



## UPR SERIES PLUGS AND SWITCHED RECEPTACLES — PRODUCT GUIDE



# DESIGNED WITH THE HIGHEST PERFORMANCE STANDARDS

Compact, lightweight, strong and corrosion resistant, UPR Series plugs and receptacles are ideal for connecting power in the most demanding industrial locations. The same plug used in hazardous locations can also be safely used with interlocking non hazardous location receptacles, simplifying the use of portable equipment throughout the facility.

## STANDARD MATERIALS

- Wall Socket: Polyamide
- Plug: Polyamide

## FEATURES

- Plug and socket system is designed with a mechanical interlock to insure disengagement cannot occur while energized.
- Large ON/OFF actuator on the receptacle gives clear, visible indication of the receptacle status for maximum hazardous location protection.
- Receptacle can be locked in 0 (Off) and 1 (On) positions.
- Different voltages are color coded for easy identification.
- The receptacles are keyed to accept only UPR plugs of the proper voltage.
- Receptacle is equipped with an explosion proof switch.
- UPR plugs can be used in non-hazardous IEC 60309-2 sockets.
- Operating temperature of -20 °C to +55 °C.



# CERTIFIED FOR OPERATIONAL SAFETY AND VERSATILITY

Appleton offers the product designs and certifications you need to ensure operational safety in your project design specification. With our newest innovation, specifiers now have a complete selection of Appleton products for every lighting and electrical requirement – including plugs and receptacles that meet IECEx/ATEX requirements.

## SUITABLE APPLICATIONS

- Plugs and receptacles are used for portable or stationery electrical equipment such as:
  - Lighting systems
  - Conveyors
  - Heaters
  - Motor generators
  - Air conditioning equipment
  - Compressors
  - Pumps
- For use in corrosive atmospheres and installations in Zone 1 and 2 and 21 and 22 in the oil and gas industry such as:
  - Refineries
  - Chemical and petrochemical plants
  - Pipelines
  - Loading docks
  - Onshore and offshore drilling platforms

## CERTIFICATIONS AND COMPLIANCES

- ATEX/IECEx Certification Type UPR
  - Gas: Zones 1 and 2
    - Conforming to ATEX 2014/34/EU: Ⓜ II 2 G
    - Type of Protection: Ex db eb IIB
    - Temperature Class: T6 for  $T_a \leq +40\text{ }^\circ\text{C}$  and T5 for  $+55\text{ }^\circ\text{C}$
  - Dust: Zones 21 and 22
    - Conforming to ATEX 2014/34/EU: Ⓜ II 2 D
    - Type of Protection: Ex tb IIIB
    - Surface Temperature: T79  $^\circ\text{C}$  ( $T_a +40\text{ }^\circ\text{C}$ ); T94  $^\circ\text{C}$  ( $T_a +55\text{ }^\circ\text{C}$ )
  - Ambient Temperature:  $-20\text{ }^\circ\text{C} \leq T_a \leq +55\text{ }^\circ\text{C}$  ( $-4\text{ }^\circ\text{F} \leq T_a \leq +131\text{ }^\circ\text{F}$ )
  - Index of Protection according EN/IEC 60529: IP66
  - Impact Resistance (shock): IK09
  - CE Declaration of Conformity: 50311
  - ATEX Certificate: LCIE 15 ATEX 3054X
  - IECEx Certificate: IECEx LCIE 15.0044X

## SUITABLE LOCATIONS



CONVEYORS



COMPRESSORS



REFINERIES



CHEMICAL AND PETROCHEMICAL PLANTS

# THE RELIABLE CHOICE FOR SAFELY SUPPLYING POWER

Appleton's UPR Series plugs and receptacles feature rugged nonmetallic construction, voltage color-coding, keyed design and lockable switch. Available in 16 Amp and 32 Amp models, UPR Series plugs and receptacles are a reliable choice for supplying power safely in harsh, rugged and hazardous locations.

## LOCKABLE EXTERNAL SWITCH

Complies with IEC 60309-1, visually confirms on/off status, can be locked in either position



## INTERLOCKING DEADFRONT DESIGN

Plug must be fully inserted and locked into place before switch can be energized

## COLOR CODING

Provides easy identification of plugs and receptacles wired for matching voltage

## AMPERAGE-SPECIFIC SHELL DIAMETER

Prevents insertion of 16 Amp plug into 32 Amp receptacle

## KEYED DESIGN WITH "CLOCKED" GROUND-PIN POSITION

Prevents insertion of plugs into receptacles wired for a different voltage or phase configuration



## ERGONOMIC PLUG DESIGN

Provides for ease of use and superior strain relief

# UPR SERIES 16 AMP PLUGS AND SOCKETS



**Wall Mounting Socket (LV)**

- Two M25 threaded entries on the bottom. Available on top upon request.
- Supplied with one M25 cable gland – Ø 8 to Ø 18.5 mm and one M25 blanking plug.
- Terminal capacity 2 x 2.5 to 4 mm<sup>2</sup> (#14 to #12 AWG). Can be through-wired up to 4 mm<sup>2</sup> (#12 AWG).
- Fitted with two linked earth terminals.



**Plug (LV)**

- Integrated cable clamp – Ø 9.2 to Ø 17 mm.
- Terminal capacity 2.5 to 4 mm<sup>2</sup> (#14 to #12 AWG).

## LV: LOW VOLTAGE


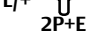

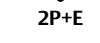
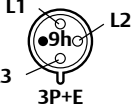
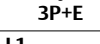
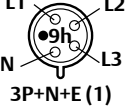
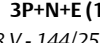
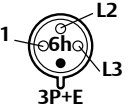
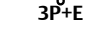
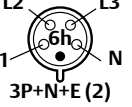
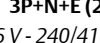


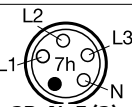

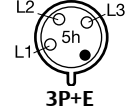
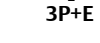
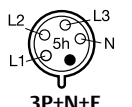
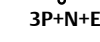
Yellow	Blue	Red	Black
100/130 Vac	200/250 Vac	380/415 Vac	480/500 Vac
			600/690 Vac

## TECHNICAL DATA

	Breaking Capacity	
AC1	16 Amp	690 Vac
	8 Amp	500 Vac
AC3	4 Amp	690 Vac
	16 Amp	690 Vac
AC15	16 Amp	415 Vac
DC1	10 Amp	24 Vdc
	6 Amp	50 Vdc

Short Circuit Withstand (ICC) : 10kA

# UPR SERIES 16 AMP PLUGS AND SOCKETS

Description	Pin Configuration	Weight kg	Volume dm <sup>3</sup>	Color	Catalog Number
<b>Low Voltage: LV</b>					
<b>100/130 Vac 50/60 Hz - Yellow</b>					
Wall Socket		1.29	11.3	Yellow	UPR316RY4
Plug		0.31	2.4	Yellow	UPR316PY4
<b>200/250 Vac 50/60 Hz - Blue</b>					
Wall Socket		1.29	11.3	Blue	UPR316RB6
Plug		0.31	2.4	Blue	UPR316PB6
Wall Socket		1.39	11.3	Blue	UPR416RB9
Plug		0.38	2.4	Blue	UPR416PB9
Wall Socket		1.43	11.3	Blue	UPR516RB9
Plug		0.41	2.4	Blue	UPR516PB9
<i>(1) 120/208 V - 144/250 Vac 50/60 Hz</i>					
<b>380/415 Vac 50/60 Hz - Red</b>					
Wall Socket		1.39	11.3	Red	UPR416RR6
Plug		0.38	2.4	Red	UPR416PR6
Wall Socket		1.43	11.3	Red	UPR516RR6
Plug		0.41	2.4	Red	UPR516PR6
<i>(2) 200/346 V - 240/415 Vac 50/60 Hz</i>					
<b>480/500 Vac 50/60 Hz - Black</b>					
Wall Socket		1.39	11.3	Black	UPR416RN7
Plug		0.38	2.4	Black	UPR416PN7
Wall Socket		1.43	11.3	Black	UPR516RN7
Plug		0.41	2.4	Black	UPR516PN7
<i>(3) 277/480-288/500 Vac 50/60Hz</i>					
<b>600/690 Vac 50/60 Hz - Black</b>					
Wall Socket		1.39	11.3	Black	UPR416RN5
Plug		0.38	2.4	Black	UPR416PN5
Wall Socket		1.43	11.3	Black	UPR516RN5
Plug		0.41	2.4	Black	UPR516PN5

# UPR SERIES 32 AMP PLUGS AND SOCKETS



**Wall Mounting Socket (LV)**

- Two M32 threaded entries on the bottom. Available on top upon request.
- Supplied with one M32 cable gland – Ø 10 to Ø 25 mm and one M32 blanking plugs.
- Terminal capacity 2 x 6 to 10 mm<sup>2</sup> (#10 to #8 AWG). Can be through-wired up to 6mm<sup>2</sup> (#10 AWG).
- Fitted with two linked earth terminals.



**Plug (LV)**

- One integrated cable clamp – Ø 14.1 to Ø 29.1 mm for 3P+N+E versions.
- Terminal capacity 6 to 10 mm<sup>2</sup> (#10 to #8 AWG).

## LV: LOW VOLTAGE

Yellow	Blue	Red	Black
100/130 Vac	200/250 Vac	380/415 Vac	480/500 Vac
			600/690 Vac















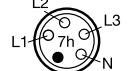
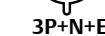

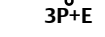
## TECHNICAL DATA

	Breaking Capacity	
AC3	32 Amp	690 Vac
AC22	32 Amp	690 Vac

Short Circuit Withstand (ICC) : 10kA



# UPR SERIES 32 AMP PLUGS AND SOCKETS

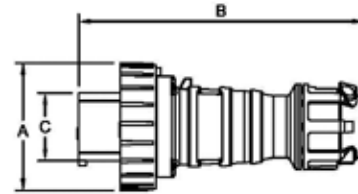
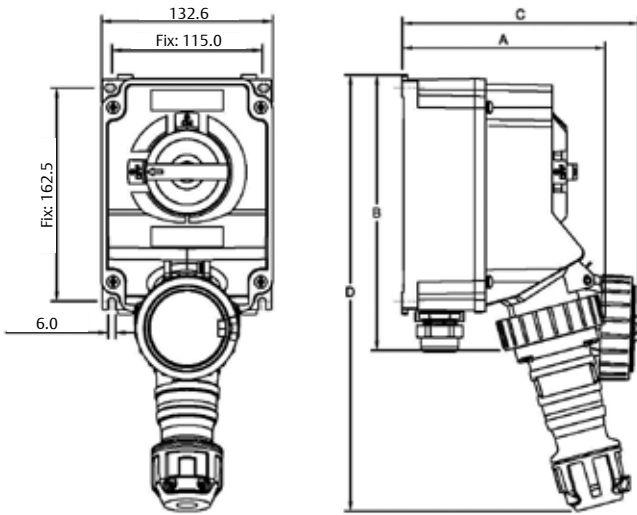
Description	Pin Configuration	Weight kg	Volume dm <sup>3</sup>	Color	Catalog Number
<b>100/130 Vac 50/60 Hz - Yellow</b>					
Wall Socket		1.71	11.3	Yellow	<b>UPR332RY4</b>
Plug		0.46	2.4	Yellow	<b>UPR332PY4</b>
<b>200/250 Vac 50/60 Hz - Blue</b>					
Wall Socket		1.71	11.3	Blue	<b>UPR332RB6</b>
Plug		0.46	2.4	Blue	<b>UPR332PB6</b>
Wall Socket		1.85	11.3	Blue	<b>UPR432RB9</b>
Plug		0.49	2.4	Blue	<b>UPR432PB9</b>
Wall Socket		1.91	11.3	Blue	<b>UPR532RB9</b>
Plug		0.54	2.4	Blue	<b>UPR532PB9</b>
	<i>(1) 120/208 V - 144/250 Vac 50/60 Hz</i>				
<b>380/415 Vac 50/60 Hz - Red</b>					
Wall Socket		1.85	11.3	Red	<b>UPR432RR6</b>
Plug		0.49	2.4	Red	<b>UPR432PR6</b>
Wall Socket		1.91	11.3	Red	<b>UPR532RR6</b>
Plug		0.54	2.4	Red	<b>UPR532PR6</b>
	<i>(2) 200/346 V - 240/415 Vac 50/60 Hz</i>				
<b>480/500 Vac 50/60 Hz - Black</b>					
Wall Socket		1.85	11.3	Black	<b>UPR432RN7</b>
Plug		0.49	2.1	Black	<b>UPR432PN7</b>
Wall Socket		1.91	11.3	Black	<b>UPR532RN7</b>
Plug		0.54	2.4	Black	<b>UPR532PN7</b>
<b>600/690 Vac 50/60 Hz - Black</b>					
Wall Socket		1.85	11.3	Black	<b>UPR432RN5</b>
Plug		0.49	2.4	Black	<b>UPR432PN5</b>

# UPR SERIES 16 AMP PLUGS AND SOCKETS

16A — 2P+E — 3P+E — 3P+N+E Versions

## Wall Mounting Sockets

## Plugs



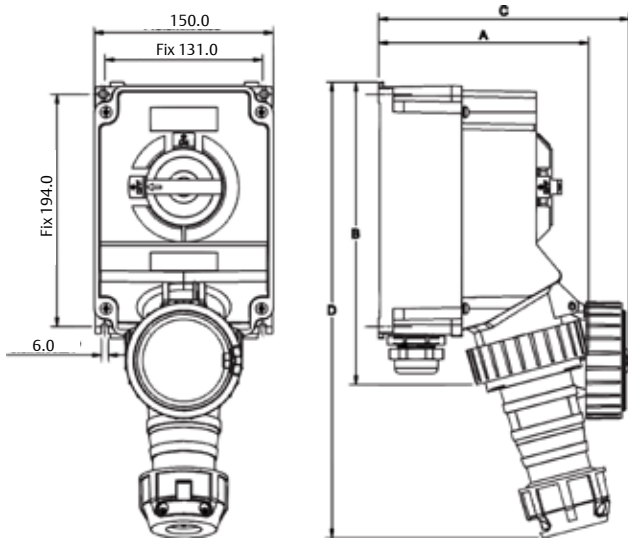
	Dimensions in Millimeters			
	A	B	C	D
2 P + E	157.0	211.0	183.5	335.0
3 P + E	161.0	215.0	193.0	335.0
3 P + N + E	163.0	215.0	193.0	335.0

	Dimensions in Millimeters		
	A	B	C
2 P + E	81.0	183.0	44.0
3 P + E	89.0	183.0	49.0
3 P + N + E	93.5	183.0	56.0

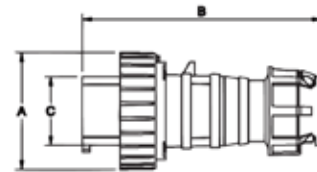
# UPR SERIES 32 AMP PLUGS AND SOCKETS

32A — 2P+E — 3P+E — 3P+N+E Versions

## Wall Mounting Sockets



## Plugs



	Dimensions in Millimeters			
	A	B	C	D
2 P + E	175.0	250.0	210.0	380.0
3 P + E	175.0	250.0	210.0	380.0
3 P + N + E	177.0	250.0	210.0	380.0

	Dimensions in Millimeters		
	A	B	C
2 P + E	98.0	200.0	57.0
3 P + E	98.0	200.0	57.0
3 P + N + E	102.0	200.0	63.0

Emerson brings integrated manufacturing solutions to diverse industries worldwide. Our comprehensive product line, extensive experience, world-class engineering and global presence enable us to implement solutions that give our customers the competitive edge. Appleton is our premium line of lighting and electrical products for hazardous and industrial locations.

For over 150 years, our electrical product brands have been providing a rich tradition of long-term, practical, high quality solutions with applications ranging from the construction and safe operation of petrochemical and process plants to providing quality power that precisely controls automotive robotic production.

Engineers, distributors, contractors, electricians and site maintenance professionals around the world trust Emerson brands to make electrical installations safer, more productive and more reliable.

The Appleton Group business unit of Emerson is organized into three focused groups that provide distributors and end users expert knowledge and excellent service.

#### **Electrical Construction Materials**

This group is made up of the Appleton and O-Z/Gedney brands. They manufacture a broad range of electrical products including conduit and cable fittings, plugs and receptacles, enclosures and controls, conduit bodies and industrial and hazardous lighting. Whether the application is hazardous location, industrial or commercial, the electrical construction materials group has the products to meet your needs.

#### **Power Quality Solutions**

The SolaHD brand offers the broadest power quality line, including uninterruptible power supplies, power conditioners, voltage regulators, shielded transformers, surge protection devices and power supplies.

#### **Heating Cable Systems**

This group is made up of the EasyHeat and Nelson brands. They offer a broad range of electrical heating cable products for residential, commercial and industrial applications.

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