



# MINO 60 system

ceiling/ suspended

**EN** Luminaire housing from extruded aluminium profile, angular design; no visible screws; for lighting systems; powder coated; luminaire profile for mounting available in advance; remaining components mounted without tools; pendant fitting with cable suspension; height adjustment without tools; spring clip attachment to the luminaire; with feeder cable; light inset consisting of highly reflective coated extruded profile for improved thermal management; option: lighting module is versatile in length; HPO (High Performance Opal) cover for uniform illumination; micro prismatic PMMA diffuser incl. diffuser film for homogeneous illumination and reduced luminance; wallwasher light inset; energy-eff. LEDs – very good colour rendering

**ES** Cuerpo de perfil de aluminio con diseño angular; sin tornillos visibles; para sistemas de iluminación; recubierto de polvo; Perfil disponible para pre-montaje; los demás componentes se pueden montar sin herramientas; suspendido con cable; altura regulable sin herramientas; fijación en la lámpara por medio de clips elásticos; incl. cable de alimentación; elemento de luz formado por perfil extruido con acabado altamente reflectante para una gestión térmica mejorada; elemento de luz opcional recortable a discreción; difusor opal de alta calidad que proporciona una iluminación uniforme; cubierta microprismática de PMMA con lámina difusora para la reducción de iluminancia y un alumbrado homogéneo; inserto bañador de pared; LED energét. efíc. – excelente reprod. crom.

## Quickinfo

3000 K, 4000 K, TW  
 CRI ≥ 80, CRI ≥ 90, 3 SDCM  
 up to 2750 lm/m  
 up to 146 lm/W  
 L90 @ 50 000 h  
 non DIM, DALI-2  
 opal, microprismatic (UGR ≤ 19)

## Types



## Colours



## Light distributions



**DiiA® standards**  
251, 252, 253



**single luminaire**



**wallwasher inset**



**concrete install. housing**



**flexible inset**



**microprismatic UGR ≤ 19**



**tunable white**  
2700–6500 K



**CRI ≥ 98**  
**XPECTRUM**

### Order options

<b>LED TYPE</b>	
mid lumen	L
high lumen	M

<b>COLOUR TEMPERATURE</b>	
3000 K (CRI ≥ 90)	0
4000 K (CRI ≥ 90)	1
3000 K (CRI ≥ 80)	5
4000 K (CRI ≥ 80)	6
tunable white 2700–6500 K*	
*DALI-2 DT8	

<b>CONTROL</b>	
non DIM	1
DALI-2 (only high lumen)	3

<b>MATERIAL COLOUR</b>	
○ pure white RAL 9010	7
● white aluminium RAL 9006	G
● jet black RAL 9005	8
● special colours	X

<b>LIGHT OPTIC COVER</b>	
opal high performance	H
microprismatic	Z
microprismatic (UGR ≤ 19)*	G
blind cover only for corner 90°	B
*UGR ≤ 19 only with mid lumen	

<b>EMERGENCY LIGHT</b>	
1h Accupack	1
3h Accupack	3

### Options on request

<b>COLOUR RENDERING INDEX</b>
CRI ≥ 98 XPECTRUM

<b>CONNECTORS</b>
X- and T-connector

**LUMINOUS FLUX** value calculated for CRI ≥ 80, colour white, cover opal microprismatic -13%

### MINO 60 ceiling/suspended

#### INSTALLATION CHANNEL / CORNER 90°

TYPE	L (mm)	ORDER CODE
channel	1172	046-400401
channel	1472	046-400501
channel	3000	046-400901
channel	custom	E85031 ····
channel corner 90° + cover	150x150	046-401121

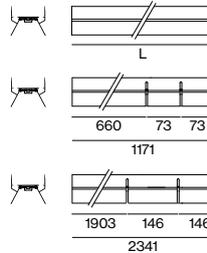
#### LIGHT OPTIC COVER/BLIND COVER

TYPE	L (mm)	ORDER CODE
linear	1171	006-16122
linear	1470	006-16152
linear	2997	006-16302
linear	custom	E80630 ···· 0
continuous linear	6000	006-23061H
continuous linear	25000	006-23251H
blind cover	3000	006-1830
blind cover	custom	E80630 ····



#### LIGHT INSET 60

SYSTEM POWER (MID/HIGH LUMEN)	L (mm)	ORDER CODE
6.9/12.1W	571	007-93
10.3/17.5W	871	007-93
13.3/23.3W	1171	007-93
16.6/29.1W	1463	007-93
26.6/45W	2341	007-93
33/58W	2997	007-93
13.3/23.3W flex	660-1171	007-93
26.6/45W flex	1903-2341	007-93



COVER	COLOUR TEMP.	SYSTEM POWER	DELIVERED LUMENS	EFFICACY
mid lumen/opal	3000K	11W/m	1400lm/m	123lm/W
high performance	4000K		1600lm/m	146lm/W
high lumen/opal	3000K	20W/m	2370lm/m	119lm/W
high performance	4000K		2700lm/m	135lm/W

#### LIGHT INSET 60 tunable white 2700–6500K

SYSTEM POWER	L (mm)	ORDER CODE
19W	871	007-9333D37
25.3W	1171	007-9334D37
31W	1463	007-9335D37
49W	2341	007-9338D37

### Accessories

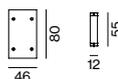
#### END CAPS

TYPE	ORDER CODE
end caps (pair)	046-501001



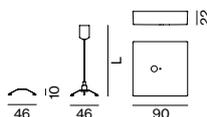
#### LINEAR CONNECTOR/THROUGH WIRE

TYPE	ORDER CODE
linear connector (1 piece)	005-40046
linear connector (10 pieces)	005-40046.10
opal cover linear connector	006-14000
through wire 3 × 1.5 mm <sup>2</sup> (non DIM, 10 pieces)	004-90003
through wire 5 × 1.5 mm <sup>2</sup> (DALI-2, 10 pieces)	004-90005



#### CEILING CLIP / CABLE SUSPENSION / CANOPY

TYPE	L (mm)	ORDER CODE
ceiling clip	10	034-111636
cable suspension	1500	005-2122110
canopy/feeder cable 3 × 1.5 mm <sup>2</sup>	1500	005-221231
canopy/feeder cable 5 × 1.5 mm <sup>2</sup>	1500	005-221241
cable rail	1200	005-2491110



for electrical system configuration see luminaire data sheet at xal.com



# WALLWASHER

inset 60/100

**EN** Lighting module with specially computed, asymmetrical high gloss reflector for homogeneous vertical lighting; lighting module in aluminium, powder coated, installation without tools

**DE** Lichteinsatz mit speziell berechnetem, asymmetrischem Hochglanz-Reflektor für homogene vertikale Beleuchtungen; Lichteinsatz aus pulverbeschichtetem Aluminium werkzeuglos einsetzbar

## Quickinfo

3000K, 4000K  
CRI ≥ 80, 3 SDCM  
up to 96lm/W  
L80 @ 50000h  
non DIM, DALI-2

## Types



## Colours



## Light distribution



wall washer

### Order options

COLOUR TEMPERATURE	
3000K	5
4000K	6

CONTROL	
non DIM	1
DALI-2	3

MATERIAL COLOUR	
○ pure white RAL 9010	7
● white aluminium RAL 9006	G
● jet black RAL 9005	8

### LIGHT OPTIC

wallwasher

### Planning information



### MOUNTING DISTANCE

H (mm)	A (mm)
2750	900
3000	1000
3500	1200



### INSET 60 wallwasher



**LIGHT INSET** only for recessed or surface mounting

SYSTEM POWER	L (mm)	ORDER CODE
10.6 W	571	007-9042
14 W	871	007-9043
18.7 W	1171	007-9044
23 W	1471	007-9045

### Technical data

SYSTEM POWER	COLOUR TEMPERATURE	DELIVERED LUMENS	EFFICACY
17 W/m	3000 K	1960 lm/m	121 lm/W
	4000 K	2070 lm/m	128 lm/W



INSET 60 wallwasher, 18.7 W, 3000 K

#### ROOM VALUES

Wall dimensions	H = 2.8 m   W = 10.8 m
Distance to wall	B = 1.3 m
Distance between luminaires	continuous
Reflection factor	0.7   0.5   0.2
Maintenance factor	0.8

#### CALCULATION SURFACE

Surface dimensions	10.8 × 2.8 m
Surface height	0 – 2.8 m
Eye level	1.35 m – 1.75 m



### INSET 100 wallwasher



**LIGHT INSET**

SYSTEM POWER	L (mm)	ORDER CODE
20 W	571	007-9052
30 W	871	007-9053
40 W	1171	007-9054
51 W	1463	007-9055

#### CABLE SUSPENSION

TYPE	L (mm)	ORDER CODE
inset 100 wallwasher	1500	005-2132310

installation channel is required for mounting



### Technical data

SYSTEM POWER	COLOUR TEMPERATURE	DELIVERED LUMENS	EFFICACY
35 W/m	3000 K	2820 lm/m	82 lm/W
	4000 K	2990 lm/m	87 lm/W



INSET 100 wallwasher, 30 W, 3000 K

#### ROOM VALUES

Wall dimensions	H = 2.8 m   W = 10.8 m
Distance to wall	B = 1.3 m
Distance between luminaires	continuous
Reflection factor	0.7   0.5   0.2
Maintenance factor	0.8

#### CALCULATION SURFACE

Surface dimensions	10.8 × 2.8 m
Surface height	0 – 2.8 m
Eye level	1.35 m – 1.75 m

### Light distribution



asymmetric

LUMINOUS FLUX value calculated for CRI ≥ 80, colour white, reflector chrome

**Order options**

NUMBER OF PIECES	
2 pieces	2
3 pieces	3



**FRAME 40/MINO 40**

**HOUSING FOR CONCRETE INSTALLATION**

TYPE	L (mm)	ORDER CODE
FRAME 40 trim	3010	0 0 5 - 4 1 3 5 6
MINO 40	3010	0 0 5 - 4 1 3 5 6

**MOUNTING SET**

TYPE	ORDER CODE
FRAME 40 trim	0 3 5 - 0 6 0 2 
MINO 40	0 3 4 - 0 6 0 2 

up to 900 mm: 2 pieces / up to 1500 mm: 3 pieces / up to 3000 mm: 2 x 2 pieces

**END CAPS**

TYPE	ORDER CODE
end caps (pair)	0 0 5 - 4 1 2 3 6

**LINEAR CONNECTOR**

TYPE	ORDER CODE
linear connector (1 piece)	0 0 5 - 4 1 1 6 6
linear connector (10 pieces)	0 0 5 - 4 1 1 6 6 . 1 0

**CORNER CONNECTOR 90°**

TYPE	L (mm)	ORDER CODE
FRAME 40 trim	140	0 3 5 - 0 6 0 1 6
MINO 40	140	0 3 5 - 0 6 0 1 6



**Note**  
only for installation in concrete ceilings  
no use for wall installation (only on request)

**CONCRETE** installation housing

**EN** Concrete casting made of aluminium profile, designed for continuous lighting systems

**DE** Betoneingießgehäuse aus Aluminiumprofil, ausgelegt für durchgehende Lichtsysteme

## Order options

NUMBER OF PIECES	
2 pieces	2
3 pieces	3



## FRAME 60/MINIMAL 60/MINO 60/BASO 60

### HOUSING FOR CONCRETE INSTALLATION

TYPE	L (mm)	ORDER CODE
FRAME 60 trim	3000	005-41346
BASO 60 IP54 trim	3000	005-41346
MINIMAL 60 trimless	3000	005-41346
MINO 60 ceiling	3000	005-41446
BASO 60 IP54 surface	3000	005-41446

### MOUNTING SET

TYPE	ORDER CODE
FRAME 60 trim	035-0600
BASO 60 IP54 trim	035-0600
MINIMAL 60 trimless	036-0400
MINO 60 ceiling	034-0400
BASO 60 IP54 surface	034-0400

up to 900mm: 2 pieces / up to 1500mm: 3 pieces / up to 3000mm: 2 x 2 pieces

### END CAPS

TYPE	ORDER CODE
end caps (pair)	005-41246

### LINEAR CONNECTOR

TYPE	ORDER CODE
linear connector (1 piece)	005-41166
linear connector (10 pieces)	005-41166.10

### CORNER CONNECTOR 90°

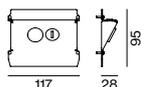
TYPE	L (mm)	ORDER CODE
FRAME 60 trim	142	035-04016
BASO 60 IP54 trim	142	035-04016
MINIMAL 60 trimless	146	036-04016
MINO 60 ceiling	157	034-04016
BASO 60 IP54 surface	157	034-04016

## FRAME 100/MINIMAL 100/MINO 100

### HOUSING FOR CONCRETE INSTALLATION



TYPE	L (mm)	ORDER CODE
FRAME 100 trim	3000	005-41366
MINIMAL 100 trimless	3000	005-41366
MINO 100 ceiling	3000	005-41466



### MOUNTING SET

TYPE	ORDER CODE
FRAME 100 trim	035-0600
MINIMAL 100 trimless	036-0500
MINO 100 ceiling	034-0400

up to 900mm: 2 pieces / up to 1500mm: 3 pieces / up to 3000mm: 2x2 pieces

### END CAPS

TYPE	ORDER CODE
end caps (pair)	005-41266

### LINEAR CONNECTOR

TYPE	ORDER CODE
linear connector (1 piece)	005-41166
linear connector (10 pieces)	005-41166.10

### CORNER CONNECTOR 90°

TYPE	L (mm)	ORDER CODE
FRAME 100 trim	202	035-05016
MINIMAL 100 trimless	207	036-05016
MINO 100 ceiling	207	034-05016