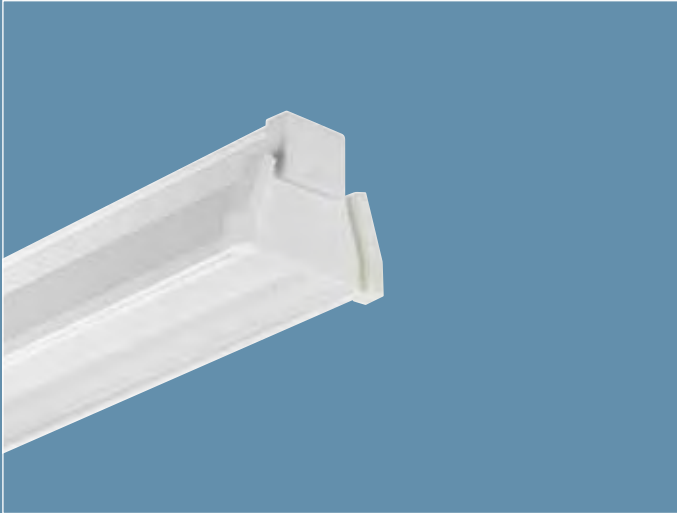


Connectors to connect 0-10 V line of the HFR gear to the through-wiring in the trunking in case of 9 wires.



To de-mount the electrical unit, the two mechanical fixation points are turned in the direction indicated.

Trunking systems

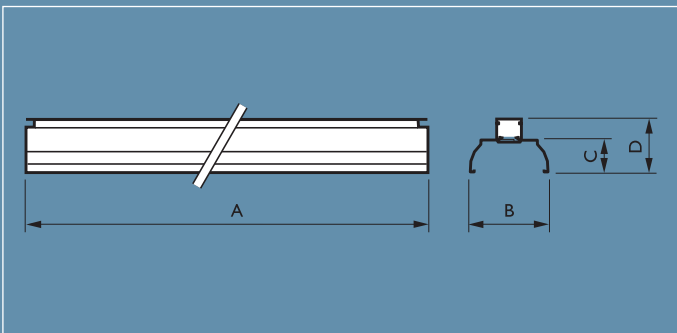


TTX400 TL5 multi-purpose reflectors

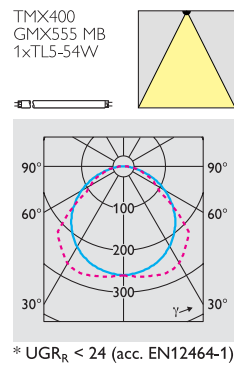
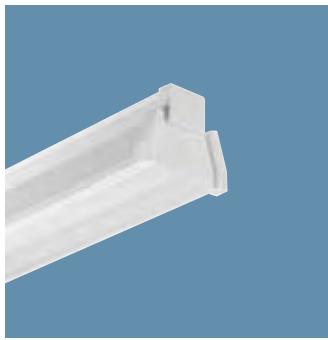
GMX555 TL5 multi-purpose reflectors

Multifunctional one-piece reflector designed for applications where there is a need for high technical lighting quality and design. These reflectors can be extended by various optics, mirrors and attachments. The installation is done via a simple click-in on the electrical units.

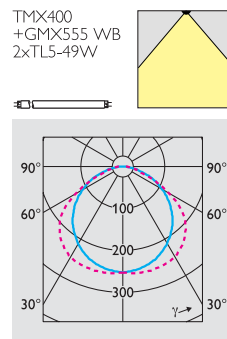
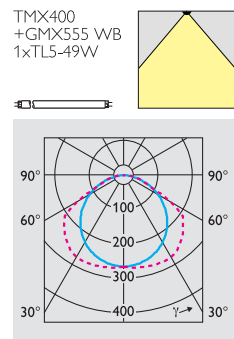
Dimensions in mm



Product ID	A	B	C	D
GMX555 49 WB	1470	147	60	109
GMX555 54 WB	1170	147	60	109
GMX555 49 MB	1470	147	76	125
GMX555 54 MB	1170	147	76	125



GMX555 MB
White reflector with delta shape light distribution. All optics can be added to the GMX555 WB.



GMX555 WB
Very small wide beam white reflector for general lighting. L or M2 louvre can be added.

Preferred selection

Product ID	Light Output Ratio (LOR)	European Order Code (EOC)
GMX555 49 MB	0.85	68455099
GMX555 49 RP-MB	-	68547299
GMX555 49 WB	0.90	68451299
GMX555 54 MB	0.85	68457499
GMX555 54 RP-MB	-	68549699
GMX555 54 WB	0.90	68453699

For associated accessories (coupling pieces and end plates), see from page 7.37 onwards.



The TL5 white reflectors, GMX555, are suitable for 1 lamp and 2 lamps. Result: lines with both 1 and 2 lamps form a visually straight light-line.

Trunking systems



GGX555 C6

TTX400 TL5 louvres and optics

GGX555 TL5 louvres and optics

A wide range of different attachments and optics can be mounted in the multifunctional reflector GMX555. These attachments offer many possibilities to shield the lamps, and therefore improve comfort. Each attachment and optic is available in 1-lamp and 2-lamp versions.

Changing the lamp remains simple and quick as the attachments are hinged to the GMX555.

The attachments, optics and mirror inserts can only be used in combination with the functional reflector GMX555/GMX555 RS/GMX555 RP.

Mirror inserts and attachments/optics will not change the outer dimensions of the installed TTX400 system.

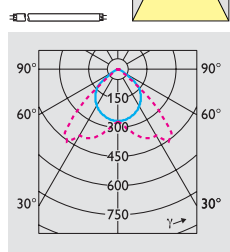
Optics C6 or D6 are available on request, to be used in single reflector-solutions.



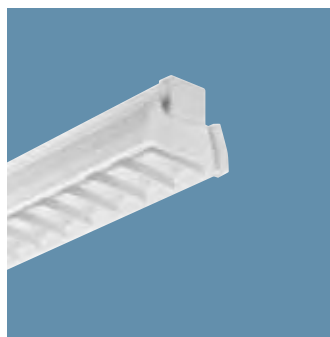
The inlay reflectors GGX555, for TL5 solutions are delivered as a set with the white reflectors, already mounted.



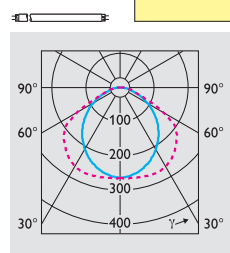
TMX400
GMX555
GGX555 C6
1xTL5-49W



* UGR_R < 18 (acc. EN12464-1)



TMX400
GMX555 WB
GGX555 L
1xTL5-49W



* UGR_R < 23 (acc. EN12464-1)

GGX555 C6

High gloss OLC optics for GMX555 MB top reflectors are available to increase LOR.



GMX555

Aluminum inlay reflectors improve the LOR and the distribution.

GGX555 L

White lamella louvre. Suitable for MB and WB reflectors.

Preferred selection

Product ID	Light Output Ratio (LOR)	European Order Code (EOC)	Product ID	European Order Code (EOC)
GMX555 49 MB C-A20 SET	0.95	68466600	GGX555 49 C-BD/A	68461199
GMX555 49 MB C-A40 SET	0.95	68465900	GGX555 49 M6	68481900
GMX555 49 MB C-BD20 SET	0.95	68463500	GGX555 49 M2	68473499
GMX555 49 MB C-BD40 SET	0.95	68464200	GGX555 49 L	68471099
GMX555 54 MB C-A20 SET	0.95	68469700	GGX555 54 C6-T	68525000
GMX555 54 MB C-A40 SET	0.95	68470300	GGX555 54 C6	68480200
GMX555 54 MB C-BD20 SET	0.95	68467300	GGX555 54 C-BD/A	68459899
GMX555 54 MB C-BD40 SET	0.95	68468000	GGX555 54 M6	68479600
GGX555 49 C6T		68524300	GGX555 54 M2	68477299
GGX555 49 C6		68482600	GGX555 54 L	68475899

Trunking systems



GGX566 HB-WB

TTX400 TL5 aluminium reflectors

TTX400 TL5 aluminium reflectors

Compared to the TL-D aluminium reflectors, the TL5 ones are smaller due to the smaller lamps. This results in easier handling and less space needed.

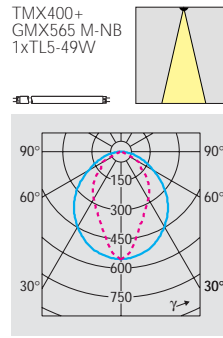
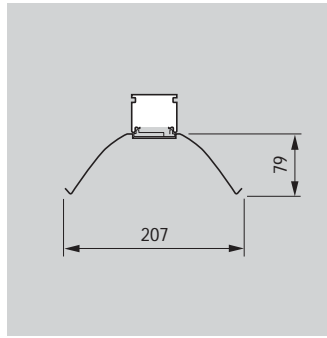
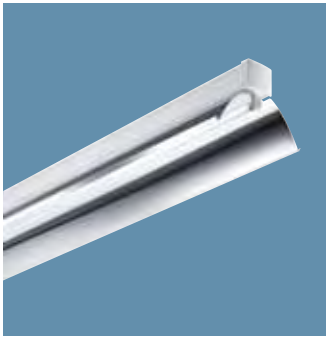
Aluminium one-piece reflectors in hammered, matt and glossy versions. Specially designed for applications where a wide beam, narrow beam, very narrow beam or ultra narrow beam is demanded, e.g. distribution centres and warehouses. Installation via a simple click-in action to the electrical units TMX400.

The high efficiencies of these reflectors ensure a highly cost effective solution. Mechanical clips are delivered with the reflectors in order to align them in case of continuous lines.

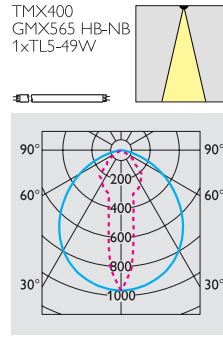
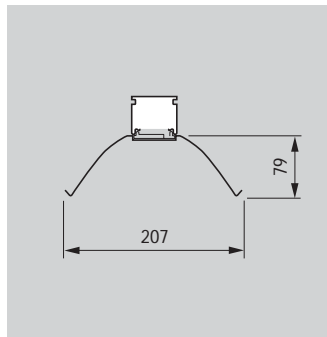
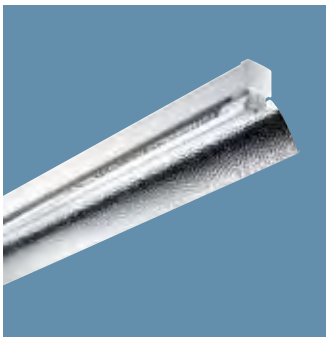
All aluminium reflectors are available for 49 W or 54 W lengths.



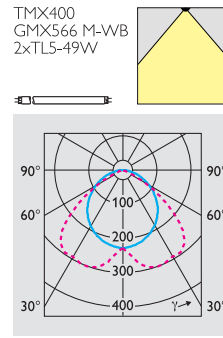
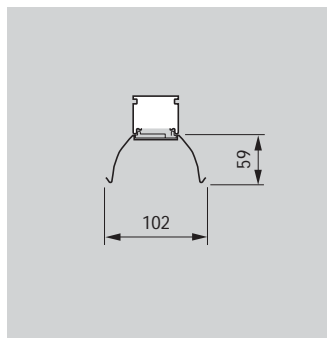
Dimensions in mm



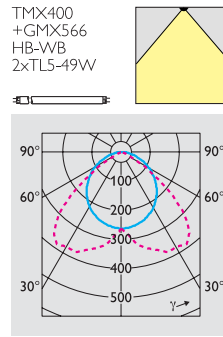
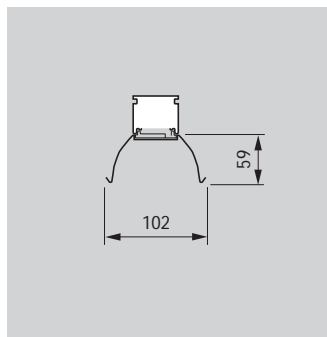
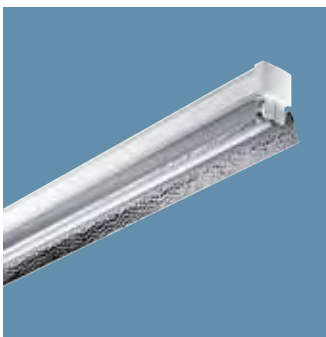
GMX565 M-NB
One-piece narrow-beam reflector made from matt aluminium for 1- or 2-lamp 49 W or 54 W. Also available in high-gloss hammer-bow aluminium (GMX565 HB-NB).



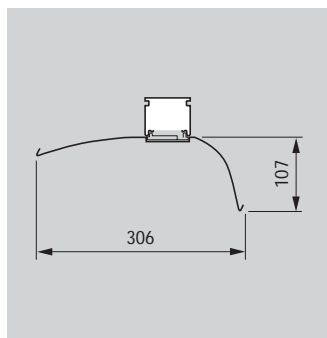
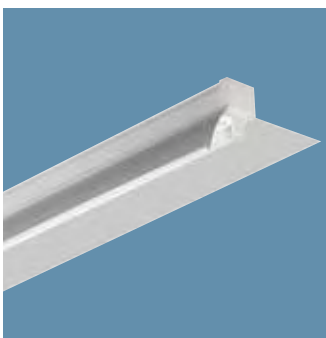
GMX565 HB-NB
One-piece narrow-beam reflector made from high-gloss hammer-bow aluminium for 1- or 2-lamp 49 W or 54 W. Also available in matt aluminium (GMX565 M-NB).



GMX566 M-WB
Ultra small one-piece wide beam reflector made of matt aluminium. Suitable for 2-lamp TL5 49 W or 54 W electrical units. The reflector is also available in high-gloss hammerbow aluminium (GMX566 HB-NB).

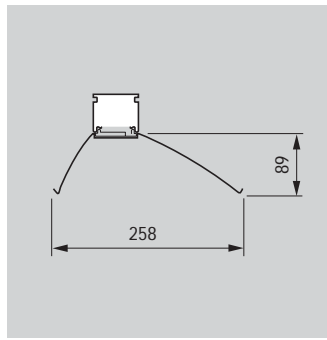
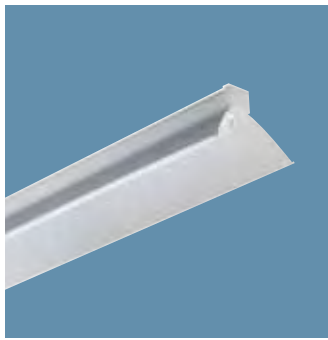


GMX566 HB-WB
Ultra small one-piece wide beam reflector made of high-gloss hammerbow aluminium. Suitable for 2-lamp TL5 49 W or 54 W electrical units. The reflector is also available in matt aluminium (GMX566 M-WB).

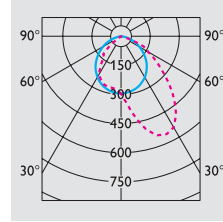
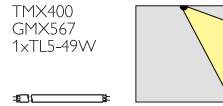


GMX566 HB-A
One-piece reflector made from matt aluminium. Suitable for 1- or 2-lamp 58 W TMX400 electrical unit.

Dimensions in mm

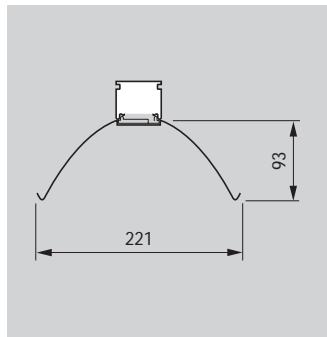
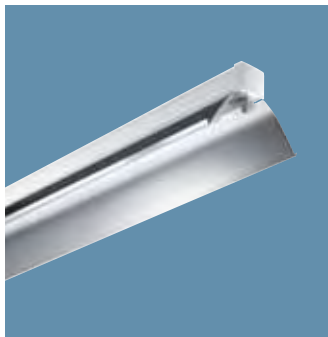


TMX400
GMX567
1xTL5-49W

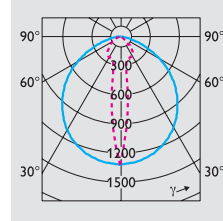
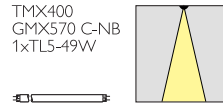


GMX567 M-A

One-piece asymmetrical reflector made of matt aluminium. Suitable for 1- and 2-lamps 49 W or 54 W electrical units.

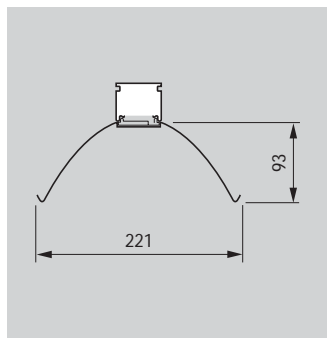
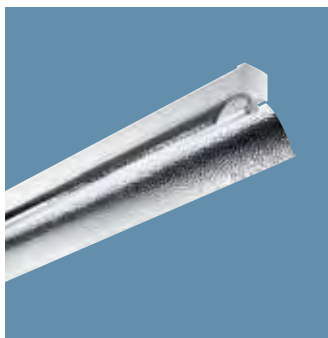


TMX400
GMX570 C-NB
1xTL5-49W

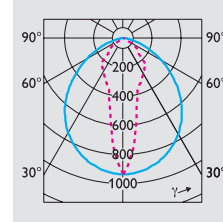
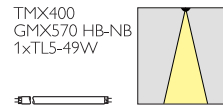


GMX570 C-NB

One-piece ultra narrow beam reflector made from high-gloss aluminium. Suitable for 1-lamp TMX400 electrical unit (same reflector can be used for 2-lamp electrical unit). Also available in hammer-bow aluminium.



TMX400
GMX570 HB-NB
1xTL5-49W



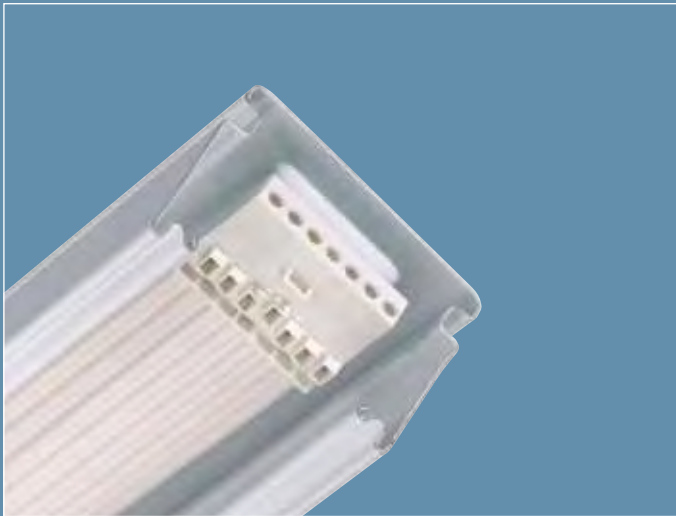
GMX570 HB-NB

Very small one-piece narrow beam reflector made of hammer-bow aluminium. Suitable for 1- or 2-lamps 49 W or 54 W electrical units. The reflector is also available in high-gloss aluminium (GMX570 C-NB).

Preferred selection

Accessory	Light Output Ratio (LOR)	European Order Code (EOC)
GMX565 1 49 HB-NB	0.93	30546299
GMX565 1 54 HB-NB	0.93	30548699
GMX565 1 54 M-NB	0.88	30552399
GMX566 2 49 HB-WB	0.87	10966499
GMX566 2 54 HB-WB	0.87	30554799
GMX566 2 49 M-WB	0.84	10954199

Accessory	Light Output Ratio (LOR)	European Order Code (EOC)
GMX567 49 M-A	0.95	30558599
GMX567 54 M-A	0.95	30556199
GMX570 49 C-NB	1.00	29004199
GMX570 54 C-NB	1.00	30562299
GMX570 49 HB-NB	1.00	30224999
GMX570 54 HB-NB	1.00	30560899



TTX400 7

TTX400/410 TL-D trunking sections

This trunking system for both continuous trunking and individual mounting includes prewired (TTX400) and unwired (TTX410) sections. The sections can be easily clicked together using the integrated electrical/mechanical coupling pieces. The trunking is available with a complete range of interchangeable components to offer outstanding flexibility.

All the trunking sections are made of white prelaquered steel. Round edges reduce the risk of injury. Flat ribbon cable (5 or 7 wires), integrated phase selection switch, and contact blocks with click connection, make electrical connection and connection to the mains quick, simple and safe (if 3 phases are used equalised the maximum current is 16 A). The great stability of the sections and coupling pieces, limit the number of mounting brackets needed (max 3 metres when using 58 3 trunking sections).

The electrical unit is clicked simply into the trunking for both mechanical and electrical connection.

TTX400

The prewired section TTX400 is equipped standard with a 5-, 7- or 9-wire 2.5 mm² ribbon cable.

The 7-wire flat ribbon cable is used especially for the integration of the light regulation or emergency lighting functions. Hence, no extra contact blocks or wiring needs to be installed.

Both versions are available in length of 1, 2 and 3 electrical units 36 W and 58 W.

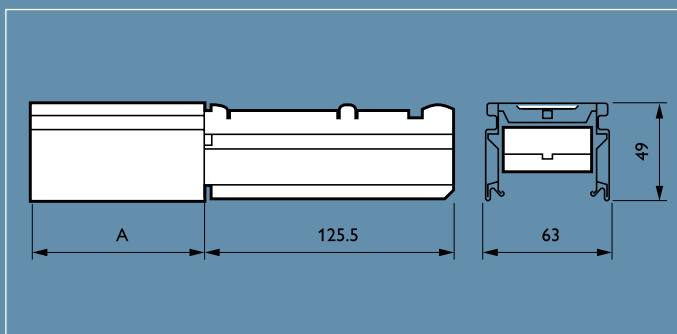
TTX410

TTX410 is the unwired trunking section that allows the mounting of the electrical units at any desired position. On the upper part of the trunking section special knockout openings enable cable entry. The mains connection can be achieved with the 7-pole connector ZTX410 TC. Electrical connection to the electrical unit can be made with a 5-pole contact block with insert contacts (ZTX400 DC). These connection blocks can be installed at any place inside the trunking sections. The required wiring can be fixed inside the trunking section by using internal cable clips (ZTX410 IC). When electrical units are used with conventional or low-loss ballasts, H07GU (110 °C) cables should be used. When electronic ballasts are used, H07VU (70 °C) are sufficient.

The TTX410 unwired trunking sections are delivered with the mechanical coupling piece.

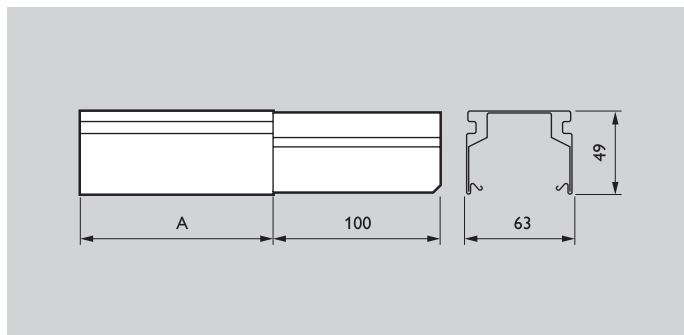
This unwired system is also well suited for mounting waterproof or surface mounted luminaires.

Dimensions in mm

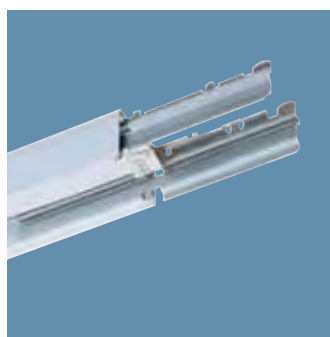


Product ID	A
TTX400 362	2457
TTX400 363	3686
TTX400 581	1528
TTX400 582	3057
TTX400 583	4586

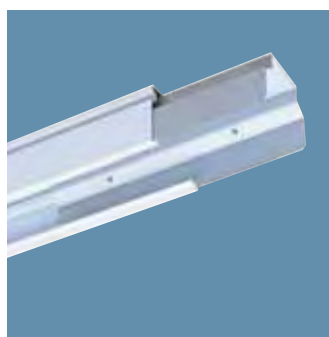
Dimensions in mm



Product ID	A
TTX410 582	3057
TTX410 583	4586



TTX400



TTX410

Preferred selection

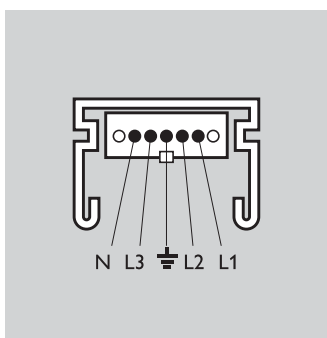
Product ID	European Order Code (EOC)
TTX400 362 5	09341399
TTX400 362 7	09635399
TTX400 363 5	09343799
TTX400 363 7	09637799
TTX400 581 5	09345199
TTX400 581 7	09668199
TTX400 581 9	68494999

For associated accessories, see from page 7.37 onwards.

Product ID	European Order Code (EOC)
TTX400 582 5	09347599
TTX400 582 7	09198399
TTX400 583 5	09349999
TTX400 583 7	09196999
TTX410 582	09351299
TTX410 583	09353699

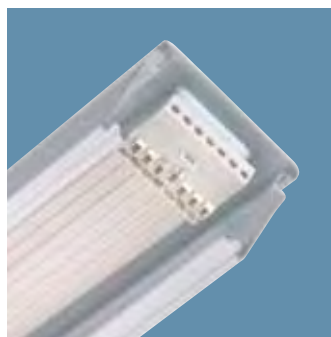


TTX400 5

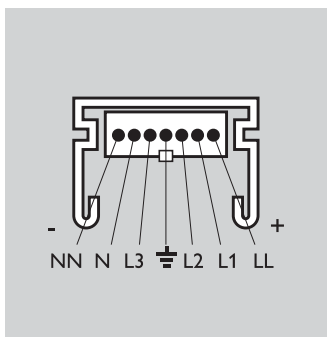


5 wires

5 wires



TTX400 7



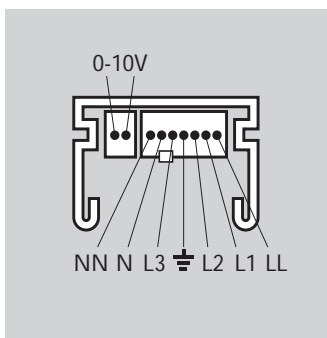
7 wires

7 wires

Solution for dimming or DALI or emergency lighting.



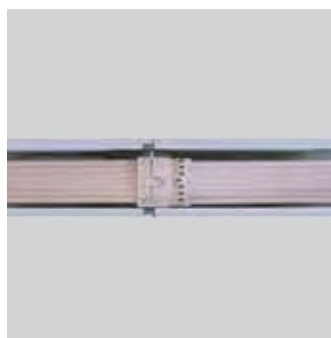
TTX400 9



9 wires

9 wires

Solution for a combination of emergency lighting, dimming or DALI.



Both the electrical and mechanical connections are secured in one movement, by clicking the trunking sections together.



Extra cables can be taken along inside the prewired trunking sections by simply clicking them into the cable clips already installed in the prewired trunking section.



TMX400 2x TL-D

TMX400 TL-D electrical units

These electrical units are designed for quick click mounting in TTX400/410 trunking sections. They are for use with one or two TL-D lamps, with conventional or electronic (dimming) ballast, in emergency lighting version and in versions for the mounting of projectors. They contain all the necessary electrical and mechanical functions.

All components are screwed onto the electrical unit. The units can be combined with any type of reflector, and are made of white sheet steel.

Electronic ballasts

TMX400 are delivered standard with electronic ballast HFP, or the more simple HFB ballast for applications where there is a limited number of on/off switching.

The dimmable version of the TMX400 is delivered with the electronic ballast HFR, allowing the light output of the TL-D lamps to be regulated from 3 % to 100 %. This unit is ideal for (day)light-dependent control, and must be mounted to the prewired TTX400 section with 7-wire ribbon cable.

The TMX400 units with conventional ballasts, are supplied with an electrical connector, starters, any necessary capacitor, and lampholders.

Emergency lighting

TMX400 are also deliverable in versions with in-built 1- and 3-hour emergency lighting equipment. These units are mounted in the same way as all the other TMX400 electrical units and must be used with the prewired TTX400 trunking section with 7-wire ribbon cable.

Technical description

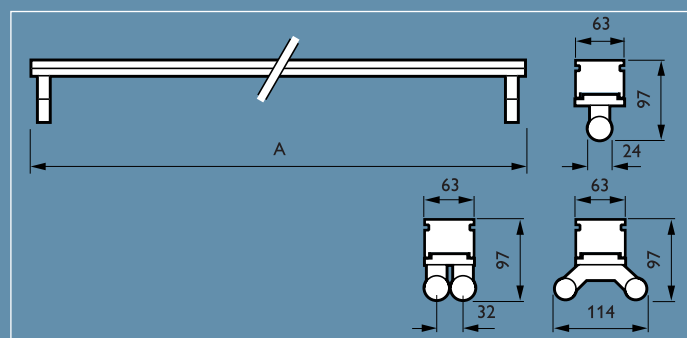
- Gear/power supply:
HF: 220 V - 240 V
Conventional: 230 V
- Lamps: 1x and 2x TL-D

Installation

Simple click-in method.



Dimensions in mm



Product ID	A
TMX400 36W	1228
TMX400 58W	1528



TMX400 2x TL-D

2-lamps TL-D electrical unit
Standard distance between the lampholders is 114 mm.



TMX400 1x TL-D

1-lamp TL-D electrical unit



TTX400 F32

2-lamps TL-D electrical unit F32
Distance between the lamp holders is 32 mm. This makes it possible to use it in 1-lamp-reflectors (available in IC, HFB, HFP, HFR and EL3 versions, e.g. TMX400 2xTL-D58W HFP F32).



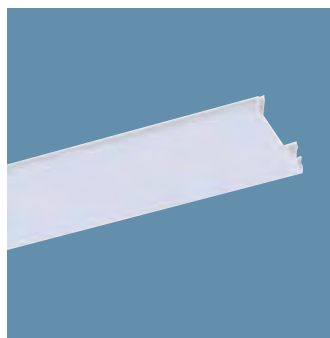
TMX400 2x TL-D

Emergency lighting
TTX400 solutions without dimming can be equipped with emergency lighting equipment (EL) using standard TTX400 trunking with 7 wires. The poles NN and LL are used to connect the EL (1 or 3 hours solutions can be chosen).

Preferred selection

Product ID	European Order Code (EOC)
TMX400 1xTL-D58W HFB	09277599
TMX400 1xTL-D58W HFD	30335299
TMX400 1xTL-D58W HFP	09269099
TMX400 1xTL-D58W HFP EL1	29080599
TMX400 1xTL-D58W HFP EL3	09575299
TMX400 1xTL-D58W HFR	09285099
TMX400 1xTL-D58W IC	09253999
TMX400 2xTL-D58W HFB	09281299
TMX400 2xTL-D58W HFD	30337699
TMX400 2xTL-D58W HFP	09273799
TMX400 2xTL-D58W HFP EL1	28989299
TMX400 2xTL-D58W HFP EL3	09579099
TMX400 2xTL-D58W HFP M/S	09862300
TMX400 2xTL-D58W HFR	09194599

Accessory



ZTX400 BC
Blind covers are used to close the trunking in cases where no electrical unit is mounted.

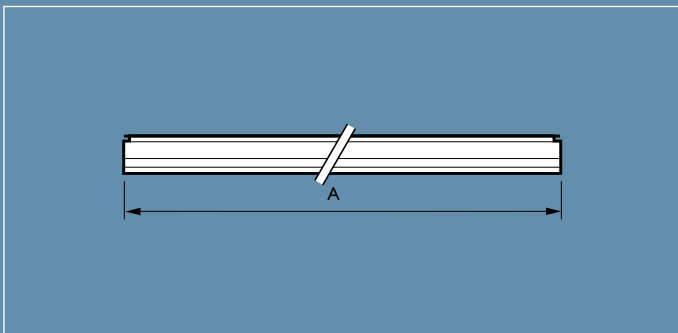
Accessory	European Order Code (EOC)
ZTX400 BC49	29010299
ZTX400 BC54	30573899
ZTX400 BC58	09463299

Trunking systems



GMX430

Dimensions in mm



TTX400 TL-D basic reflector

GMX430 TL-D basic reflector

Basic one-piece white reflector designed for all applications where optics, mirrors and attachments are not needed. An efficient and economic solution. Installation is done via a simple click-in on the electrical units.

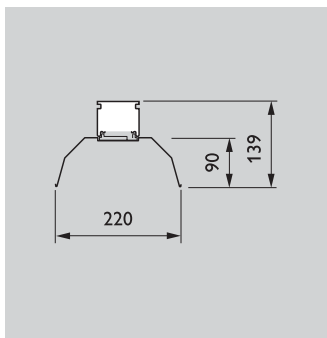
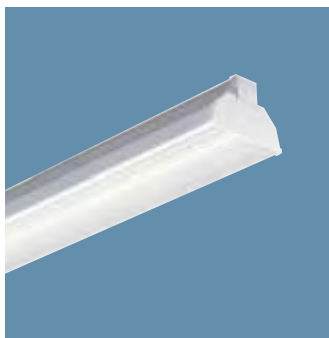


Product ID	A
GMX430 36	1224
GMX430 58	1524

Trunking systems

TTX400 TL-D basic reflector

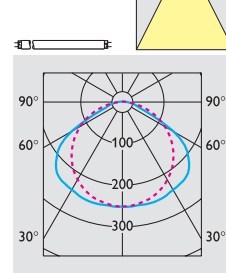
Dimensions in mm



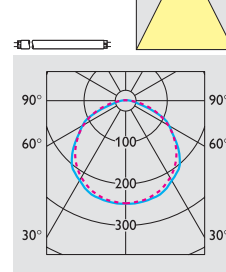
GMX430

Suitable for 1- or 2-lamp TMX400 electrical unit 36 W or 58 W. End plates and coupling pieces deliverable as accessories (ZTX400 EP-430/CP-430). White in colour, the reflector is made of prelacquered steel. (GMX430 EL reflector 58 W with slot for mounting on 1- and 2-lamp 36 W in combination with accessory ZTX400 NE-E27).

TMX400
GMX430
1xTL-D58 W



TMX400
GMX430
2xTL-D58 W



Preferred selection

Product ID	Light Output Ratio (LOR)	European Order Code (EOC)
GMX430 36	0.76	09317899
GMX430 58	0.75	09319299
GMX430 EL	-	09321599



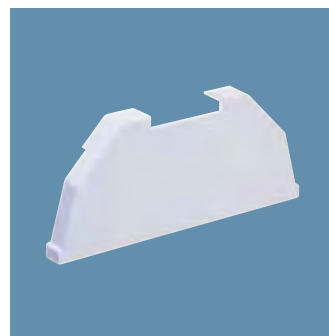
The reflectors are clicked onto the basic units.

Accessories



ZTX400 CP-430

White plastic coupling piece for white basic reflector GMX430. Two coupling pieces needed per junction.



ZTX400 EP-430

White plastic end plate for white basic reflector GMX430.

Accessory

European Order Code (EOC)

ZTX400 CP-430	09419999
ZTX400 EP-430	09413799

Trunking systems

TTX400 TL-D multi-purpose reflectors

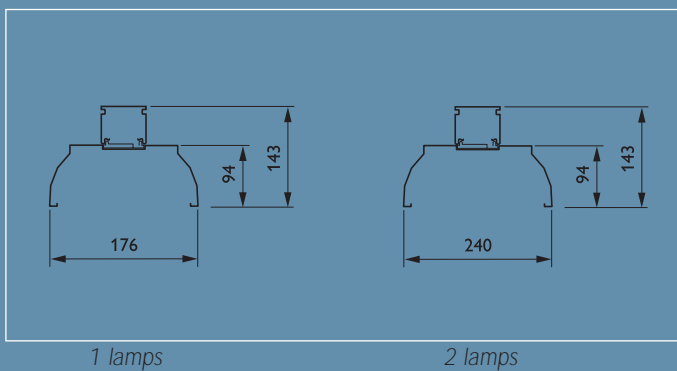


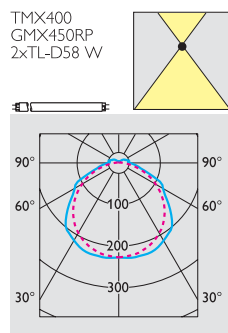
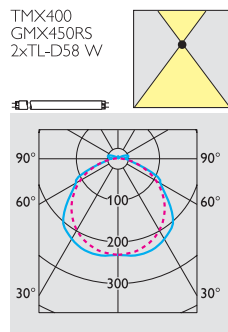
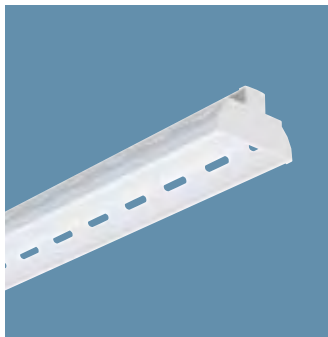
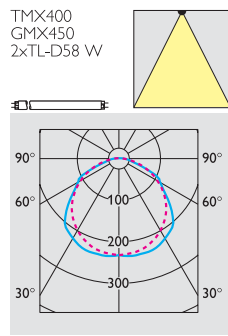
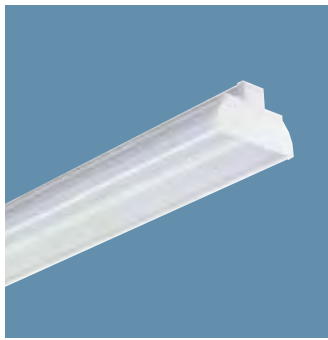
GMX450

GMX450 TL-D multi-purpose reflector

Multifunctional one-piece reflector designed for applications where there is a need for high technical lighting quality and design. These reflectors can be extended by various optics, mirrors and attachments. The installation is done via a simple click-in on the electrical units.

Dimensions in mm





GMX450

Suitable for 1- or 2-lamp TMX400 electrical unit 36 W or 58 W. End plates and coupling pieces deliverable as accessories (ZTX400 EP-450/CP-450). White in colour, the reflector is made of prelacquered steel.

GMX450

Features slots providing 5 % uplight. The air flow through the slots (chimney effect) keeps the reflector and lamps clean for a longer period which means a reduction in maintenance costs. End plates and coupling pieces deliverable as accessories (ZTX400 EP-450/CP-450).

GMX450

Perforated reflector providing 5 % uplight. It is designed for applications where the decorative aspect of the lighting plays a role. This reflector is especially suitable for applications like mass retail and public areas, where there is more need for design. In case of continuous light-lines the transparent coupling pieces should be used (GMX450 CPT).

Preferred selection

Accessory	Light Output Ratio (LOR)	European Order Code (EOC)	Accessory	Light Output Ratio (LOR)	European Order Code (EOC)
GMX450 1 36	0.72	09293599	GMX450 1 58 RS	-	09303199
GMX450 2 36	0.72	09297399	GMX450 2 58 RS	-	09307999
GMX450 1 58	0.72	09295999	GMX450 1 36 RP	-	09309399
GMX450 2 58	0.72	09299799	GMX450 2 36 RP	-	09313099
GMX450 1 36 RS	-	09301799	GMX450 1 58 RP	-	09311699
GMX450 2 36 RS	-	09305599	GMX450 2 58 RP	-	09315499

Trunking systems

TTX400 TL-D multi-purpose reflectors



ZTX400 CPI-450
ZTX400 CP2-450
 Plastic coupling piece for white reflectors GMX450.



ZTX400 EPI-450
ZTX400 EP2-450
 White plastic end plate for closing off the trunking section at the end of each line.



ZTX400 CPI-TR-450
ZTX400 CP2-TR-450
 Transparent plastic coupling piece for perforated reflector GMX450.

Accessory

European Order

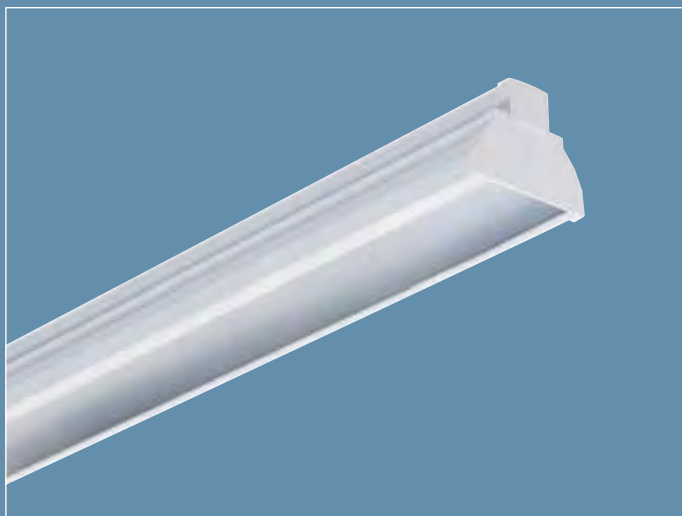
Code (EOC)

ZTX400 CP1-450	09415199
ZTX400 CP2-450	09417599
ZTX400 EP1-450	09411399
ZTX400 EP2-450	09202799
ZTX400 CP1-TR-450	09569199
ZTX400 CP2-TR-450	09571499



To install the white reflectors in a continuous line, two coupling pieces (CP) are required per connection. An end piece (EP) can be mounted at both the start and end of the light-line.

Trunking systems



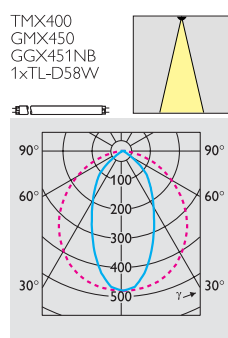
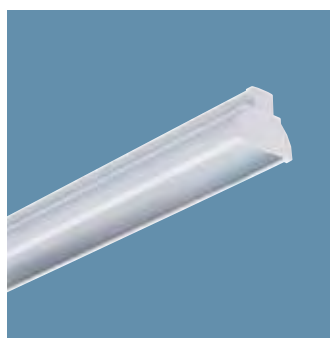
GGX451 NB

TTX400 TL-D mirror inserts

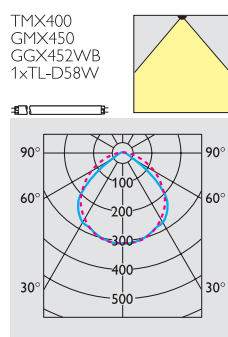
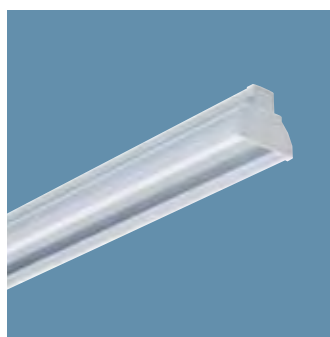
GGX451/452/453/454 TL-D mirror inserts

Mirror inserts improve the distribution of light. They are especially suitable for applications where directed beams are needed. Installing mirror inserts is as easy as all other components, just click into the multifunctional reflector (GMX450).

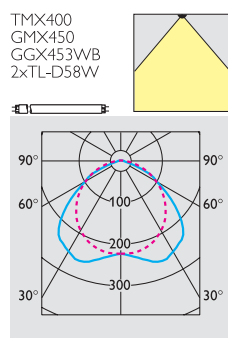
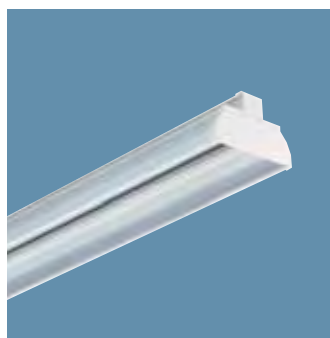
TTX400 offers various types of mirror inserts (narrow, wide and asymmetrical).



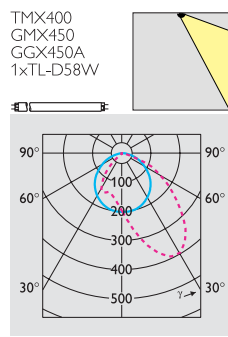
GGX451 M-NB
One-piece narrow beam mirror insert made of matt aluminium. Suitable for 1-lamp reflectors 36 W/58 W.



GGX452 M-WB
Two-piece wide beam mirror inserts made of matt aluminium. Suitable for 1-lamp reflectors 36 W/58 W.



GGX453 M-WB
Two-piece wide beam mirror inserts made of matt aluminium. Suitable for 2-lamp reflectors 36 W/58 W.



GGX450 58 A
One piece asymmetric beam mirror insert made of aluminium suitable 1-lamp or 2-lamp white reflector.

Preferred selection

Accessory

	European Order Code (EOC)
GGX450 1 58 A	10164499
GGX451 1 36 M-NB	09361199
GGX451 1 58 M-NB	09363599
GGX452 1 36 M-WB	09365999
GGX452 1 58 M-WB	09367399
GGX453 2 36 M-WB	09407699
GGX453 2 58 M-WB	09409099
GGX454 2 58 C-BD	30200399

Trunking systems



GGX450 C6

TTX400 TL-D louvres and optics

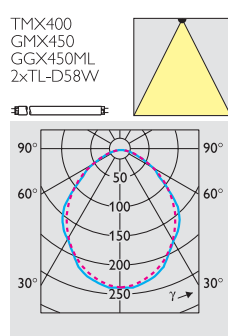
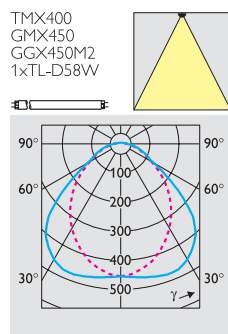
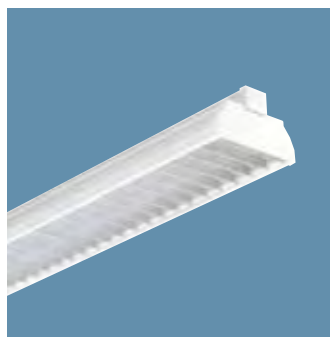
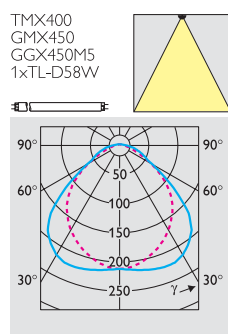
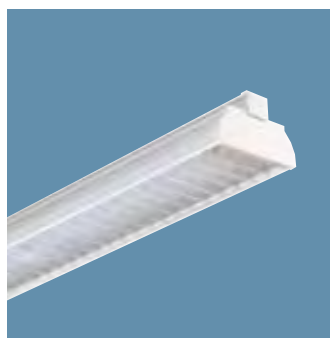
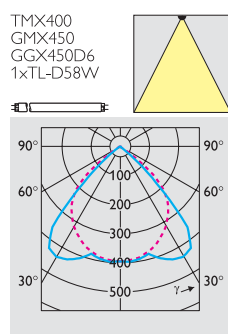
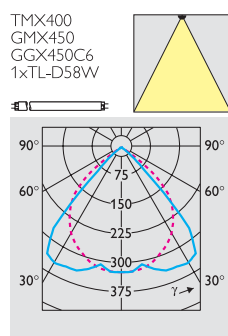
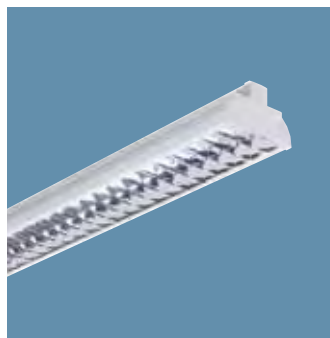
GGX450 TL-D louvres and optics

A wide range of different attachments and optics can be mounted in the multifunctional reflector GMX450. These attachments offer many possibilities to shield the lamps, and therefore improve comfort. Each attachment and optic is available in 1-lamp and 2-lamp versions.

Changing the lamp remains simple and quick as the attachments are hinged to the GMX450.

The attachments, optics and mirror inserts can only be used in combination with the functional reflector GMX450/GMX450 RS/GMX450 RP.

Mirror inserts and attachments/optics will not change the outer dimensions of the installed TTX400 system.



GGX450 C6

High gloss, improved efficiency mirror of high quality aluminium with parabolic side reflectors and parabolic lamellae with Fresnel top-side. Meeting BAP 60 and CAT 2 glare requirements. (DIN 5035/7 60° - 200cd/m², EN 12464).

GGX450 D6

Semi-high gloss, improved efficiency mirror of high quality aluminium with parabolic side reflectors and parabolic lamellae with Fresnel top-side. Meeting BAP 60 and CAT 2 glare requirements. (DIN 5035/7 60° - 200cd/m², EN 12464).

GGX450 M5

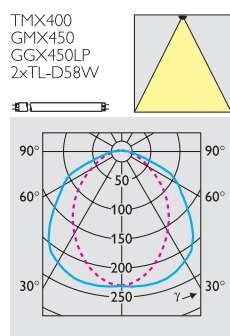
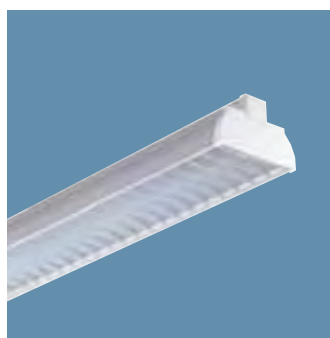
Parabolic cross lamellae louvre in matt, standard-quality aluminium for good lamp shielding and high comfort.

GGX450 M2

Profiled cross lamellae louvre of standard quality aluminium with good lamp shielding.

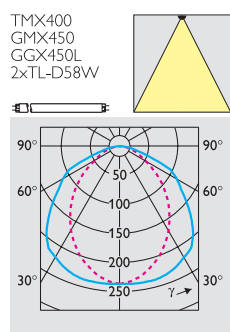
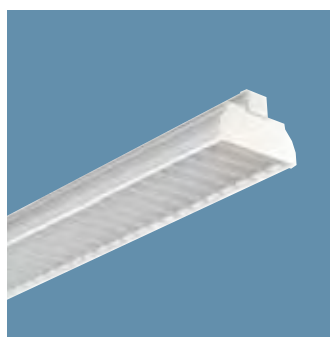
GGX450 ML

White metal mesh louvre with good lamp shielding in both longitudinal and lateral directions.



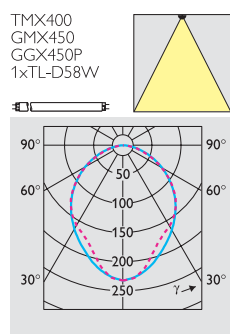
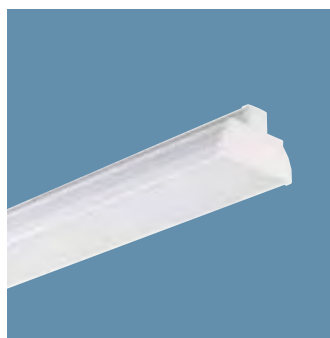
GGX450 LP

White perforated lamellae louvre. Especially attractive in combination with the perforated reflector GMX450 RP.



GGX450 L

White lamellae louvre with good lamp shielding in longitudinal direction.



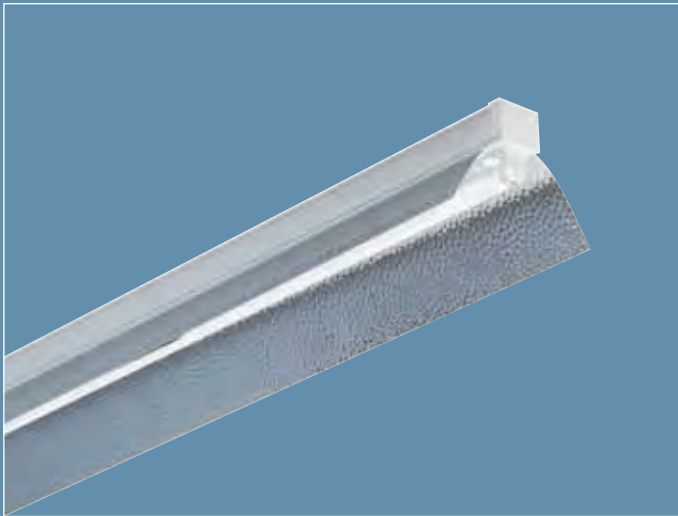
GGX450 P

Prismatic screen for lighting with high output and low luminance. Outer surface is flat which makes cleaning fast and easy.

Preferred selection

Accessory	Optics	European Order Code (EOC)	Accessory	Optics	European Order Code (EOC)
GGX450 1 58 C6	C6	06538000	GGX450 1 58 ML	ML	09371099
GGX450 2 58 C6	C6	06540300	GGX450 2 58 ML	ML	09391899
GGX450 1 58 D6	D6	06534200	GGX450 1 58 LP	LP	09375899
GGX450 2 58 D6	D6	06536600	GGX450 2 58 LP	LP	09395699
GGX450 1 58 M5	M5	09387199	GGX450 1 58 L	L	09379699
GGX450 2 58 M5	M5	09405299	GGX450 2 58 L	L	09204799
GGX450 1 58 M2	M2	09383399	GGX450 1 58 P	P	10156999
GGX450 2 58 M2	M2	09401499	GGX450 2 58 P	P	10160699

Trunking systems



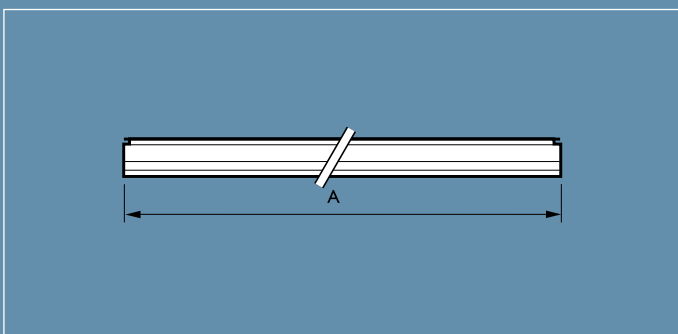
GMX465 HB-NB

TTX400 TL-D aluminium reflectors

GMX460-470 TL-D aluminium reflectors

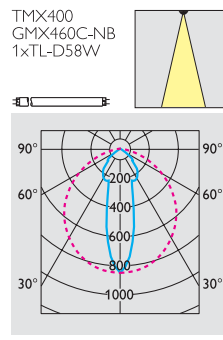
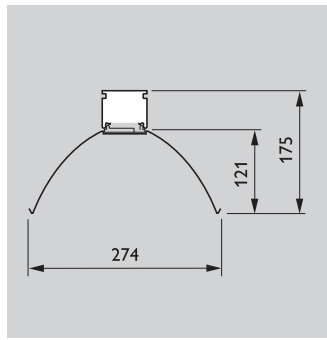
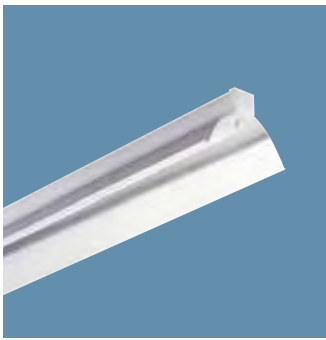
Aluminium one-piece reflectors in hammered, matt and glossy versions. Specially designed for applications where a wide beam, narrow beam, very narrow beam or ultra narrow beam is demanded, e.g. distribution centres and warehouses. Installation via a simple click-in action to the electrical units TMX400. The high efficiencies of these reflectors ensure a highly cost effective solution. Mechanical clips are delivered with the reflectors in order to align them in case of continuous lines.

Dimensions in mm

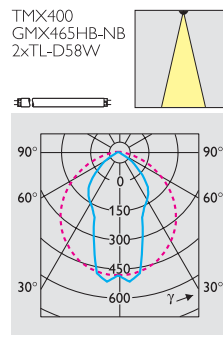
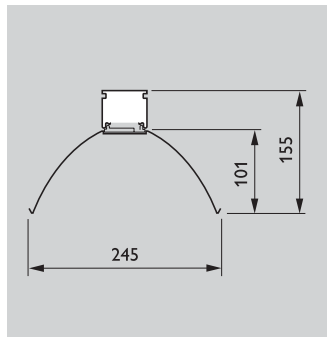
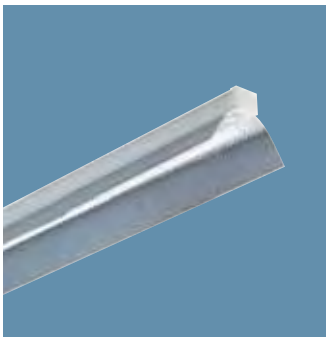


Product ID	A
GMX460-470 36	1228
GMX460-470 58	1528

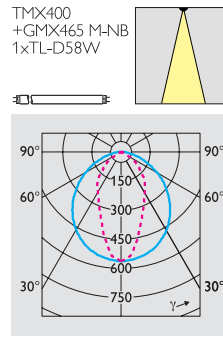
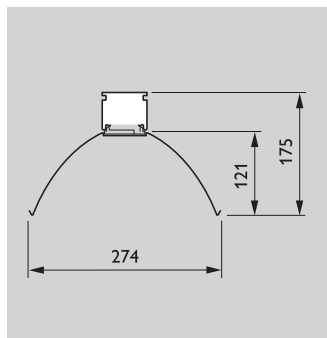
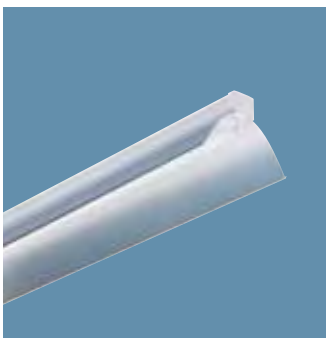
Dimensions in mm



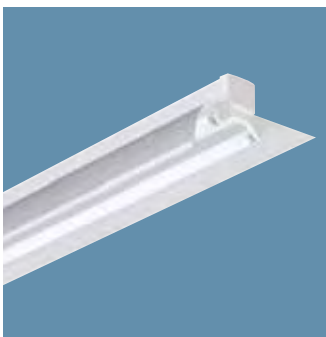
GMX460 C-NB
One-piece very narrow beam reflector made from high-gloss aluminium. Suitable for 1-lamp 58 W TMX400 electrical unit.



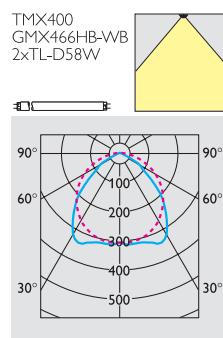
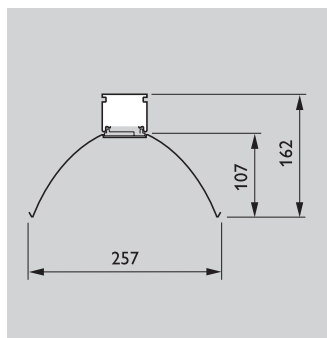
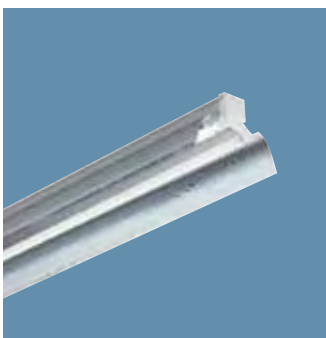
GMX465 HB-NB
One-piece narrow beam reflector made from high gloss hammer-bow aluminium. Ensures glare prevention. Available in a version for 1-lamp 58 W and 2-lamp 58 W.



GMX465 M-NB
One-piece narrow beam reflector made from matt aluminium. Available in a version for 1-lamp 58 W and 2-lamp 58 W.

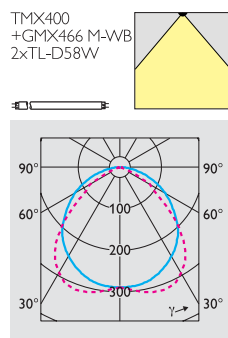
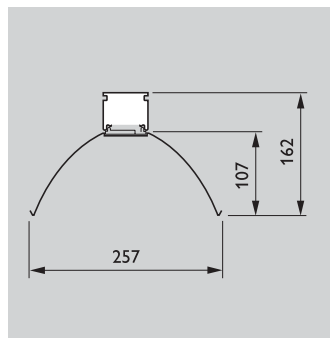
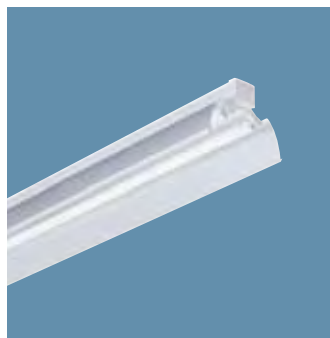


GMX466 HB-A
One-piece wall washer reflector made from matt aluminium. Suitable for 1- or 2-lamp 58 W TMX400 electrical unit.

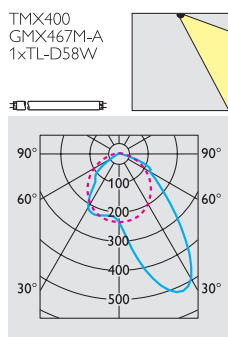
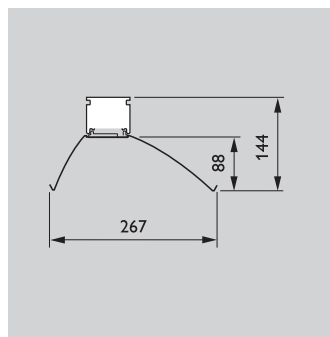
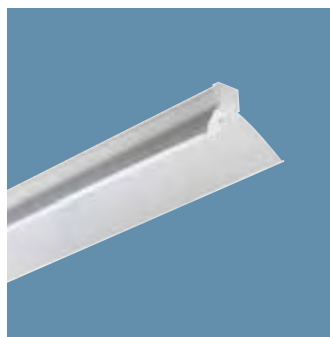


GMX466 HB-WB
One-piece wide beam reflector made from high gloss hammer-bow aluminium. Ensures glare prevention. Suitable for 2-lamp 58 W TMX400 electrical unit.

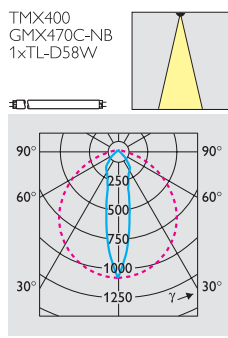
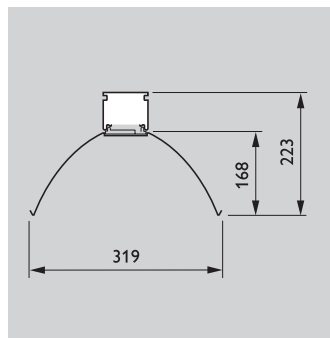
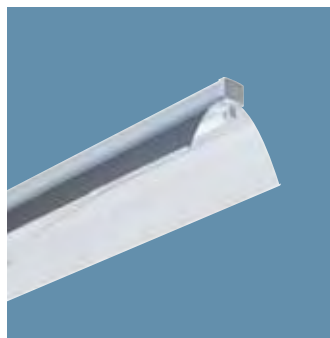
Dimensions in mm



GMX466 M-WB
One-piece wide beam reflector made from matt aluminium. Suitable for 2-lamp 58 W TMX400 electrical unit.



GMX467 M-A
One-piece asymmetrical beam made from matt aluminium. Available in a version for 1-lamp 36 W and 1-lamp 58 W.



GMX470 C-NB
One-piece ultra narrow beam reflector made from high-gloss aluminium. Suitable for 1-lamp 58 W TMX400 electrical unit.

Preferred selection

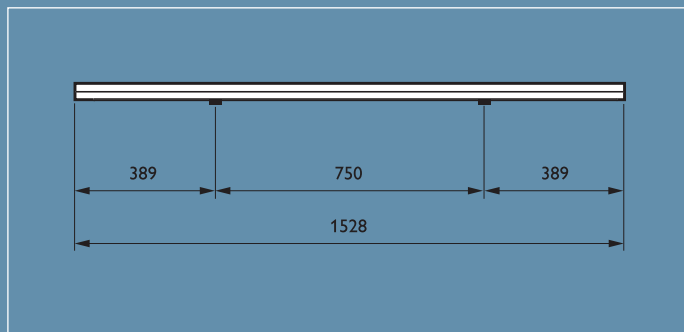
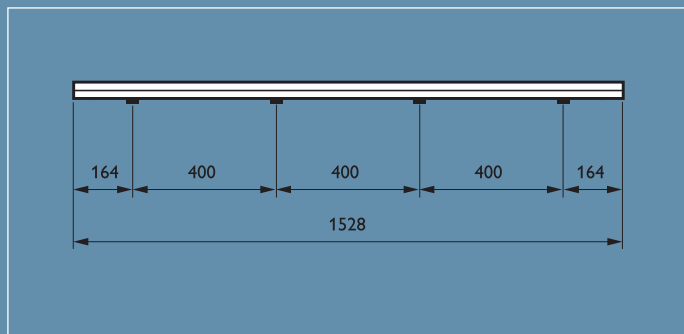
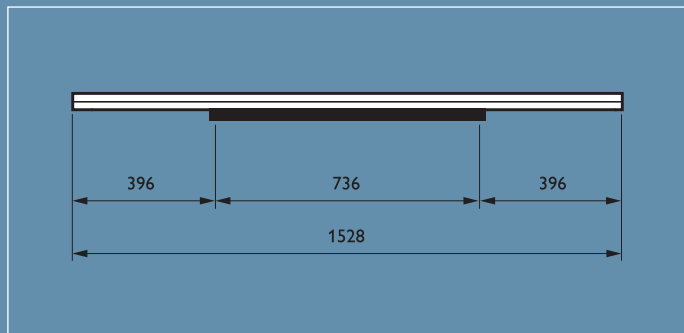
Accessory	Light Output Ratio (LOR)	European Order Code (EOC)
GMX460 1 58 C-NB	0.90	09355099
GMX465 1 58 HB-NB	0.88	09728299
GMX465 2 58 HB-NB	0.81	10239999
GMX465 1 58 M-NB	0.84	09695799
GMX465 2 58 M-NB	0.76	10241299

Accessory	Light Output Ratio (LOR)	European Order Code (EOC)
GMX466 2 58 HB-WB	0.83	09333899
GMX466 2 58 M-WB	0.80	09327799
GMX467 1 58 M-A	0.83	09359899
GMX470 1 58 C-NB	0.89	10104099

Trunking systems



Dimensions in mm

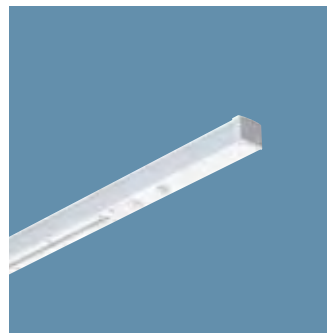


For associated accessory, see page 7.37 onwards.

TTX400 units for projectors

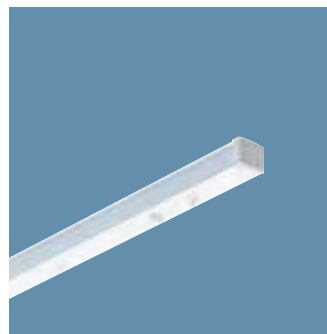
TTX403/405/407 units for projectors

Increasingly, accent lighting is integrated in functional and general lighting systems. Especially in applications like shops, showrooms and public buildings, such as museums. The TTX400 light-line system can be equipped with different types of projectors answering to these lighting needs. Due to its modular concept, the installation of projectors on TTX400 offers great flexibility. For example a change in the configuration of the shop floor lay-out, can be easily followed by changing the positions of the projectors on the light-line.



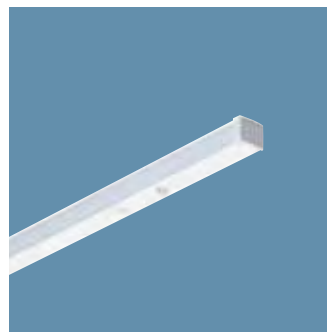
TMX407 58 3C

Electrical unit with an integrated 3-circuit rail. Standard projectors can be mounted in the rail. Maximum weight of the mounted projectors is 9 kg.



TMX405 58-4

Electrical unit with 4 Express connection points for low-voltage halogen spots. The unit has 2 built-in 12 V- 105 W transformers.



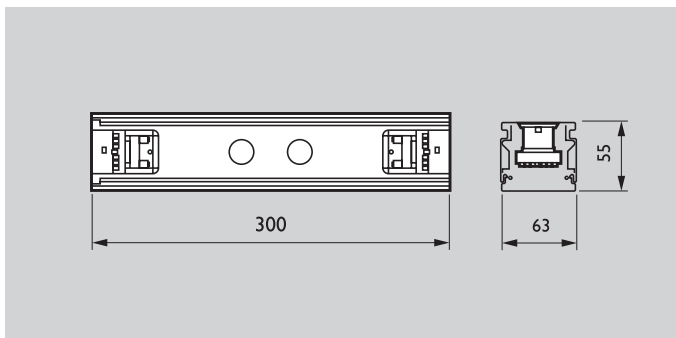
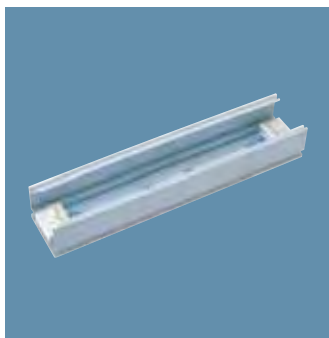
TMX403 58-2

Electrical unit with 2 connection points for projectors with e.g. CDM-T or SDW-T lamps. The projectors are mounted with the spot bracket on the trunking.

Preferred selection

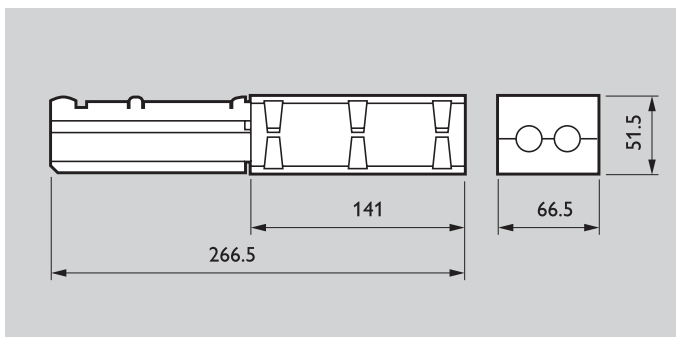
Product ID	Circuit	European Order Code (EOC)
TMX403 58-2	-	10148499
TMX405 58-4	-	10150799
TMX407 58 3C	3C	10152199

Dimensions in mm



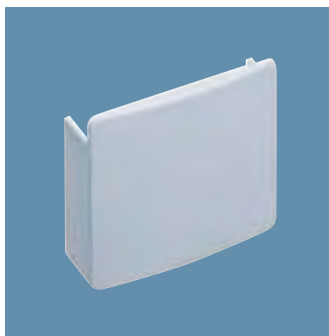
ZTX400 CM

The middle of the line connection unit enables the mains connection to be made in the middle of a light-line. The unit comprises two 7-pole connection blocks for mains connection. To be used in the middle of a light-line when very long lines are used. The same middle of line connection unit is used for the TTX400 with either the internal 5- or 7-wire flat ribbon cable. Delivered with coverplate.



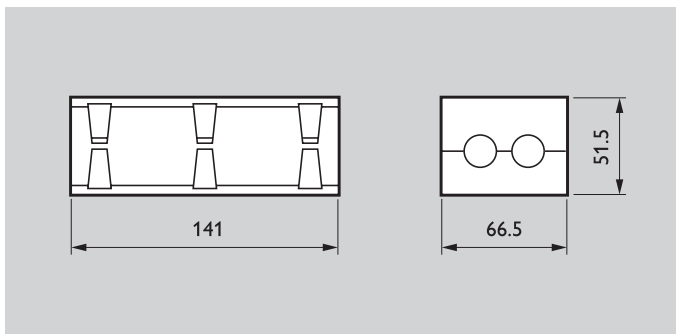
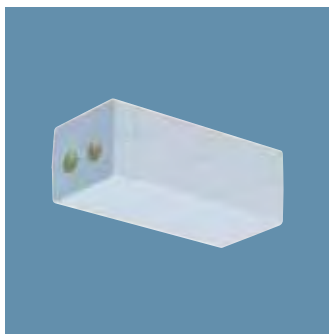
ZTX400 CL

The continuous line connection unit is used at the end of a light-line when a through-connection is needed to pass an interruption of the light-line. It comprises a 7-pole screw connection block. The same continuous line connector is used for the TTX400 with either the internal 5- or 7-wire flat ribbon cable. Not to be used for mains connection.



ZTX400 EP-PHL

White plastic end plate to cover the trunking. Includes a knock out hole of 20 mm.



ZTX400 CU

Connection unit consisting of a 7-pole contact block with 2.5 mm² contacts and mains connection strain relief for use at the beginning of a light-line. The same connection unit is used for the TTX400 with either the internal 5- or 7-wire flat ribbon cable.

Accessory

European Order Code (EOC)

ZTX400 CM	09435999
ZTX400 CM-620	10852099
ZTX400 CL	09431199
ZTX400 EP-PHL	68442099
ZTX400 CU	09459599

Trunking systems

TTX400 TL-D/TL5 trunking accessories



Click 1
Secures the section to the suspension bracket.



The integrated phase selector is used in both the 5- and 7-wire ribbon cable, and circuits can be selected easily.



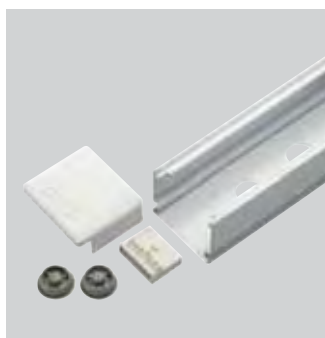
Click 2
Connects the section mechanically and electrically.



8th and 9th wire: tool-less through-wiring via click.



Click 3
Mounts the electrical unit.



TTX400 CU7 + ZTX400 EP-CU7



Click 4
Fits the reflector to the electrical unit.



TTX400 TL-D/TL5 trunking
Alternative, more aesthetic mains connection, using a standard electrical connector. Knock outs in trunking and end caps enable the mains wires to enter the trunking. Dedicated trunking e.g. TTX400 491 CU7 with knock outs. Kit: electrical connector, end plate and 2 cable glands e.g. ZTX400 EP-CU7.



Click 5
Connects the power supply.

Preferred selection

Accessory	Order Code (EOC)
TTX400 581 CU7	68516899
ZTX400 EP-CU7	68521299

TTX400/410 suspension/mounting brackets

The TTX400 suspension/mounting brackets have been designed to allow maximum ease and speed in installation and to provide the greatest possible flexibility in use. All brackets are simply clicked on the trunking. They are suitable for direct fixation or with chains, threaded rods and steel cables for suspension fixation.

Distance between the brackets is up to 3 metres (when using the 583 trunking sections), resulting in faster installation and lower costs. All mounting and suspension brackets are constructed from galvanised stainless steel, painted white.

The use of TTX400 on a non-stable surface such as a mezzanine floor requires a special suspension bracket. All such installations should be referred to the local Philips Lighting key account manager.



ZTX400 CB
Chain bracket for suspending TTX400/410 sections from chains or steel cables. Includes adjustable suspension hook.



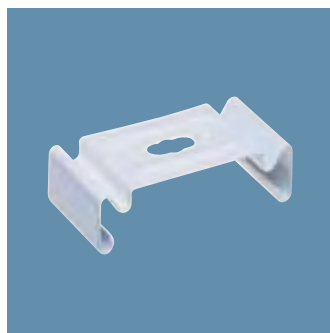
ZTX400 CCD
Chain bracket cable duct for suspending the TTX400/410 sections with the plastic cable duct ZTX400 582/583 CD from chains or steel cables. Includes adjustable suspension hook.



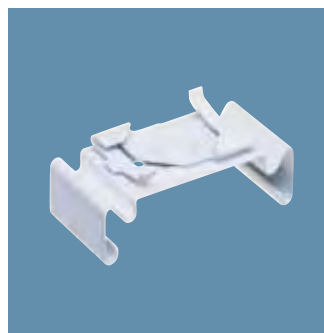
ZTX400 CDB
Universal bracket for suspending TTX400 section including unwired section TTX410 which then serves as cable duct.



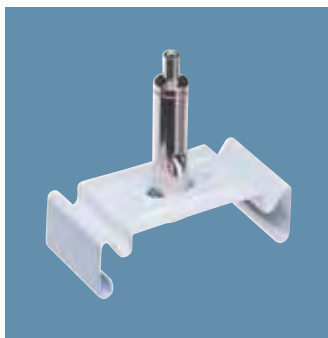
ZTX400 CH
Adjustable suspension hook with 2 brass nuts for use with ZTX400 UB, ZTX400 UCD or ZTX400 CDB.



ZTX400 MB
Ceiling mounting bracket (8 mm diameter hole) for mounting TTX400/410 sections directly to the ceiling.



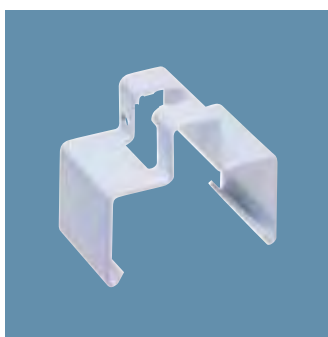
ZTX400 PB
Profile bracket for mounting TTX400/410 sections onto system ceilings with visible 24 mm T-profiles.



ZTX400 SMS
Cable suspension bracket for suspending the TTX400/410 sections from steel cable M1.5. Integrated adapter allows easy, toolless adjustment of the mounting height. Steel cable can be ordered separately with accessory ZTX400 WIRE (10 m).



ZTX400 UB
Universal bracket for suspending TTX400/410 sections on threaded rods, or M13 internally threaded suspension tubes.

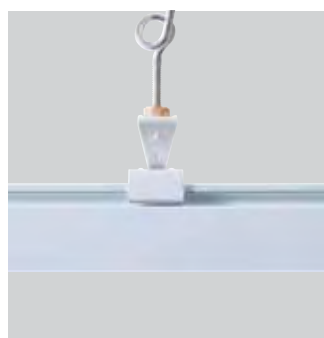


ZTX400 UCD
Universal bracket for suspending TTX400/410 sections, including plastic cable duct ZTX400 CD 582/583 on threaded rods, or M13 internally threaded suspension tubes.

Accessory	European Order Code (EOC)
ZTX400 CB	09423699
ZTX400 CCD	09457199
ZTX400 CDB	10136199
ZTX400 CH	09425099
ZTX400 MB	09427499
ZTX400 PB	10134799
ZTX400 SMS	09429899
ZTX400 UB	09200399
ZTX400 UCD	09455799

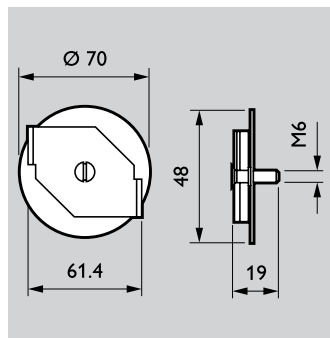
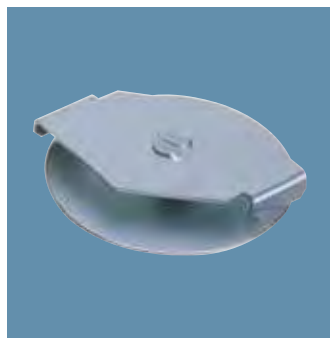


Transverse flexibility. If the chains to the ceiling are not exactly vertical, the brackets will adjust to create a perfectly continuous line.

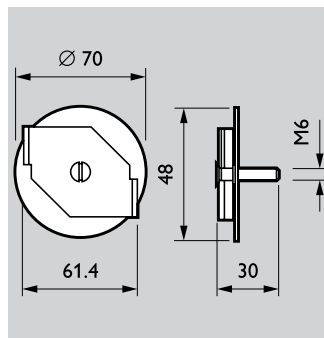


Longitudinal flexibility. The position of the mounting bracket can still be adapted if it is clicked onto the trunking section. This ensures maximum flexibility.

Dimensions in mm



ZTX400 LB
ZTX400 BR6
Bracket to mount luminaires on TTX410.



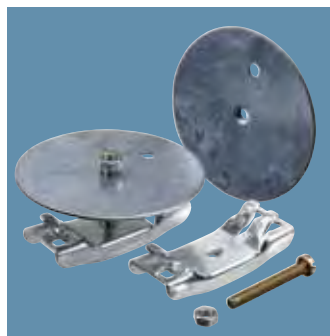
ZTX400 WB

ZTX400 LB
Set of 2 suspension brackets to mount luminaires on TTX400/410 trunking.

ZTX400 WB
Set of 2 suspension brackets to mount luminaires on TTX400 trunking.



ZTX400 LB-FR
Set of brackets to mount waterproof luminaires on TTX410.



ZTX400 WB-FR
Set of brackets to mount surface mounted luminaires to TTX410.



ZTX400 BR-SPOT
Bracket for projectors with CDM-T/SDW-T lamps like the 60800.2 series and the Monza. This bracket is delivered with base plate RCS750 RBA and a cable for external electrical connection. Advantage is the fact that this bracket can be installed on TTX400 with reflector and louvre, so no interruption of the continuous light-line.



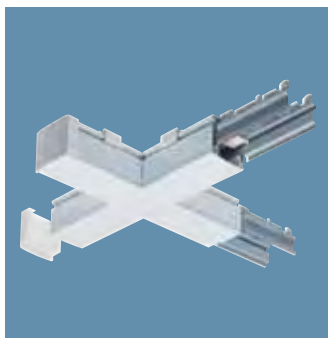
ZTX400 EC
Electrical connector for waterproof and surface mounted luminaires to the prewired trunking TTX400. This electrical connector can be clicked on the connection block as mounted standard in the TTX400 light-line (also ZTX400 DC). The electrical connector comprises insert contacts and a strain reliever.



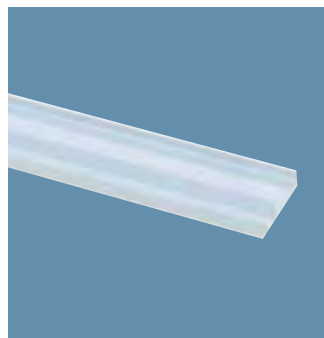
ZTX400 DC
A 5-pole connection block for connecting the electrical unit when using the unwired TTX410 profiles. The same connection block is used as additional block for the prewired TTX400 when connecting to emergency lighting, light regulation or other functions (in case more than 7 wires are needed). The connector is clicked inside the trunking and allows through-connection.

Accessory	European Order Code (EOC)
ZTX400 LB (2PCS)	09443499
ZTX400 WB (2PCS)	09445899
ZTX400 BR6	30281299
ZTX400 LB-FR	29565799

Accessory	European Order Code (EOC)
ZTX400 WB-FR	29567199
ZTX400 BR-SPOT	28938099
ZTX400 EC	10166899
ZTX400 DC	09837199



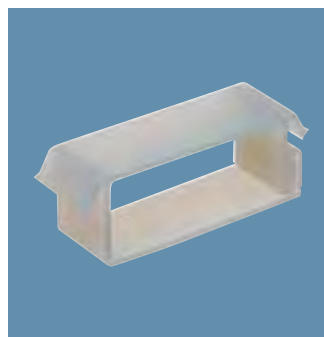
ZTX400 CPX
Structure parts with fixed angles, for use with prewired TTX400 light-line. This structure part is delivered with integrated coupling piece and internal through wiring. Can be used for X-, T- and L configurations.



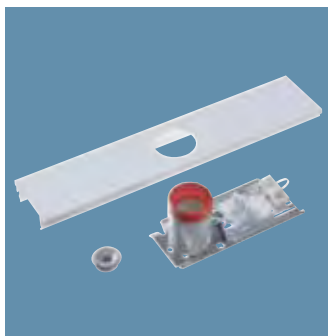
ZTX400 CD
Cable duct, for installing on the trunking, in white plastic, with a length of 2 or 3 electrical units. Can be closed with blind cover strips. To be used in combination with the suspension brackets ZTX400 UCD/CCD.



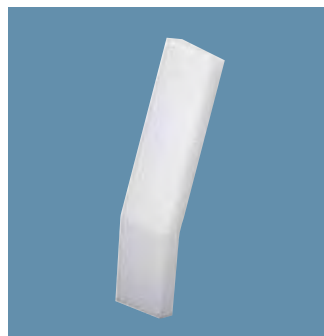
ZTX400 ECC
Cable clips for guiding and easy-click fixing of wires and/or cables on the top of the TTX400 or TTX410 trunking section.



ZTX410 ICC
Internal cable clips for guiding and fixing wires in the unwired TTX410 trunking section. Installation by simple click-in.



ZTX400 NE-E27
Orientation lighting unit for fitting in the TTX400 and TTX410 light-line. Can be used in combination with GMX430 EL reflector and a 36 W unit. The connection is made by an additional cable. The unit has an E27 lamp holder and can be clicked into the light-line.



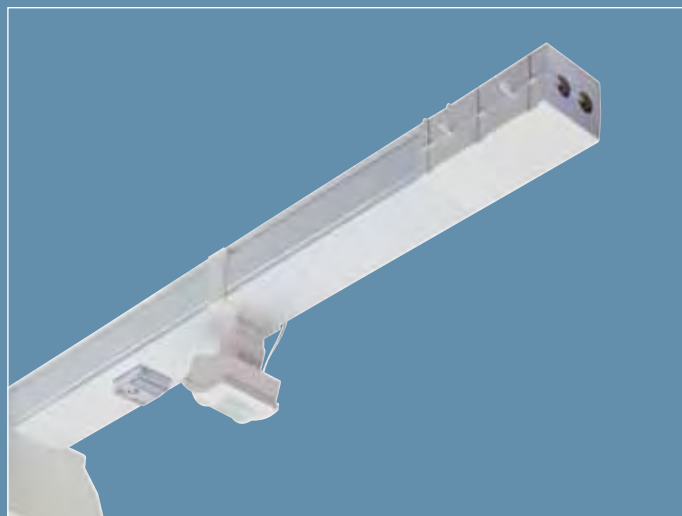
ZTX400 CP-555-MB/WB
Plastic coupling piece. Two coupling pieces per TL5 junction.



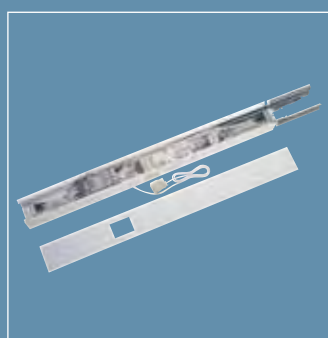
ZTX400 EP-555-MB/WB
Plastic end plate for closing off the trunking section at the end of each TL5 light-line.

Accessory	European Order Code (EOC)
ZTX410 CP	09887699
ZTX400 CPX	28980900
ZTX400 CD492	30571499
ZTX400 CD493	30569199
ZTX400 CD542	30586899
ZTX400 CD543	30588299
ZTX400 CD582	09447299
ZTX400 CD583	09449699

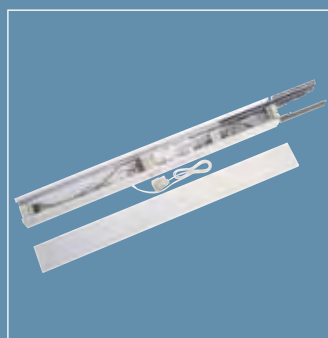
Accessory	European Order Code (EOC)
ZTX400 ECC	09441099
ZTX410 ICC	09433599
ZTX400 NE-E27	09437399
ZTX400 CP-555-MB	68446899
ZTX400 CP-555-WB	68444499
ZTX400 EP-555-MB	6843899
ZTX400 EP-555-WB	68440699



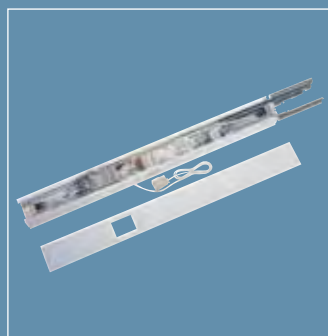
ZTX400 MDU-D/MDU-P/MDU-R



ZTX400 MDU-D
ZTX400 MDU-D LINESENSE unit suitable for, movement detection (dimming or switching off), daylight linking and manual control. Works with HFR DALI ballasts.



ZTX400 MDU-R
ZTX400 MDU-R LINESENSE unit for movement detection. Light dims down to 3% when no movement is detected. No black areas in the hall for a better visual comfort. Works with HFR ballasts.



ZTX400 MDU-P
ZTX400 MDU-P LINESENSE unit for movement detection. Light switches off when no movement is detected. Works with HFP ballasts.

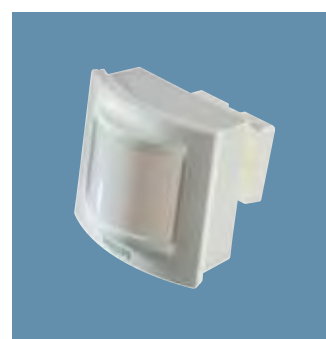
TTX400 Linesense

TTX400 with Lighting Controls

Applying Lighting Controls in industry contributes to efficient and effective lighting solutions. For TTX400 applications, Philips Lighting offers various standard trunking system based controls solutions, included in the Linesense range. These solutions offer an intelligent light-line, which remains easy-to-install.

With Linesense, TTX400 and lighting controls are combined in one. The speed and ease of installation of TTX400 remains when Linesense is used. In addition, substantial energy savings up to 75 % can be achieved. Linesense has been developed for industrial applications like warehouses.

Linesense consists of a 618 mm piece of trunking, which is fully pre-equipped and wired to be added to the trunking. The control function is integrated into this extra unit, and can easily be clicked between the light-line and the electrical connection unit. High bay movement detectors are connected with standard RJ-12 cables and mounted at the right location with the use of dedicated brackets. Linesense is equipped as standard with a telejack splitter to easily connect the detectors to the light-line.



LRM8117/00
High-bay passive infrared movement detector (mounting height up to 15 metres), equipped with an adjustable delay timer (up to 35 minutes). Can be used with all three MDU control units. A dedicated mounting bracket (ZTX400 MB-MDU) is available in which the movement detector can be clicked.

Accessory	Weight (kg)	European Order Code (EOC)
LRM8117/00	-	51847300
ZTX400 MB-MDU	-	30377299
ZTX400 MDU-D	1.00	30324699
ZTX400 MDU-R	1.00	30327799
ZTX400 MDU-P	1.00	30329199