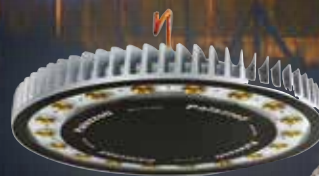




# **Palazzoli**

ATEX catalogue book 2017-2018

## **SOLUTIONS FOR EXPLOSIVE ATMOSPHERES**



# Tested Quality

Palazzoli ATEX equipments are designed and manufactured in order to avoid the risk of ignition.

Each equipment is approved and certified by a notified body in compliance with the Directive 2014/34/EU which guarantees the conformity for installation in hazardous areas.

Each ATEX enclosure is tested as follows in compliance with EN 60079-0 standards:



- 1) Operating temperature  
in order to determine the maximum operating temperature of the equipment.



- 2) Temperature Endurance Test  
in climatic room at the maximum service temperature measured with the previous test with 90% humidity for 4 weeks, and at the minimum temperature  $-25^{\circ}\text{C} \div -30^{\circ}\text{C}$  for one day.



- 3) Impact test  
tested at  $+10^{\circ}\text{C} \div 15^{\circ}\text{C}$  and  $-5^{\circ}\text{C} \div 10^{\circ}\text{C}$  of the maximum operating temperature.






- 4) IPXX protection rating test  
(dust and water).



- 5) Tests on specific methods of protection  
(pressure test, restricted breathing test, dielectric tests).

The technical characteristics of the equipments included in this catalogue are defined after the sequence of the above reported tests, in the indicated order and on the same sample piece.

# Certified Quality

 Organismo autorizzato n. 0051 con D.M. 14 aprile 2014		 Emesso / Issued on: 2007-01-11 Data di aggiornamento / Updated on: 2016-04-12 Sostituisce / Replaces: 2015-06-17	
<b>Notifica / Notification</b>			
[1]	<b>Direttiva 94/9/CE</b> <b>Notifica della Garanzia di Qualità dei Prodotti</b>		<b>Directive 94/9/CE</b> <b>Product Quality Assurance Notification</b>
[2]	Apparecchiature o Sistemi di Protezione destinati ad essere utilizzati in atmosfere potenzialmente esplosive - Direttiva 94/9/CE / Equipment or Protective System intended for use in potentially explosive atmospheres - Directive 94/9/CE		
[3]	Numero della Notifica / Notification number		
IMQ 07 ATEXQ 001			
[4]	Tipo di prodotto o componente / Equipment or component type		Modo di protezione / Type of protection
Vedere pagina [4.1] / See page [4.1]		Ex "tb"; "e"	
[5]	Richiedente, Costruttore o Rappresentante nella Comunità / Applicant, Manufacturer or Authorised representative in the Community		[6] Costruttore / Manufacturer
PALAZZOLI S.p.A. Via F. Palazzoli, 31 - 25128 Brescia		PALAZZOLI S.p.A. Via F. Palazzoli, 31 - 25128 Brescia	
[7]	L'IMQ, organismo notificato n. 0051, in conformità all'articolo 9 della Direttiva 94/9/CE del Consiglio dell'Unione Europea del 23 Marzo 1994, notifica che il costruttore ha un Sistema di Qualità della Produzione conforme all'Allegato VII della Direttiva.		
[8]	Questa notifica è basata sulle verifiche effettuate in data 16.04.2014 + 14/15.05.2015 + 05.04.2016		
Questa notifica può essere ritirata se il costruttore non rispetta più i requisiti dell'Allegato VII. / This notification can be withdrawn if the manufacturer no longer satisfies the requirements of Annex VII. / I risultati delle verifiche periodiche del Sistema di Qualità sono parte di questa notifica. / Result of periodical re-assessment of the Quality System are a part of this notification.			
[9]	La presente notifica è valida fino al 16.06.2018 e può essere ritirata se il costruttore non soddisfa le verifiche periodiche di Garanzia Qualità dei Prodotti. / This notification is valid until 16.06.2018 and can be withdrawn if the manufacturer does not satisfy the Product Quality Assurance periodic audits.		
[10]	In accordo con l'articolo 10 paragrafo 1 della Direttiva 94/9/CE la marcatura CE deve essere seguita dal n. 0051 che identifica l'organismo notificato dipendente al controllo della Produzione. / According to Article 10 (1) of the Directive 94/9/CE the CE marking shall be followed by the identification n. 0051 identifying the notified body involved in the production control stage.		
			
Mod. 1083 S			

In compliance with the Directive 2014/34/EU of the European Parliament, IMQ notified that Palazzoli has a production quality system according to the Annex VII of the Directive.

Palazzoli products for Zones 1, 2, 21, 22 are approved by a notified body and have IECEx certification.



IECEx Certificate of Conformity  
INTERNATIONAL ELECTROTECHNICAL COMMISSION  
IEC Certification Institute for Explosive Atmospheres

Certificate No: 2220-ENX-1000001  
Issue Date: 2014-04-23  
Applicant: Palazzoli S.p.A.  
Electrical Operation: Intended for use in potentially explosive atmospheres (type IEx) - IECEx Certificate No. 2220-ENX-1000001

Approved for issue on behalf of the IECEx: [Signature]

Ex-Agenoija



**CERTIFICATO**  
CERTIFICATO DI ESAME CE DEL TIPO

Apparecchiature o Sistemi di Protezione destinati ad essere utilizzati in atmosfere potenzialmente esplosive - Direttiva 94/9/CE

Numero del Certificato di Esame CE del tipo: **TÜV IT 14 ATEX 033**

Apparecchiatura e Sistema di Protezione: Puffatore a stagne fluorescenti con alimentazione elettrica per installazione fissa Serie RND-EX

Costruttore: Palazzoli S.p.A.

Indirizzo: Via Federico Palazzoli, 31 - 25128 Brescia (BS) - ITALIA

Questo apparecchio o sistema di protezione e le sue eventuali varianti accettate sono descritti nell'Allegato al presente certificato e nei documenti descritti pure riportati in esso.

Il TÜV Italia, organismo notificato n. 0948 in conformità all'articolo 9 della Direttiva (94/9/CE) del Consiglio dell'Unione Europea del 23 Marzo 1994, certifica che questa apparecchiatura o sistema di protezione è conforme ai Requisiti Essenziali di Sicurezza e Salute per il progetto e la costruzione di apparecchiature e sistemi di protezione destinati ad essere utilizzati in atmosfere potenzialmente esplosive, definiti nell'Allegato I della Direttiva.

Le verifiche ed i risultati di prova sono registrati nel rapporto e cartello riservati n° IT 14 EX 005.

La conformità ai Requisiti Essenziali di Sicurezza e Salute è assicurata dalla conformità alle: **EN 60779-0 : 2012; EN 60779-13 : 2013; EN 60779-31 : 2008**

Il simbolo "X" posto dopo il numero del certificato indica che l'apparecchiatura o il sistema di protezione è soggetto a condizioni speciali per un utilizzo sicuro, specificate nell'Allegato al presente certificato.

Questo CERTIFICATO DI ESAME CE DEL TIPO è relativo soltanto al progetto, all'esame ed alle prove dell'apparecchiatura o sistema di protezione specificato in accordo con la Direttiva 94/9/CE. I termini requisiti di questa Direttiva si applicano al processo di produzione e fornitura dell'apparecchiatura o sistema di protezione. Questi requisiti non sono oggetto del presente certificato.


 II 3D Ex nA IIC T4 Gc  
 II 2D Ex Ib IIC T85°C Dc

Questo certificato, allegato incluso, può essere riprodotto solo integralmente e senza alcuna variazione.

Data di emissione: 23 Aprile 2014


 Approvato  
  
 Giovanni Di Leo  
 Industrie Service Director

TÜV Italia • Gruppo TÜV SÜD • Via Carrozzini 126, Pal. 01 • 38088 Sarnoniano (TN) • Italia • www.tuv.it TÜV

# RINO-EX Series

## Zones 2, 22

LED LIGHTING FIXTURES IN STAINLESS STEEL



ZONE	GAS			DUST		
	0	1	2	20	21	22
USABLE			X			X

Watertight lighting fixtures suitable for applications in areas at risk of explosive atmospheres as defined in ATEX Directive 2014/34/EU.

The lighting fixture is equipped with LED strips, 4000K colour temperature and CRI $\geq$ 80, installed on an ultra-bright aluminium reflector. The body is cold-drawn in a single piece. The diffuser is in tempered glass without metallic frame. The IP66 rating is guaranteed by a reinforced gasket in anti-ageing elastomer and hooks in stainless steel AISI304. The cable entry is made with a M20 cable gland in technopolymer.

CERTIFICATES	INSTRUCTIONS

Conformity to standards	Directive 2014/35/EU EN 60598-1:2015 EN 60598-2-1:1997 EN 62471:2008 EN 60598-2-22:2014 Directive 2014/30/EU EN 62493:2015 Directive 2011/65/EU Directive 2014/34/EU EN 60079-0:2012+A11:2013 EN 60079-15:2010 EN 60079-31:2014
ATEX execution	Ex II 3G 3D Ex nR IIC T6 Gc Ex tc IIIC T 70 °C Dc
Body material	Stainless steel AISI 304 Zinc and powder coated steel
Diffuser material	Tempered glass
Protection rating (IP as per IEC/EN 60529)	IP66
Painting	Non-toxic polyester resistant to weather conditions and UV rays
Colour	RAL 9016 (zinc and powder coated steel version)
LED colour temperature	4000K
CRI	$\geq 80$
Insulation class	I
Rated voltage	230V
Frequency	50-60Hz
Power factor	$\geq 0,9$
Max cable section	2,5 mm <sup>2</sup>
Entry cable diameter	10 -14 mm
Emergency battery lifetime	1h (3h on request)
Emergency battery recharging time	24h
Estimated device lifetime	L80 B10 @50.000h Ta=25°C
Storage temperature	-40°C - +70°C
Operating temperature	-25°C - +40°C



The photometric curves (LDT files) are available on [www.palazzoli.com](http://www.palazzoli.com).



SUITABLE FOR ZONES 2 (GAS) AND 22 (DUST)

**NEW**



1 entry on one side



M20 cable gland technopolymer

RINO-EX LED SERIES  
LED lighting fixtures  
stainless **steel-glass**  
with **extra wide** beam  
230V **IP66**

Lamp power (W)	Length (mm)	Nominal flux (lm)	Power supply	Photometric curves	Palazzoli code	Pack Q.ty
24	690	3300	electronic	20	<b>822142EX</b>	1
38	1300	5600	electronic	21	<b>822242EX</b>	1
44	1600	6500	electronic	24	<b>822342EX</b>	1
19	690	2750	emergency	22	<b>822140EX</b>	1
36	1300	5250	emergency	23	<b>822240EX</b>	1
44	1600	6500	emergency	24	<b>822340EX</b>	1

**Equipment included:** pair of hooks for pendant mounting.

**Note:** the luminous flux may be subject to a tolerance of +/- 7%.

**NEW**



1 entry on one side



M20 cable gland technopolymer

RINO-EX SERIES  
LED lighting fixtures  
**powder coated steel - glass**  
with **extra wide** beam  
230V **IP66**

Lamp power (W)	Length (mm)	Nominal flux (lm)	Power supply	Photometric curves	Palazzoli code	Pack Q.ty
24	690	3300	electronic	20	<b>842142EX</b>	1
38	1300	5600	electronic	21	<b>842242EX</b>	1
44	1600	6500	electronic	24	<b>842342EX</b>	1
19	690	2750	emergency	22	<b>842140EX</b>	1
36	1300	5250	emergency	23	<b>842240EX</b>	1
44	1600	6500	emergency	24	<b>842340EX</b>	1

**Equipment included:** pair of hooks for pendant mounting.

**Note:** the luminous flux may be subject to a tolerance of +/- 7%.



RINO SERIES  
Pair of **hooks**  
for **pendant** mounting  
of steel lighting fixtures  
with through coupling

Manufacturing material	Palazzoli code	Pack Q.ty
stainless steel AISI 304	<b>820001</b>	1

**Equipment included:** lighting fixture washers and fixing nuts.



RINO SERIES  
Pair of **swivelling supports**  
for **ceiling or wall** mounting  
of steel lighting fixtures  
with through coupling

Rotating angle	Manufacturing material	Palazzoli code	Pack Q.ty
± 75°	stainless steel AISI 304	<b>820000</b>	1

**Equipment included:** lighting fixture washers and fixing nuts.



RINO SERIES  
Pair of **collars**  
for mounting **on tube**  
of steel lighting fixtures  
with through coupling

Manufacturing material	Tube diameter ø (mm)	Palazzoli code	Pack Q.ty
stainless steel AISI 304	60	<b>820006</b>	1

**Equipment included:** screws and accessories for fixing.

## RINO-EX Series

### Zones 1, 2, 21, 22

LIGHTING FIXTURES IN STAINLESS STEEL



ZONE	GAS			DUST		
	0	1	2	20	21	22
USABLE		X	X		X	X

Watertight lighting fixtures in stainless steel AISI 304 suitable for applications in areas at risk of explosive atmospheres as defined in ATEX Directive 2014/34/EU.

The diffuser is in tempered glass. The fixing hooks are in stainless steel AISI 304. The sealing is guaranteed by a reinforced gasket in non-ageing elastomer.

Complete with corrosion resistant non-loosening terminals and non-sparking lampholder.

Supplied with M20 cable gland.

Complete with internal and external earth connection.

Conformity to standards  
**ATEX Directive 2014/34/EU**  
**EN 60079-0: 2012**  
**EN 60079-7: 2007**  
**EN 60079-18: 2009**  
**EN 60079-31: 2014**  
**Directive 2014/30/EU**  
**EN 62493:2015**  
**Directive 2014/35/EU**  
**EN 60598-1: 2015**  
**EN 60598-2-1:1997**

Atex execution  
**Ex II 2G 2D**  
**Ex e mb IIC T4 Gb**  
**Ex tb IIIC T 70 °C Db**

Body material **Stainless steel AISI 304**

Diffuser material **Tempered glass**

Protection rating (IP as per IEC/EN 60529) **IP66**

Rated voltage **110 ÷ 240 Vac-dc**

Frequency **0-50-60Hz**

Power factor **≥ 0,9**

Lampholder **G13 T8 preventing the unhooking**

Max cable section **4 mm<sup>2</sup>**

Entry cable diameter **7-12 mm**

Insulation class **I**

Operating temperature **-40°C ÷ +55°C**



CERTIFICATES	INSTRUCTIONS

The photometric curves (LDT files) are available on [www.palazzoli.com](http://www.palazzoli.com).



SUITABLE FOR ZONES 1-2 (GAS) AND 21-22 (DUST)



**RINO-EX SERIES**  
Stainless steel-glass lighting fixtures with **white reflector** for tubes **T8** 230V **IP66**



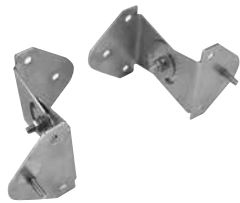
1 entry on one side



M20 cable gland brass

Lamp power (W)	Length (mm)	Power supply	Photometric curves	Palazzoli code	Pack Q.ty
1X18	690	electronic	8	<b>822181EX</b>	1
1X36	1300	electronic	8	<b>822281EX</b>	1
2X18	690	electronic	9	<b>822182EX</b>	1
2X36	1300	electronic	9	<b>822282EX</b>	1

**Characteristics:** fluorescent tubes are not included.  
Lighting fixture predisposed with 2+1 M20 holes for in-out connection.  
2 M8 threaded holes for fixing accessories.



**RINO SERIES**  
Pair of **swivelling supports** for **ceiling or wall** mounting of steel lighting fixtures with screw coupling

Rotating angle	Manufacturing material	Palazzoli code	Pack Q.ty
± 75°	stainless steel AISI 304	<b>820010</b>	1

**Equipment included:** screws and accessories for fixing.



**RINO SERIES**  
Pair of **"V" brackets** for ceiling mounting of steel lighting fixtures with screw coupling

Manufacturing material	Palazzoli code	Pack Q.ty
stainless steel AISI 304	<b>820017</b>	1

**Equipment included:** screws and accessories for fixing.



**RINO SERIES**  
Pair of **eyebolts** for **pendant** mounting of steel lighting fixtures with screw coupling

Manufacturing material	Palazzoli code	Pack Q.ty
stainless steel AISI 304	<b>820011</b>	1

**Equipment included:** screws and accessories for fixing.



**RINO SERIES**  
Pair of **collars** for mounting **on tube** of steel lighting fixtures with screw coupling

Manufacturing material	Tube diameter ø (mm)	Palazzoli code	Pack Q.ty
stainless steel AISI 304	60	<b>820016</b>	1

**Equipment included:** screws and accessories for fixing.



**RINO SERIES**  
**Symmetrical reflectors** for steel lighting fixtures

Manufacturing material	For lighting fixtures (W)	Palazzoli code	Pack Q.ty
aluminium	18	<b>820002</b>	1
aluminium	36	<b>820003</b>	1

## RINO-EX Series



### Zones 2, 21, 22

LIGHTING FIXTURES IN STAINLESS STEEL



ZONE	GAS			DUST		
	0	1	2	20	21	22
USABLE			X		X	X

Watertight lighting fixture in stainless steel AISI 304 suitable for applications in areas at risk of explosive atmospheres as defined in ATEX Directive 2014/34/EU. The diffuser is in tempered glass. The fixing hooks are in stainless steel AISI 304. The sealing is guaranteed by a reinforced gasket in non-ageing elastomer. Complete with corrosion resistant non-loosening terminals and non-sparking lampholder. Supplied with M20 cable gland. Complete with internal and external earth connection.

CERTIFICATES	INSTRUCTIONS
	

Conformity to standards  
**Directive 2014/35/EU**  
**EN 60598-1:2015**  
**EN 60598-2-1:1997**  
**EN 60598-2-22:2014**  
**Directive 2014/30/EU**  
**EN 62493:2015**  
**Directive 2011/65/EU**  
**Directive 2014/34/EU**  
**EN 60079-0:2009**  
**EN 60079-15:2010**  
**EN 60079-31:2009**

ATEX execution  
**Ex II 3G 2D**  
**Ex nA IIC T4 Gc**  
**Ex tb IIIC T 85 °C Db**  
**Ex II 3G 3D**  
**Ex nR IIC T6 Gc**  
**Ex tc IIIC T 70 °C Dc (emergency)**

Body material **Stainless steel AISI 304**

Diffuser material **Tempered glass**

Protection rating (IP as per IEC/EN 60529) **IP66**

Rated voltage **230V**

Frequency **0-50-60Hz**

Power factor **> 0,9**

Lampholder type **G13 T8**

Max cable section **2,5 mm<sup>2</sup>**

Entry cable diameter **10 - 14 mm**

Emergency battery lifetime **1h**

Emergency battery recharging time **24h**

Insulation class **I**

Operating temperature **-20°C ÷ +40°C (2 tubes)**  
**-20°C ÷ +50°C (1 tube)**



The photometric curves (LDT files) are available on [www.palazzoli.com](http://www.palazzoli.com).



SUITABLE FOR ZONES 2 (GAS) AND 21-22 (DUST)



**RINO-EX SERIES**  
Stainless steel-glass lighting fixtures with **white reflector** for **T8** tubes 230V **IP66**



Lamp power (W)	Length (mm)	Power supply	Photometric curves	Palazzoli code	Pack Q.ty
1X18	690	electronic	8	<b>822131EX</b>	1
1X36	1300	electronic	8	<b>822231EX</b>	1
1X58	1600	electronic	8	<b>822331EX</b>	1
2X18	690	electronic	9	<b>822132EX</b>	1
2X36	1300	electronic	9	<b>822232EX</b>	1
2X58	1600	electronic	9	<b>822332EX</b>	1
(1+1)x18	690	emergency	9	<b>822111EX</b>	1
(1+1)x36	1300	emergency	9	<b>822211EX</b>	1
(1+1)x58	1600	emergency	9	<b>822311EX</b>	1

**Equipment included:** pair of hooks in AISI 304 steel for pendant installation, code 820001.

**Characteristics:** fluorescent tubes are not included.

**Note:** the emergency lighting fixtures are suitable for zone 2 -22.



**RINO-EX SERIES**  
Stainless steel-glass lighting fixtures with **symmetrical reflector** for **T8** tubes 230V **IP66**



Lamp power (W)	Length (mm)	Power supply	Photometric curves	Palazzoli code	Pack Q.ty
1X18	690	electronic	10	<b>820131EX</b>	1
1X36	1300	electronic	10	<b>820231EX</b>	1
1X58	1600	electronic	10	<b>820331EX</b>	1
2X18	690	electronic	11	<b>820132EX</b>	1
2X36	1300	electronic	11	<b>820232EX</b>	1
2X58	1600	electronic	11	<b>820332EX</b>	1
(1+1)x18	690	emergency	11	<b>820111EX</b>	1
(1+1)x36	1300	emergency	11	<b>820211EX</b>	1
(1+1)x58	1600	emergency	11	<b>820311EX</b>	1

**Equipment included:** pair of hooks in AISI 304 steel for pendant installation, code 820001.

**Characteristics:** fluorescent tubes are not included.

**Note:** the emergency lighting fixtures are suitable for zone 2 -22.



**RINO SERIES**  
Pair of **hooks** for **pendant** mounting of steel lighting fixtures with through coupling

Manufacturing material	Palazzoli code	Pack Q.ty
stainless steel AISI 304	<b>820001</b>	1

**Equipment included:** lighting fixture washers and fixing nuts.



**RINO SERIES**  
Pair of **swivelling supports** for **ceiling or wall** mounting of steel lighting fixtures with through coupling

Rotating angle	Manufacturing material	Palazzoli code	Pack Q.ty
± 75°	stainless steel AISI 304	<b>820000</b>	1

**Equipment included:** lighting fixture washers and fixing nuts.

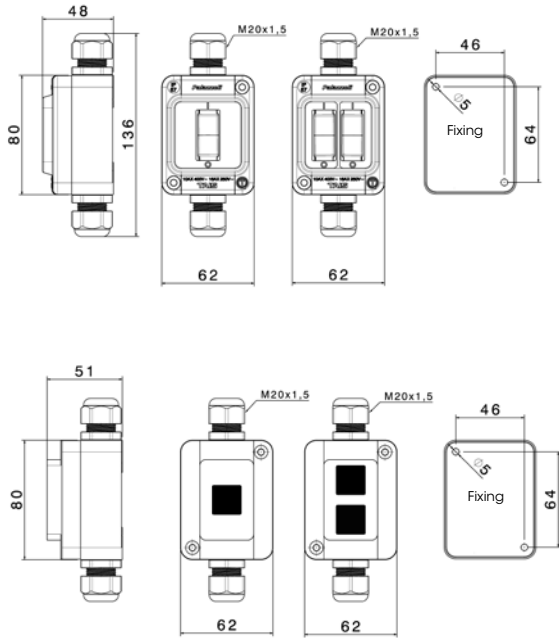


**RINO SERIES**  
Pair of **collars** for mounting **on tube** of steel lighting fixtures with through coupling

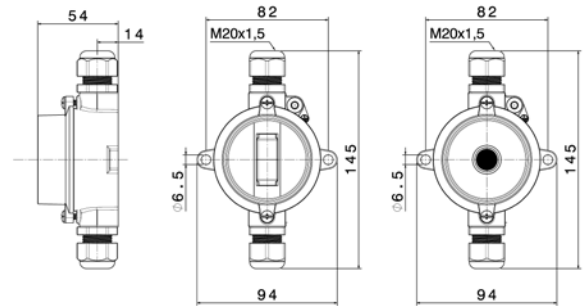
Manufacturing material	Tube diameter ø (mm)	Palazzoli code	Pack Q.ty
stainless steel AISI 304	60	<b>820006</b>	1

**Equipment included:** screws and accessories for fixing.

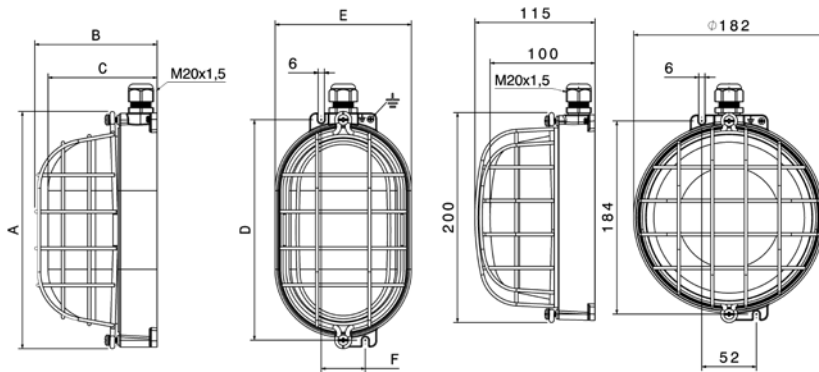
## TAIS MIGNON-EX Series



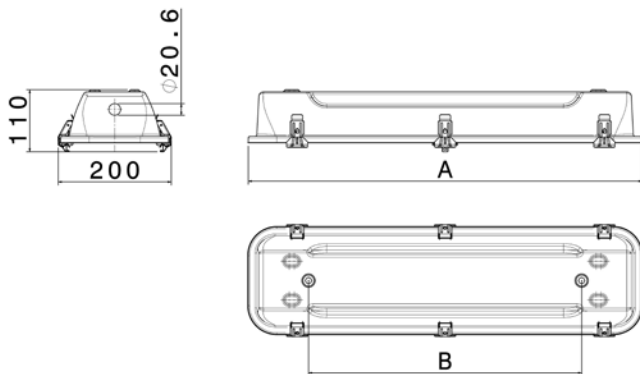
## RONDÒ-EX Series



## RINO-EX Series



Power (W)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
18	199	119	100	184	112	42
28	226	122	105	210	130	42
53	295	142	127	278	170	52





























Fluorescent lamp type	A (mm)	B (mm)
18W T8	690	480
36W T8	1300	1090
58W T8	1600	1395

LED type	A (mm)	B (mm)
19W - 24W	690	480
36W - 38W	1300	1090
44W	1600	1395



# Palazzoli

## Palazzoli range for ATEX zones

		GAS		DUST	
		ZONE 1	ZONE 2	ZONE 21	ZONE 22
POWER SUPPLY	Industrial plugs in antistatic material				
	Interlocked sockets in antistatic thermosetting (GRP)				
	Interlocked sockets in aluminium alloy				
JUNCTION	Boxes in antistatic thermosetting (GRP)				
	Boxes in aluminium alloy				
	Cable glands and adaptors		<b>NEW</b> 		
CONTROL - SIGNALLING	Rotary control devices in antistatic thermosetting (GRP)				
	Rotary control devices in aluminium alloy				
	Sirens and bells in aluminium alloy				
	Small control devices in antistatic thermosetting (GRP) and in aluminium alloy				
LIGHTING	High-bay led lighting fixtures in aluminium alloy				<b>NEW</b>  
	Lighting fixtures in stainless steel			<b>NEW</b>  	
	Oval and round bulkhead lamps in aluminium alloy		