

56 Series

Industrial Plugs & Sockets





What is the 56 Series?

56 Series

What is 56 Series?

- 56 Series is a range of Industrial Plugs and Sockets (IPS).
- It was introduced in 1981 and has been the market leader since.
- The 56 Series name was born out of the “International Protection Ratings” standard. This rating determines a product’s ability to resist Dust and Water.
- The product was designed to specifically meet these requirements & the range grew from there.
- Able to take hard knocks and give reliable performance under adverse conditions.
- Provides installation Flexibility to mix and match switches & sockets and other various accessories.
- The range has continuously grown to meet the changing needs and delivering innovation in their respective industries & environments.



What is the 56 Series range?



Design

Applications

Features

	Easy56	56 Series (GY)	56 Series Chemical Resistant (CG)	56 Series Chemical Resistant (RO, RW)
Design	<ul style="list-style-type: none"> ➤ Designed to be reliable and easy on the wallet ➤ General commercial/industrial use, neutral chemicals ➤ Areas subject to low and high temperature 	<ul style="list-style-type: none"> ➤ Premium offer- modern design, premium flap ➤ General commercial/industrial use, neutral chemicals ➤ Areas subject to low and high temperature 	<ul style="list-style-type: none"> ➤ Chemical Resistant Grey range has been specifically designed for indoor food environments where aggressive foaming alkali/caustic cleaners are used. 	<ul style="list-style-type: none"> ➤ Chemical resistant orange (RO) and white (RW) offer resistant to acid-based detergents & chemicals. ➤ Environments where high-visibility is important (RO) ➤ Environments where aesthetics are important (RW)
Applications	<ul style="list-style-type: none"> ➤ Dust, water & UV resistance for both indoors/ outdoors ➤ Distribution centres/Shopping centres 	<ul style="list-style-type: none"> ➤ Dust, water & UV resistance for both indoors/ outdoors ➤ General manufacturing, assembly plants ➤ Distribution centres/Shopping centres ➤ Tilt-up buildings 	<ul style="list-style-type: none"> ➤ Dust, water, suiting indoor applications ➤ Dairies, abattoirs, food processing, Wash-down areas, Food preparation, Resisting cooking oils (e.g. Canola), 	<ul style="list-style-type: none"> ➤ Dust, water & UV resistance for both indoors/ outdoors ➤ Automotive/ mechanical environments, wineries/ citrus processing plants, coal wash down plants, water treatment facilities, workshops
Features	<ul style="list-style-type: none"> ➤ Switches with double-padlocking facility to ensure extra security ➤ Grey colouring to blend into industrial environments ➤ Enclosures made from PVC to ensure they can be solvent bonded to standard electrical PVC conduit accessories 	<ul style="list-style-type: none"> ➤ Mounting enclosures range in size from one to sixteen gang for customised assemblies, from a simple switch to a large control panel ➤ Double padlocking options on switches ➤ Sockets with safety flaps that automatically lock into place when plugs are removed, preventing dust and water from entering the housing 		

56 Series

Range Summary

Switches

- changeover, reverse, isolator, rotary
- key, sliding, heavy-duty, timer, sunset
- single, double, triple & four pole, 10A to 80A



Sockets

- single & three phase, 10A to 50A
- Standard, Auto-switched, IEC



Combination Switched Sockets

- one and two piece cover
- RCD protected versions
- Single & three phase, 10A to 50A



Appliance Inlets (reverse sockets)

- One and two gang, 10A to 50A



Plugs – Straight & Angled

Extension Plug Sockets

- 10A to 50A

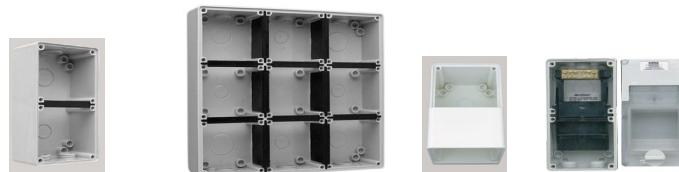


56 Series

Range Summary

Enclosure:

- 1 to 16 gang
- Shallow, regular, deep,
- Pendant, DIN/Switchboard, safety



Lids:

- 1 to 4 gang
- Pre-drilled versions



Junction Boxes

& DOL Motor Starters

- Switched or non-switched versions
- With or without overload



• Push Button Controls



• Various accessories

• Specials (just ask us)



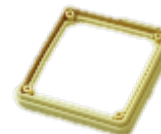
Accessories

What can we offer?

- **High Pressure Gaskets** for tough areas where a lot of heavy duty cleaning is done
 - E.g. Food processing
- **Condensation Breather/ Drain** for damp areas which helps release moisture from the enclosure
- **Feet** used for mounting the enclosure off the wall do make sure there is no build up behind the enclosure
- **Locking kit** used to stop people using the socket outlet
- **Divider** used to segregate cables in an enclosure
- **LED kit** used when indication is required
- **PLUS MANY MORE!**



PDL56DIVIDER



PDL56HPG1



56LEDK1



56D



PDL56MF



PDL56SOL
OCK

56 Series Naming Convention Overview

Understanding Part References

PDL56 SW 3 32 LEGY

Colour

LEGY – Less Enclosure Grey CC – Chemical Grey
RW – Resistant White
RO – Resistant Orange

Amperage Rating

10	32
15	40
20	50
25	63

Poles

1	3
2	4

Functions

SW – Switch	E – Enclosure	CSC – Extension Socket
SO – Socket Outlet	L – Lid	P – Plug
C – Combination	DB – Distribution Board	PA – Plug Angled
CV – Comb Interlocked	CB – CB Enclosure	DOL – DOL Starter
AI – Appliance Inlet	JB – Junction Box	PB – Push Button

PDL56SW332LEGY



PDL56PB10TLEGY



Life Is On

Schneider
Electric



Which Industries use 56 Series?

56 Series

Target Segments

Retail

- Dept Stores
- Supermarkets
- Fast Food Outlets
- Passenger Terminals
- Freight Terminals
- Car Parks

Offices

- Finance Buildings
- Offices
- Insurance Buildings
- Government Buildings
- Courts
- Fire Stations

Industrial

- Factories
- Assembly Plants
- Processing Plants
- Warehouses
- Agriculture Buildings
- Aquaculture Buildings
- Electrical Generation

Education

- Schools
- Universities
- Classrooms
- Canteens



56 Series

Target Segments

Entertainment

- Religious Buildings
- Gymnasiums
- Golf Courses
- Libraries
- Museums
- Casinos

Hotels

- Self Contained
- Apartments
- Hotels
- Hostels
- Lodges
- Serviced Apartments

Healthcare

- Nurse Quarters
- Clinics
- Hospitals
- Aged Care Facilities
- Retirement Villages

Others

- Data Centres





56 Series & it's use cases

56 Series

International Protection Rating (IP Rating)







Protection Against Solids

Examples:

- Hand and finger
- Screwdriver
- Tools & wire
- Dust from enclosure

- The International Protection rating is defined in the Australian Standards AS/ NZS 60529-2004 & IEC 50529.
- The IP rating defines where the product can be installed inline with Australian Wiring rules AS/ NZS 3000:2018.









PROTECTION AGAINST SOLIDS

	TEST	PROTECTION
X	No test applied	No specific protection.
0	No test applied	Inherent degree of protection.
1		Protected against solid objects equal to or greater than 50mm diameter. (eg. accidental contact with hand)
2		Protected against solid objects equal to or greater than 12.5mm diameter. (eg. contact with finger)
3		Protected against solid objects equal to or greater than 2.5mm diameter. (eg. tools and wires)
4		Protected against solid objects equal to or greater than 1mm diameter. (eg. fine tools and wires)
5		Protected against quantities of dust that could interfere with satisfactory operation.
6		Completely protected against dust.

Defined by IEC 60529
DIN 40050 CEI 70-1

To Australian standards AS 60529-2004
Degrees of protection provided by enclosures. (IP Code)

PROTECTION AGAINST LIQUIDS

	TEST	PROTECTION
X	No test applied	No specific protection.
0	No test applied	Inherent degree of protection.
1		Protected against drops of water falling vertically.
2		Protected against drops of water falling at up to 15 degrees from the vertical.
3		Protected against spraying water at up to 60 degrees from the vertical.
4		Protected against splashing water from all directions.
5		Protected against jets of water from all directions.
6		Protected against jets of water of similar force to heavy seas.
7		Protected against the effects of temporary immersion.
8		Protected against the effects of continuous immersion.

Defined by IEC 60529

Protection Against Liquids

Examples:

- Falling drops of water
- Drops of water at certain angles
- Against splashes from all direction
- Water jets
- Water immersion
- Water jets from all directions
- Pressure & high temperature spray

What is in the 56 Series Range?

Overview



The 56 Series range consists of 3 sub categories:

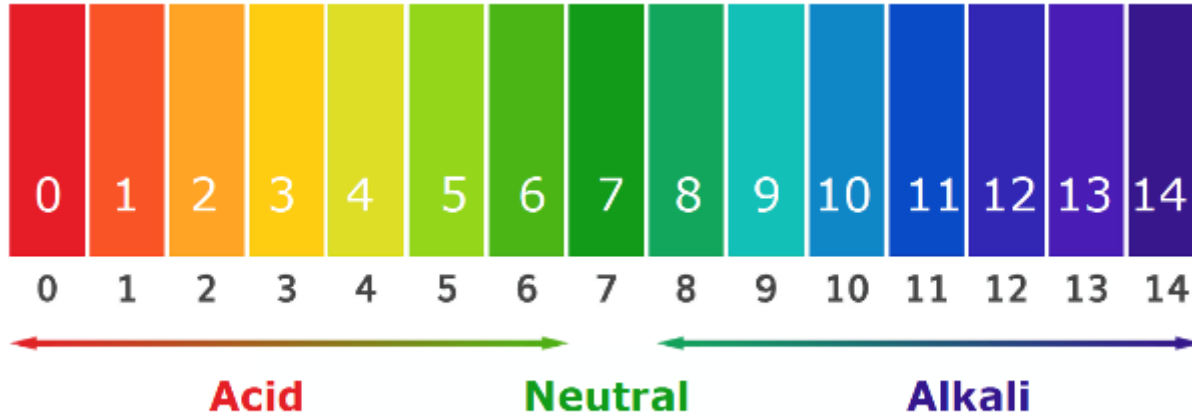
- Easy56
- 56 Series
- Wilco

The Easy56 is aimed as a price fighter specializing in “the fast moving products” such as switches, sockets & combinations of key amperage and pole ratings.

The 56 Series is a complex offer with the ability to purchase the range in chemical resistant material types. The offer has switches, sockets, combinations, key switches, DOL starters, plugs, extension sockets, appliance inlets, timers & much more.

The Wilco Range is not as thorough as 56 Series but is still quite detailed. The main focus of this range is it is a powder coated aluminium product so it can withstand hard knocks.

Ph Scale with 56 Series. (Colour Code)



The more **acidic** the chemicals used are, you should then use **acid base chemical resistant outlet** e.g., resistant orange & resistant white.

The more **alkaline base** the chemicals used are, you should then use **alkaline base chemical resistant outlet** e.g., Chemical Grey

56 Series

Where to use 56 Series?

The right switchgear choice

56 Series is the market's best offer, targeted at areas where harsh chemicals, grease, oils, are used or where high visibility, better aesthetics, wash downs or ultimate flexibility is required.

- Food Processing (CG)
- Beverage manufacturers (CG)
- Dairies and Abattoirs (CG)
- Laboratories (RW or RO)
- Kitchens/Cooking Areas (RW or CG)
- Supermarket Deli (RW or CG)
- Automotive Workshops (RO)
- Printers (RO)
- Assembly plants (GY)
- Warehouses (GY)
- Plant rooms (GY)
- Swimming pools (GY)



Colours recommended and why:

- Grey (GY) neutral environments or mild chemical areas
- Chemical Resistant Grey (CG) to resist alkali/caustic cleaning chemicals,
- Chemical Resistant Orange (RO) for high vis safety and guard against oils, grease, and acid chemicals
- Chemical Resistant White (RW) for better aesthetics and guard against oils, grease, and acid chemicals



Colours

Standard “Grey” (GY), Easy56 (By default Grey)



Grey (GY)



Commonly used in shopping center's, industry, workshops & warehouses.

It's dust-resistant, IP66 and UV Stabilized (Ultra-Violet resistant).

Standard

Easy56 Series - No Colour Code required



GY has polycarbonate cover.

It's suitable for general industrial environments and Neutral Chemicals.

This is the general All-rounder.

PVC bases common to all 56 Series colours.

Colours

Resistant White/ Orange/ Yellow (RW)/ (RO)/ (RY), Electric Orange (EO)



Resistant Orange (RO)/ Electric Orange (EO).



- Indoor/Outdoor use where High Viz properties are required
- Workshops, where oils and grease are present
- Resistance to **Neutral** Chemicals or **Acid**-based detergents & Chemicals.
- Saltwater environments.
- Excellent UV resistance for outdoor use.
- Found mainly in ports, mechanical workshops, etc.
- PVC base with cover materials fit for purpose.

Resistant White (RW).



- Indoor/Outdoor use where chemical resistance is, and aesthetics are important.
- Resistance to **Neutral** Chemicals or **Acid**-based detergents & Chemicals.
- Ideal for corrosive and industrial chemicals- Animal fats, oils, solvents, cleaning agents & lubricants.
- Extensively used in food & food preparation areas.
- Resistant White is commonly used in McDonalds.
- Ideal where aesthetics are important (same material as RO).

Chemical Resistant (Acid)

Colours

Chemical Grey (CG)



Alkaline

Chemical Grey (CG)



- Dark Grey base and cover (sticker label)
- Has been specifically designed for indoor use, particularly the food industry
- Used where aggressive **alkalis** or caustics are present
- Dairies, abattoirs, Automotive & food processing plants are where they are commonly used. Same material as 56-CG.
- Has label for identification, where CG is laser etched.
- Chosen color for Woolworths retail chain
- Not suited for areas exposed to regular or high levels of UV.



Tools & Resources

56 Series

Technical Guide

Chemical Resistance Guide

Chemical type	All Mounting Enclosures	Grey (GY) Transparent Covers	Resistant Orange (RO) Resistant White (RW) Covers	Chemical Grey (CG) Covers	Plugs
Automotive					
Unleaded Petroleum	R	NR	NR	R	LR
Diesel	-	R	R	NR	LR
Brake Fluid	-	NR	NR	NR	LR
Grease at 60 °C (Rocol 12475)	-	LR	LR	-	-
Grease at 60°C (Rocol Sapphire Hi Temp)	-	LR	LR	-	-
Lubricating oil (10w/40)	-	-	-	-	R
Hydraulic oil (HF-105L)	-	-	-	-	R
Oxidising agents					
Sodium hypochlorite 5%	R	R	R	R	LR
Hydrogen peroxide 30%	R	R	R	R	LR
Water					
Ambient	R	R	R	R	R
Hot > 60 °C	R	R	R	R	LR
Miscellaneous					
Detergent @ 50 °C	R	LR	NR	R	LR
Magnesium sulphate	R	R	R	-	R
Salts					
Calcium Chloride 10%	R	R	R	R	LR
Sodium Chloride 5%	R	R	R	R	R
Ammonium Hydroxide 100%	R	R	R	R	R

This table should be used as a guide only. The end user should evaluate the suitability of any chemical with any plastic.

Cont

Resistant R

Limited Resistance LR

Not Resistant NR

Chemical Resistance Guide

Chemical type	All Mounting Enclosures	Grey (GY) Transparent Covers	Resistant Orange (RO) Resistant White (RW) Covers	Chemical Grey (CG) Covers	Plugs
Acids					
Hydrochloric 10%	R	R	R	R	R
Nitric 10%	R	LR	R	R	LR
Acetic acid 10%	R	R	R	LR	LR
Sulphuric 100%	R	LR	R	LR	LR
Alkalis					
Sodium hydroxide 10% (Caustic soda)	R	NR	LR	R	LR
Potassium hydroxide 100%	LR	NR	NR	R	LR
Sanitising solutions					
Chlorinated alkaline foaming cleaner 10%	R	NR	NR	R	LR
Ammonium sanitiser	R	NR	NR	R	LR
Vegetable oils					
Olive oil	R	NR	NR	R	LR
Canola oil	R	NR	NR	R	LR
Solvents					
Methane	LR	R	R	-	R
Propane	R	R	R	-	R
Ethylene glycol	R	R	R	-	R
Glycerol (Glycerine)	R	LR	LR	R	R
Methyl alcohol (Methanol)	R	R	R	LR	R
Ethyl alcohol (Ethanol)	R	R	R	NR	R
Aniline	NR	NR	NR	NR	LR
Methyl benzene	NR	NR	LR	NR	LR
Xylene	NR	NR	LR	NR	LR
Dimethyl ethyl	R	R	R	-	R
Acetone	R	LR	LR	LR	LR
Acetophenone	NR	NR	LR	NR	LR
Ethyl methyl ketone	NR	NR	LR	NR	R
Isopropyl Alcohol	-	R	R	NR	R

56 Series

Which industries use 56 Series?

Technical Guide

Industrial Application Matrix



Retail and wholesale trade buildings

Supermarket (Coles, Woolies etc.)	<ul style="list-style-type: none"> Plant Rooms Pedestrian Traffic Areas Staff Lunchroom Cool Room For Perishable Storage 	<ul style="list-style-type: none"> Staff Or Public Car Park Toilets / Wet Areas Office Food Preparation Area / Kitchen 	<ul style="list-style-type: none"> Rooftop Plant Platforms Outdoor Lighting Public Eating Area
Department Store	<ul style="list-style-type: none"> Plant Rooms Pedestrian Traffic Areas Staff Lunchroom Public Eating Area 	<ul style="list-style-type: none"> Warehouse Staff Or Public Car Park Toilets / Wet Areas 	<ul style="list-style-type: none"> Office Outdoor Lighting Rooftop Plant Platforms
Shopping Centre	<ul style="list-style-type: none"> Plant Rooms Pedestrian Traffic Areas Staff Lunchroom Public Eating Area 	<ul style="list-style-type: none"> Staff or Public Car Park Toilets / Wet Areas Office 	<ul style="list-style-type: none"> Food Preparation Area / Kitchen Rooftop Plant Platforms Outdoor Lighting
Outdoor Mall	<ul style="list-style-type: none"> Plant Rooms Pedestrian Traffic Areas Staff Lunchroom 	<ul style="list-style-type: none"> Public Eating Area Staff Or Public Car Park Toilets / Wet Areas 	<ul style="list-style-type: none"> Office Outdoor Lighting Rooftop Plant Platforms
Fast Food Outlet (McD's, KFC, Chicken / Fish Chip, etc.)	<ul style="list-style-type: none"> Public Eating Area Cool Room for Perishable Storage Exposure to Detergents Exposure to Acids / Citrus Based Cleaners 	<ul style="list-style-type: none"> Exposure to Cooking Oil Staff or Public Car Park Toilets / Wet Areas Office 	<ul style="list-style-type: none"> Food Preparation Area / Kitchen Rooftop Plant Platforms Outdoor Lighting Plant Rooms
Restaurants / Cafés / Bakery / Commercial Kitchen / Mobile Food Vans	<ul style="list-style-type: none"> Public Eating Area Cool Room for Perishable Storage Exposure to Detergents Exposure to Acids / Citrus Based Cleaners 	<ul style="list-style-type: none"> Exposure to Cooking Oil Staff or Public Car Park Toilets / Wet Areas Office 	<ul style="list-style-type: none"> Food Preparation Area / Kitchen Rooftop Plant Platforms Outdoor Lighting Plant Rooms

56 Series

Which industries use 56 Series?

Application Guide

MAKE THE RIGHT CHOICE:

The Table below is to be used as a guide when establishing which Clipsal Industrial product is best suited for specific environments. It takes into consideration the materials that Clipsal's Industrial range is made from and anticipates what it will be exposed to in various applications. For further information please contact your Schneider Electric representative and/or office.

Product Selector				
Application	Environment	Best	Better	Good
Maintenance workshop	Indoors, ambient air temperature, low UV levels, cutting fluids, oils, no or minimal exposure to rain.	Neutral	Acid	Heavy Duty
Tool room or general fabrication workshop	Indoors, ambient air temperature, low UV levels, cutting fluids, oils.	Neutral	Acid	Heavy Duty
Plant rooms	Indoors, 0 °C to 40 °C, low UV levels, possible moisture/condensation, no or limited chemicals or detergent exposure.	Neutral	Acid	Heavy Duty
Pedestrian traffic areas	Indoors or outdoors, ambient air temperature, outdoors may be subjected to high UV levels and rainfall, indoors low UV and moisture, no or minimal chemicals or detergent exposure. May be prone to vandalism.	Neutral	Acid	Heavy Duty
Staff lunchroom	Indoors, 0 °C to 40 °C, low UV levels, some exposure to water, mild detergents or household cleaners. No or minimal exposure to rain. No alkaline cleaners.	Acid	Neutral	Alkaline
Public eating area	Indoors or outdoors, ambient air temperature, outdoors may be subjected to high UV levels and rainfall, indoors low UV and moisture, some exposure to water, mild detergents or household cleaners. No alkaline cleaners.	Heavy Duty	Neutral	Acid

Web Resources

Product Information

<https://www.pdl.co.nz/industrial-switchgear>

<https://www.pdl.co.nz/products/industrial/56-series>

[56 Series Selection Guide](#)

Life Is On

Schneider
Electric

Life Is On

Schneider
Electric