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# Solutions for the food & beverage industry.

The challenges facing the food & beverage industry are varied and complex. Failure to comply with national safety and quality standards can be time-consuming, expensive, and can result in accidents or contamination. Demands for shorter production times put increasing pressure on a need for reliable and continuous operations. Extreme temperatures and corrosive environments mean you need products which can handle extreme conditions. And this is before we even get to the latest technological and consumer trends.

From sensors to personal protective clothing, from food safe cleaners to thermal imagers, read on to discover specialist product solutions and components ideal for food and drink production.

And with the challenges you're facing in the industry we know you have better things to do than worry about your order being safe and compliant. No matter where you are, we ensure your products get delivered as efficiently and carefully as possible.

Leave the how to us.

#### Join the conversation











#### **Terms & Conditions**

To view our latest prices, charges and full terms see RS Conditions of Sale as set out online at sg.rs-online.com

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#### Committed to you.

We understand the important role our solutions and products play in helping you achieve your goals, that's why your dedicated account manager is here to support throughout your journey with RS.



#### Your one-stop shop.

We are a single-source supply partner. Our convenient one-stop shop approach with our large product range, product plus outsourcing service & competitive pricing ensures that you get the best value without having to shop around.



#### Flexible delivery.

Free\* delivery available and scheduled deliveries or plan ahead with advance orders.



#### **Easy Ordering**

Order online, by phone, by fax, or on your mobile phone via our easy-touse website.



## Visit our online Food & Beverage Industry Hub

- Latest Products
- Industry Resources
- · Ideas and Advice

☐ sg.rs-online.com/food



## FOOD & BEVERAGE INDUSTRY PRODUCT HIGHLIGHTS

#### **Stainless Steel Photoelectric sensors**

M18 photoelectric sensors with a high grade stainless steel housing sealed to IP69K. Ideal for washdown applications in the Food & Beverage industry, and approved for use with Ecolab and Diversey industrial cleaners.

Search 'E3FC' at RS Online



#### **Radar Guided Level Probes**

Guided radar level probes providing accurate and consistent level measurement, suitable for oil or water based fluids. Stainless steel probe, with options for process temperatures up to 100°C and hygienic versions up to 150°C.

Search for 'Sick Radar' at RS Online



#### **Food Environment Clothing**

We stock an extensive range of food production environment suitable clothing. This includes gloves, aprons, coats, tabards and overshoes and hair protection, from leading brands such as Ansell, 3M and many more.

Search for 'Food Clothing' at RS Online



#### **Metal Content Cable Ties**

Metal Content cable ties specifically designed for use in food industries. A special metallic pigment throughout the tie enables even small `cut-off' sections of the tie to be detected by standard metal-detecting equipment. Available in a range of sizes and colours.

Search 'Metal Content Ties' at RS Online



## **The Linecard**

This linecard helps as your guide to the key technologies and brands in our offer which are most relevant to the food and beverage manufacturing sector.

10	PERSONAL PROTECTION	Ansell		BM PELTOR" 3	M E-A-R™ dipho Solwaj	, CE	
13	TEST &	FLUKE.	\$FLIR	Megger.	KIMTECH  KEYSIGHT  TECHNOLOGIES	Be sure. toste	
	MEASUREMENT	<b>LASCAR</b> electronics	<b>Tektronix</b> <sup>®</sup>	Druck	HANNA instruments	Mitutoyo PRD	
21	SITE SAFETY	COBA	Lubetech mentra i quaestra ingal Gerer homey	& ecospill	detectortesters	Rubbernald RS	
27	FACILITIES CLEANING & MAINTENANCE	Simberty-Clark PROFESSIONAL*	KIMTECH	WYPALL VIKAN	Rubbermid	ROCOL' FILECTROLUBE THE SOLUTIONS PECCAL	
31	CABLES & CONNECTORS	ETE DEUTSCH	HellermannTyton  Chappe	igus"	BELDEN molex	legrand RS	
47	SENSORS	OMRON SIEMENS	cynergy@mporents  Telemecanique Serick	<b>SICK</b> Baumer	ABB  PEPPERL+FUCHS	ifm electronic RS	4
57	ELECTRICAL, AUTOMATION & PROCESS CONTROL	Schneider BEIGETTIC SIEMENS	OMRON ebmpapst	ABB  FAT-N  Powering fluinces Worknide	<b>LASCAR</b> electronics  SICK	RITIAL PRO	4
	CONTROL	Life Is On Use Schneider traceic	PHŒNIX	Baumer	electronics	FANTECHTRADE ///	
66	PLUMBING & PIPELINE	<b>Elegris</b>	Parker	<b>burkert</b> Fluid Control Systems	+GF+ GEORG FISCHER PIPING SYSTEMS	Nio PRO	4
68	PNEUMATICS, HYDRAULICS & POWER TRANSMISSION	FESTO	<b>SMC</b> igus	<b>∃legris</b> → Parker	CROUZET	Sates.  RESERVOR. AGENT.	<i>,</i>
74	TOOLS & CONSUMABLES	TENGIOOLS  BAHCO	3M ⇒FACOM.	₩wera ₩ ₩era STANLEY.	DAWA I	Weller RS	

# INGRESS PROTECTION (IP) RATINGS

The Ingress Protection (IP) rating system is an internationally recognized scale that relates to proven protection against environmental factors such as liquids and solids.

Ingress protection ratings can be identified by the letters IP, followed by two numbers. These numbers define the amount of protection a digital scale has against specified elements and its ability to resist foreign matter that could otherwise get inside the product and cause it to fail.

for 30sec x 4 angles.

1st digit = Degree of protection against solid objects	2nd digit = Degree of protection against water				
No Protection	No Protection				
Protected against solid objects greater than 50mm.	Protected against drops of water.				
Protected against solid objects greater than 12.5mm.	Protected against drops of water at a 15 degree angle.				
Protected against solid objects greater than 2.5mm.	Protected against water spray at a 60 degree angle.				
Protected against solid objects greater than 1.0mm.	Protected against water spray splashing from any angle.				
Protected against dust that could cause sufficient harm.	Protected against water jets from any angle.				
Protected against all dust.	Protected against powerful jets of water or heavy seas.				
Example:	Protected against temporary immersion in water (30 minutes at 1M).				
IP 4	Protected against the effects of permanent immersion in water (up to 5M).				
Protected against Protected against water solid objects greater spray splashing from than 1.0mm. any angle.	Protected against close-range high pressure, high temperature spray downs (80 degC water at 80-100bar				

#### What is IP69K?

The IP69K rating provides protection against ingress of dust and high temperature, high pressure water - making products with this certification ideal for use in conditions where equipment must be carefully sanitized.

In the food processing industry, where hygiene and cleanliness is paramount, equipment must be able to withstand rigorous high pressure, high temperature wash-down procedures.

The IP69K rating is the highest protection available.

#### What are the advantages of IP69K?

In environments that require heavy washdown, such as in the food processing industry, the combination of water, chemicals, high pressures and temperatures can prove fatal for electronic circuits and instrumentation.

The IP69K rating offers complete assurance that the piece of equipment that has undergone that tests is both durable and resistant and conforms to the highest protection rating on the scale.

#### **TELEMECANIOUE EXTENDED SENSING RANGE IP69K RATED**

- TWICE nominal sensing distance
- FILISH mount
- FAST switching frequency
- 2 & 3 wire controlled devices
- · LED status display
- OPERATING temperature range: -25  $\rightarrow$  +70° C
- REVERSE polarity and short circuit protection



#### STEEL IP69K RATED • Control category up to 4 to EN954-1 in combination with a safety monitoring module

**BNS 33S MAGNETIC SAFETY SWITCH, STAINLESS** 

- IP69K protection, cable connection suitable for food industry (LiYY)
- Coded switch, actuation only possible with BPS33S actuating magnet
- Dimensions: L7.5 x W27 x H88 mm



444-3300	M30 X 1.5, PNP-NO 62MM LEN , 12 $\rightarrow$ 48 V DC SUPPLY VOLTAGE
444-3316	M30 X 1.5, PNP-NO 74MM LEN , 12 $\rightarrow$ 48 V DC SUPPLY VOLTAGE
444-3366	M30 X 1.5, NO 62MM LEN , 24 $\rightarrow$ 240 V AC/DC SUPPLY VOLTAGE
444-3388	M30 X 1.5, NO 73MM LEN , 24 $\rightarrow$ 240 V AC/DC SUPPLY VOLTAGE
444-3350	M18 X 1, NO M18 BARREL 73MM LEN , 24 $\rightarrow$ 240 V AC/DC SUPPLY VOLTAGE
444-3344	M18 X 1, NO 62MM LEN , 24 $\rightarrow$ 240 V AC/DC SUPPLY VOLTAGE
444-3338	M12 X 1, NO 62MM LEN , 24 $\rightarrow$ 240 V AC/DC SUPPLY VOLTAGE
444-3322	M12 X 1, NO 53MM LEN , 24 $\rightarrow$ 240 V AC/DC SUPPLY VOLTAGE
444-3265	M12 X 1, PNP-NO 53MM LEN , 12 $\rightarrow$ 48 V DC SUPPLY VOLTAGE
444-3271	M12 X 1, PNP-NO 62MM LEN , 12 $\rightarrow$ 48 V DC SUPPLY VOLTAGE
444-3287	M18 X 1, PNP-NO 62MM LEN , 12 $\rightarrow$ 48 V DC SUPPLY VOLTAGE
444-3293	M18 X 1, PNP-NO 74MM LEN , 12 → 48 V DC SUPPLY VOLTAGE

#### S SCHMERSAL

617-5150 100 V AC/DC

#### NDR SERIES EMERGENCY STOP PUSH **BUTTONS, IP69K RATED**

- · This range of Head Emergency Buttons are used in control cabinets, control panels, in elevator construction, on conveyor or transport plants.
- · After the manual actuation, the components initiate or switch off work processes and functional processes.
- The range of NDR Series Emergency Stop Push Buttons are available in the form of pushbuttons, joystick switches or key-operated switches.
- They are available in a single, dual and tri state contact blocks.
- There is an option to have N/O (normally open) and N/C (normally closed) contact versions to satisfy every requirement.
- Red 50mm Round Head Emergency Button.
- Key Reset.



BNS 33S-12Z

#### **IP69K 304 STAINLESS** STEEL WALL BOXES

- · Material: Stainless steel
- IP69K rating Lockable
- · Double lipped edge to ensure higher strength and ease of installation
- · Easy to use, including removal of the door





#### S SCHMERSAL

742-0763	SEPARATE SPRING ELEMENT, BLACK BELLOWS	NDRR50GR/RT
742-0760	SEPARATE SPRING ELEMENT, WHITE BELLOWS	NDRR50RT
742-0757	INTEGRATED SNAP-ACTION MECHANISM, WHITE BELLOWS	NDRZ50RT

# INDUSTRIAL OF THE PROPERTY OF

## TAKING THE IOT CONCEPT TO THE FACTORY FLOOR

In the consumer space the concept of 'The Internet of Things' is well established. Cloud connected devices and services, such as Google Nest, are allowing us to create a connected home with thermostats, cameras and even doorbells all connected via the Internet to smart apps and cloud services.

So, the concept is proven, the technology exists, and the benefits are clear: convenient, mobile or remote access to devices or data reliably and securely helping you to make decisions faster.

You may have already started an Industrial Internet of Things project, or you may have thought I know I need to do something - but where do I start?

Within the following pages you'll find products which can help unlock productivity data, products which can add intelligence to existing machinery making them IIoT ready and products which enable to you to monitor conditions or make measurements and share these easily with colleagues or for reference.

One thing is clear. Industrial IoT and the concept of Industry 4.0 is here to stay, and you need to be considering how – not if – you will start using it today.

#### 6 STEPS ON THE IIOT JOURNEY

Based on insight from manufacturers and IIoT pioneers we've listed six steps to consider when in pursuit of the connected factory.

## CAREFULLY CONSIDER WHAT YOU ARE TRYING TO ACHIEVE

Be clear on what the challenge is you wish to use IIoT to solve. If it's just one or two elements or conditions which you want to monitor or track, focus on those. It will reduce complexity and cost allowing you to prove the benefits faster.

#### START SMALL

Don't try and create a complete lloT infrastructure in one hit, even if you are considering purchasing an off the shelf software solution. Prove it, build on that knowledge, and demonstrate the value.

#### **GET THE BUY-IN FROM IT**

If this could be a potential barrier don't try and go around the IT team, be clear on your objectives and work with them. If they have concerns, you can start with closed networks or cellular networks (3/4G) which create physical isolation from the business's IT infrastructure for which the IT team are responsible.

## OPERATIONAL EQUIPMENT EFFECTIVENESS (OEE)

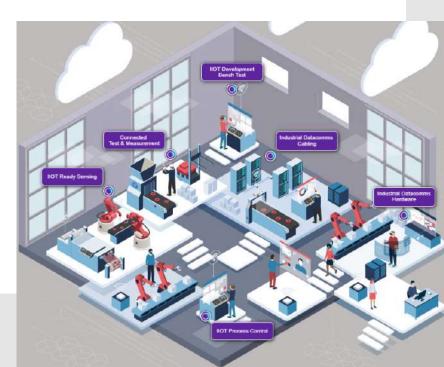
If your primary objective is improving this then you may wish to consider a combination of tapping into existing data – trapped in PLCs or other parts of the control system – and connected T&M which can help improve predictive maintenance, reduce unplanned downtime and speed up the diagnostics process. You may also need to add additional sensors which can provide data on conditions – for example motor vibration – which are not know to the control system.

#### **EXPOSING PRODUCTIVITY DATA**

If your main objective is accessing production data so you can better understand how your process is performing, unlocking existing data should be your first step. Virtually all the key attributes – speed, output, process variables, etc – are available within the process control system. In many cases these can be retrospectively released via protocol monitors completely transparently, without the control system being compromised

## START ON-PREMISE BEFORE THINKING ABOUT THE CLOUD

This approach has multiple benefits. Firstly, it can allay security concerns that your IT team might have. It can also simplify the solution, while not preventing the data from being 'cloud ready' in the future. Our experts suggest that in many cases the information will only be used or accessed on site so the benefits of a cloud-based solution might be negligible.



#### What is IOT, IIOT & Industry 4.0?

In short, IoT is a broad term used to refer to all devices which are connected to the internet beyond the familiar mix of PCs, laptops, phones and tablets.

The Industrial Internet of Things simply put, IIoT takes the concept of networking devices and connecting them to the internet to share data – locally or remotely – in factories, industrial processes and industrial buildings. Sensors collect the information, which is consolidated via a gateway to the local network, then onwards through an edge controller to the internet or the cloud – data servers within large data centres.

Industry 4.0 is when components communicate independently with the production system and, if necessary, arrange for repairs themselves or reorder materials. It's when people, machines and industrial processes network intelligently.

#### What are the advantages of IOT?

A few examples of how the manufacturing industry is using IIoT:

- Optimising the manufacturing line:
  - Industrial IoT sensors enable continuous monitoring of the production line from start to finished product. This enables operators to continuously fine-tune the manufacturing process saving both time and money
- Inventory and supply chain management:
   manufacturing stands or falls on the supply of raw materials
   and components. RFID (radio frequency identification) tags
   and similar technologies allow components and supplies to be
   tracked continuously, in real-time, from location to location,
   providing continuous monitoring of inventory and compensatory
   adjustments
- Packaging assessment:

Industrial IoT sensors allow manufacturers to monitor the condition of packaging during transit and storage and even assess how customers typically interact with it, enabling improvements to design

Real-time manufacturing data:

IIoT devices can supply real-time operational data to suppliers, enabling responsive adjustments and also allowing the remote management of factory units

#### XINABOX IOT STARTER KIT

- Everything needed to build an IoT smart (edge) device, that collects environmental data, and to which an actuator can be attached for automation projects.
- Control an electric gate, garage door, or fan, and connect to IoT dashboards to create alerts and control algorithms.
- View sensor data, IoT messages and diagnostics locally on the mini-OLED display.
- In the box: an xChip sensor for temperature, humidity and pressure, a Wi-Fi and BLE Core xChip (ESP-WROOM-32), mini-OLED display, a solid state relay to switch low voltage appliances, connectors, a programming interface plus a RasPi bridge.



#### **IO-LINK SMART SENSOR**

- · Temperature and Humidity Recorder
- Combines three functions in one: sensor, interface and transmitter.
- The most recent standards of microtechnology and microsystems technology (sub areas of sensor technology and measurement technology) used in intelligent sensors of small sizes, are the basis for our CSS 014.





190-6041

## WIRELESS HARMONY XB5R SERIES RECIEVERS

- Wireless and batteryless package, containing a push-button, set of caps and receiver.
- Reduction of wiring allows for a quick and easy installation.
- Flexible due to its mobility, giving greater control to operators.
   Can be used to remotely control machines up to 25 m away.





**739-8060** 10 COLORED CAPS, PLASTIC, 24...240 V AC/DC **739-8064** 10 COLORED CAPS, METAL, 24...240 V AC/DC

739-8067 6 COLORED CAPS, METAL, 24 V DC

XB5RFA02 XB4RFA02 XB4RFB01 **18** 

XK19

**189-0174** M12 CONNECTOR, 18 → 30 V DC

01411.2-00





PPE, protective clothing & footwear from the brands you trust to keep you safe.

#### **Personal Protection Range Highlights**

Browse and shop the entire range of personal protection products online at **sg.rs-online.com**.

#### **DISPOSABLE HAIR NET FOR FOOD INDUSTRY**

- Blue nylon lightweight net which can be used alone or together with other headwear
- For use in food manufacturing, pharmaceuticals, electronics and in many other industrial applications



#### **E-A-R SOFT DISPOSABLE EAR PLUGS**

- Comfortable Fit
- · High Visibility
- Excellent Noise Reduction



#### **CHEMMASTER APRON**

- · Green, reusable, chemical resistant apron
- 91cm long
- · Protection against chemical splashes
- PVC-coated nylon material
- · Resistant to acids. alkalis, oils and spirits





215-5095 ONE SIZE (PACK OF 100)

T21220

#### 3M E-A-R™

**358-4141** 36DB, (1 BOX OF 250)



419-653	36"X24"	CMA 36 X 24
419-669	42"X36"	CMA 42 X 36

#### **SCIENCE A7 LAB COAT**

- With a cloth-like feel and a reduced risk of heat stress, Kimtech™ A7 P+ lab coats ensure contamination control during extensive periods of use.
- The breathable coat material includes high levels of particle and bacterial protection (with filtration efficiency of 99%).



#### **FACOM SLS HEIGHT SAFE TOOL CARABINERS**

- Stainless steel construction with excellent corrosion resistance
- · Quick and easy to attach or detach tools and other equipment
- Perfect for working at height to reduce injury and damage or loss of tools
- Available in a range of sizes to accommodate numerous tasks
- Non-lock snap design for easy access



767-2902	MEDIUM	96710
767-2911	LARGE	96720
767-2914	X-LARGE	96730

#### FACOM.

910-3350 60MM MOUSQ6X60SLS

#### WHITE OVER SHOE COVER **FOR USE IN FOOD**

- Elasticated ankle
- PVC Sole
- · Liquid splash and dust barrier properties (Type 5/6)



756-4526	M TO L (PACK OF 10)	98/10
756-4520	XL TO XXL (PACK OF 10)	98720



KIMTECH



#### **HI-VIS CONTRAST BOMBER JACKET**

- · High visibility
- Weatherproof
- Studded Storm flap
- Zipped
- Detachable hood, sleeves & fur lining
- Fur lines knitted cuffs
- Reflective tape marking
- Waistband
- Taped seams
- · Phone pocket
- Versatile (can be worn 3 different ways)



918-5983	YELLOW/NAVY BOMBER, L
918-5992	YELLOW/NAVY BOMBER, XL
918-6005	ORANGE/NAVY BOMBER JACKET, M
918-6009	ORANGE/NAVY BOMBER JACKET, L
918-6018	ORANGE/NAVY BOMBER JACKET, XL
918-6011	ORANGE/NAVY BOMBER JACKET, XXL



#### **AIR TECH BUMP CAP**

- Cooling mesh fabric for increased breathability
- Shock absorption provided by the Inner ABS (acrylonitrile, butadiene and styrene) shell and soft pad
- Reflective piping for increased visibility
- CE certified that conforms with health, safety, and environmental protection standards
- Mid-length peak makes this bump cap suitable for all uses





171-6850 ADJUSTABLE, NAVY

## HI-VIS WARSAW EXECUTIVE VEST WAISTCOAT

- Warsaw executive vest waistcoat
- · High visibility
- Reflective tape marking increased visibility
- Contrast panels for dirt protection



141-8177	ORANGE S								
141-8178	ORANGE M								
141-8179	ORANGE L	 	 		 				
1418183	ORANGE XL	 	 	 	 		 		
1418292	ORANGE XXL								
1418168	YELLOW S								
141-8169	YELLOW M								
1418170	YELLOW L								
141-8174	YELLOW XL	 	 	 	 		 		
141-8176	YELLOW XXL	 	 	 	 	 	 		





#### **LED BEANIE HAT**

- Warm and comfortable acrylic beanie hat
- Features a removable LED front light for superior visibility in low light conditions.
- Rechargeable LED can be charged in a USB port.





**171-6854** NAVY **171-6853** ORANGE

#### BLACK PU PALM COATED REUSABLE WORK GLOVE

- EN388 Abrasion Resistance Level 4/ Tear Resistance Level 4/ Puncture Resistance Level 1
- This RS PRO work glove offers a palm-dipped design with a breathable seamless liner for increased dexterity and ventilation, especially when handling small or fine objects
- Re-useable and washable
- Offering intermediate level protection, these RS PRO gloves are ideal for working with medium-duty applications like assembly, cutting, glass handling, sheet metal handling and maintenance



#### HEAVY DUTY KNEE PADS

- Lightweight
- Waterproof coating
- Heavy-duty durable plastic cap allows the wearer to swivel and slide with little resistance
- Two strong nylon, fully adjustable straps
- Straps fasten with velcro
- Straps are partially elasticated for extra hold





154-851 ADJUSTABLE, ONE SIZE FITS ALL



**184-6011** SIZE 10

#### PERSONAL PROTECTIVE EQUIPTMENT

#### **DISPOSABLE COVERALL**

- · Excellent barrier against dry particles and certain liquid chemical splash
- Soft and light, ultra low-linting laminated microporous material that drapes and hangs well over the body facilitating ease of movement
- 3 panel hood, 2-way zip and storm flap with sealable tape with elasticated back and ankles to reduce the risk of skin exposure
- Knitted cuffs and elasticated waist and ankles for increased comfort and freedom of movement
- Anti-static coating reduces static discharge and minimises the risk of sparks
- Nuclear particulate hold out



#### 3M™ FAHRENHEIT™ GOGGLES

- · Soft crystal frame goggles with a wide support area all around the face to enhance comfort
- Specific channel on the side of the frame to accommodate the temple of prescription frames
- Specifically designed to carry tear-off folies. Replacement strips are available, but one is already included.
- Anti-Fog coating to help reduce lens fogging





184-9472 ANTI-MIST, CLEAR LENS

7136013

## 3M

185-7224	WHITE AND BLUE, M	4540WM
185-7225	WHITE AND BLUE, L	4540WL
185-7222	WHITE AND BLUE, XL	4540WXL
185-7219	WHITE, M	4530BM

#### 3M™ HALF FACE RESPIRATOR **6000 SERIES**

- Made from soft, lightweight material Cradle head harness and easy to fasten neck strap
- · Dual filter design and Airline system availableBayonet style fitting cartridges and filters
- · Minimal obstruction to overall vision

#### 3M™ BLUE HALF FACE RESPIRATOR **7500 SERIES**

- Extremely pliable, soft silicone facepiece: Offers exceptionally high levels of user comfort and a good fit over a broad range of face shapes & sizes
- 3M<sup>™</sup> Cool Flow<sup>™</sup> Valve: The Cool Flow valve reduces heat buildup inside the respirator - even in hot and humid conditions
- Built to last: Durable construction and a wide range of spare parts
- · Adjustable head harness: Enables the user to obtain a balanced. secure fit. Drop-down feature for easy removal during breaks

#### 3M™ 2000 SERIES **PARTICULATE FILTER**

- · Low breathing resistance
- · Lighter than conventional filters that provide comparable protection.
- Durable, waterresistant and flame retardant.
- Bayonet fitting ensures precise & safer locking
- Can be used on all 3M 6000, 3M 7000 & 3M 7500 Series Half Masks and Full Face Masks





766-384 MEDIUM 6300

**472-3735** MEDIUM

**EAR DEFENDER** 

3M PELTOR™ OPTIMEII

Ideal hearing protection against noise arising from a wide range of applications in the workplace and leisure

Soft wide cushions help reduce pressure around the ears

7502

358-4365 1 BOX OF 20

2138

#### 3M PELTOR™ X5A **EAR DEFENDER**

- · High-performance hearing protector designed to offer protection against extremely high noise levels, for example, airports, quarrying or paper mills
- Unparalleled attenuation without the need for double protection
- Twin headband design helps reduce heat buildup with
- good fit and balance Electrically insulated wire headband.
- Easy to replace cushions and inserts to help keep them hygienically clean.



778-5234 37DB HEADBAND

449-6483 31DB HEADBAND 449-6562 31DB HEADBAND





H520A-407

H520F-409



Browse thousands more products online sg.rs-online.com/food

X5A-SV



#### **Test & Measurement Highlights**

Browse and shop the entire range of test & measurement products online at **sg.rs-online.com**.

#### **DPI 705E AND DPI 705E-IS HANDHELD** PRESSURE INDICATORS

- 48 pressure ranges from  $\pm 25$  mbar to 1,400 bar ( $\pm 1.69$  psi to 20,000 psi)
- Total 1 year uncertainty 0.05% full scale over -10°C to +50°C temp range
- Remote plug + play pressure and Resistance Temperature Detector sensors
- DPI705E Safe Area pressure indicator
- · DPI705EIS Hazardous Area pressure indicator

**NON-CONTACT INFRARED** 

Designed with a double moulded plastic

use over extended periods of time Built-in laser targeting with a 1 cm to 10 cm measurement range, allows for better and more accurate targeting to ensure optimum measurement accuracy and precise non-contact temperature readings using the Body or Surface Temperature functions In Body temperature range of +32°C to +42.5°C with an accuracy of ±0.3°C

housing with ergonomic grip for ultimate user comfort and to allow continuous

Medical grade infrared temperature detector

**THERMOMETER** 





#### **DATA LOGGERS**

- 3 data loggers for monitoring chilled goods, frozen goods and ripening goods
- No setup required. One button press-to-start logging
- Temperature measurement accuracy is ±0.5°C



## Druck

201-2871	200 BAR, HAZARDOUS AREA	DPI705EIS-1-02G-P1-H1-U0-OP0
201-2877	70 BAR, HAZARDOUS AREA	DPI705EIS-1-16G-P1-H1-U0-OP0
201-2885	2 BAR, HAZARDOUS AREA	DPI705EIS-2-07G-P1-H1-U0-OP0
201-2870	70 BAR, SAFE AREA	DPI705E-1-16G-P1-H0-U0-OP0
201-2878	350 BAR, SAFE AREA	DPI705E-2-03G-P1-H0-U0-OP0
201-2867	10 BAR, SAFE AREA	DPI705E-1-11G-P1-H0-U0-OP0



- Adjusting program (CAL)
- Stainless steel snap link with safety catch and 15 mm aperture
- Up to 200 kg weighing range



910-7068	CHILLED GOODS HIGH 8°C LOW 2°C	EL-CC-1-001
910-7062	FROZEN GOODS HIGH -16°C LOW -20°C	EL-CC-1-002
910-7071	RIPENING GOODS HIGH 14°C LOW 12°C	EL-CC-1-003
111-8087	WATERPROOF BAG	EL-CC-BAG

#### **KEYSIGHT U1168A STANDARD MULTIMETER TEST LEAD KIT**

• Test leads, Test probe (19-mm tips), Test probe (4-mm tips), Alligator Clips, Fine Tip Test Probes, SMT Grabber and Mini Grabber (black only)





700-7055 200KG CAPACITY

HCB 200K500



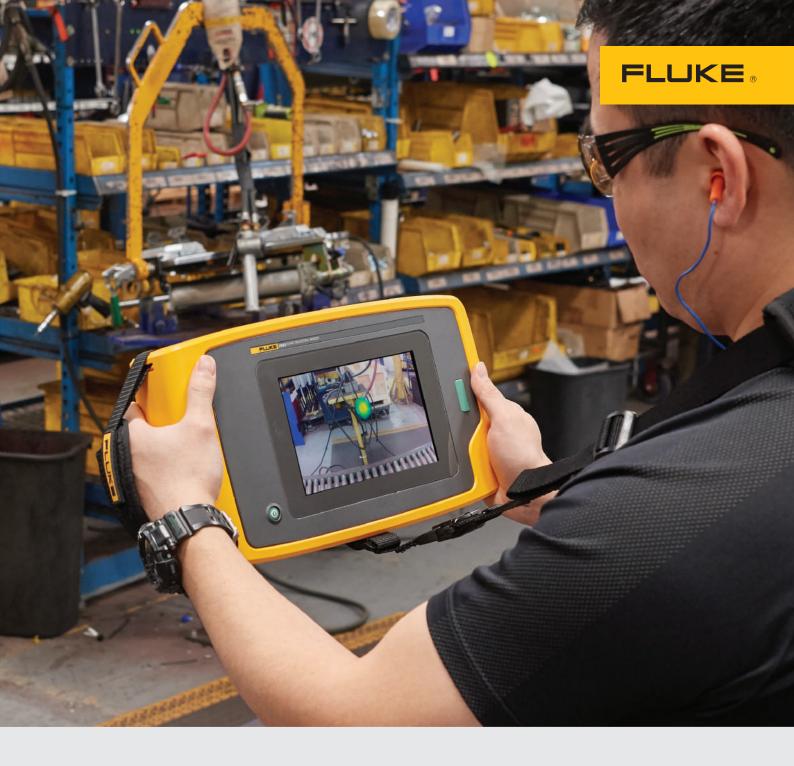


760-0373 19MM AND 4MM PROBE TIPS



201-0210 DT-8806





## Immediate ROI with quick and easy leak detection.

Leading-edge Fluke Ultrasonic Leak Detector on a touchscreen camera.

#### Immediately SEE your plant efficiency loss

Did you know that compressed air can account for 40% of wasted electricity? Locating leaks in compressed air, gas and vacuum systems has been time-consuming and tedious—until now.

With the **Fluke ii900 Sonic Industrial Imager** your maintenance team can quickly pinpoint the location of compressed air, gas and vacuum leaks in a matter of minutes during production.





#### FLUKE 287 DIGITAL MULTIMETER

- Trend Capture quickly documents design performance and graphically displays the results
- Good for measuring nonlinear loads accurately and has an impressive group of ranges
- Displays resistance up to  $500M\Omega$



FLUKE

**156-724** FLUKE 287/EUR

## FLUKE 87V-MAX DIGITAL MULTIMETER

- Measure up to 1000 V ac and dc, 10 A and 200 kHz
- Built-in thermometer conveniently allows you to take temperature readings without having to carry a separate instrument
- Displays resistance up to 50MΩ



FLUKE

**194-6806** FLUKE-87V-MAX

#### **FLUKE 376 FC CLAMP METER**

- The Fluke True-RMS clamp meter measures current up to 999.9A AC/DC via jaw, 2500A AC via iFlex and voltage up to 1000VAC/DC
- It enables you to log, trend and monitor measurements while remaining safely away from the arc flash zone through Bluetooth connectivity



FLUKE.

**905-5914** FLUKE-376 FC

#### FLUKE 289 DIGITAL MULTIMETER

- 50,000 Count, 320 x 240 dot-matrix LCD display with white backlight allowing clear multiple on-screen display of measurement information
- 0.025% basic DC accuracy
- Displays resistance up to  $500 M\Omega$



FLUKE

**156-730** FLUKE 289/EU

#### FLUKE 87 DIGITAL MULTIMETER

- Accurate measurements of noisy pulsewidth modulated AC voltage at the VSD and the motor terminals
- Accurate frequency measurements on VSD
- Displays resistance up to 50MΩ



FLUKE

**480-2355** FLUKE-87-V/EUR

## FLUKE 922 AIRFLOW METER/KIT

- Powerful meter provides differential and static pressure, air velocity and flow readings
- Convenient colored hoses help proper interpretation of pressure readings
- Easy to use without sacrificing performance

all environments

Bright, backlit display for clear viewing in



FLUKE.

**850-7672** FLUKE 922

## FLUKE 287 MULTIMETER KIT

- · Multiple logging sessions
- 0.025% basic dc accuracy
- 100kHz ac bandwidth
- · Saved readings time stamping
- · Temperature function
- True-RMS ac voltage and current for accurate measurements on complex signals or non-linear loads



FLUKE.

**665-4684** FLUKE 287/FVF

## FLUKE 1587 FC INSULATION METER

- True RMS Digital Multimeter for measuring Voltage and Curren
- measuring Voltage and Current

  Selectable filter for accurate
- measurement of voltage and frequency on motor drives

   User selectable
- insulation test voltage for many applications
- Remote probe for easy and safe measurement



FLUKE

**905-5920** FLUKE-1587 FC

## FLUKE 922 PRESSURE VELOCITY & AIR FLOW KIT

- Measures differential and static air pressure, air velocity and air flow readings
- User-defined duct shape and size for maximum airflow accuracy
- Convenient coloured hose help properly diagnose
- pressure readings

  Auto power off saves
  battery life



FLUKE.

**287-636** FLUKE 922/K



#### **DET4TC2 EARTH TESTER**

- Automatic P spike and C spike check
- Choice of 2, 3 or 4 terminal measurements
- Clamp input for no-disconnect testing (requires ICLAMP)
- Clamp inputs for stakeless testing (requires ICLAMP and VCLAMP)
- Earth current range (requires ICLAMP)



#### Megger.

**489-664** 200KΩ CAT IV 100 V

1000-345

#### RCDT310-EN-BS RCD TESTER, RCD TEST TYPE AC SELECTIVE, DC SELECTIVE, RCD TEST CURRENT

- Tests 30mA, 100mA, 300mA and 500mA rated RCDs
- 1/2x I, I, 5x I tests standard, DC and selective RCDs
- 0° or 180° polarity tests on all RCDs
- Selective breakers have a time delay in tripping. When selected, trip test times are extended and a 30s delay is allowed between the measurement of the fault voltage and the application of the test current
- Selectable touch voltage inhibit and touch voltage display on the analogue bargraph



#### Megger.

712-5737 500MA CAT III 300V

RCDT310-EN-BS

#### **PAT450 PAT TESTER**

- · Simple operational interface
- Storage of completed forms with retrieval by certificate type or client
- PDF export facility for safe and simple distribution
- Multi-page Schedules for testing larger installations
- Drop down fields to speed up certificate completion



#### Megger.

705-6283 CLASS I, CLASS II TEST TYPE

1003-755

## AVO830 HANDHELD DIGITAL MULTIMETER

- IP54 environmental protection
- · Phase rotation
- · High / Low sensitivity live circuit detection
- 10 M $\Omega$  / 10 k $\Omega$  input impedance
- MIN / MAX / AVG / Smoothing



#### Megger.

**136-7898** 1007-494

## TDR1000/3 TIME DOMAIN REFLECTOMETERS

- Dual cursors providing an instant indication of the distance between two points
- Auto set up for instant use
- Auto selected output impedance (between 25ohm, 50ohm, 75ohm and 100ohm)
- Ultra-fast pulse for near end fault identification
- Trace HOLD feature to allow comparison between cables
- · Designed for use on all metallic cable pairs



#### Megger.

**764-2825** 5000M

#### MFT1835 MULTIFUNCTION TESTER, EARTH RESISTANCE MEASUREMENT WITH GERMAN MAINS

- 3-terminal earth test and stakeless testing for spike resistance measurement
- Full input protection and safety warnings when a hazardous voltage is present
- Internal memory and Bluetooth communication
- Simple colour-coded test selection and large clear backlit display for ease of use
- Two and three wire non-trip loop testing for RCD protected circuits



#### Megger.

1002-415 1000V

1002-415

#### **AVO DCM 300E**

- Fully IEC1010-1 and IEC101-2-032 compliant for circuits up to 500V phase to phase or 300V phase to earth CAT III or 600V CAT II
- 30mA and 300mA ranges for leakage current measurement
- 0.01mA resolution on 30mA range



#### Megger.

**247-0142** DCM300E

#### **MIT515, INSULATION TESTER**

- 10 TΩ (5 kV) / 20 TΩ (10 kV) max. insulation resistance
- Timed IR plus PI and DAR diagnostic tests
- Operate with dead battery when on line power/mains
- Rapid charge Li-ion battery
   up to 6 hrs continuous testina (5 kV)
- Dedicated voltmeter function (30 V to 660 V)
- CATIV 600 V safety rating
- Large LCD display with automatic backlight
- Noise filter rejects up to 3 mA noise



#### Megger.

001-788

**763-9267** 5000V, 10TΩ, CAT IV

1001-935

## MIT 410/2 SERIES INSULATION & CONTINUITY TESTERS

- Stabilised insulation test voltage
- 600 V TRMS AC and DC voltage measurement
- Live circuit detection and protection
- CAT IV 600 V & IP54
- Weatherproof, rated to IP54



#### Megger.

**921-4514** 1000V, 200GΩ

1004-730





## **MPQ1000**

## **Power Quality Analyzer**

The Megger MPQ1000 Power Quality Analyzer is Class A compliant and rated CAT IV at 600V. It can be used for a wide variety of applications including substation monitoring, equipment and breaker tripping, load studies and balancing as well as for switchgear and component failure.

Some of its features include:

- Automatic CT recognition
- Automatic connection verification
- On-board data analysis
- SD card and USB stick support
- 1000 V ac and dc range
- Scope and DMM modes
- CATIV @ 600 V
- IEC61000-4-30 Class A compliant

Power on with Megger.







#### **RS 135 MULTI FUNCTION CALIBRATOR**

- Source 4-20 mA, 0-24 mA with 1  $\mu$ A resolution (1 K $\Omega$  load, 24 V loop supply), basic accuracy 0.025%
- Source 0~24.000 V with 1 mV resolution
- Source frequency 1~20000 Hz square wave with programmable duty cycle (1~99%)
- Auto step and auto ramp for sourcing mA, V
- Easy fixed 25% up and down, or programmable percentage (1~99%) increase and decrease (mAV)
- Measure DC mA with loop power (24 V output)
- Measure DC V
- · Measure Temperature (°C, °F) of 11 types of thermocouples (K, J, E, T, R, S, N, L, U, B and C)
- Calibrator grade precision temperature measurement with 0.1°C & 0.1°F resolution
- Detection of thermocouples disconnection
- · Warning for overload, output open (mA) or short (V)
- · Short circuit protection for output
- Battery power indication (%) when turn on the calibrator
- Batteru or electrical power supplu



#### MAGNETIC FIELD **INDICATOR / SOLENOID TESTER**

- Easy to usePowerful red light indicator
- · Lightweight





375-5422 MAGNETIC STICK FIELD INDICATOR

#### **BLUETOOTH POWER CLAMP METER**

174-9557 4-20MA LOOP CALIBRATOR + THERMOMETER

- 10,000 count digital display
- 50 segment analogue bar graph Large LED backlit display
- Bluetooth connecting
- Auto store up to 1000 memories
- Data logging up to 9,999 records
- True RMS reading on AC and AC+DC mode
- · Torch lightening on trigger push
- · Auto Ohms/Continuity/Diode selection AC 600 Amps capability
- Auto AC/DC 1000 Volts capability and selection
- AC current via flexible current probe
- · Power and power factor measurement
- · Total harmonics distortion and harmonics 1 to 25
- · Phase rotation indication
- 100K Ohms resistance capability
- · Frequency counter
- · Capacitance capability
- · Smart data hold, peak hold, min max hold functions
- · Inrush current



162-4455 RS PRO 155 BLUETOOTH CLAMP MULTIMETER





- Easy to use
- Powerful red light indicator
- Lightweight
- Ambient Temperature: -20°C to +40°C
- Weight: 40 gms





ATEX/IECEX MAGNET STICK INDICATOR



#### TEMPERATURE, SPEED & ENVIRONMENTAL TEST & MEASUREMENT

#### RS PRO TG301 INFRARED THERMOMETER

- · Easy-to-use ergonomically designed pistol grip IR thermometer
- his thermometer lets you see the heat map on the display so you know exactly where to target the temperaturTe measurement spot.
- This device easily finds unseen hot and cold spots for instant troubleshooting and has the best accuracy in class with its wide thermal range.
- This IR thermometer has been designed specifically for electrical, HVAC, mechanical and automotive applications.



#### **RS PRO IT-1 INFRARED THERMOMETER**

- Single Type K bead thermocouple supplied
- K or J-Type thermocouple input
- Real-time stamp
- Data logging up to 16000 records
- °C, °F or °K display so you switch between Celsius, Fahrenheit and Kelvin
- · Auto Power Off with selectable time setting





123-3217 RS53II SERIES

918-1085

#### **DRY-WELL TEMPERATURE CALIBRATOR**

- Suitable for checking the accuracy of RTDs (Resistance Temperature Detectors), thermocouples. and small bimetal thermometers in the field
- Fast, accurate and easy calibrations of temperature sensors for reliable measurement results
- Multiple sized sensor holes that accepts a wide range of temperature sensor diameters, for increased versatility across a wide variety of applications
- Built-in fan cooling feature allows rapid temperature changes and the temperature can be adjusted in 0.1°C increments if nec





193-8701 BX-150 +33°C TO +300°C

**CONTACT AND NON-**

#### SURFACE TEMPERATURE **PROBE**

- Time constant 1 second (clean tip)
- · Solid waterproof handle for added protection and to prevent damage by excess heat
- Wide temperature measurement range of -200 to 1000°C



**342-8956** THERMOCOUPLE TYPE K FAST RESP, -50TO250

#### **DESKTOP INDOOR AIR QUALITY CO2 MONITOR**

- High-quality CO2 monitor with a large LCD display for easy visual identification
- Real-time readings for accurate monitoring and detection
- Also measures immediate air temperature and humidity
- · Compact and ergonomic design, suitable for use in workspaces where there is limited space
- This portable CO2 monitor can be used to observe and control CO2 levels indoors
- Automatic shutdown if the device has a low battery or if it is left idle for more than 10 minutes





174-6574 RS-967

#### LUX/FC LIGHT METER ILM-201L

- Measuring range: 200, 2000, 20 000, 200 000 lux; 20, 200, 2000, 20 000 foot-candles
- Accuracy ±3% (calibrated to standard incandescent lamp 2856 oK) and corrected LED day white-light spectrum (±8% other visible light source)
- · 3 digits LCD with maximum reading 1999
- Max Hold
- Manual zero adjustment
- Manual ranging
- Meter size 130 x 55 x 38 mm
- Sensor size 80 x 55 x 25 mm





124-0938 LUX/FC LED LIGHT METER

#### **TACHOMETER REFLECTIVE TAPE**

- · Self-adhesive reflective tape
- · Suitable for use with optical tachometers and stroboscopes
- · RoHS (Restriction of Hazardous Materials) compliant with EU Directives 2011/65/EU and 2015/863 Complies with the ΔNSI/ESD
- S20.20:2014 and BS EN 61340-5-1:2007 Electrostatic Control Standards





845-9731 PACK OF 10

#### **CONTACT TACHOMETER** Durable and robust housing for

- use in challenging environments while offering an intuitive and easy to use interface for optimum ease of use
- A wide measuring range and high resolution for accurate and reliable results as a contact or non-contact form of measurement
- ways of measuring RPM and surface speed, especially in areas where it may be dangerous or difficult for the user to reach





193-8688 AT-8









#### **IPS SERIES MULTIPLE OUTPUT** PROGRAMMABLE LINEAR DC POWER **SUPPLIES**

- 2,3, and 4 Independent isolated output
- User-friendly operation, coarse/fine volume control
- · USB standard interface
- Low noise achieved by a smart cooling fan achieving
- Digital panel control (rotary encoder switch, rubber key with indicator)
- Tracking series and parallel mode The tracking series mode guarantees higher output voltage, while the tracking parallel mode guarantees higher output current.





123-3558 2CH,180W PROGRAMMABLE LINEAR DC P/S

#### **EXTERNAL DIGITAL MICROMETER**

- · External, digital micrometer
- Metric and imperial units
- Minimum measurement of 0 mm
- Maximum measurement of 25 mm
- Resolution of 0.001 mm
- Accuracy of ±0.002 mm
- Electronic LCD screen
- · Battery operated





**705-1229** 0-25MM/0-1IN

#### **ILLUMINATED MAGNIFIER**

- Contour Grip
- Rubberised Black Body Overall Dimensions: 7- in x 3 x in
- 4 LEDs
- 1 UV Bulb: 395 to 400 nm





136-8095 2.5X

#### **ULTRASONIC CLEANING TANK WITH LID**

- Timer: 1-99 mins
- · Ultrasonic Power: 100W
- Frequency: 40 KHz
- Material: Stainless steel tank and housing
- Plug: UK & EU plug





124-9721 2L 138X124 MM

#### **METRIC EXTERNAL MICROMETER SET**

- External metric micrometer set
- Minimum measurement of 0 mm
- Maximum measurement of 150 mm
- Resolution of 0.01 mm
- · Accuracy of ±0.004 mm
- Set contains six micrometers, setting rods and adjustment tools



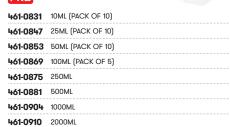


**705-1213** 0 MM →150 MM

#### **CYLINDERS WITH PRINTED GRADUATIONS (CLASS B)**

- ISO 6706 compliant cylinders in ultra-clear PP
- Enhanced pin-sharp blue-printed graduations
- Polypropylene bottles with good chemical resistance
- Stable hexagonal base with an antisuction design that prevents the base from sticking to a wet surface





#### **DIGITAL CALIPER**

- Clear LCD display
- Stainless Steel construction
- Origin setting
- · Switchable On/Off
- Thumbwheel for fine adjustment
- Knurled locking screw
- · Supplied with battery



841-2518	150MM/6"
841-2511	200MM/8"
841-2515	300MM/12"

#### **TUBULAR ROD INSIDE MICROMETER**

- Accuracies of 0.01mm.
- · Ranges of 50 to 600mm.
- · Non-glare satin chrome barrel and sleeve.
- Each set consists of a micrometer head with locking screw.





**785-7847** 50-250MM

#### PRESSOL MEASURE JUG WITH LID AND FLEX SPOUT

- · Flexible spout and lid
- Oil, acid and fuel resistant
- Ergonomic design
- Durable and stable
- · German, English and American scale divisions



rs	
PRO	

703-1102	1L
703-1105	2L
703-1109	3L
703-1118	5L



All the components you need for to keep your employees safe on site.

#### Site Safety Highlights

Browse and shop the entire range of site safety products online at **sg.rs-online.com**.

#### **SPILL CONTROL PALLET**

- · Prestige, Double IBC polyethylene spill pallet
- Fully sealed, moulded bund
- Extra grip plastic grating, holds the IBC's clear of spillages.
- Plastic grating will hold 2 fully loaded IBC's Extra tough poly construction will resist knocks and direct impacts
- Will hold a combination of 205ltr drums and IBC's
- Suitable for storing 2 # IBC, 8 # 205 litre drums or a combination of both
- Safe working load capacity 4000Kg







177-2741 SPILL PALLET

#### **TELESCOPIC EXTENSION ACCESS POLE**

- Access poles provide access to detectors which are out of normal reach.
- Lightweight and quick to extend and are made of non-conducting fibre glass construction.
- Non-whip even at height
- · Certified non-conductive protecting both the engineer and overhead live equipment from inadvertent shorts
- Designed for use with the Solo aerosol dispenser and detector removal tool.



201-3092	4.5M L	SOLO100
201-3115	1.13M L	SOLO101
201-3121	SMOKE DETECTOR TESTER	SOLO200
201-3137	AEROSOL SMOKE DISPENSER	SOLO330



**PATLITE LA6 POE SIGNAL TOWER** 

- Ethernet connection with PoE (Power over Ethernet) support, enabling single cable installation
- Supports Modbus TCP/IP and HTTP protocols to work seamlessly with your existing infrastructure
- Built-in web interface for quick and easy setup and configuration
- Includes 21 programmable LED colours and 11 selectable alarms for unambiguous indication
- Features a mirroring function for replicating the visual and audible statuses from a master LA6-POE on up to 8 remote slave LA6-POE
- Built-in terminal block as an alternative control method

#### **PATLITE**

169-8808 LA6-5DSNWB-POE 169-8809 LA6-5DTNWB-POE

#### **DOOR RELEASE**

- Green MCP, double pole, surface mounted with glass Break glass operation
- Surface mounting
- Unique plug and play concept saves installation time
- · Anti-tamper facility to reduce false alarms



K	Д	C

513-6968	REPLACEMENT GLASS (PACK OF 5)	G11140
513-6974	TEST KEY (PACK OF 10)	SC070

#### **PE DRIP TRAY**

- · Ideal choice for containing spills in the work area, storing, handling smaller drums and cans
- Compact, lightweight and fit into small area.
- Made from 100% polythylene, they're also stronge and there compatible with most liquids.
- Practical, simple and safe solutions for handling small liquids and spillages.





192-7769	57CM X 39CM X 5CM 10L	P3040503
192-7768	79CM X 40CM X 5CM 9L	P3048040



#### PLATINUM LED EVAGO WALL MOUNT SINGLE SIDED PICTO EXIT

- 5 year warranty
- LED technology 100,000 hours plus lamp life
- Low power consumption and LED light source for reduced operation and maintenance costs





PELEVEMSWM-1 179-4150 SINGLE SIDED PICTO **179-4144** BATTERY LIFEPO4 3.2V 1.14AH 03-YPMA011

#### SIGNATURE FLOOD LIGHT **LED**

- 3 year warrantyLED technology 100,000 hours lamp life
- Light output typically 600 lumens per lamp head



179-4177	2X10W 12V NON-MAINTAINED	FL210LED
179-4178	BATTERY SEALED LEAD ACID 12V 7AH	14-00061

#### **PLATINUM LED WEATHERPROOF PICTO EXIT**

- 5 year warranty
- LED technology 100,000 hours plus lamp life
- Low power consumption and LED light source for reduced operation and maintenance costs



#### SIGNATURE BATTEN LED **WEATHERPROOF MAINTAINED**

- EM unit
- 3 year warranty
- Typically 4,500 lumens on MAINS AC operation



#### **ECONOMY E-LUNA CIRCULAR LED**

- High efficiency LEDs
- 1 year warranty
- Long LED life 50,000 hours with low maintenance suitable for difficult to access areas
- High colour rendering index CRI >80





179-4133	3.2W <picto< th=""><th>PWEXLEDP-2</th></picto<>	PWEXLEDP-2
179-4134	3.2W PICTO>	PWEXLEDP-3
179-4067	BATTERY LIFEPO4 3.2V 3.2AH (SINGLE)	03-01301P

1/9-4150	EM 4000 LUMENS	SBLVVEIVI4DLIVI
179-4157	EM 4500 LUMENS WITH MOTION DETECT SENSOR	SBLWEM45LMMD
179-4158	BATTERY 3 CELL NICAD 3.6V 4.5AH	03-01016P



ODUMENTALEINA

179-4174	BATTERY 3 CELL NICAD 3.6V 4.5AH	03-01223
179-4171	IP20 AC 2200 LUMENS WITH MOTION DETECT SENSOR	ECLAC22LMD
179-4170	IP20 AC 2200 LUMENS	ECLAC22L

#### **EVAGO WIRE SUSPENSION KIT**

• 1.5m and 3m rod suspension kit

#### SIGNATURE CIRCULAR LED **WEATHERPROOF SUSTAINED**

- 3 year warranty
- Long LED life 50,000 hours with low maintenance suitable for difficult to access areas
- High colour rendering index CRI >80



- 5 year warranty
- Superior photometric classification

**NONMAINTAINED** 

• LED technology 100,000 hours plus lamp life









179-4148	150CM	EVWSK150CM
179-4149	300CM	EVWSK300CM



179-4176	EM 2000	0 SCLWEM20LS	
179-4055	BATTERY 5 CELL NICAD 6.0V 1.8AH	03-01220	



179-4069	SINGLE, 1.0W	SFB1LEDF
179-4070	DUAL, 1.0W	SFB2LEDF
179-4055	BATTERY 5 CELL NICAD 6.0V 1.8AH	03-01220





#### MOFLASH INTRINSICALLY SAFE LED **SOUNDER/BEACON - IS-SB SERIES**

- Suitable for fire, security, process control and general signalling applications
- The sounder/beacons incorporate a two stage alarm option
- Zones 0, 1, 2, 20, 21 and 22 ATEX and IECEx approved
- IP66 rated
- · Surface Mount
- Polycarbonate housing material





#### MOFLASH

144-5953 IS-SB SOUNDER BEACON, AMBER LED, 24 V DC 144-5954 IS-SB SOUNDER BEACON, RED LED, 24 V DC

#### **MOFLASH DUAL FUNCTION LED BEACON - LED80 SERIES**

- 12 extra-bright LED's
- · Continuously-rated
- UV-stable polycarbonate lens and body
- · Wide operating voltage
- 180° visibility
- Easy, snap-fit installation (with base plate for surface mounbt option)
- May be used in genaral signalling applications



#### MOFLASH

7210120	AMBER, SURFACE MOUNT, 10 → 100 V DC
721-6432	LED, MULTIPLE EFFECT BEACON LED 80 SERIES, RED, SURFACE MOUNT, 10 $\rightarrow$ 100 V DC
721-6435	LED, MULTIPLE EFFECT BEACON LED 80 SERIES, BLUE, SURFACE MOUNT, 10 $ ightarrow$ 100 V DC
721-6439	LED, MULTIPLE EFFECT BEACON LED 80 SERIES, GREEN, SURFACE MOUNT, 10 → 100 V DC
721-6448	LED, MULTIPLE EFFECT BEACON LED 80 SERIES, AMBER, SURFACE MOUNT, 115 V AC, 230 V AC
721-6441	LED, MULTIPLE EFFECT BEACON LED 80 SERIES, RED, SURFACE MOUNT, 115 V AC, 230 V AC
721-6445	LED, MULTIPLE EFFECT BEACON LED 80 SERIES, BLUE, SURFACE MOUNT, 115 V AC, 230 V AC
721-6454	LED, MULTIPLE EFFECT BEACON LED 80 SERIES, GREEN, SURFACE MOUNT, 115 V AC, 230 V AC

721-6423 LED. MULTIPLE EFFECT BEACON LED 80 SERIES.

#### 32 TONE SOUNDER - IS-S SERIES

- The sounders incorporate a two stage alarm with a total of 32 selectable tones
- Zones 0, 1, 2, 20, 21 and 22 ATEX and IECEx approved
- IP66 rated
- · Surface Mount
- · Polycarbonate housing material



#### MOFLASH'

**144-5950** IS-S BASE SOUNDER, 105DB, 24 V DC

#### **MOFLASH INDUSTRIAL ECO LED BEACONS WITH PIEZO BUZZER -LEDA100 SERIES**

- Dual function, flashing or continuous (static) mode
- · 80 dB piezo buzzer which only activates with the flashing mode
- Continuously rated
- LED long life
- · Low current consumption
- Suitable for surface, conduit box or wall mounting
- 3 point fixing
- 360° light output around the vertical axis
- Dustproof and weatherproof
- UV stable polycarbonate lens
- UV stable ABS plastic base
- 160 flashes per minute (FPM)
- IP65 protection
- · RoHS compliant • CE Marked



#### MOFLASH

865-1625	LEDA100 BUZZER BEACON, AMBER LED, 8 $\rightarrow$ 20 V AC/DC
865-1634	LEDA100 BUZZER BEACON, RED LED, $8 \rightarrow 20 \text{ V}$ AC/DC
865-1637	LEDA100 BUZZER BEACON, GREEN LED, $8 \rightarrow 20 \text{ V}$ AC/DC
865-1631	LEDA100 BUZZER BEACON, AMBER LED, 20 $ ightarrow$ 30 V AC/DC
865-1647	LEDA100 BUZZER BEACON, AMBER LED, 40 $\rightarrow$ 380 V DC, 85 $\rightarrow$ 285 V AC
865-1659	LEDA100 BUZZER BEACON, GREEN LED, 40 $\rightarrow$ 380 V DC, 85 $\rightarrow$ 285 V AC
721-6479	LEDA125 SOUNDER BEACON, 90DB, CLEAR LED, 24 V DC

#### MOFLASH INTRINSICALLY SAFE **BEACON - IS-B SERIES**

- The beacons incorporate a dip switch that allows you to change from 1 Hz flash rate to a static signal
- Zones 0, 1, 2, 20, 21 and 22 ATEX and IECEx approved
- IP66 rated
- · Surface Mount
- · Polycarbonate housing material



#### MOFLASH'

**144-5951** IS-B BEACON, AMBER LED, 24 V DC

#### MOFLASH TLM MODULAR SIGNAL **TOWER**

- Beacon units are dual function, flashing or continuous (static) mode
- · Sounder unit output: 80 120 dB
- · Continuously rated
- · LED long life
- · Low current consumption
- Suitable for surface mounting
- · 360° light output around the vertical axis
- Dustproof and weatherproof
- UV stable polycarbonate lens
- UV stable ABS plastic base
- · 60 flashes per minute (FPM)
- IP54/65 protection
- · RoHS compliant
- CE Marked





#### MOFLASH

901-0738	MOUNTING FOOT & POLE FOR USE WITH LED-MINI
901-0747	MOUNTING BRACKET & POLE FOR USE WITH LED-MIN
901-0722	LED-MINI BEACON UNIT, AMBER LED, STEADY LIGHT EFFECT, 12 $ ightarrow$ 24 V DC
865-1757	LED-TLM TERMINAL UNIT, TERMINATION UNIT
865-1744	LED-TLM SOUNDER UNIT, , 24 V DC
865-1726	LED-TLM BEACON UNIT, RED LED, STEADY LIGHT EFFECT, 24 V DC
865-1722	LED-TLM BEACON UNIT, AMBER LED, STEADY LIGHT EFFECT, 24 V DC







#### SAFE DISTANCING BUNDLE

- Introducing the RS PRO Social Distancing Kit that includes everything needed to set up and manage social distancing within a variety of environments
- It includes an infrared thermometer, a 2 m safety barrier and footprint-shaped floor labels as clear markers to indicate the correct distance

#### **LOCKOUT STARTER KIT**

- An essential addition to any workplace, this starter kit is from our high-quality own brand RS PRO, offering machine, electrics and worker protection
- · Basic lockout for valves and electrical panels

#### WARNING SIGNAGE

- A dual-message sign to warn of live
- electrical equipment and a mandatory message for safe working or faults.

  The sign measures 300 x 150 x 1.2 mm and are printed with yellow/black and blue on a white background.

Danger







**862-5247** 24 PRODUCTS





763-1711 DANGER - LIVE ELECTRICAL EQUIPMENT

Isolate for

safe working or if fault occurs



201-3047 SAFE DISTANCING BUNDLE

#### **SHADOW BOARDS KITS**

- The RS PRO cleaning shadow board kit contains all the essential tools to maintain exceptional hygiene standards in a range of different environments
- Using a shadow board also helps quickly identify missing equipment, whilst providing a neat and tidy storage place when not in use



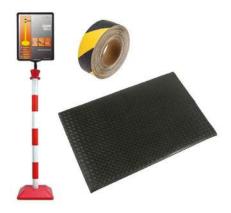
100	
201-3132	STYLE A (BLUE)
201-3133	STYLE A (RED)

201-3134 STYLE B (BLUE) 201-3135 STYLE B (RED)



#### **ZONE WORKING BUNDLE**

• The RS PRO zone working kit is an ideal solution to use for establishing clearly marked work zones for individual workers and removing the potential health and safety risk of employees being in close proximity of each other while working in busy manufacturing or industrial environments



201-3136 ZONE WORKING KIT



#### FULL DOME MIRROR 360 DEGREE VIEWING

- 4 way intersection
- · Panoramic viewing
- · Edge is rubber material
- Excellent visibility



PRO

773-9714 DIA 60 CM

## HEAVY DUTY RUBBER WHEEL CHOCK

- Stops wheels from moving during critical maintenance work.
- Made from a thick rubber to ensure a long life.
- Integrated handle for easy removal and carrying.
- Ideal for all types of automotive work. Trucks, vans and cars are all supported.





125-2183 HEAVY DUTY WHEEL CHOCK FOR TRUCKS

## FORKLIFT TRUCK AREA FLOOR SIGN

- · Permanent adhesive fixing
- Graphics printed on the underside of clear PVC film to withstand everyday warehouse traffic
- Material PVC





**873-5921** 430MM DIA

#### ANGLES PROTECTION WITH TAPE

- · Angles protection for protecting people, vehicles or equipment
- Ideal for warehouses, factories, parking
- Double Adhesive backed tape
- Nitrile Butadiene Rubber doubleface tape for fixing oil and grease resistant
- High visibility
- Black/Yellow
- Available in square, rounded or flat





**724-9782** ANGLE PROTECTION 30X30X8MM **724-9766** ANGLE PROTECTION Ø40MM 750MM

**724-9779** ANGLE PROTECTION Ø40MM 750MM **724-9808** PLATE PROTECTION 60X10MM 5M

724-9798 PLATE PROTECTION 60X10MM 750MM

#### WARNING CONES

- · Class 1 reflective cone
- Made of polypropylene very durable
- Two reflective stripes highly visible even in the dark
- · Colour: orange and white
- General use cone optional chain or hook can be attached
- Easy to use just place them where you want them, no need to connect them
- Can be stacked when not in use – convenient storage





**503-681** 30 CM

**503-754** 50 CM

#### **NO ENTRY SIGN PLASTIC**

- Permanent adhesive fixing
- Graphics printed on the underside of clear PVC film to withstand everyday warehouse traffic
- Material PVC





**261-1012** 450X450MM

## BARRIER & STANCHION TAPE CASSETTE

- + Barrier & stanchion tape cassette prevent movement and restricts access
- Flexible retractable barrier without taking up any floor space
- Wall reel with ANTI-PANIC device (the strap is automatically released in case of crowd movement)
- Wall receiver and magnets included
- Tear-proof strap
- · Waterproof casing
- Outdoors and Indoors applications





217-5266 50 MM WIDTH

## ISO 7010 VINYL PICTOGRAM SIGNS

• 100X100MM





813-4454 CRUSHING OF HANDS SIGN

813-4423 ELECTRICITY SIGN

813-4463 FLAMMABLE MATERIAL SIGN

**813-4445** HOT SURFACE SIGN **813-4502** NO SMOKING SIGN

813-4473 WEAR EAR PROTECTION SIGN







#### SPILL CONTROL & FIRST AID EQUIPMENT



#### **CHEMICAL SPILL KIT**

- A total 'one stop' package for a quick and effective response to spillages
- 210L contains 3m socks, 6 pillows, 15 hazard bags and 170 pads
- 105L contains 60 x oil absorbent pads, 4 x 3 m spill sock,  $3\,x$  pillows and  $8\,x$  hazard waste bags and ties



#### PE SPILL TRAY WITH GRATE

Moulded, low profile design and shallow depth of the drip tray makes it easier to catch drips, leaks and spills





189-0063 210L

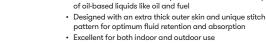
189-0069 105L

#### **SPILL CONTROL EQUIPMENT PALLET**

- · Used for catching spills of hazardous liquids
- · Length of 1,340 mm
- Width of 1,230 mm
- · Height of 1,090 mm
- Removable plastic mesh deck
- Integral tray to catch drips
   Four-way forklift access
- Conforms to ANSI/ESD S20.20:2014 and BS EN 61340-5-1:2007 Electrostatic Control Standards
- RoHS (Restriction of Hazardous Substances) compliant



- These polyethylene spill trays are designed to contain any spilt fluids safely
- · Easy to clean
- Material is resistant to UV and chemicals



**893-0366** 30 LITRE

across a wide range of applications Ideal for placing around the base of machinery or fluid storage areas for extra precaution to absorb leaks or drips

Absorbent sock is iideal for spill containment and absorption

Every sock can absorb 4 litres of fluid per sock

**OIL SPILL ABSORBENT SOCK** 

· Single use application only





**893-0384** 60 LITRE

893-0372 40 LITRE





**771-6415** 7.5CM X 1.2M, 20 PACK



189-0057

#### WALL MOUNTED PLACTIC **GLOVE BOX**

· Used for storing and protecting electrician's gloves can be used for wall mounting.



218-4754 50 CM x 250 MM x 10 CM

#### **DELUXE FIRST AID KITS**

- Toughened cases with additional dividers for organising content
- Available for 1-10 and 21-50 Persons
- Shatterproof ABS case Clear Perspex content dividers
- Rubber dust & moisture seal
- · Supplied with wall fixing bracket





367-0977 SMALL KIT FOR 10 PERSONS



## FACILITIES CLEANING & **MAINTENANCE**

Essentials to keep your work space and equipment to the highest of hygiene standards.

#### Facilities Cleaning & Maintenance Highlights

Browse and shop the entire range of Facilities Cleaning & Maintenance products online at sg.rs-online.com.

#### **FOODLUBE**

- · Specialist food grade lubricants
- · Technically advanced lubricants developed by chemists and engineers to meet customer needs.
- · Reduce production downtime
- · Avoid costly product recalls
- · Support audit compliance









146-2963 ANTI-SEIZE AND THREAD COMPOUND FOR FOOD PROCESSING MACHINERY 500G	15743
448-0719 SUGAR DISSOLVING FLUID,500ML	15110
512-6062 EXTREME MUITI-PURPOSE EP GREASE 3ROG	15241

#### **OT20**

- · An oxygen compatible lubricant
- Designed for use on breathing apparatus in Ministry of Defence aircraft, sub-sea equipment and operating theatres in hospitals





204-8358 PERFLUOROPOLYETHER GREASE 400G. OT20 TUBE, FOOD SAFE

39023

#### **RT15**

- An oxygen compatible lubricant
- Lengthens relubrication periods dramatically due to its ability to resist degradation in hostile conditions
- · Used in gearboxes, anti-friction and plain bearings, or any sliding surface such as pins, valves, plungers, screws etc.





204-8359 PERFLUOROPOLYETHER GREASE 400G. RT15 TUBE, FOOD SAFE

39043



## **BUCKETS, BRUSHES, BROOMS & MORE**



## HAND BRUSHES FOR THE FOOD INDUSTRY

 Hand brush with soft bristles is ideal for sweeping fine particles such as flour from conveyor belts, food preparation surfaces, tables and equipment



775-6303	BLUE	45873
775-6319	YELLOW SOFT HAND BRUSH	45876
775-6315	WHITE	45875
176-7547	HAND BRUSH LARGE, 200MM, STIFF, BLUE	

#### **HYGINE BUCKET**

- Hand brush with soft bristles is ideal for sweeping fine particles such as flour from conveyor belts, food preparation surfaces, tables and equipment
- 12 Litre



884-7642	GREEN	56862
188-9754	GREY	568688
188-9752	LIME	568677
884-7652	YELLOW	56866

## SQUEEGEES FOR FOOD INDUSTRY

- Polypropylene stock, rubber blade
- Application: containment of liquids in cleaning



## Vikan.

390-4416	BLUE	77543
390-4450	YELLOW	77546
390-4422	RED	77544

#### **BOTTLE BRUSHES**

- Tube Brush suitable for cleaning bottles, tubes and gaps between lines on conveyor belts
- Material: Polypropylene, Polyester, Stainless Steel
- Dimensions (Ø x L): 20 x 500 mm



#### **MEDIUM FLOOR BROOM**

- 50 x 400mm, 56mm bristle length
- · Polyester stock and bristle
- Application: sweeping medium sized particals/dust



390-4927	GREEN
390-4961	YELLOW
390-4933	BLUE

#### TABLE AND FLOOR SCRAPER

- Table and floor scraper with stainless steel blade.
- This scraper is suitable for removing stubborn food debris from floors and other surfaces.
- Can be used with any handle from the Vikan colour coded range.



## Vikan.

177-4060	260MM, WHITE	29105
177-4059	260MM, YELLOW	29106
1774064	260MM, GREEN	29102

#### **TUBE BRUSH**

- Clean pipes, tap outlets and narrow spaces between machine parts.
- The filaments are attached to a twisted stainless steel rod which makes chemical resistant and strong.



176-7660	10MM, 480MM, STIFF, YELLOW	53756
176-7662	10MM, 480MM, STIFF, RED	53754
176-7664	10MM, 480MM, STIFF, GREEN	53752
176-7609	40MM, 510MM, MEDIUM, RED	53784
176-7643	60MM, 510MM, MEDIUM, WHITE	53705
176-7674	60MM, 510MM, MEDIUM, BLACK	53709

#### ULTRA HYGIENIC PP HANDLE,1300MM

- Ultra Hygienic Handle of polypropylene
- Manufactured according to the European and American regulations for food contact materials
- Rounded grip
- Chemical resistant, withstands the most aggressive cleaning chemicals



823-4734	BLUE	29603
823-4737	RED	29604
823-4740	YELLOW	29606
823-4725	GREEN	29602

#### **ERGONOMIC SHOVEL**

- Use this durable shovel to move large amounts of food waste or food ingredients.
- Ergonomically designed with the user's working position in mind, this product is ideal for working at floor level as well as shovelling from container to container.





**188-8945** 380 X 340 X 90 MM, 1310 MM HANDLE 5





#### 350CC BRUSH OILER

- Nylon Pump System
- 135 mm Spout
- 120 g in weight
- 140 mm high

#### **COTTON BUDS**

- 150mm long great for cleaning hard to reach areas
- Tightly wrapped cotton wool head absorbs and lifts detritus with minimal lint separation
- Rigid wooden stick provides control and precision
- Can be used wet or dry solvent can be applied to tip for more effective cleaning

#### SILICONE GREASE

- Silicone grease is a water repellent, non-melting silicone grease lubricant;
- Commonly used to lubricate plastic and polythene water pipes, rubber washers and other fluid pipework during assembly;
- Working temperature range is between -50°C to 200°C;
- This item is non-toxic;
- · Acting as waterproof or air tight seal





494-124

100G TUBE



801-0746 300CC BRUSH OILER

**121-4194** 100 PCS

#### FIBRE OPTIC CLEANING **PRODUCTS**

• Optronics 1.25mm Microfibre Clean Stick

#### **SCREW GRAB**

**558-802** SINGLE ENDED, 200/BOX

- Increases torque by up to 800%
   Tools "Grab" to remove deformed screw heads or rounded hex's & sockets
- Easy to use, wipes clean
- Great for seized, rusted and damaged screws, nuts and bolts
- · Ideal for hard to reach spaces or mismatched sockets
- Non-corrosive and non-toxic



200-529 15 ML BOTTLE

#### **PLATEN CLEANER**

- · Dissolves toughest ink marks, as well as oil or grease
- Restores grip after cleaning and leaves no residue
- Does not damage rubber extends the lifetime of rubber rollers therefore preventing costly replacement
- Easy to apply
- Supplied in a 100ml pump spray





217-3891 100ML PUMP SPRAY

#### **GLASS CLEANER, 250 ML SPRAY**

- · Removes traces of dirt and grease from
- glass surfaces Ideal for cleaning optical instruments, spectacles and VDU screens
- Suitable for cleaning flat glass prior to sealing the unit





136-8540

136-8547

#### **50 LITRE PLASTIC FLIP TOP BIN**

- Durable plastic design that's easy to clean and maintain
- Flip lid for easy access
- Lightweight and portable
- Can be used for a range of waste needs
- Waterproof





178-7702 YELLOW

178-7699 RED









#### UNIDIRECTIONAL **GOOSENECK MICROPHONE**

- · Unidirectional:
- Frequency: 10 Hz to 16,000 Hz;
- · Lightweight and flexible;
- · 3-pin XLR connector;
- · All metal case with non-glare black finish





**699-7304** 500OHM

#### **WRITE-ON SELF-ADHESIVE**

- · Self-adhesive vinyl cloth labels.
- Pre-printed labels come with a space to write your own text on using a ballpoint pen or any other spirit-based ink.
- The labels can be used in different industries for all labelling requirements such as organising and performing quality control processes.





450-6164 LABEL TESTED FOR ELECTRICAL SAFETY (PACK OF 140)

#### **VISIBLE AND PARTIALLY LAMINATED**

- Partially laminated write on label
- Text can be written or typed on label
- Leaves checkboard pattern when removed
- High-quality printing on the labels which is ideal for conformance labelling to Safety and Quality standards





496-401

BLK WRITE-ON LABEL 'CALIBRATED', 40X15MM (PACK OF 120)

#### **METAL HORN SPEAKER**

- · High-quality sound in public spaces or industrial settings such as factories or workshops.
- · Made from hard-wearing, weather resistant metal and is suitable for both indoor and outdoor use.
- IP66 rating dust-tight, withstands powerful water jets



**535-0316** 30W

**535-0300** 15W

#### **LCD STOPWATCH 309**

- · Stylish black water resistant plastic case, making it ideal for use in a range of applications
- · Clear LCD screen to display results with ease
- Large 12mm and 10mm digit heights
- Normal time, calendar, alarm and lap facility
- Accuracy within 2 second over 24 hours
- 5 year battery life under normal use, providing a long lasting and reliable device
- 1/100 second resolution
- Counts up to 40 minutes in 1/100 second and then to 24 hours in 1 second intervals





811-1814

DIGITAL STOPWATCH BLACK

#### SILVER WALL CLOCK

- LCD digit heights 52 and 24 mm
- Wall Clock dimensions 220x250x23 mm
- · Digital monitor displays hours, minutes, calendar and the temperature in both C/F





RS LCD CALENDAR CLOCK

#### WHITE WALL CLOCK

- · Excellent for indoor usage
- Incredibly good value for money and is suitable for commercial, health, educational, industrial applications and countless public spaces
- AA batteries are included
- 300 mm diameter x 40 mm depth, weight 740 g
- The viewing distance during a day is up to 25 metres
- Water-resistant clock, which means it is suitable for damp and humid conditions.





706-4773 WHITE, 300MM DIA

#### SILENT SECOND HAND WALL CLOCK

- Quartz movement and continuously moving second hand for silent operation.
- The timeless design makes it a reliable wall clock, which can be used in any commercial and non-commercial spaces.
- This plastic-cased wall clock has been architected with a shatterproof front lens to protect the Clock in case of the unexpected fallout.



440-9568 WHITE, 300MM DIA

#### **A5 WIREBOUND SEMI-RIGID STATIONERY KIT**

- 1 x Aluminium Ballpoint Pen
- 1x A5 Notebook 1x pack of 75 x 75 mm Sticky Notes







#### **Cables & Connectors Highlights**

Browse and shop the entire range of cables & connector products online at **sg.rs-online.com**.

#### LPC C FG STAINLESS STEEL **FOOD FITTINGS**

- · Flexicon LPC (C-FG) conduit fitting is Stainless Steel with an external thread suitable for LPC conduits. This fitting has a Polyester elastomer compression face and nut seal.
- External thread
- · High tensile strength
- · Corrosion resistant
- · For use with all LPC conduits
- Temperature Range: -50°C to +135°C
- Type of Protection: IP66, IP67, IP68 (2 bar) and IP69 with Stainless Steel food grade fittings





#### **FLEXIC®N**

124-0060	16MM M16	LPC16-M16-C-FG
124-0062	25MM M25	LPC25-M25-C-FG
124-0061	20MM M20	LPC20-M20-C-FG

#### **HIROSE U.FL SERIES ULTRA SMALL COAXIAL CABLE ASSEMBLIES**

- · Supports high frequencies of up to 6 GHz
- Terminated with ultra fine coaxial cable for secure and stable connection
- · Tactile click for mating assurance
- · Range of mated heights can be achieved
- Available as sinale and double ended cable assemblies
- Wide range of cable lengths and plug sizes





**685-1047** 1.37MM DIA,300MM L,TIN

U.FL-2LP-088K1T-A-(300)

#### **ENERGY CHAIN® - E2**

- · Chains for various applications
- · Large pins for long service life;Smooth interior for long cable life
- Dirt-repellant exterior (fully enclosed tubes only)
- Tapered insertion point for easy assembly
- · Chain supplied in 1 m lengths





720-2745	116X50MM, RAD 100MM	2600.10.100
720-2749	91X50MM RADIUS 75MM	2600.07.075

#### M12 CORDSETS FOR THE **FOOD INDUSTRY**

- M12 Single ended sensor cordset
- Female right angle connector
- · LED operation and function indicator
- · Self locking threaded joint and moulded cable
- · Hexagon screw-in stainless steel, especially designed for used in food processing equipment



#### lumbergauton

**508-5292** FEMALE, LED, 25M 18027 PRKWT/LED P 4-07/25 M **508-5286** FEMALE, LED, 10M 18026 PRKWT/LED P 4-07/10 M

#### **DURASLEEVE WIRE MARKING CARRIERS**

- DuraSleeve® Wire Marking Carriers, are a transparent tube (carrier) with a label pocket to insert a printed label
- Available in various sizes



#### O-BRADY

447-660	DMC-2.5/5-15	DMC-2.5/5-15
447-664	DMC-1.3/3-30	DMC-1.3/3-30
447-670	DMC-2.5/5-30	DMC-2.5/5-30
447-654	DMC-1.3/3-15	DMC-1.3/3-15



## Metal detectable plastic cable accessories



Undetected contamination of a production batch with a foreign object is a costly concern for any food or beverage manufacturer. To help control the risk from stray bits of plastic around the processing of foodstuffs, HellermannTyton manufactures cable accessories from special high-grade metal detectable plastic resin.

### **Magnetic plastic?**

Plastic resin with metal content can be detected by the metal detection and x-ray equipment commonly installed in hazard control points. The even dispersion of metal particles throughout these plastic products means that even tiny fragments of cable ties, fixing mounts, ID tags or cable covers, which might be cut or dropped during maintenance, can be reliably detected.



The metal particles are embedded in the special high grade plastic resin. Consequently, there is no surface corrosion in humid production environments. The blue colour added to the compound also makes this plastic visually distinctive when compared with the majority of foodstuffs and liquids. Alternative colours are available on request.

In response to scenarios frequently encountered by production plant engineers, HellermannTyton's cable management accessories include two types of cable ties, one of which is releasable and reusable and two types of screwable cable tie mounts in various sizes. Printable TipTag markers and two types of spiral wrap cable covers in different dimensions complete this portfolio of detectable plastic products.

### **Better safe than sorry**

The special materials HellermannTyton uses to manufacture its products for food and beverage processing are of the highest quality. HellermannTyton's detectable plastic products with metal content are free of Bis(2-ethylhexyl) phthalate (DEHP), considered to be dangerous to health.

#### MCTPP SERIES METAL DETECTABLE CABLE TIES

- · Magnetic and X-Ray detectable
- · Will float to the surface of most liquids, allowing them to be easily removed
- · High chemical resistance
- · Remain flexible and elastic in high temperatures
- · Metallic compound dispersed throughout the entire body of the tie
- · Coloured to assist in detection
- · Used as part of HACCP process
- Self-extinguishing (UL94 HB rating)



891-9523	200MM X 4.6 MM, MCT SERIES (PACK OF 100)	<b>111-0166</b> 6 MCTPP50R-PPMP-BU (100)
891-9536	387MM X 7.6 MM, MCT SERIES (PACK OF 100)	111-01668 MCTPP120R-PPMP-BU (100)
891-9511	100MM X 2.5 MM, MCT SERIES (PACK OF 100)	111-01664 MCTPP18R-PPMP-BU (100)
891-9527	390MM X 4.6 MM, MCT SERIES (PACK OF 100)	111-01667 MCTPP50L-PPMP-BU (100)





## **M8/M12 CONNECTORS**

TE's M8/M12 connectors continues to fill the ongoing needs for sensor connection in Industrial Machinery and Factory Automation. A connection standard for many years, these products also find applications outside of their traditional industries where a compact reliable connection system with environmental protection is required. TE's M8/M12 connector portfolio includes A, B, D, S, T, and X-coded (up to 10 Gb/s) versions to serve various customer needs.

The connectors are also available in shielded and unshielded versions, to support Gigabit Ethernet applications.

## M8/M12 - THE CODINGS

A-coding: Actuator-sensor plug

connections for DeviceNet,

IO link and Profibus

B-coding: Fieldbus connections for

Profibus and Interbus



D-coding: Industrial Ethernet, Profinet,

Fthernet/IP and FtherCat



S-coding: Motor Frequency-convertors

motor operated switches,

PSUs for Power, 620 V, 12 A



T-coding: Fieldbus comp, passive

distribution boxes, motors, PSUs for Power, 63 V, 12 A



X-coding: Cat6A, high-speed 10Gbit

rugged industrial Ethernet applications IEC 6107<u>6-2-109</u>



Ambient temperature for M8:

-40°C to 85°C

Ambient temperature for M12:

-40 °C to 85 °C

Current rating:

4 and 5 pins: 4 A per pin 8 and 12 pins: 2 A per pin

IP rating: IP67/IP68

As specifications vary for different parts, please refer to your TE contact for detailed

information.

Application Specifications for M8 M12 Connectors and Cable Assemblies:

114-32127, 114-137008, 114-137144

**Product Specifications:** 

Connectors: 108-3641, 108-

19483,

108-106140

X-coded: 108-137008



Size	Pins	Rated	Maximum Current per pin	Polution grade
M8	3	60 V	4 A	3
M8	4	30 V	4 A	3
M12	3	250 V	4 A	3
M12	4	250 V	4 A	3
M12	5	125 V	4 A	3
M12	8	60 V	2A	3
M12	12	30 V	2A	3

## WIRES, CONNECTORS & ACCESSORIES



#### **HE CABLE HOODS**

- Hoods are made from aluminium alloy casting and available in top, angled or side entry. Hoods provide IP65 sealing when fitted.,PG variants are supplied complete with cable sealing glands.
- Available in 6, 10, 16, 24, 40 and 64 way.,
- Rated to 380V a.c. or 450V d.c. and suitable for Group C applications.



- Male and female inserts will fit either cable hood housings or base housings.
- The insrts is supplied without contacts.
- Each insert has a separate earth contact., If 32 way connectors are required both the 1-16 pole (16 way) and 17-32 pole inserts should be purchased.
- These inserts will fit alongside each other in size 10 HE housing.

## HE THROUGH PANEL HOUSINGS

- Bases made from aluminium alloy casting and in top entry only.,
- Supplied with panel sealing gaskets.





300-3800	16WAY SIDE ENTRY,PG21 SIZE6	1-1102289-6
300-3787	10WAY SIDE ENTRY,PG16 SIZE4	1-1102259-6



300-3715	16 WAY SCREW TERMINAL FEMALE	1-1103639-1
300-3709	10 WAY SCREW TERMINAL FEMALE	1-1103637-1
300-3658	10 WAY SCREW TERMINAL MALE	1-1103636-1





300-3967 10 WAY THROUGH PANEL BASE, SIZE 4

1-1102271-1

## HE/HD SURFACE MOUNT HOUSINGS

- All surface mount bases are made of case aluminium alloy.
- PG variants are supplied complete with cable gland.
- Available in 6, 10, 16, 24, 40 and 64 way.,
- Rated to 380V a.c. or 450V d.c. and suitable for Group C applications.

#### FLEXLITE HIGH TEMPERATURE UL WIRE

- UL Style 3557, UL recognised component
- Operating temperature range of -55°C to +200°C
- 600 V rating
- Meets requirements of VW-1 flammability
- · Flexible and tough
- Thin wall insulation
- · Lightweight and small easy to handle

## STRAIGHT M12 TO STRAIGHT ARISO CONTACTLESS CONNECTOR

- Reverse polarity protection for power and data transmission
- · Protection against over heating
- Will automatically switch off in the event of a metal foreign object between transmitter and receiver
- Interchangeable Dynamic Pairing between ARISO couplers
- M30 x 80mm sized receiver
- IP67 Ingress protection





300-4005	6 WAY BASE,PG16 SIZE 3	1-1102248-2
300-4033	16 WAY BASE,PG21 SIZE 6	1-1102298-



**253-2098** 1.00SQ.MM FLHTC0311-1.00-9





906-0925	12 CORE 3M CABLE, PLUG	2287598-3
906-0929	10 CORE 3M CABLE, PLUG	2287598-4

#### UNIVERSAL CRIMP TOOL FOR DEUTSCH CONNECTORS

- Adjusting screw includes jam nut
- Compatible with a wide range of Deutsch connector crimps
- Lightweight and comfortable to use



#### **SOLDER SLEEVES AND KIT**

- Solder Sleeves provide insulated, environmentally sealed; strainrelieved soldered connections
- Temperature range -55°C to +125°C
- Terminate bare or tin plated conductorsSupplied in a storage case with locking lid
- Refills available see Solder Sleeves, as well as other High-Spec Solder Sleeves and Wire to wire Solices.





**425-973** HDT-44



542-5583 SOLDERSLEEVE KIT

B-155-MIXT-01





## CGAT ADHESIVE LINED HEATSHRINK TUBING 3:1

- · High strength bonding
- · Flame retardant jacket
- Polyolefin material commonly used insulating material, flexible and durable
- Standard black in colour
- Operating temperature range of -30 to +80 °C
- Minimum shrink temperature: +80 °C
- Supplied in lengths of 1.2m



## ETE CONTROPIED DISTRIBUTOR

157-3818	12MM	CGAT-12/4-0
157-3824	18MM	CGAT-18/6-0
157-3903	24MM	CGAT-24/8-0
157-3789	ЗММ	CGAT-3/1-0
157-3830	40MM	CGAT-39/13-0
157-3795	6ММ	CGAT-6/2-0
157-3802	9MM	CGAT-9/3-0

## SRFR HEATSHRINK TUBING (SHRINK RATIO 1.7:1)

- A highly flexible, flame retarded, grey silicone rubber tubing with an excellent balance of physical and electrical properties
- Displays outstanding physical strength, resists extreme heat shocks and exhibits good thermal insulation
- Temperature rating -75 to +200°C"



## **ETE**

288-5112	10.0MM	SRFR-10/6-8-1M
288-5128	15.0MM	SRFR-15/9-8-1M
288-5083	2.9MM	SRFR-2.9/1.7-8-1M
288-5099	4.9MM	SRFR-4.9/2.9-8-1M
288-5106	7.8MM	SRFR-7.8/4.6-8-1M

#### FLAME RETARDANT HEATSHRINK TUBE, HEATSHRINK TUBING 2:1 (REEL)

- Heat shrink ratio of 2:1
- Shrinks at low temperature
- · Ideal for delicate or temperature sensitive equipment
- Excellent physical and electrical properties
- Very flexible polyolefin tubing
- Highly flame retardant
- Free from PBBs as well as PBBOs and PBBEs
- Operating temperature -55°C to +135°C
- Heat Shrink temperature: 70°C"

252-7721	13.7MM	VFRS-1/2-0
252-7737	19.0MM	VFRS-3/4-0
252-7670	2.4MM	VFRS-3/32-0
252-7743	25.4MM	VFRS-1-0
252-7686	3.4MM	VFRS-1/8-0
252-7692	4.8MM	VFRS-3/16-0
252-7709	6.4MM	VFRS-1/4-0
252-7715	9.5MM	VFRS-3/8-0
316-1108	63.5MM	HRSR-250FR-10

#### RNF100 CLEAR HEATSHRINK TUBING 2:1 (1.2M LENGTHS)

- Excellent all round performance
- Shrink ratio 2:1
- Available in a wide range of sizes and colours
- Flame retardant
- Flexible
- 1.2m lengths



170-6563	1.2MM BORE	RNF-100-3/64-X-STK
170-6642	12.7MM BORE	RNF-100-1/2-X-STK
170-6658	19MM BORE	RNF-100-3/4-X-STK
170-6664	25.4MM BORE	RNF-100-1-X-STK
170-6591	3.2MM BORE	RNF-100-1/8-X-STK
113-2568	38MM BORE	RNF-100-1-1/2-X-STK

## SRFR HEATSHRINK TUBING (SHRINK RATIO 1.7:1)

- Easy to store
- · Easy to dispense
- · Well suited for repairs
- Adhesive lined tubings
- Wide variety of sizes
- RoHS compliant
- 3:1 shrink ration
- Operating temperature range: -30 °C to +80 °C



#### HT-200 HEAT-SHRINK TUBING

- Tough, flexible, thin wall insulation
- Provides excellent electrical insulation
- 2:1 shrink ratio for all standard sizes
- High temperature performance that meets or exceeds military and industrial standards
- Resistance to most industrial solvents, fuels and chemicals
- · High flame resistance



<b>848-9142</b> 1/2 1M HT-200-1/2-X-STK	
• ·• · · · · · · · · · · · · · · · · ·	CS-34128
01.0 0124 2/14 11 ENOTH HT 200 2/14 V CTV	00.01.400

#### ATUM - MOISTURE PROOF SLEEVING 3:1 OR 4:1

- Provides excellent environmental sealing for electrical components, wire splices, cable jackets & harness breakouts
- High strength bonding
- Medium walled for increased mechanical protection
- Flame retardant jacket
- Operating temperature range -55°C to +110°C



316-1580	12-4MM I/D	ATUM-12/4-0
316-1596	19-6MM I/D	ATUM-19/6-0
316-1568	6-2MM I/D	ATUM-6/2-0
316-1631	8-2MM I/D	ATUM-8/2-0

## CLEAR TFER HEAT SHRINK TUBING

364-1480 CGAT ADHESIVE LINED REFILL,18/6MM CGAT-R-18/6-0

- Semi-rigid tubing made from PTFE
- Ideal for use in high temperatures
- Thin wall
- Clear tubing
- Highly flame retardant
- Excellent resistance to chemicals and solvents
- High mechanical strength
- · Low coefficient of friction
- Heat shrink ratio of 3.2:1 meaning when heated this tubing shrinks to just over a third of its original diameter
- Operating temperature -67°C to 250°C
- Heat shrink temperature: 330°C
- Supplied in lengths of 1.2m



170-6311	12.7MM I/D	TFER-1/2-X
170-6333	25.4X7.1MM	TFER-1-X
170-6282	3.2MM I/D	TFER-1/8-X

#### **HTAT - MOISTURE PROOF SLEEVING 4:1**

- Semi flexible polyolefin tubing
- Flame retardant jacket
- Heat shrink ratio of 4:1 meaning when heated this tubing shrinks to a quarter of its original diameter, making it perfect for awkward shaped connectors
- High shrink ratio ensures the tube will be able to fit over larger connectors and still ensure environmental sealing
- High strength bonding due to inner adhesive lining
- Operating temperature -55°C to 110°C
- Heat shrink temperature: 80°C
   Supplied in langths of 1.2m²
- Supplied in lengths of 1.2m



=TE
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344-0625	12-3MM I/D	HTAT-12/3-0-STK
344-0603	4-1MM I/D	HTAT-4/1-0-STK
344-0619	8-2MM I/D	HTAT-8/2-0-STK





#### **6000 SERIES CIRCULAR POWER CONNECTORS**

- 2 22 Contacts
- Plastic or Metal Housing
- IP66, IP67, IP68 & IP69K protection
- Secure, quick mating / release cULus, UL, VDE Approvals



## BUCANEER SERIES IN-LINE CONNECCTORS

- Screw termination
- · Straight body orientation
- Cable acceptance ranges between 6mm and 8mm
- Easy assembly, no special tools required
- IP68



765-9652 FLEX CONNECTOR,2 WAY PIN CONTACTS	PXP6010/02P/ST/0507
765-9757 CHASSIS CONNECTOR,2W,SOCKET CONTACTS	PXP6012/02S/ST
765-9775 CHASSIS CONNECTOR,16W,PIN CONTACTS	PXP6012/16P/CR

483-966 6WAY INLINE CABLE COUPLER SOCKET,3A PX0740/S/07

## **4000 SERIES CABLE CONNECTORS**

- Mates with flex cable and panel mount versions
- In-Line cable connection
- · Contacts supplied separately



PXP4010/03P/5560

PXP4011/03S/5560

PXP4010/12S/6065

PXP4013/12S

900 SERIES CIRCULAR
POWER CONNECTORS
. 221 6001/ go/do may rating

- 32A, 600V ac/dc max rating
- 2, 3, 4, 5, 7 & 10 contacts
- · IP66, IP67, IP68 & IP69K protection
- Single or 3 phase applications
- CCC, UL, CSA & VDE approvals



344-3999	3 WAY	PX0911/03/P
841-8932	10 WAY	PX0911/10/P
344-4021	5 WAY	PX0911/05/P

## BUCCANEER 900 SERIES FEMALE PANEL MOUNT CONNECTORS

- · Water and dustproof
- · Leading earth pin
- Scoop proof contacts



344-4223	4 CONTACTS	PX0931/04/S
344-4245	5 CONTACTS	PX0931/05/S

## PANEL MOUNTING SOCKET / COUPLER

- Supplied cable glands accommodate cable diameters 3.5 to 8mm
- Shielded connectors maintain required screening
- Overall diameter 38.1mm,

912-4868 3 POLE MALE

**912-4950** 3 POLE FEMALE **912-4931** 12 POLE FEMALE

**912-5072** 12 POLE FEMALE, REAR

• Overall length 77.5mm



468-6232	PANEL MOUNTED COUPLER	PX0833
468-6226	CABLE CONNECTOR	PX0834/B

#### BUCCANEER STANDARD SEALED POWER CONNECTORS

- IP68
- UL94HB Housing
- Insulation Resistance of >104 MΩ @ 500 V



275-5342	SCREW TERMINAL PLUG	PX0745/P
275-5364	SCREW TERMINAL SOCKET	PX0745/S
275-5392	INLINE COUPLER PLUG	PX0746/P
275-5409	INLINE COUPLER SOCKET	PX0746/S

#### BUCCANEER SERIES 2-POLES CIRCULAR FLEX CABLE CONNECTORS

- Screw termination
- Straight body orientation
- Easy assembly, no special tools required



483-893	MALE	PX0736/P
489-532	FEMALE	PX0736/S

# The real recipe for success for Data, Signal and Power: the Han® F+B Inserts.

The Han® F+B is the first connector for the food industry that can be configured with 25 different inserts. It can be used to transfer bus systems, signals or power with contacts up to 40 A.







# HARTING HAN F+B FOOD AND BEVERAGE CONNECTOR SYSTEM

· Consisting of housings, hoods, inserts and covers has been designed specifically for use within the demanding food and beverage industry









201-8862	INSERT MALE, 4 CONTACT, 20A	
201-8864	INSERT FEMALE, 4 CONTACT, 20A	09155123102
885-6097	INSERT FEMALE, 4+4 CONTACT, 16A	09155083101
885-6088	INSERT MALE, 4+4 CONTACT, 16A	09155083001
173-7756	INSERT FEMALE, 4+4 CONTACT, 16A	09155083101
173-7755	INSERT MALE, 4+4 CONTACT, 16A	09155083001
885-6066	BULKHEAD HOUSING	09155030301
885-6075	BULKHEAD HOUSING	09 15 503 0901
885-6078	PROTECTIVE COVER FOR USE WITH HOUSING BULKHEAD MOUNTING	09 15 503 5401
885-6072	PROTECTIVE COVER FOR USE WITH HOOD	09 15 503 5411
201-8865	CONNECTOR HOOD	19 15 503 1701

# **HAN A SIZE 3 A STANDARD METAL HOODS AND HOUSINGS**

- Slim, space saving design;
- · Robust diecast zinc construction;
- · Locking levers for a secure connection;
- Range of mounting options and cable entry angles;
- IP67 protection using seal screw







473-1714	M20 METRIC TOP ENTRY HOOD	19200031440
181-0729	STRAIGHT PANEL MOUNT HOUSING	0920003030

# **HOOD CABLE PLUG + MALE INSERT**

- Two-part packs that provide towards the assembly of Harting Han E® metal-bodied cable plugs, cable coupling hoods, bulkhead/panel mounting housings, and surface mounting housing sockets.,Screw terminal connection.,
- Each pack contains a hood or housing, and male or female insert.,
- All the individual components are available separately from within the relevant Ranges of inserts, hoods, and housings.,All are rated at 450 – 500V, and 16A,
- Suitable cable glands are available separately





# HAN A® **INSERTS**

- Slim construction
- · Poles: 3-16 (screw connection)





09330062601+19300061540

181-0870 3P+E SOCKET INSERT,10A 230/400V

09200032711

# HAN E HEAVY DUTY POWER **CONNECTOR INSERT**

**492-5458** 6 WAY, 16.0A, 500.0 V

- Han Thermocouple insert connectors for temperature measurement conductors, ideal for use within injection moulding machines.
- These inserts allow mixed loading of thermocouple crimp contacts and standard contacts within one insert.





842-7756 10 CONTACTS, 16A, FEMALE 09330102791 **512-5261** 46 CONTACTS, 16A, MALE 09320463001

# **HAN E® INSERTS**

- Poles: 6-48 (screw connection - wire csa 2.5mm<sup>2</sup>:
- The 32 and 48 pole versions require two contact inserts per connector half; a standard insert numbered '1 to 16' or '1 to 24' pole insert (m) or (f) together with one numbered '17 to 32' or numbered '25 to 48' insert (m) or (f).;





114-8175 6P+E PLG INSERT,16A 400-500VAC 09330062601





# Tired of worrying about long term water ingress?

Put your trust in SKINTOP, tested for every possible application.

LAPP test their SKINTOP glands for many different application. IP66 for water spray, IP67/68 for immersion, and IP69K for high pressure water blasting. LAPP have you covered from basic IP rated glands, to high performance FDA & Ecolab approved glands for food and beverage areas.

- Corrosion-resistant
- Sea water-resistant
- Smooth surfaces
- Compact design
- Variable clamping ranges





# **ÖLFLEX® ROBUST 210**

- ECOLAB® certified harsh environment control cable.
- Outstanding UV, ozone, organic oil & chemical resistance.
- 300-500V rated with number coded cores

# ÖLFLEX® CLASSIC 115 CY

- Screened PVC control cable with small outer diameter.
- EMC compliant with tinned copped braiding.
- 300-500V rated with number coded cores

# ÖLFLEX® SERVO FD 796 CP

- Highly flexible screened servo cable with PUR outer sheath.
- Extended line performance long travel lengths or high acceleration.
- 600-1000V rated with a temperature range from -40°C to +90°C







# **& LAPP**

800-3271	3 CORE+EARTH 1MM	0021916
800-3287	2 CORE+EARTH 1.5MM	0021929
800-3265	6 CORE+EARTH 0.75MM	0021904
800-3303	4 CORE+EARTH 2.5MM	0021951

## 14 1.1.1. 0422 4.0

**& LAPP** 

444-0632	6 CORE+EARTH 1.5MM	1136307
444-0525	2 CORE+EARTH 1MM	1136203
455-0212	3 CORE+EARTH 0.75MM	1136104
444-0604	4 CORE+EARTH 1.5MM	1136305

# **& LAPP**

800-3221	3C+E 1.5MM + 2X(2X0.75MM)	0027969
800-3192	3C+E 1.5MM + (2X1.5MM)	0027959
800-3195	3C+E 2.5MM + (2X1.5MM)	0027960

# **ETHERLINE® CAT.6A**

- Industrial Ethernet cable Cat.6A for fixed installation.
- PUR halogen free outer sheath.
- For PROFINET applications with 4 pairs

# **SKINDICHT® SM-M INOX**

- · Stainless steel metric counter nuts.
- Stainless steel 303.
- Temperature range -60°C to +200°C

# **SKINTOP® INOX SC**

- · Stainless steel version with compact design.
- Low-resistance screen contact, optimum EMC protection.
- Wide, variable clamping ranges







# **& LAPP**

2170465

796-0069	M16	52032615
796-0063	M20	52032625
796-0072	M25	52032635
796-0075	M32	52032645

# **& LAPP**

136-8526	M16	53806722
136-8527	M20	53806724
136-8528	M25	53806726
136-8529	M32	53806728

# **EPIC® LS1 SERIES**

**& LAPP 807-9587** 4 X 2 X AWG 22/1

- Circular connectors for servo motors & power supply.
- High power at smallest installation space.
- EMC-optimised design.

# **EPIC® SIGNAL M23 SERIES**

- Circular connectors for servo motors & encoders.
- Robust metal connector with integrated EMC cable gland.
- Inserts included.

# **EPIC® H-B SERIES KITS**

- Flexible & robust 16A industrial connectors.
- IP65 rated.
- Numerous additional connector kit options available online







# **& LAPP**

727-6235	ANGLED 6 PIN	24420058
219-138	FRONT MOUNTED 6 PIN	76003000
727-6232	ANGLED 8 PIN	24420056
219-059	FRONT MOUNTED 8 PIN	76004000

# **& LAPP**

218-949	D6 CONNECTOR 17 CONTACTS	44420037+73028500
219-144	F6 COUPLER 12 CONTACTS	44420040+73002720
218-983	F6 COUPLER 9 CONTACTS	44420040+73002744
219-453	D6 CONNECTOR 9 CONTACTS	44420037+73002744

# **& LAPP**

396-1532	24 WAY	10102000+10196000+10197000
396-1475	6 WAY	19012000+10003000+10191000
396-1526	16 WAY	10072000+10194000+10195000
486-735	10 WAY	10046000+10193000+12954400





# Discover the RS PRO Wiring and Connectivity Series.

An extensive selection of cables, connectors and accessories for every wiring and connectivity application and environment.





# **EQUIPTMENT WIRES**

RANGE	SHEATH	AWG	OUTER DIAMETER	VOLTAGE RATING	COLOUR	REEL LENGTH
British Standard	PVC	17 →24	1.2 → 2.65mm	300 → 1000V	Black, Blue, Brown, Green, Grey, Orange, Pink, Red, Violet, White, Yellow, Green/Yellow, Yellow/Green	100m →500m
Tinned Copper Wire	PVC	18 → 24	1.58 → 2.79mm	300 → 600V	Black, Blue, Green, Red, White	100m
DEF STAN	ETFE	12 → 24	1.15 → 2.99mm	600V	Black, White	100m
Harmonised	PVC	13 → 20	2.4 → 4.1mm	300 → 750V	Black, Blue, Brown, Grey, Red, White, Yellow, Green/Yellow	100m
UL Standard	PVC, PTFE, MPPE	12 → 28	0.9 → 4.2mm	150 → 600V	Black, Blue, Brown, Green, Grey, Orange, Purple, Red, White, Yellow	100m
Tri-Rated	PVC	4 → 22	2.6 → 10.6mm	600 → 1000V	Black, Blue, Brown, Dark Blue, Green, Green/ Yellow, Grey, Light Blue, Mid-blue, Orange, Pink, Purple, Red, White, Yellow	100m

# **CONTROL CABLES**

RANGE	SHEATH	NO OF CORES	AWG	OUTER DIAMETER	VOLTAGE RATING	SCREEN/SHIELD	COLOUR	REEL LENGTH
СУ	PVC	2 → 18	13 → 26	4.1 → 15.6mm	300 → 500V	Braid, Tinned Copper Braid	Grey	50 → 100m
SY	PVC	2 → 25	9 → 18	7.3 → 19.7mm	300 → 500V	Braid, Galvanised Steel	Grey	50m
уу	PVC	2 → 15	9 → 24	3.7 → 20.8mm	300 → 500V	Galvanised Steel	Grey	25 → 100m

# **POWER CABLES**

RANGE	SHEATH	NO OF CORES	AWG	OUTER DIAMETER	VOLTAGE RATING	COLOUR	STANDARDS AVAILABLE	REEL LENGTH
Mains Power	PVC, Rubber Silicone, TPE	1 → 7	9 → 20	3.2 → 19.1mm	300 → 1000V	Black, Blue, Brown, Green/Yellow, Grey, Orange, Red, Red/ Brown, White, Yellow	EN 50525-2-11, EN 50525-2-21, H03VV-F, H03VVH2-F, H05RR-F, H05VV-F, H05Z1Z1-F, H07BN4-F, H07RN-F, H07V-K, H07ZZ-F	25 → 100m
Armoured Cables (SWA)	PVC+SWA (Steel Wire Armoured)	2 → 5	5 → 15	12.6 → 26.3mm	600 → 1000V	Black	BASEC	50m
Conduit & Trunking Cables	LSZH, PVC	1	2 → 15	2.7 → 11.3mm	450 → 750V	Black, Blue, Brown, Green/Yellow, Grey, Orange, Purple, Red, White	H07V-R, H07V-U, H07Z-R, H07V-R, H07V-U, H07Z-R	50 → 100m
Multicore Industrial Cables	PE, PVC, XLPE	2 → 36	<b>3</b> → <b>3</b> 0	2.4 → 22.8mm	250 → 1000V	Black, Green Grey White	BASEC, Defence Standard 61-12 Part 4, Defence Standard 61-12 Part 5, Euroclass Eca	25 → 500m

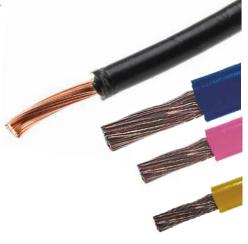
# **COMMUNICATION CABLES**

RANGE	SHEATH		IO OF ORES	AWG (	OUTER DIAMETER	VOLTAGE RAT	TING CO	LOUR	STANDARDS	AVAILABLE	REEL LENGTH
Twisted & Multipo Industrial Cable			I → 19 pairs)	18 → 24	2.4 → 11.5mm	300 → 600		, Grey, 'hite	CE, CSA Certified, EN 2714-013, EU Lov 2006/95/EC, Euroclo RS 232, UI	v Voltage Directive ass Eca, FAR 25-869,	50 → 500m
RANGE	SHEATH CA	ATEGORY	MAX BA	NDWIDTH	MAX TRASNI SPEED AT		IIELD TYPE	С	OLOUR (	CONNECTOR TYPE	REEL LENGTH
LAN Cables	PVC, LSZH, PE Cat6,	at5, Cat5e, , Cat6a, Cat7, at7a, Cat8	250 →	2000MHz	10/100Mbps/100 1Gbps/100MH 1Gbps/250MI 10Gbps/500MI 10Gbps/600M 40Gbps/2000N	z (Cat5a) Hz (Cat6) F/ Hz (Cat6a) FTF IHz (Cat7)	'UTP, FTP, S/ P, U/UTP, UTP	Orange	ie, Green, Grey, , Purple, Red, ite, Yellow	Unterminated, RJ45	1 → 500m
RANGE	CONDUCTOR TYPE	TERMI	NATION	С	OAX TYPE O	UTER DIAMETER	VOLTAGE	RATING	COLOUR	IMPEDANCE	REEL LENGTH
Coaxial Cables	Solid, Stranded	Terminated, BNC, SMA,			s, RF, RG, RGW, rin RG, URM	1.1 → 10.8mm	170 →	1000V	Black, Brown, Green, Grey, Whit	te 50 → 93Ω	1 → 500m



# TRI-RATED CABLE - 4 MM2 CSA, 1 KV, 41 A

- High quality range of Tri Rated cables
- Voltage rating of 600 / 1000 V
- Class 5 flexibility
- A HR PVC (Heat Resistant PVC) insulation enabling the cable to be used in high temperature applications



# USB 2.0 MICRO B TO USB A USB CABLE, MALE TO MALE

- Allows easy connection of a mobile device to host computer or charger
- Reliable Hi-Speed connection
- Moulded connector





 811-14-42
 BLACK (100 METRE REEL)

 906-2713
 DARK BLUE (100 METRE REEL)

 815-8611
 PINK (100 METRE REEL)

 811-14-54
 YELLOW (100 METRE REEL)

# **GREY PVC CAT5E CABLE**

- Meets or exceeds all Cat5e standards
- 26 AWG with bare copper conductors
- Colour coded pairs for identification





876-2403 1.2M, BLACK

# **4K - HDMI TO DVI-D CABLE**

- Male-to-male cable
- 19-pin HDMI connector
- · Maximum resolution of 4K





812-4801 4 PAIR SHIELDED CAT5E FTP PATCH 100M

# UNSCREENED MULTICORE CABLE

- 7/0.2 mm core strands
- High performing copper conductor
- 0.22 mm² CSA





**182-8879** 2MTR

# STAINLESS STEEL SADDLE CLAMP

- Strong and secure
- Corrosion resistant
- Easy to install





**660-4077** 36 CORE, 7X02MM 100M



471-1300 S/STEEL CONDUIT DISTANCE SADDLE,20MM







# WIRING & CONNECTIVITY TECHNICAL REFERENCES



# AWG vs mm<sup>2</sup>

AWG NUMBER	CABLE CROSS SECTION IN MM2	OUTER DIAMETER Ø MM	CONDUCTOR RESISTANCE IN OHM/KM	MAX CURRENT AMP
1000 MCM	507	29.3	0.036	-
900	456	27.8	0.04	-
750	380	25.4	0.048	-
600	304	22.7	0.061	-
550	279	21.7	0.066	-
500	253	20.7	0.07	-
450	228	19.6	0.08	-
400	203	18.5	0.09	-
350	177	17.3	0.1	-
300	152	16	0.12	-
250	127	14.6	0.14	-
4/0	107.2	11.68	0.18	302
3/0	85	10.4	0.23	239
2/0	67.4	9.27	0.29	190
0	53.4	8.25	0.37	150
1	42.4	7.35	0.47	119
2	33.6	6.54	0.57	94
3	26.7	5.83	0.71	75
4	21.2	5.19	0.91	60
5	16.8	4.62	1.12	47
		4.02		37
6	13.3		1.44	
7	10.6	3.67	1.78	30
8	8.34	3.26	2.36	24
9	6.62	2.91	2.77	19
10	5.26	2.59	3.64	15
11	4.15	2.3	4.44	12
12	3.31	2.05	5.41	9.3
13	2.63	1.83	7.02	7.4
14	2.08	1.63	8.79	5.9
15	1.65	1.45	11.2	4.7
16	1.31	1.29	14.7	3.7
17	1.04	1.15	17.8	2.9
18	0.823	1.024	23	2.3
19	0.653	0.912	28.3	1.8
20	0.519	0.812	34.5	1.5
21	0.412	0.723	44	1.2
22	0.324	0.644	54.8	0.92
23	0.259	0.573	70.1	0.73
24	0.205	0.511	89.2	0.58
25	0.163	0.455	111	0.46
26	0.128	0.405	146	0.36
27	0.102	0.361	176	0.29
28	0.0804	0.321	232	0.23
29	0.0646	0.286	282	0.18
30	0.0503	0.255	350	0.14
31	0.04	0.227	446	0.11
32	0.032	0.202	578	0.09
33	0.0252	0.18	710	0.07
34	0.02	0.16	899	0.06
35	0.0161	0.143	1125	0.04
36	0.0123	0.127	1426	0.04
37	0.01	0.113	1800	0.03
38	0.00795	0.101	2255	0.02
39	0.00632	0.0897	2860	0.02
40	-	-	-	0.01



RS PRO is continually expanding the range to meet your every need, making this choice the simplest and most cost effective of all.

Browse the complete RS PRO range of Wiring & Connectivity related products available online.



























# BLUE METAL-DETECTABLE NYLON 66 CABLE TIES

- Industry-standard blue colour for easy visual identification
- Metal powder particles offer full magnetic and x-ray detection, even if parts have been trimmed to fit



172-1766	150X3.6MM BLUE
172-1769	RELEASE 250X4.5MM BLUE
172-1767	400X4.6MM BLUE
172-1765	200X4.6MM BLUE
172-1768	380X7.6MM BLUE

# ZERO HALOGEN HEATSHRINK TUBING KIT

- Highly flame retardant with a flame temperature index of over 350°C
- Totally halogen free
- Very low smoke, meets LUL requirements





**397-4263** 2:1 SHRINK RATIO

# ADAPTABLE BOX ENCLOSURE

- IP66 rating for protection against dust and powerful water jets
- IP69K rating for protection against highpressure jets up to +80°C



# rc PRO

										_	
121-9696	160X160X85										
121-9692	160X100X50										
121-9691	100X100X50	 	_								
121-9693	100X100X85										
121-9694	160X100X85							 			
121-9695	220X100X85										

# NYLON NON-RELEASABLE CABLE TIES

- High quality
- Suitable for a multitude of uses
- Easy to thread



# FRO

233-499	100 X 2.5, PACK 1000
233-493	380X7.6MM, PACK 100
233-487	300X4.8MM, PACK 100
233-471	203X4.6MM, PACK 100

# **PORTABLE HEAT SHRINK KIT**

- Portable heat shrink kit consisting of a range of high-quality heat shrink tubing
- Includes range of colours, (including harmonised colours) and diameters to suit a range of different applications





**487-3852** 2:1, 3:1 SHRINK RATIO

# **OPEN SLOT PVC**

- · Cable protection
- Slotted construction
- Significantly lower fire risk, due to self-extinguishing nature



# <u>RS</u>

758-9276	STANDARD 8MM 25WX60H 2M
758-9210	NARROW 4MM 25WX80H X2M
758-9285	STANDARD 8MM 25WX80H 2M
758-9282	STANDARD 8MM 40WX60H 2M
758-9294	STANDARD 8MM 60WX40H 2M
758-9216	NARROW 4MM 25WX60H X2M
879-3741	NARROW 4MM 40WX60H X1M
758-9279	STANDARD 8MM 25WX30H 2M
879-3738	STANDARD 8MM 40WX80H 1M
879-3744	STANDARD 8MM 60WX80H 1M

# **CABLE TIE MOUNT NYLON 66**

- · Fast installation
- Strong adhesive base
- Simple cable mounting provides secure fastening
- Available in black and natural and comes in a range of sizes
- Self-extinguishing UL 94 V-2





811-1726 CABLE TIE MOUNT 19.5X19.5 BLACK NYLON 66

# HEAVY DUTY CABLE PROTECTORS

- · Weather and skid proof
- Black base and yellow cover provide good visibility
- High-strength cable groves, can withstand up to 20 tons per axle





136-5423 H/D CABLE PROTECTOR DUAL 2 CHNL 32/38MM

# **EMPTY CABLE REEL**

- Features a removable side flange that you can cut to accept panel-mount connectors
- Mounted on a rugged tubular steel frame that has a friction brake with an integral winding handle





379-3727 YELLOW PLASTIC AUDIO CABLE DRUM,240MM









# METAL BACKSHELL PANEL MOUNT CONNECTORS

- Multipole audio/video connectors manufactured for professional use.
- The 'AXR'/'XLR' compatible connectors are precision made with zinc diecast bodies and silver-plated, solid brass turned contacts
- A benefit of these connectors is the 'squeeze' release clip, which enables plugs and sockets to be unplugged quickly by means of a simple push-down device.





**548-9105** 3 WAY

# BRASS CABLE GLAND WITH LOCKNUT

- Completely sealed against dust
- Excellent water resistance
- · Locknut and seal supplied





**831-9062** PG36, IP68, 22-32MM

# COUPLER CABLE CONDUIT FITTINGS

- Coupler cable conduit fitting
- Nominal conduit diameter of 25 mm
- Corrosion-resistant 316 stainless steel material
- Satin finish
- IP67 rating for protection in 1 m of water for up to 30 minutes





**471-1350** 25MM

**471-1344** 20MM

# MALE FIELD RJ45 CONNECTOR

- Shielded male RJ45 connector
- IP68 waterproof rating
- Suitable for a temperature range of -40°C to +80°C





111-6743

RJ45 FULL METAL C3 FIELD INSTALLABLE

# IP68 METRIC DOME TOP GLAND

- · Metric threaded
- Completely sealed against dust
- · Excellent water resistance
- · Black and white versions available
- Made with high quality Nylon 66"





669-4670	M32
669-4689	M40
669-4676	M25
669-4667	M16

# CAT.5E INLINE COUPLERS RJ45 ADAPTORS

- Cat5e RJ45 coupler
- 8P8C socket to 8P8C socket
- 50µ gold plated contacts
- Wired straight contact 1 to contact 1, etc.
- For shielded twisted pair (STP) cables and patch leads
- Meets C5e EIA/TIA 568B Standard
- Dimensions: 25 x 25 x 45 mm





**340-9630** CAT.5E RJ45 STP SOCKET-SOCKET COUPLER

# INSULATED FRENCH COLOUR CODED BOOTLACE FERRULES

- Nylon insulated collar for reduced leakage, creepage and gas intrusion
- Tin plated copper tube for excellent conductivity
- Crimped terminal can be repeatedly inserted and removed without degrading end of the wire



458-724	GREY,8MM PIN
458-695	BLUE,8MM PIN
458-702	RED,8MMPIN 1MMSQ.
I.EO 740	DIK 1 EMMCO WIDE

# IP68 METRIC DOME TOP GLANDS

- · Metric threaded
- Completely sealed against dust
- Excellent water resistance



# PRO

669-4654	M12, 3-6.5MM
669-4660	M20, 4-9MM
669-4664	M20, 6-12MM
669-4673	M20, 10-14MM
669-4686	M63, 34-44MM

# THROUGH HOLE JACK SOCKET

- Stereo jack socket
- Robust nylon body
- Switched contacts





449-348 3 WAY STEREO PCB MOUNT JACK SOCKET,1/4IN



Wide selection of sensors from general purpose RFID to IO-Link models.

# **Sensor Highlights**

Browse and shop the entire range of sensors online at **sg.rs-online.com**.

# **W2S-2 SERIES PHOTOELECTRIC SENSORS**

- · WTB2S-2 miniature photoelectric with PinPoint LED for rugged and reliable detection of all object types
- Choice of diffused background suppression, retro-reflective or through-beam - with sensing ranges up to 2m
- All sensors have PNP output and 10-30Vdc supply, retroreflective sensors can use a range of reflectors - see 265-2754



# **GUIDED RADAR LEVEL PROBES**

- Guided radar level probes using TDR radar technology and a cuttable level probe to achieve precise level detection which is immune to deposit formation
- Analog outputs include 4 mA-20 mA / 0-10V, & more, plus digital outputs
- Suitable for process temperatures up to 100°C with IP67 / IP69K protection



# SICK

842-8572	WTB2S-2P1330
842-8560	WTB2S-2P3130
842-8585	WTB2S-2P1360
842-8579	WTB2S-2P3160

# SICK

**794-3389** 500MM PROBE LFP0500-A4NMB **794-3383** 1000MM PROBE LFP1000-A4NMB

# **REFLECTORS FOR** RETROREFLECTIVE **PHOTOELECTRIC SENSORS**

- A range of relectors from Turck Banner suitable for use with retroreflective photoelectric sensors.
- Various shapes and size available.

# THREADED BARREL BLOCK **BODY SENSOR**

- Extended sensing ranges
- Sense all metals at the same distance - with no reduction factor
- IP67 rating (Barrel is IP68)
- · High switching frequency No load current 15mA max.
- Operating Temperature Range -25 → +85°C
- Short circuit protection Overload protection
- Reverse polarity protection
- · Inherent weld field immunity





M18 X 1 INDUCTIVE SENSOR, 12 MM DETECTION, IP68, PG9 GLAND TERMINAL NI12U-EG18SK-AN6X



- OsiSense XU offers a full range of diffuse, Background Suppression (BGS), polarized reflex, laser reflex & thru-beam in the 4 most popular form-factors worldwide
- Applicative sensors for material handling, packaging, labeling (fork sensors technology), assembly, food & beverage
- Compact 50x50mm





179-9954 BACKGROUND SUPPRESSION XUK8LAPPNM12 179-9952 DIFFUSE XUK5LAPSMM12



**764-3878** FOR USE WITH Q45BB6LL SERIES, 51 X 51 MM SQUARE

BRT-2X2



# **BARREL INDUCTIVE PROXIMITY SENSOR**

- Twice nominal sensing distance
- · Flush mount
- Fast switching frequency



444-3271	M12, SR 4MM, PNP, IP69K	XS612B1PAM12
444-3293	M18, SR 8MM, PNP, IP69K	XS618B1PAM12
444-3287	M18, SR 8MM, PNP, 2M	XS618B1PAL2
444-3366	M30, SR 15MM, IP69K	XS630B1MAL2

# **INDUCTIVE PROXIMITY SENSORS OSISENSE XS SERIES CABLE TERMINAL**

- · Forms part of the OsiSense XS range of products
- Cylindrical M18 sensor design
- 62mm size
- 8mm nominal sensing distance
- Frontal detection face
- Sensor type inductive proximity sensor





444-3344 AC/DC SENSOR,M18

XS618B1MAL2

# **TELEMECANIQUE SENSORS REFLECTOR**

· A range of square reflectors for use with the OsiSense XU series of Photoelectric sensors



281-1739	DIM: 24 X 21MM	XUZC24
281-1751	DIM: 50 X 50MM	XUZC50
324-1585	DIM: 100 X 100MM	XUZC100

# **M8, M12 AND M18 INDUCTIVE SENSORS**

- LED status display
- Plastic body
- Operating temperature range -25°  $\rightarrow$  +70°C
- Reverse polarity and short circuit protection (dc types only)
- · Flush or non flush mount versions



324-1226	M8, SR 2.5MM, PNP, 2M	XS4P08PA340
324-1248	M12, SR 4MMM, PNP, 2M	XS4P12PA340
324-1254	M12, SR 4MM, PNP, M12	XS4P12PA340D
324-1311	M18, SR 8MM, PNP, 2M	XS4P18PA370
609-7331	M18, SR 15MM, PNP, 2M	XS4P30PA370
609-7230	M18, SR 5MM, PNP, M12	XS1M18KP340D
609-7280	M18, SR 8MM, PNP, 2M	XS4P18KP340
772-9874	M18, SR 20MM, M12, SS	XS918R4PAM12

# INDUCTIVE PROXIMITY **SENSORS OSISENSE XS SERIES GLAND TERMINAL**

- Flat form (block) 40 x 40 x 117.
- · Best in class quality and immunity
- IP65, IP67, IP69K to harsh industrial environments.



179-9936	15MM DETECTION 24 240V	XS7C4A1MPP20
179-9939	20MM DETECTION 24 240V	XS8C4A1MPP20
179-9940	20 MM DETECTION 12 48V D	XS8C4A1PCP20

# **OSISENSE XMLA PRESSURE SWITCHES**

- · Are used to control the pressure of hydraulic oils, fresh water, sea water, air, steam corrosive fluids, or viscous products.
- The XMLA pressure and vacuum switches have a fixed differential and are for detection of a single threshold.
- Fixed differential
- · External pressure setting window available
- 1 NO & 1 NC snap acting contacts
- Temperature range: -25 to +70 °C
- Enclosure rating: IP65 with plug-in connector, IP66 with terminal connections

**XS INDUCTIVE PROXIMITY** 

**SENSORS - NICKEL PLATED** 

Operating rate: up to 120 operations / min. for diaphragm and 60 / min. for piston



**BRASS** 

Size 51 mm

General purpose.

Cylindrical (barrel) M18.

Discrete signal, 4-wire.

• Male connector M12, 4 pins.

Fixed body, Flush mountable Nickel plated brass, PPS Front.

• Output 1 NO + 1 NC, DC circuit, PNP.

361-3413	10-160BAR M20	XMLA160D2S1
361-3429	20-300BAR M20	XMLA300D2S1

# CYLINDRICAL ULTRASONIC **SENSOR**

- IP67 rated
- · M18 cylindrical body
- PNP switched output
- · Precise object detection of any material



612-2229	M18 PNP NO, 0.5M	XX518A3PAM12
612-2128	M30 PNP NO 8M	XX630A3PCM12

# **MULTIMODE PHOTOELECTRIC SENSOR** WITH COMPACT SENSOR

- · Four modes of detection in one unit
- · Easy set-up at the touch of a button
- Self teach precise set-up 'multi-mode detection'
- · Sensing distance dependent on mode of operation
- Through Beam Functionality using additional light source (thru-beam accessory)
- Programmable NO/NC switching
- Connection: pre-cabled or plug-in connector (M12 4 pin male)
- IP67 Protection rating
- Operating temperature range -15  $\rightarrow$  +55 °C





455-4983 COMPACT 50 X 50 PLASTIC BODY

XS1N18PC410D 133-6320 M18 SR 5MM XS630B5PAM12 M30 SR 30MM 144-9711



XUK0ARCTL2



# Choosing the right detection components can improve machine availability and reduce the risk of contamination

# OMRON

With the day to day pressures to remain competitive and keep your production process running, sometimes the simple things can be forgotten. Taking steps to avoid potential process contamination can help to drastically reduce the risk of lost production, substandard product reaching your end customer and the possible negative impact to your business reputation.

Dan Rossek, Regional Marketing Manager
- Omron Electronics, offers his opinion on
selecting fit for purpose detection components,
taking into consideration the requirements
of the environment and the application
needs. All of which can often be overlooked
leading to undesirable consequences.

Fit for purpose sensors is the smart choice.

Often detection components are located at the front end of the manufacturing process, close to the raw product and it is in these situations that selecting a fit for purpose detection component is most critical. Often, due to hygiene requirements, these areas will be subjected to regular cleaning processes, involving high pressure / temperature wash down and often involving aggressive chemical agents.

Detection components which are not designed to operate under these tough environmental conditions will often fail prematurely, which in turn will result in machine down time to rectify the problem. A single instance of machine unavailability is costly and will have an adverse effect on manufacturing efficiency, but far too often this issue is repetitive as the product selection is not changed, resulting in reoccurring issues, further costs and increasing inefficiencies.

A more pertinent issue, especially in applications around primary food processing, where maintaining hygiene and eliminating contamination is a priority.

The cleaning process can lead to many challenges for detection components, as the aggressive chemicals used to maintain hygiene, will easily corrode common materials used in standard detection devices.

This situation can lead to contamination of the product, through the transfer of the corroded material on to the raw food product. The result of this can be considerable financial costs to manufacturers through product recalls and potential loss of brand reputation.

Omron recognise the need to develop products which are fit for purpose for applications in processing industries and offer a wide range of solutions which have been designed to work in these tough environments. Components manufactured in food grade stainless steel (SUS316L) and other materials which are inert to the effects of cleaning agents, has been a priority for several years.



As well as chemical resistance, Omron offer products tested to the highest water ingress protection of IP69k, to ensure operational longevity, even under high pressure and temperature cleaning regimes. A wide range of Omron products are also tested and certified for chemical resistance by independent agencies and manufacturers, including Ecolab and Diversey to ensure suitability and offer piece of mind to manufacturers.



# E3S-DB TRANSPARENT OBJECT SENSOR

- E3S-DB sensor provides most reliable detection of all kinds of transparent objects such as PET bottles, glass bottles or transparent trays
- Choice of Smart Teach enabling fast set up or trimmer sensitivity adjustment
- Narrow beam types detecting smallest gaps
- Proven for environments in the Food & Beverage industry



# E2FM STAINLESS STEEL INDUCTIVE SENSORS

- One-piece 303 stainless steel body resists damage caused by impact or harsh chemicals
- Thicker sensing face for superior mechanical durability, wear resistance
- 20% greater sensing range (10mm) on M30 versus the CENELEC standard 8mm
- Surge suppressor, load short-circuit protection, choice of connection format



# OMRON

831-5971	0.7M, PNP, M12, SMART TEACH	E3S-DBP22 OMS
831-5969	4.5M, PNP, M12, SMART TEACH	E3S-DBP21 OMS
831-5975	0.7M, PNP, M12, TRIMMER ADJ.	E3S-DBP22T OMS
831-5978	4.5M, PNP, M12, TRIMMER ADJ.	E3S-DBP21T OMS

# OMRON

615-8290	M8, SR 1.5MM, PNP M12	E2FM-X1R5B1-M1
617-0587	M12, SR 2MM, PNP M12	E2FM-X2B1-M1
617-0593	M18, SR 5MM, PNP M12	E2FM-X5B1-M1
617-0616	M30, SR 10MM, PNP M12	E2FM-X10B1-M1

# ER SERIES STAINLESS STEEL ROPE PULL

- The ER series stainless steel bodied safety rope pull is designed to be tough and durable for even the most demanding applications
- Rope pull switches eliminate the need for numerous E-stop buttons reducing installation time and costs
- Supports spans up to 80m and integral tension indicator makes system setup & maintenance easy
- IP67 (NEMA 6) enclosure enables the switch to withstand water wash down cleaning



# E3ZM-V COLOUR MARK SENSOR - STAINLESS STEEL

- A detergent & corrssion resistant colour mark sensor in a robust stainless steel 316L housing
- Designed to provide reliable detection of all common print marks in packaging applications
- White LED for stable detection of differently colored print marks
- Easy-to-use teach-in button or remote dynamic teach
- Fast response time of 50µs



# OMRON

757-9121 STAINLESS STEEL ROPE PULL + RESET & E-STOP

# OMRON

ER6022-022MELSS

**458-222** PNP 2M CABLE E3ZM-V81 2M

# F3S-TGR HYGIENIC DOOR SAFETY SWITCHES

- Non-contact switches for interlock hinge, sliding or removable guard doors
- IP67 Stainless steel construction ideally suited to high hygiene demands in the food industry
- Long sensing range to avoid false signals due to mis-aligned door
- Hall effect coded switch have LED indication, electronic output and up to 3 can be connected in series
- Reed switches can switch 1mA, 10 VDC and up to 6 can be connected in series  $\,$



# **OMRON**

 820-3847
 SMALL CODED SWITCH, 2NC/INO, 10M CABLE

 820-3840
 SMALL CODED SWITCH, 2NC/INO, M12 CONN.

 820-3844
 SMALL REED SWITCH, 2NC/INO, 10M CABLE

 820-3853
 SMALL REED SWITCH, 2NC/INO, M12 CONN.

 820-3856
 MINIATURE CODED SWITCH, 2NC/INO, 10M CABLE

 820-3869
 MINIATURE REED SWITCH, 2NC/INO, 10M CABLE

 820-3862
 MINIATURE REED SWITCH, 2NC/INO, M12 CONN.

F3S-TGR-NSFC-21-10
F3S-TGR-NSFC-21-M1J8
F3S-TGR-NSFR-21-M1J8
F3S-TGR-NMHC-21-10
F3S-TGR-NMHR-21-10
F3S-TGR-NMHR-21-10





# Discover the RS PRO Sensors series.

A wide range of sensing technologies, from inductive, to capacitive, from rotary encoders to load cells. For any application and with RS PRO-grade reliability.





Photoelectric sensors detect and measure physical objects or quantities by emitting a field or beam of electromagnetic radiation. An object is detected by measuring alterations in the return signal.

Through-beam sensors rely on two separate housings, one for the transmitter and one for the receiver. Retroreflective photoelectric sensors have both the transmitter and receiver contained within the same housing but require a reflector opposite to the sensor. Diffuse sensors are easier to install as only one device has to be mounted. This is because the transmitter and receiver are contained within one housing.

# **Background Suppression**



DETECTION TYPE	DETECTION RANGE (MM)	OUTPUT TYPE	TERMINAL TYPE	STOCK NO
Background Suppression	100	NPN NO/NC	2m Cable	202-4467
Background Suppression	100	NPN NO/NC	M12	202-4469
Background Suppression	100	PNP NO/NC	2m Cable	202-4470
Background Suppression	100	PNP NO/NC	M12	202-4471
Background Suppression	350	NPN NO/NC	2m Cable	202-4448
Background Suppression	350	NPN NO/NC	M8	202-4449
Background Suppression	350	PNP NO/NC	2m Cable	202-4450
Background Suppression	350	PNP NO/NC	M8	202-4451
Background Suppression	2000	PNP+NPN	2m Cable	202-5446
Background Suppression	2000	PNP+NPN	M12	202-5447

# **Diffuse**



DETECTION TYPE	DETECTION RANGE (MM)	ОИТРИТ ТУРЕ	STOCK NO
Diffuse	800	Relay	202-5452
Diffuse	2000	NO+NC, NPN	202-5448
Diffuse	2000	NO+NC, PNP	202-5450
Diffuse	2000	Relay	202-5451

Image for illustrative purposes only

# **Through Beam Emitter / Reciever**



DETECTION TYPE	HOUSING MATERIAL	DETECTION RANGE (MM)	OUTPUT TYPE	TERMINAL TYPE	THREAD SIZE	STOCK NO
Through Beam (Emitter)	Brass Nickel Plated	5000	-	2m Cable	M12×1	204-3990
Through Beam (Receiver)	Brass Nickel Plated	5000	NPN NO	2m Cable	M12×1	204-3991
Through Beam (Receiver)	Brass Nickel Plated	5000	PNP NO	2m Cable	M12×1	204-3993
Through Beam (Emitter)	Brass Nickel Plated	10000	-	2m Cable	M18×1	204-3994
Through Beam (Receiver)	Brass Nickel Plated	10000	NPN NO/NC	2m Cable	M18×1	204-3995
Through Beam (Emitter)	PBT	10000	-	2m Cable	M18×1	204-4000
Through Beam (Receiver)	PBT	10000	NPN NO/NC	2m Cable	M18×1	204-4001

# **Through Beam Emitter / Receiver**



DETECTION TYPE	DETECTION RANGE (MM)	OUTPUT TYPE	STOCK NO
Through Beam (Emitter)	30000	Relay	202-5460
Through Beam (Receiver)	30000	Relay	202-5462

Image for illustrative purposes only



An inductive sensor provides non-contact detection of metallic objects, with some sensors being able to target both ferrous and non-ferrous metals, while others specialise in sensing only one type. Inductive proximity sensors are suitable for use in virtually any industry with some types also able to be used in hazardous environments.

Inductive sensors can also be affected by interaction with other sensors and ambient environmental influences. Careful installation will be required to ensure the sensor is effective and is not adversely affected by any surrounding sensors or metallic objects.

# **Inductive Sensor**



DETECTION RANGE (MM)	OUTPUT TYPE	HOUSING MATERIAL	TERMINAL TYPE	THREAD SIZE	IO LINK	STOCK NO
0.6	PNP NO	Stainless Steel	2m Cable	M4×0.5	N	206-6124
0.8	PNP NO	Stainless Steel	M8	M5×0.5	N	206-6126
0.8	PNP NO	Stainless Steel	2m Cable	M5×0.5	N	206-6127
1.5	PNP NO	Stainless Steel	M8	M5×0.5	N	206-6128
1.5	PNP NO	Stainless Steel	2m Cable	M5×0.5	N	206-6129
2	PNP NO	Stainless Steel	M12	M8×1	У	206-6130
2	PNP NO	Stainless Steel	M8	M8×1	У	206-6132
2	PNP NO	Stainless Steel	M8	M8×1	У	206-6133
2	PNP NO	Stainless Steel	2m Cable	M8×1	У	206-6134
2	PNP NO	Stainless Steel	2m Cable	M8×1	У	206-6135
4	PNP NO	Stainless Steel	2m Cable	M8×1	У	206-6136
4	PNP NO	Stainless Steel	M12	M12×1	У	206-6137
4	PNP NO	Stainless Steel	M12	M12×1	У	206-6138
4	PNP NO	Stainless Steel	2m Cable	M12×1	У	206-6139
4	PNP NO	Stainless Steel	2m Cable	M12×1	У	206-6140
8	PNP NO	Stainless Steel	M12	M18×1	У	206-6141
8	PNP NO	Stainless Steel	M12	M18×1	У	206-6142
8	PNP NO	Stainless Steel	2m Cable	M18×1	У	206-6143
8	PNP NO	Stainless Steel	2m Cable	M18×1	У	206-6144



DETECTION RANGE (MM)	OUTPUT TYPE	HOUSING MATERIAL	TERMINAL TYPE	THREAD SIZE	IO LINK	STOCK NO
38	PNP NO	Brass Nickel Plated	M12	M30×1.5	N	206-6166
38	PNP NO	Brass Nickel Plated	2m Cable	M30×1.5	N	206-6167
2	PNP NO	Plastic Vistal®	M8	-	N	206-6168
2	PNP NO	Plastic Vistal®	2m Cable	-	N	206-6170
3	PNP NO	Plastic Vistal®	M8	-	N	206-6171
3	PNP NO	Plastic Vistal®	2m Cable	-	N	206-6172
4	PNP NO	Plastic Vistal®	M8	-	N	206-6173
4	PNP NO	Plastic Vistal®	2m Cable	-	N	206-6174
20	PNP NO/NC	Plastic PA 66	M12	-	N	206-6176
20	PNP NO/NC	Plastic PA 66	Terminal	-	N	206-6177
20	PNP NO	Plastic PA 66	M12	-	N	206-6178
20	PNP NO	Plastic PA 66	Terminal	-	N	206-6179
40	PNP NO/NC	Plastic PA 66	M12	-	N	206-6180
40	PNP NO/NC	Plastic PA 66	Terminal	-	N	206-6181
40	PNP NO	Plastic PA 66	M12	-	N	206-6182
40	PNP NO	Plastic PA 66	Terminal	-	N	206-6183









Capacitive proximity sensors feature a pair of parallel plates, similar to a standard capacitor. They work when an object produces changes in capacitance, triggering the sensor. Capacitive sensors are designed for use with non-ferrous materials and are ideal for close-range applications such as level detection and monitoring.

Capacitive sensors can be affected by their environment and possible interaction with other sensors. This could include anything from the ambient temperature to other objects in the vicinity. As a result of this, precautions should be taken when installing these sensors to avoid interference from other objects or sensors.

# **Flush Mount**



THREAD SIZE	DETECTION RANGE (MM)	TERMINAL TYPE	OUTPUT TYPE	IP RATING	STOCK NO
M12×1	2	2m Cable	NPN-NO	IP67	184-5578
M12×1	2	2m Cable	NPN-NO	IP67	184-5582
M12×1	2	2m Cable	PNP-NO	IP67	184-5584
M12×1	2	M12	NPN-NO	IP67	184-5579
M12×1	2	M12	NPN-NO	IP67	184-5583
M12×1	2	M12	PNP-NO	IP67	184-5585
-	5	2m Cable	NPN-NO	IP67	184-5569
-	5	2m Cable	PNP-NO	IP67	184-5570
M18×1	5	2m Cable	NPN-NO/NC	IP67	184-5593
M18×1	5	2m Cable	NPN-NO/NC	IP67	184-5604
M18×1	5	2m Cable	PNP-NO/NC	IP67	184-5596
M18×1	5	2m Cable	PNP-NO/NC	IP67	184-5606
M18×1	5	2m Cable	NO	IP67	184-5591
M18×1	5	M12	NPN-NO/NC	IP67	184-5594
M18×1	5	M12	NPN-NO/NC	IP67	184-5605
M18×1	5	M12	PNP-NO/NC	IP67	184-5607
M18×1	5	M12	NO	IP67	184-5592
M18×1	5	M12	NO	IP67	184-5603
M30×1,5	10	2m Cable	NPN-NO/NC	IP67	184-5615
	<u>'</u>			<u>'</u>	

# **Non-flush Mount**



THREAD SIZE	DETECTION RANGE (MM)	TERMINAL TYPE	OUTPUT TYPE	IP RATING	<b>STOCK NO</b>
M12×1	4	2m Cable	NPN-NO	IP67	184-5580
M12×1	4	2m Cable	NPN-NO	IP67	184-5586
M12×1	4	2m Cable	PNP-NO	IP67	184-5588
M12×1	4	M12	NPN-NO	IP67	184-5581
M12×1	4	M12	NPN-NO	IP67	184-5587
M12×1	4	M12	PNP-NO	IP67	184-5590
-	8	M12	NPN-NO	IP67	184-5571
M18×1	8	2m Cable	NPN-NO/NC	IP67	184-5599
M18×1	8	2m Cable	NPN-NO/NC	IP67	184-5609
M18×1	8	2m Cable	PNP-NO/NC	IP67	184-5611
M18×1	8	2m Cable	NO	IP67	184-5597
M18×1	8	M12	NPN-NO/NC	IP67	184-5600
M18×1	8	M12	NPN-NO/NC	IP67	184-5610
M18×1	8	M12	PNP-NO/NC	IP67	184-5601
M18×1	8	M12	PNP-NO/NC	IP67	184-5612
M18×1	8	M12	NO	IP67	184-5598
M18×1	8	M12	NO	IP67	184-5608
-	10	2m Cable	NPN-NO	IP67	184-5577
M30×1,5	15	2m Cable	NPN-NO/NC	IP67	184-5622

# FIBRE OPTIC & LOAD CELL SENSORS



Fibre optic sensors are a type of proximity sensor that have an optical fibre connected to a light source to allow for detection in tight spaces or where a small profile is beneficial. The optical fibre is a transparent fibre made of glass (silica) or plastic with a diameter slightly thicker than a human hair, this fibre transmits light between the two ends to produce an electrical signal.

# **Fibre Optic Sensors**



FIBRE OPTIC TYPE	OUTPUT TYPE	SUPPLY VOLTAGE	IP RATING	CONSUMPTION	RANGE	STOCK NO
Plastic	NPN	24V DC	IP54	1.44W	with 896-7298 = 110 -290mm	204-0681
Plastic	PNP	24V DC	IP54	1.44W	with 896-7285 = 300 - 800mm	204-0682

Image for illustrative purposes only

Load cells, often called load cell transducers, are crucial components in most industrialweighing systems. They are available in many different configurations and standards, depending on the intended application and environment.

Among the various different types of load cells available, models and styles can be differentiated in two key ways:

- 1. By the specific method they use to detect weight (compression load cells, tension load cells and other measurement types).
- 2. By the type of output signal generated (hydraulic load cells, piezoelectric load cells and various other configurations).

# **Load Cell Sensors**



Image for illustrative purposes only

MEASUREMENT RANGE MIN/MAX (KG)	OUTPUT TYPE	IP RATING	MAX VOLTAGE	STOCK NO
0.3 - 3	PNP	IP67	15V	204-2767
5 - 20	PNP	IP66	10V	204-2772
5 - 500	PNP	IP68	15V	204-2765
10 - 100	PNP	IP67	15V	204-2770
50 - 1000	PNP	IP66	15V	204-2768
50 - 1000	PNP	IP68	10V	204-2764
60 - 1200	PNP	IP67	15V	204-2771
500 - 3000	PNP	IP68	15V	204-2766
1 - 500	PNP	IP66	10V	204-2773
	0.3 - 3 5 - 20 5 - 500 10 - 100 50 - 1000 60 - 1200 500 - 3000	0.3 - 3 PNP 5 - 20 PNP 5 - 500 PNP 10 - 100 PNP 60 - 1000 PNP 50 - 1000 PNP 60 - 1200 PNP 500 - 3000 PNP	0.3 - 3     PNP     IP67       5 - 20     PNP     IP66       5 - 500     PNP     IP68       10 - 100     PNP     IP67       50 - 1000     PNP     IP66       50 - 1000     PNP     IP68       60 - 1200     PNP     IP67       500 - 3000     PNP     IP68	0.3 - 3     PNP     IP67     15V       5 - 20     PNP     IP66     10V       5 - 500     PNP     IP68     15V       10 - 100     PNP     IP67     16V       50 - 1000     PNP     IP66     15V       50 - 1000     PNP     IP68     10V       60 - 1200     PNP     IP67     15V       500 - 3000     PNP     IP68     16V







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RS PRO provide customers with one brand that gives huge choice and availability, proven quality and process that can be trusted. RS PRO is the choice for great value and reliable products.



Essential components for managing your complex process, automation and electrical environments.

# **Electrical, Automation & Process Control Highlights**

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## MECHANICAL COUNTER

- 5-digit, manual reset and surface mount device.
- · Pivoting control lever and automatic return.
- Count mode of 1 stroke is equal to 1digit/ drive.
- Maximum speed of the shaft is 500spm.
- Reset by knurled knob and reset button at left
- Stroke angle is between 38° and 60°



# XCS-DMC/XCS-DMP CODED MAGNETIC SWITCHES, RECTANGULAR

- · Actuation on 3 sides: face to face and face to side
- 8mm tolerance to misalignment (5mm for XCS-DMC)
- · LED versions have an LED in series with one N/C giving indication when guard is closed
- Coded reed technology switch cannot be totally defeated by a simple magnet
- · Rectangular plastic housing
- Dimensions: compact: H51 x W16 x D7mm, standard: H88 x W25 x D13mm
- Available pre-cabled or with connector on flying lead
- IP66/67 protection in accordance with EN/IEC 60529
- ROHS compliant



# **DIN RAIL MOUNT - DRA1-CMX SERIES**

- 10mm single channel DIN rail mount SSR assembly
- DC ratings up to 200 Vdc and 8 A
- 3-10 and 20-28Vdc control
- · SPST-NO function
- Cage style screw terminals for easy connection
- Fits standard 35mm DIN rail
- Includes LED Status indicator



Baumer

150-467 MECHANICAL COUNTER WITH LEVEL

H 127.010A01G

XCSDMP7005

17717 Senseta - Oyo

701-8483 6A, 100 VDC

# **CONNECTING CABLE**

- · A range of connecting cables for the SIMATIC 170 series of mobile panels supporting a Profibus or Profinet environment.
- 10M length



**SIEMENS** 

**746-5372** FOR USE WITH 277 SERIES MOBILE PANEL 6XV1440-4BN10

133-0072 2NC/1NO, 5M

# WALL FAN

- · Quiet motor operation
- 3 speed options with oscillation and free neck
- · Ideal for wall fixing
- 8-hour ON/OFF times
- · Infrared remote control sensor
- · Fitted with a double insulated cable and terminated with type 3-pin G UK mains plug



Vent-Axia

884-1014 300MM DIA

12" Wall Fan

# **3000 SERIES -TEMPERATURE CONVERTER**

- · High basic 0.05% accuracy in all available signal ranges
- All units tested to ensure 2.5 kVAC isolation and have excellent noise immunity
- Response time of < 30 ms for</li> temperature measurements
- · Low temperature coefficient better than 0.01% / °C in a wide -25 to +70°C ambient temperature range for precise measurements
- Long term accuracy better than 0.1% / 3 years with no need for re-calibration



DRA1-CMXE100D6

electronics

827-5467 5.5 → 35 V DC

3331



# **E5CC DIGITAL TEMPERATURE CONTROLLERS (48 X 48MM)**

- · Large white LCD display
- 15.2 mm characters
- Dual PV/SV 4-digit display
- 50 ms high-speed sampling
- Short 60 mm housing case
- Easy connection to PLC with communications that require no programming
- · Component communications can be used to link temperature controllers to each other
- Easy set up with CX-Thermo software (Windows XP, 7) without additional power supply via USB conversion cable



# **2 CHANNEL DIGITAL DIN RAIL TIME**

- Independent Day Keys provide easier operation.
- Temporary holiday setting function makes it easy to turn OFF output for holidays and non-operating days
- · Settings can be made even with the Time Switch turned OFF
- Test mode enables easy program checking
- Complies with EMC Directives, UL/ CSA, and other safetu standards
- Includes summer time (DST) adjustment. Yearly models also offer automatic switching to DST



# OMRON

760-4592 VOLTAGE OUTPUT 100-240V

760-4599 CURRENT OUTPUT 100-240V

# ZEN LOGIC MODULE PROGRAMABLE RELAYS

- Increased functionality in a compact body (70 mm wide × 90 mm high).
- · This single Unit easily provides relay, timer, counter, and time switch functions.
- Economy-type and Communications-type CPU Units have been added to series.
- Increased timing accuracy with a monthly deviation of  $\pm 15$  s max. Multiple-day operation and pulse output operation have been added.
- Select from two power supply options: 100 to 240 VAC or 12 to 24 VDC.



# OMRON

177-0111 100 → 240 V AC

## **H7EC COUNTER**

- · Large totaliser display
- Self powered by internal battery which can also be replaced
- Key protected switch to prevent accidental reset switch operation
- · Dual operation mode
- Short body of only 48.5mm
- · Finger touch protection



# OMRON

650-2984 ZEN 20 I/O 12-24VDC

ZEN-20C1DR-D-V2

# OMRON

348-1929 BEIGE CASE H7EC-N

348-1913 BLACK CASE H7EC-N-B

# **F3S-TGR-CL SAFETY LIGHT CURTAIN**

- · Simple to wire, mount and configure
- DIP-switch setup for blanking, interlock function, muting and optical coding
- · Floating blanking and Fixed blanking supported
- Muting function and muting lamp integrated
- Type 2 or type 4 acc. EN61496-1
- EN ISO 13849-1 ready
- Long range active/active system
- · Sensing distance 0.2 to 6m (14 mm) and 0.2 to 14m (35 mm)





# **E5C2 ON/OFF TEMPERATURE** CONTROLLER

- Supply voltage rating ranging from 100VAC to
- This controller has a width of 48mm and a hei 48mm. It has a K-type (0°C to 400°C) thermodinput and relay output for ON-OFF control.
- It has thermocouple element lead wires that make soldering difficult due to its inability to sticking to the solder.



# OMRON

**757-7715** TYPE 2,600MM

F3S-TGR-CL2A-035-600



**535-0710** 48 X 48MM, 100 → 240 V AC E5C2-R20K AC100-240 0-400



# **VITAL SAFETY CONTROLLER, BASE UNIT**

- Cost-effective cable routing/connections
- · Information output with two functions
- LED indication of: power supply, dynamic signal and outputs
- Detachable connector blocks
- Two NO safety outputs
- Manually supervised or automatic reset
- Can accommodate long cable lengths
- Standard width: 22.5 mm



733-2483 TINA 7A ADAPTOR FOR OUTPUTS

733-2464 TINA 2A ADAPTOR FOR OUTPUTS

733-2468 TINA 3A ADAPTOR FOR OUTPUTS

# **JOKAB EVA GENERAL** CODE

- 4 pieces of DA 2B spacer rings included
- · Yellow in colour.



176-0036 FOR USE WITH ADAM DYN, OSSD 2TLA020046R0800

# **JOKAB CABLE WITH** CONNECTOR

- Shielded cable with connector is PVC coated.
- The conductor size is 22AWG.
- Black oxide colour.
- Length is 20m
- M12 female molded 8-pin connector





176-0060 M12-C203 20M CABLE

2TLA020056R4100

# **PLUTO SAFETY PLC, BASE** UNIT

- Simple and easy programming facilities
- Easy to configure and install
- Up to 640 I/O's



733-2461 TINA 1A BLANK PLUG FOR TINA 4A AND 8A 271.40200

# **SELECTOR HANDLES AND SHAFTS**

- · Shaft fitted to the disconnector to enable operation, used in conjunction with a handle
- Handles available in black or yellow/red



**686-7373** HANDLE, SELECTOR TYPE, OT100 TO 125FT

686-7376 HANDLE, SELECTOR TYPE, OT16 TO 80FT

# **STAINLESS STEEL PUSH BUTTON ENCLOSURES**

- ABB Compact Series
- 22mm Cutout Diameter
- IP65 rating



730-650 3 WAY 730-644 2 WAY 152 X 92 X 55MM 1 WAY 90 X 90 X 55MM 730-638

01.001002.SS2 01.001001.SS1

01.001003.SS3

# JOKAB INTERLOCK **SWITCH**

- · Reduce downtime
- No wear
- No mechanical breakage
- · Easu to install
- · Local reset function
- Operating temperature ranges between -40°C and +70°C
- Suitable in harsh environments



176-0019 ADAM DYN-INFO M12-5 CONTACT

2TLA020051R5100

# **JSTD1 SERIES ONE- HAND CONTROL SWITCH**

- 1NO/1NC contact configuration
- · Cable length is 0.2m
- Ergonomic Low activation force
- Flexible mounting
- Several grip possibilities
- Highest safety level (category 4) · Two-channel switching
- in each hand
- High mechanical life of 106 cycles
- Operating force is 2N
- Actuator travel of
- 1.3 ±0.6mm





**733-2332** JSTD1-B SAFEBALL W/ 0.2M WIRES 2TLA020007R3100

# **EMERGENCY STOP FOOT SWITCH**

- · Snap action switch with cover
- Visible operation
- · Electrically separated contacts · Rated impulse withstand voltage is 6kV
- Rated operational current at 230VAC is 3.1A
- Operating temperature ranges between -10°C and 70°C





825-1720 IPS E-STOP FOOTSWITCH, YELLOW

IPSY1A11



# INDUSTRIAL PUSH BUTTONS, PILOT LIGHTS & CONTROL STATIONS



# **CONTACT BLOCKS**

- Short-circuit protection via a 10 A cartridge fuse, providing excellent circuit protection.
- Lightweight, easy to fit and configure.
- Easily removable and adjustable. Front mounting.
- Operating temperature of between -40 to 70 °C.



331-0473	1NO	ZBE101
331-0489	1NC	ZBE102

# HARMONY EMERGENCY **STOP HEAD ZB4B**

- · Easy mountable, using a single installer (Self-maintaining of the head in its cut-out).
- · Clip-together component system (head, body, contact blocks).
- Chromium plated metal, durable and easy to recycle
- The switch has great resistance to electric shock, conforming to the machine safety standards of the IEC (Class 1)
- Single locking screw, making the button reliable and secure



# Schneider

330-9388 TWIST TO RELEASE

# **HARMONY XB4 EMERGENCY STOP PUSH BUTTONS**

- Effortless to use ""turn to release"" functionality for easy reset once activated
- Chromium plated metal panel with prominent red round push button, easily alerting to the eye
- 2 NC contacts, for simple configuration
- Short-circuit protection using a 10 A cartridge fuse which conforms to EN/IEC 60947-5-1



# Schneider

**SWITCH** 

795-1306 40MM TURN RELEASE RED 1NC

**EMERGENCY STOP HEAD** 

- TURN TO RELEASE / KEY

· An instantaneous disconnect of your

circuit upon alarm & activation of

this emergency stop control unit

buttons head you can

do so without changing the other parts) Conformity with IEC, UL, CSA standards - giving you the reassurance of reliability and safety in your industry

Modular system, nearly all shapes and functions are compatible with each other (if you need to switch the push

XB4BS8442

# HARMONY XALK CONTROL **STATIONS**

- Easy to use ""turn to release"" functionality for easy reset once activated
- Light grey RAL 7035 base enclosure with a yellow RAL 1021 cover colour and a prominent, bold red push button for easy identification to its function
- Durable Polycarbonate material, easy to clean and maintain with added durability for extended use (mechanical durability of 300,000 cycles)



# **XAL CONTACT BLOCKS**

- · Slow break contact operation in conjunction with pushbuttons for quicker action (depending on the speed of the operator).
- 1,000,000 cycles of mechanical durability, robust and reliable to ensure continuous operation.
- Lightweight, easy to fit and configure. Easily removable and adjustable. Front mounting.



ZENL1121

7R4R7009

ZB4BS844

426-2808 E STOP 40MM TRIG ACTION TURN RELEASE RED

ZB5AS844

# Schneider Electric

795-1295 EMERGENCY STOP STATION INC TURN RELEASE

**HEADS FOR SELECTOR** 

**SWITCHES ZB4-B (2)** 

· Low-load electrical contact

· Screw clamp connection.

pins for printed circuit

· Ingenious locking system

-40°C to 70°C operating

Flexible and robust

temperature

XALK178 331-0580 CONTACT BLOCK INC SCREW TERMINAL

# **BODY/FIXING COLLAR ZB4-B**

• The collar weighs 0.003 g

Schneider Electric

- · The mounting hole size of 22 mm
- · It is a green premium product
- Designed to be used with the Harmony XB4 series of push-button switches
- · Comprised of a strong metal material enabling the component to hard-wearing and long-lasting



# Schneider Belectric

330-9041	2 POSITION STAYPUT TWIST SELECTOR SWITCH	ZB4BD2
330-9057	3 POSITION STAYPUT TWIST SELECTOR SWITCH	ZB4BD3
330-9142	2 POSITION STAYPUT TO LEFT KEY SWITCH	ZB4BG2

# Schneider Electric

331-0142 MOUNTING BLOCK FOR PUSHBUTTON

# Schneider Electric

# FRONT MOUNT INTEGRAL **LED BODIES**

- Lightweight, easy to fit and configure screw clamp terminal connectors. Easily removable and adjustable
- 100.000 H service life when used at rated voltage, used within an average temperature of 25 ° C.
- Protected integral LED, coming in varying colours including white, red, yellow and more. See product specification for exact detail.



ZBVB3

# Schneider Electric

610-2821 LIGHT BLOCK, GREEN, INTEGRAL LED, 24V





# Extremely compact control and switching

Relay system and logic relay system

Relay modules for every application and industry: with PLC-INTERFACE relay systems you will find the best solution. The logic relay system, PLC logic, combines relay and analogue modules with logic functions and intuitive software.

PHOENIX CONTACT has everything you need for best switching.

To view the full product range visit sg.rs-online.com/ourbrands/phoenix-contact



# **PLC-RSC SERIES**

- Relays and opto-couplers for inputs and outputs with "pluggable" switching devices
- Four bridging slots to reduce wiring; bridging of up to 80 modules is possible
- Screw terminal connections
- LED indicators and diodes for coil suppression
- 250V versions have a switched power rating of 1500VA
- Dimensions (WxDxH) 6.2 x 80 x 94 mm (Single pole, double pole 14mm wide)
- Operating temperature range -40 to +55°C
- Mechanical life (relays) 1 x 107 operations
- · Wide range of accessories also available



# **4-WAY ISOLATED SIGNAL DUPLICATOR**

- Configurable 4-way isolating amplifier
- Thin 6.2mm housing width
- Ex-zone 2 approval
- DIP switch allows configuration of up to 8 signal combinations
- Duplication of a standard analog signal on two current outputs



# PHŒNIX

290-1422	SINGLE RELAY REL-MR- 60DC/21	2961118
290-1416	SINGLE RELAY REL-MR- 24DC/21	2961105
306-6592	MINIATURE SOLID-STATE RELAY - OPT-24DC/ 24DC/ 2	2966595
358-8301	RELAY MODULE - PLC-RSC- 24DC/21	2966171

- Easy handling and extension of range
- Plug in display/suppressor module
- 1 and 2 contact options



# PHŒNIX

489-2881 SIGNAL DUPLICATOR - MINI MCR-SL-UI-2I-NC

2864176

# **RIF-0 POWER RELAY MODULES**

- · Easy wiring due to push in connection technology



# **INTERFACE RELAY, SERIES** PR1

- · Pluggable miniature relays, with power contact for high continuous current
- Varied switching current dependant on the relay chosen from the REL-MR series
- Pluggable miniature relay compact in size
- Additional hard gold plating
- AC and DC coil voltages
- Robust and hard wearing



# PHŒNIX

794-3761	24DC/1	2903361
794-3765	12DC/1	2903362
794-3771	24DC/21	2903370
794-3780	12DC/21	2903371

# PHŒNIX

**OUTPUT** 

**508-0023** SINGLE RELAY - REL-MR- 24DC/21-21

**OPTO-COUPLERS WITH** 

• Dc in/Dc out, Dc in/Ac out and Ac

**SOLID STATE RELAY** 

in/Dc out versions available

· Versions with switching speeds

• 2.5kVac input to output isolation

up to 100kHz available

· LED status indication Module width 6.2mm Operating temperature range: -20 to +60°C

# MCR SIGNAL **CONDITIONERS**

- MCR series 3-way isolating amplifiers for electrical isolation of analog signals.
- Processing of standard signals
- Fixed setting of input and output signals
- · 3-way isolation
- · Pluggable screw connection



# **PSRMINI SAFETY RELAY**

- Compatible with all important signal transmitters and safety-relevant systems
- · Screw and push-in spring connection
- Automatic reset, Automatic/Manual reset, Automatic/Manual/ Monitored reset, Manual/Monitored reset options available
- Up to 70% space saved
- · Easy and quick diagnosis given means shorter downtime



**893-7701** PSR-MC40-3NO-1DO-24DC-SC

2700569

**533-0019** TERMINAL BLOCK - DEK-OE- 24DC/ 24DC/100KHZ 2964283



801-6101 SIGNAL CONDITIONER - MCR-C-I-I-00-DC 2814508



# **ENCLOSURES, FANS & THERMAL MANAGEMENT**

# KS, GLASS REINFORCED PLASTIC WALL BOX

- · Zinc-plated steel mounting plate
- Colour Similar to RAL 7035
- Dyed plastic finish with no after-treatment
- · All round foamed-in PU seal
- IP66 and IK08 protection
- Ambient temperature -30°C to +75°C
- Single door
- Door hinged on the right, Can be swapped to the left





**124-3432** 1000 X 800 X 300MM

1423500

# **AE COMPACT ENCLOSURES**

- The AE series from Rittal is a compact stainless steel enclosure with an allround foamed-in PU seal offering IP66 protection to IEC 60 529.
- Protection category: IP66 to IEC 60 529, NEMA 4X and IK08
- Stainless steel 1.4301 (AISI 304) enclosure and door
- Door opening angle approx. 130°





**784-6125** 300X300X210MM

## **TOPTHERM FILTER FAN**

- Easy to assemble, highly efficient and a versatile unit that provides airflow of 66m³/h and supply voltage of 230VAC.
- It does not require any tools during assembly, exchange or maintenance.
- The fan module and power connection are simple to position to suit the needs of the application.





756-9767	66CU.M/H 230V	3238.1
756-9777	120CU.M/H 230V	3239.1
756-9802	250CUM/H 230V	3241.1

# FAN FILTER MAT

- Temperature-resistant, up to 100°C
- Reliable filtering of dust from a particle size of 10µm
- Thickness is 17 mm
- Eilter class G3
- · Air throughput is 105m3/h to 120m3/h



756-9887	177X177MM	3171.1
756-9878	124X124MM	3322.7
756-9880	224X224MM	3172.1
756-9884	292X292MM	3173.1

# **TOPTHERM SIDE AIR CONDITIONERS**

- Mounting on or in doors and side panels of enclosures with standardized mounting cut-outs.
- Integrated automatic condensate evaporation (except SK 3303.500), Nano coating condenser for easy cleaning and constant cooling capacity and efficiency.
- These air conditioners also use an intelligent operating system, turning fans on and off as needed to maintain precise temperatures while saving energy.



# **FAN FILTER EXHAUST**

- · Used for ventilation by convection.
- The outlet filter can be installed in the upper and lower sections of the enclosure.
- The filter frame is made of ABS material.
- The filter is made of chemical fibre material. The filter is available with a length of 255mm and a width of 255mm. It is suitable for 177mm x 177mm and 224mm x 224mm fan size.





**756-9865** 224X224MM

3240.2



**764-4115** WALL MOUNTED 230V 550W

3303500 **756** 

# **GREENTECH EC ENERGY EFFICIENT FANS - ACI 4400 SERIES**

- The ACi 4400 series utilises motors with GreenTech EC technology offering enhanced performance with a fraction of the energy usage of conventional motors  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left($
- · High pressure and airflow can also be achieved with a low operating noise.
- A wide selection of speeds are available with varying nominal voltages.
- These units are equipped with maintenance freball bearings and have a service life of more the 62,500 hours, reducing maintenance costs.



# SLEEVE BEARING AXIAL FANS

- · Electronic protection against reverse polarity
- Impedance protected against blocking and overloading
- · Fibreglass-reinforced plastic
- · Integrated electronic commutation



# ebmpapst

**740-6398** 119 X 119 X 38MM, 230 V AC

ACI4420HH

# ebmpapst

322-4445 40.9CU.M/H24VDC

# **HIGH PERFORMANCE BALL BEARING FANS**

- Material: fibreglass-reinforced plastic
- · Fully integrated electronic commutation
- Protected against reverse polarity and locking
- Connected via single strands AWG 24, TR 64. Bared and tin-plated.

# **W2S130 TUBEAXIAL AC FANS**

- · Compact dimensions, enables fans to be incorporated into equipment where component mounting space is limited.
- · Robust aluminium construction. ideal for industrial applications.
- · Black coated sheet steel impeller, directly welded onto rotor.
- Expertly designed aerodynamic fan blades supporting excellent efficiency and low noise levels.
- · Impedance protected shaded pole motor, protects the fan motors from burning out if the rotor locks.
- · Maintenance free ball bearing system, supporting excellent performance and life expectancy



# **CENTRIFUGAL FANS AND BLOWERS - BACKWARD CURVED BLADES**

- · A solution to a wide range of application requirements and are ideally suited for intake suction use.
- Used for intake suction using backward curved blades, do not require a scroll housing – increasing ease of use and versatility.



# ebmpapst

222-294 360CU.M/H 24VDC

# ebmpapst

7214N

771-9108 150MM 380CU.M/H 230V

W2S130-AA03-01

# ebmpapst

825-7686	220MM DIA, 115V	R2E220-AA44-98
825-7670	220MM DIA, 230V	R2E220-AA40-80
825-7702	225MM DIA, 230V	R2E225-BD92-09

# RADICAL EC CENTRIFUGAL FANS

- The ebm-papst RadiCal backward curved EC fan offers higher performance for less power
- Ideal solution to a wide range of application requirements and are ideally suited for intake suction use

# **AXIAL FAN FINGER**

- Industrial standard size zinc plated steel finger guards for axial fans
- 4 standard fixing points except 172 x 172 which has 2 points

# **GUARDS**

# **BACK DRAUGHT SHUTTERS**

- · To prevent back draughts
- Lightweight blades and square opening provide maximum free area when the fan is operating
- Blades close under gravity when the fan airflow ceases
- All components are light grey and UV stabilised to provide a long life





233-9401 225HX225WMM 78128-2-4039 127HX127WMM



581-470 09496-2-4039

# ebmpapst

**414-1802** 630MM WSK 63



825-7803

ebmpapst

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R4E225-AI01-10



# **IP66 STAINLESS STEEL WALL BOX WITH CHASSIS PLATE**

- · AISI 304 Stainless Steel
- IP66 rating
- Fully wall mountable
- Lockable



842-8399	200X200X150MM	
842-8412	240X180X150MM	
842-8419	240X240X150MM	
842-8434	240X360X150MM	
842-8406	300X300X150MM	
842-8370	300X300X200MM	
842-8361	300X+00X150MM	
842-8342	300X+00X200MM	
842-8421	360X180X150MM	
842-8380	400X300X150MM	
842-8383	400X300X200MM	
842-8409	400X400X200MM	
842-8346	400X500X200MM	
842-8374	500X500X200MM	
842-8364	500X700X250MM	



# **IP66 WALL BOXES**

- · Body material is AISI 304 stainless steel sheets
- IP66 rating
- Double lipped edges to ensure higher strength and ease of installation
- Easy to use, including removal of the door
- Door is fitted with a polyurethane gasket



758-6986	300X300X200MM
758-6974	300X400X150MM
758-6958	300X400X200MM
758-6999	400X300X200MM
758-6961	400X500X200MM
758-6992	500X500X200MM
758-6977	500X700X250MM
758-6970	800X1000X300MM

# **IP66 SHEET STEEL WALL BOX**

- · Steel structure, coated with an epoxy polyester powder
- IP66 rating
- · Enclosure and the door is made from sheet s
- · Fully wall mountable
- · Pebble grey finish





775-5791 MS WALL BOX WITH BRACKETS/CHASSIS PLATES

# **CLEAR MAKROLON® FRONT**

- Transparent lid with visibility to internal components
- Two-part, modular, glass fibre enclosures offering excellent protection
- Removable chassis plates included
- · Self extinguishing, resistant to ozone, most oils, acids, bases and salts
- Temperature range -50°C to +160°C





501-496 IP66 370X300X175MM

# **IP66 WALL BOXES**

- 1.2 mm AISI 304 natural stainless steel
- IP66 rating
- Earth studs are provided on the body, door and chassis plate
- Double lipped edge to ensure higher strength and ease of installation
- · Easy to use, including removal of the door





**749-1844** 400X500X250MM

# **GRP WALL BOXES WITH GLAZED DOOR**

- Fibre glass reinforced polyester construction offering excellent durability, long life and self extinguishing properties up to 960oC
- · Glazed door, ideal for viewing the contents of the wall box without unlocking
- Neutral light grey colour ideal for use in a range of applications
- Electromagnetic compatibility eliminating electrical contact risks
- High impact and harsh atmosphere resistance





192-7123 400X400X200M

# **METAL LOCK**

- An effective enclosure locking device with a 5mm Double Barb lock configuration. The cam is designed to provide a
- slide compression fit and operate through an angle of 90
- Bright chrome plated finish
- Cam lead-in ensures compression of sealing gasket
- Max panel thickness 6mm
- Grip length 25mm





**842-8478** RONIS TYPE KEY

**842-8469** T TYPE KEY



We supply a wide range of pipes, tubing, hoses and more to suit your requirements.

# **Plumbing & Pipeline Highlights**

Browse and shop the entire range of plumbing & pipeline products online at **sg.rs-online.com**.

# **POWER-ASSISTED CONTROL NORMAL MODULE**

- Power-assisted control 2/2 NC and NO solenoid valves with floating diaphragm.
- · No minimum control pressure.
- · 238 series solenoid valves designed to eliminate water hammer when water is turned off.
- · Brass body.
- Pluggable PG 11P connection.



**306-1581** SOLENOID VALVE 2/2

SCG238A044-24VCC

# **DS6281-EV 2/2 SOLENOID**

- 0.1 4 second response time (dependant upon pressure)
- IP65 Rated (with cable protection)

**VALVE - BRASS BODIED** 

- Brass body
- · Quiet operation
- · Water hammer free design
- Compact installation length NPT / Rc connection ports
- 0.2 16 Bar pressure range



burkert

816-3168 3/4" SOL VALVE 20MM ORIFICE 24VDC 221850

# **PERISTALTIC PUMP**

- · The Verderflex peristaltic, electric operated, self-priming, positive displacement pump has a maximum flow rate of 2200ml/minute.
- The supply voltage is 24VDC
- · Input power is 30W
- 2 roller design
- Cycology resin pump head with support bearing
- Tough ABS casing
- Thermally protected motor and cooling fan
- Repeatability is ±0.5%
- Metering accuracy is ±2% (dependant on size of dose)



VERDERFLEX'

125-4041 8MM TUBE

AU R1580240 05

667-9182 132L/MIN

**AIR OPERATED POSITIVE** 

· Pump body is made of polypropylene

**DISPLACEMENT PUMP** 

Can running dry without damage

High clearance check-valves

for good solids handling

Flow rate can be varied bu

· High suction lift up to 80m

Stall free performance

Oil free- no contamination

Robust design

adjusting air inlet pressure

TEP130-PX

# ADVANCED POLYETHYLENE (APE) TUBING

- · 50% reticulated material
- · Balance between flexibility and pressure/temperature resistance
- Resistant to a wide range of aggressive chemicals
- · UV-stabilised: ideal for outdoor applications
- · Approved for contact with foodstuff and beverages



! legris

144-7831 BLACK 8X5,75 DRUM 150M 1015Y08F01 144-7829 BLACK 6X4 DRUM 150M 1015Y06F01 144-7828 INCOLOR 6X4 DRUM 150M 1015Y06F00





# SINGLE PIECE REDUCED BORE BALL VALVE

- Reduced port, 1/4" 3" (DN8 DN80)
- W.P: 1000WOG (PN63)
- W.T: -20°C to 200°C (-4°F to 392°F)
- Investment casting
- Blow-out proof stem
- Anti-static device (option)
- Thread type: ASTM B1.20.1 (NPT) DIN2999 & BS21 ISO7/1 & EN10226





499-2795	1/2IN BSPP F-F
499-2802	3/4IN BSPP F-F
499-2818	1IN BSPP F-F
499-2824	1 1/4IN BSPP F-F
499-2830	1 1/2 INCH BSPP F-F
499-2846	2 INCH BSPP F-F

499-2789 1/4IN BSPP F-F

# FLOAT AND THERMOSTATIC **STEAM TRAP**

- · Connections are female screwed
- Modulating discharge
- · Discharges condensate at steam temperature
- Unaffected by sudden or wide load and pressure changes Excellent air discharge (by thermostatic air vent)





720-9229 3/4IN, 14BAR FLOAT STEAM TRAP BSP

720-9232 1IN. 10BAR FLOAT STEAM TRAP BSP

# **HEAVY DUTY SELF-RETRACTING HOSE**

- 180° pivoting wall bracket
- Includes carrying handle and 1.5m feed pipe
- 1/2inch BSPT male connector
- · Auto lock fitted with rollers for smooth retraction





911-9447 10MM ID, 15M **911-9443** 8MM ID, 9M

# **REMOTE READING EXPANSION THERMOMETER**

- 100 mm centigrade dial Dry Thermometer with bi-metal movement
- Supplied with a surface mounting back flange
- Acrylic window with steel cover





**431-5586** -20 TO +60DEGC8F

**431-5592** 0 TO +120DEGC8F

# **SPRAY GUN**

- Adjustable screw to vary cone width from  $0^{\circ}$  to  $60^{\circ}$
- · Covered by semi housings of non-stainable shockproof plastic, entirely sealed and with 3 rubber protective rings
- · Ergonomic construction
- Gun is suitable for use up to 24 bar, 2.4 MPs rated pressure pumps
- · Inlet swivel connection
- · Internal structure in made of brass and stainless steel
- · Plastic trigger protected by hand guard





175-6264 1/2" BSPF

# STAINLESS STEEL BALL **VALVE WITH ELECTRIC ACTUATOR**

- Body CF8M 316 S/S
- Ball 316 S/S
- Stem Seal PTFE
- · Ball Seal PTFE
- 1.000 PSI Rated
- · Enclosure Rated Weather proof IP67
- · Motor: 24Vdc
- Multi voltage 24Vdc, 95-240Vac
- Limit Switches 2 x open/close SPDT, 250Vac 6A rating
- Auxiliary Limit Switches 2 x open/ close SPDT, 250Vac 6A rating
- Indicator LED lamp Indicator (Open/Close)





760-5700 1/2IN. BSP S/STEEL

760-5687 1IN. BSP BRASS

# **INDUSTRIAL SOLENOID VALVES**

- Made from forged brass
- · Pilot operated
- Choice of 230 V ac or 24 V dc operation
- 2 port, normally open (NO) and normally closed (NC)
- · Liquid or gas use
- Full range of sizes from 3/8 in to 2 in





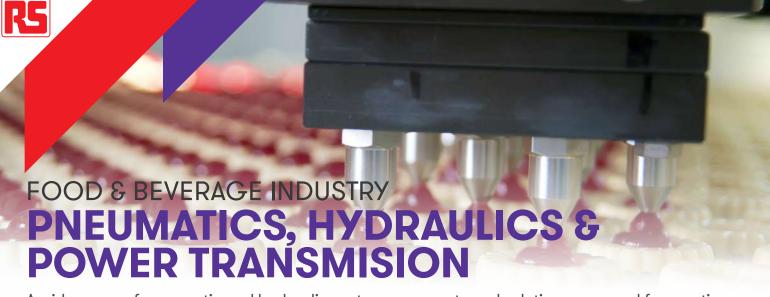
144-0812 SOLENOID VALVE 1/2" NO 220VAC

# SILICONE TRANSPARENT TUBING

- · Flexible silicone tubing is suitable for use in most peristaltic pumps
- Length of 3 m
- Bore size of 3.2 mm
- · Suitable for contact with food
- Peristaltic pump compatible
- Density of 1.16 g/cm³ Shore A hardness of 62
- Elongation of 385% (approx)



**667-8444** 3.2MM BORE **667-8448** 4.8MM BORE 667-8457 6.4MM BORE 667-8450 8MM BORE



A wide range of pneumatic and hydraulic parts, components and solutions you need for creating a purpose-built system or parts to update, maintain or repair your current system.

# **Pneumatics, Hydraulics & Power Transmision Highlights**

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# SKF FOOD LINE STAINLESS STEEL DEEP GROOVE BALL BEARINGS

- Prelubrication with high-quality grease registered by NSF as category H1 A nitrile rubber seal material that
  is coloured blue for optical detectability and is compliant with FDA and EC recommendations
- Stainless steel (440C) for inner ring, outer ring, rolling elements and cage
- · Stainless steel backing plate for the seal

# SMT/SME-8M SERIES T-SLOT PROXIMITY SENSORS

- Compatible with all Festo T-Slots
- 24 V dc Operating Voltage
- · Non-contacting or contacting sensing





# **SKF**

125-1242	30MM DEEP GROOVE BALL BEARING 62MM O.D	W 6206-2RS1/VP311
125-1241	25MM DEEP GROOVE BALL BEARING 52MM O.D	W 6205-2RS1/VP311
125-1236	8MM DEEP GROOVE BALL BEARING 22MM O.D	W 608-2RS1/VP311
125-1240	20MM DEEP GROOVE BALL BEARING 47MM O.D	W 6204-2RS1/VP311
125-1229	10MM DEEP GROOVE BALL BEARING 26MM O.D	W 6000-2RS1/VP311

# FESTO

**121-5824** 3 WIRE 0.3M

MSP-40-SS

# SHAFT COLLAR TWO PIECE CLAMP SCREW

- The clamp style design does not mar the shaft, is easy to remove, and is indefinitely adjustable.
- Is commonly used for guiding, spacing, stopping, mounting, and component alignment.
- Equipment manufacturers benefit from the tightly controlled face to bore perpendicularity of Ruland shaft collars, TIR of ≤ 05mm.



# SKF CAHB-10 SERIES LINEAR ACTUATOR

- Compact design
- Robust and reliable
- Designed for harsh environments
- High load capacity

EWELLIX

- Lubricated for service life
- Durable, lightweight and corrosion resistant





**174-6784** 40MM OD 60MM W 15MM

MSP-40-SS

764-3477 LINEAR ACTUATOR CAHB-10 STROKE 50MM 24V

CAHB-10-B3A-050158AAA000-000



# motion?... plastics! for the food and beverage industry

















tribo-tape Low friction Liner



iglidur®



Plain Bearings



xiros® conveyor rollers





Hygienic e-chain®



chainflex® Dynamic cables



# Lubrication-free, hygienic, Food Grade

- easy to clean
- corrosion and chemical resistant
- ▶ lightweight
- ▶ high-performance plastic that offer safe and reliable operation



# **CLEAN DESIGN CYLINDER FOR FOOD INDUSTRY**

- Hygienic and self-adjusting PPS cushioning
- Easy-to-clean cylinder profile without corners and indents
- · Corrosion-resistant cylinder surface
- Standard dimensions and mounting accessories to ISO 15552
- NSF-H1 lubricant and special wiper seal (characteristic A3) suitable for contact in the food area. Long service life even with insufficient lubrication due to frequent cleaning processes



# **FESTO**

Search 'dsbf' or scan QR code for over 100 product options



# FESTO

**SOLENOID CONTROL** 

· In-line valve - designed to be used

be equipped with fittings/tubing.

• 5/2 Way Monostable valve function

G1/4 thread pneumatic connection

Piston spool with sealing

ring design principle

Internal pilot air supply

without pneumatic linking. All pneumatic connections are on the valve and can

**COMPRESSED AIR FILTER-**

Standard nominal flow rate of 5,600 I/min

**REGULATOR** 

· Vertical assembly position

· Manual rotary condensation drain

Optional mounting type of either

front panel or line installation

Rotary knob with lock actuator

• G1/2 pneumatic connection

• Aluminium die cast housing material

121-5670

**VALVE** 

# MS6-LFR-1/2-D6-CRM-AS

# **COMPRESSED AIR ACTIVATED CARBON FILTER**

- Fully automatic monitoring and regulation of compressed air supply
- Automatic shut-off of the compressed air in stand-by mode
- Detection and notification of leakages
- · Condition monitoring of relevant process data



# **FESTO**

202-3518	3/8-R	MS6-LFX-3/8-R
202-3354	1/2-U	MS6-LFX-1/2-U
202-3353	CARTRIDGE	MS6-LFX
202-3404	AKI CARTRIDGE	MS6-LFX-AKI
202-3398	1/2-R	MS6-LFX-1/2-R
202-3377	1/2-R-Z	MS6-LFX-1/2-R-Z
202-3327	1/4-R	MS6-LFX-1/4-R
202-3362	1/4-U	MS6-LFX-1/4-U

**HYDOLYSIS RESISTANT TUBE** 

Combination suitable for use in cleanrooms,

FDA-compliant and corrosion-resistant

Very easy to install thanks to the "one click

Hydrolysis-resistant and suitable

as it is made of 100% polymer.

for water applications.

principle

# FESTO 121-5898 5/2 WAY

# **ANGLE SEAT MEDIA VALVE**

- Modular, hygienic design, insensitive to dirt
- · Quick and easy maintenance Control of medium flows (gaseous and liquid) in
- closed and open circuits The angle seat valves VZXA are simple and sturdy and are thus perfectly suitable for almost all media with a viscosity of up to 600 mm²/s
- The angle seat valves VZXA made from stainless steel with PTFE seals have high chemical and thermal resistance
- Also suitable for vacuum applications
- Temperature of medium -30 ... +200°C



VUVS-LK25-M52-AD-G14-1B2-S

# **FESTO**

Search 'pun-h' or scan QR code for over 50 product options



# FESTO

Search 'vzxa' or scan OR code for over 20 product options

# **FOOD GRADE PNEUMATIC FITTINGS**

Search 'ms6-lfm' or scan QR code for

**COMPRESSED AIR FINE FILTER** 

 Fully automatic monitoring and regulation of compressed air supply

air in stand-by mode

of leakages

Detection and notification

Condition monitoring of

relevant process data

Automatic shut-off of the compressed

- · Effortless selection of the right fitting.
- Festo offers a secure solution for every connection.
- The convenient push-in fitting system includes well over 1000 types function fittings.

FESTO

over 30 product options



# FESTO

Search 'npqh' or scan QR code for over 150 product options

# FDA APPROVED PINCH VALVE

- The pinch valve is a 2/2-way valve used to control liquid and powdery media, solids as well as a mixture of substances
- Easy-to-clean housing (clean design)
- · Open or closed in normal position
- Shut-off element made of elastomer



# FESTO

Search 'vzqa' or scan QR code for over 30 product options





# Air quality that continuously meets ISO standards for the food industry





# The right compressed air quality every time.

If you want to improve the reliability of your systems, you need to look at your compressed air supply. In the food and beverage industry, strict demands are made of compressed air quality in order to ensure the highest possible level of food safety.

The ISO 8573-1:2010 standard defines maximum permissible levels of particles, water and oil which may be present in compressed air for various applications.

Festo can tailor air preparation precisely to your application. Just combine the highly functional service units from our MS series to obtain air preparation which precisely delivers the air quality you require. **Get your filtration systems up to standard and meet purity-class requirements with Festo!** 



www.festo.com

# MATIC AIR PREP, ELECTRIC ACTUATORS & SWITCHES



# **CFM PNEUMATIC CABINET COOLER**

- Uses compressed air at 5-7 bar
- Fits into a 3/4 in BSPP (British Standard Parallel Pipe) clearance hole in the cabinet wall
- Maximum flow rate of 35 CFM
- Maximum cooling capacity of 1,500 Btu/h
- Fed through 1/4 in BSP air inlet
- · Pressure relief valve
- Height of 196 mm
- Diameter of 45 mm
- Stainless steel body
- Control device not included
- Conforms to ANSI/ESD S20.20:2014 and BS EN 61340-5-1:2007 Electrostatic





291-5386 1500BTU/H 35CFM

# **VACUUM PRESSURE GAUGE OBAR**

- Maximum Pressure Measurement Obar
- Vacuum Pressure Gauge Type
- Gauge Outside Diameter 100mm
- Stainless Steel Case Material
- Minimum Operating Temperature -40°C
- Maximum Operating Temperature +60°C





0-30HG

# **COMPACT POLYURETHANE SELF-COIL AIR HOSE**

- For use with air tools, instrumentation lines, robotics and many other industrial applications
- High flexibility, resistant to abrasion oils and kinking
- Compact size;500mm/100mm hose tail lengths
- Operating temperature range -20°C to +75°C
- Not for use in low positive pressure or vacuum systems.





700-5664 4M LX8MMOD

700-5667 6M LX8MMOD

# PNEUMATIC CABINET **COOLER**

- Pressure range of 5-7 bar
- · Cools cabinet volumes of up to 2 m3
- Maximum flow rate of 35 CFM
- · Maximum cooling capacity of 1,500 Btu/h
- Diameter of 45 mm
- · Height of 333.5 mm
- · Stainless steel body
- Control device not included
- Conforms to ANSI/ESD S20.20:2014 and BS EN 61340-5-1:2007 Electrostatic Control Standards





**445-3060** 1500BTU/H 35CFM

# **ELECTRIC LINEAR ACTUATOR**

- Input voltage 24V DC
- Max. load 500N (push/pull)
- Speed: 13.5 mm/s (full load) 14.6 mm/s (no load)
- Stroke length: 100 mm
- · Aluminium grey in colour
- · Quiet yet powerful
- · Preset limit switches
- · Minimal operational costs
- Energy efficient



**177-4490** 24V DC, 100MM STROKE

# **K3 SERIES ADJ HYDRAULIC PRESS SWITCH**

- · Adjustable via a screw located in the centre of the instrument
- Incorporates a mechanical stop providing over-pressure protection for spring and microswitch
- DIN 43650 connector





363-5968 1-10 BAR K3 SERIES

296-9989 2-40 BAR K SERIES

# **F4 SERIES ADJUSTABLE PRESSURE SWITCH**

- Fitted with a mechanical stop to prevent damage from over pressurisation
- · Can be mounted in any orientation
- 90 Cycles/min switching frequency
- Long mechanical life (10^6 cycles at 70bar)
- 0.5A maximum load (at 250 VAC)
- Accuracy 4% of set pressure
- Fixed Hysteresis 10-25% [Dependent upon version]
- DIN 43650 Electrical connection





297-0052 1-12 BAR

**297-0046** 0.2-2.5 BAR

# **AUTOMATIC DRAIN VALVE -**240V 50HZ

- · Precise self-activated control of fluids and air to a specified programme (media: air, gases, oo, oil etc.)
- Automatically opens for a set time to drain condensation
- Length of time open (0.5 to 45 minutes) and frequency both adjustable
- Discharge time 0.5 to 10 seconds
- · Minimal risk of internal blockages due to increased internal tolerances
- · LED indicator for operational status





725-125 AUTOMATIC DRAIN VALVE

# STANDARD DUTY **POLYURETHANE TUBE**

- · Highly flexible, cut and abrasion resistant
- Silicone free
- Ideal for pneumatic control and chemical transfer lines





917-2381	BLUE, 5MM ID, 8MM OD
917-2397	BLUE, 9MM ID, 12MM OD
917-2400	CLEAR, 4MM ID, 6MM OD
917-2371	BLACK 7.5MM ID 10MM OD









# DOUBLE UNIVERSAL JOINT WITH NEEDLE BEARING

- Carbon steel universal joints for connecting equipment where there is a misalignment greater than 5 degrees up to an angle of 90 degrees.
- Fitted with needle bearings lubricated for a lifetime and requiring no maintenance, suitable for applications with speeds of up to 4000 rpm.
- Smooth and silent operation, suitable applications include connection of conveyers, line shafts and drive shafts.





790-6807	10MM BORE
790-6813	16MM BORE
790-6823	25MM BORE

# **CHAIN TENSIONER CTC**

- Considerably reduces drive vibration and noise.
- Is truly "fit and forget" enabling high drive reliability and very low maintenance costs





**901-0053** DIN CODE 12B-1, 420N **901-0047** DIN CODE 08B-1, 250N

# STAINLESS STEEL DEEP GROOVE BALL BEARINGS

- Shielded
- Good radial load capacity
- · Ideal for high speeds
- Long operating life



# 15

188-3293	15X35X11MM
188-3295	20X47X14MM
188-3281	15X32X9MM
188-3331	25X52X15MM
893-7272	25MM ID 47MM OD
893-7323	8MM ID 22MM OD

# **SHAFT SEALS**

- Replaceable without damage to the housing bore
- No need for circlips, sealants or retaining plates



## **O-RING KIT VITON®**

- Essential for all workshops and onsite service engineers
- Range of sizes no need to purchase individual O-Rings
- Quick identification and easy storage for multiple O-Ring sizes
- Robust casing suitable for transport
- The kit contains 510 pieces in 18 different sizes
- 75 Shore A
- The material of the rings are resistant to petrol, oil and hydraulic oil
- Viton® A O-rings have a high chemical and temperature resistance alongside a low compression set





756-040	IMPERIA
245-9628	METRIC

# **DELRIN SPUR GEARS**

- Tensile strength 94N/mm²
- Hardness (Rockwell R) 110-120 20° Pressure angle

# NITRILE O-RING CORD

- An economical and versatile solution for creating seals on the job.
- You can use it for applications as diverse as engines and beer taps.
- Length of 8.5 m



138-1610	DIA. 8MM	
138-1608	DIA. 6MM	
138-1606	DIA. 5MM	
138-1607	DIA. 5.33MM	
138-1605	DIA. 4.5MM	
138-1604	DIA. 4.0MM	
138-1602	DIA. 3.5MM	
138-1600	DIA. 2MM	

# STAINLESS STEEL SHAFT COLLARS

- Industry standard
- Interchangeable
- Common type
- Anti-corrosion finish





122-3452	BORE 12MM										
122-3453	BORE 14MM	 	 	 			_		_	 	-
122-3455	BORE 16MM										
122-3456	BORE 18MM										_
122-3457	BORE 20MM										
122-3460	BORE 25MM										
122-3461	BORE 30MM										
122-3449	BORE 6MM	 						-			-
122-3450	RODE 8MM	 				-				 	_

# GREEN ROUND POLYURETHANE BELT

- Hardness of 88 Type A
- Minimum operating temperature of -30°C
- Maximum operating temperature of +80°C
- Not food certified



RS	
PRO	

521-6991	SPUR GEAR - 0.5 MODULE 15 TEETH
521-7231	SPUR GEAR - 0.8 MODULE 12 TEETH
521-7455	SPUR GEAR - 0.8 MODULE 80 TEETH
521-6064	MITRE GEAR,1.5 MODULE



PRO		
309-8123	5M L X 5MM DIA	
309-8139	5M L X 6MM DIA	
309-8145	5M L X 8MM DIA	



Quality tools, fasteners & fixings, adhesives, sealants, tapes and more to get the job done.

# **Tool & Consumables Highlights**

Browse and shop the entire range of tools & consumables products online at **sg.rs-online.com**.

# **NIPPER CABLE CUTTER**

- Black corrosion resistant pliers Polished head
- · Plastic coated handles
- · Length 280 mm

# **SOLDERING IRON WITH BUILT-IN SOLDER FEED**

- 50 W soldering iron with built-in mechanical system for solder feed
- Compatible with 0.6 mm  $\rightarrow$  1.6 mm diameter solder wire

# **XCELITE FINE POINT DIAGONAL KNIFE BLADE**

- · Scalpels for delicate work
- Knurled end for more secure handling and a firm grip







136-7418 END CUTTING

**MAK(O** 

**431-9897** 50W

Weller

675-6709 FINE POINT DIAGONAL (PACK OF 5)

XNB103

# **TEMFLEX 1755 RUBBER BLACK CLOTH TAPE**

68 01 280

- PVC insulation tape with good electrical and mechanical properties
- High dielectric strength 40 kV/mm
- Self extinguishing
- · Good resistance to abrasion, moisture, alkalis, acids, corrosio, varying weather conditions and ultraviolet exposure



840-9026 19.1MM X 18M, 0.33MM THICK

1755-3/4X60FT

# **FOOD SAFE SILICONE SEALANT PASTE**

· Conforms to BS5889 Type B

951-02

- · Fast cure
- · High modulus-acetoxy cure type



459-0232 310 ML CARTRIDGE

6011088





# **METRIC WORKSHOP RANGE JOBBERS DRILLS**

- 5% Cobalt High-Performance HSS-E Drill bits.
- High-Temperature strength without sufficient coolant
- 135° non-slip split point for precise centring
- · Direct drilling without the need for prior centring or drilling a pilot hole
- Cuts faster and lasts longer than regular HSS drill bits
- 0.5 mm increments





1-13MM 216-690

216-678 1-10MM

# **VDE ELECTRICIANS TOOL KIT**

- Ergonomic multi-component handles
- Optimum balance of torque and control
- High quality and professional tools
- · VDE approved for electrical safety
- · Made from chrome vanadium steel
- · Ideal for a wide range of applications
- Sturdy tool case





734-8885 88PC 1/2IN. SOCKET & VDE TOOL KIT

# SWITCH KEY UNIVERSAL **WRENCH**

- Multi-purpose enclosure key wrenches designed for use within maintenance & service applications
- The four arms of the tool offer five differing drive possibilities
- Available with either a bright chrome or zinc plated finish





439-3025 ZINC FINISH

439-3019 CHROME FINISH

# **UNIVERSAL CABINET CROSS WRENCH KEY**

- Multifunctional tool convenient and easy to use on many utility systems
- Unique adapter that converts to an emergency screwdriver
- 8 different key types
- · Solid die-cast construction
- Double-ended screwdriver bit with PH1 and 1 x 7mm Slotted ends
- Adaptor attached to create a pocket screwdriver
- 6 and 8mm square, 9mm triangular and 5mm double-pin type





**841-7005** 70MM X 14MM X 70MM

# **TUBE CUTTER**

- Easy to handle
- Polyacetal body stainless steel blades
- · Precise design
- Ruggedness
- · Simple to use





172-8969 3MM - 15MM

# RETRACTABLE AUTOMATIC **KNIFE STANDARD BLADE**

- · Aluminium-bodied safety knife with automatic blade retraction
- · When cutting, the blade remains outside the body, but when pressure is relaxed the spring loaded blade retracts into the handle
- · Supplied with one blade





615-9164 AUTOMATIC

# **HYDRAULIC PULLER SET**

- · High quality, forged steel provides superior reliability and service
- Precise hydraulic control allows fast, efficient and safe pulling
- Comes in a carrying case
- 8-ton hydraulic power unit
- Portable





**349-7261** 25 PIECE

# **LATCH CLAMP**

- · Large and quick opening
- Galvanized and passivated
- · Rivets made of stainless steel
- Bearings are pre-lubricated





**254-800** 200NM

# **AUTOMATIC WIRE STRIPPER**

- · Precision carbon steel laminated stripping blades
- Compact pistol grip design for increased control and a smooth stripping action
- Adjustable sliding wire stop to preset exact stripping lengths
- · Shielded cutter for safety
- Constructed from high grade polymers and Carbon Steel for durability and long tool life





243-257 197 MM 0.2-6SQ.MM









# **PALLET WRAP**

 Stretch and seal food grade film supplied with re-usable handle



# COIN/BUTTON CELLS, SILVER OXIDE

- Higher the capacity the longer life time
- Non-Rechargeable
- Wide operating temperature range
- Resistant to vibration, shock and acceleration
- Stable and steady performance and feature low internal resistance



# LEAD ACID RECHARGEABLE BATTERY

- 5 years standby design
- Float Standby use
- Low gas emissions 99% plus recombination
- Excellent recovery from deep discharge
- Leak-proof Sealed lead acid (SLA) battery
- ABS resin case to UL94-HB fire resistance (Horizontal Burning Test)
- Road transport to UN2800 (Batteries, Wet, Non-Spillable)
- Air Transport to Special Provision 'A67' 'IATA'
   'ICAO'. (Batteries, Wet, Non-Spillable)





329-5920 100MMX 100M (PACK OF 10)

# TRANSLUCENT SQUEEZE BOTTLE

- Squeeze bottle for use with cleaner, oil, solvent and other liquids
- Capacity of 225 ml
- Translucent colour
- Made from polypropylene (PP)
- Can release single drops or fine streams



PRO

**548-4289** 225ML

# **BLACK SELF AMALGAMATING TAPE**

- Easy unwind
- Extremely flexible
- Resistant to water, ozone and UV
- Excellent low and high temperature performance
- Excellent conformability to awkward shapes
- Breaking load is 20.0N/cm
- Elongation is 600%





146-8998 25MM X 10M



593-423 RS SR44 COIN CELL BATTERY, 1.55V

# **BLACK PVC SEALING STRIP**

- High strength adhesive to keep foam in place during assembly
- Excellent resistance to weather, fungi and oxidation ensures a long seal life
- Closed cell construction gives a positive seal at only 30% compression and requires less material to seal than open cell foams
- Easy peel liner prevents stretching during installation
- Single-Sided Tape
- Various applications, air conditioning, telecommunications, aircraft, marine and automotive industries



PRO

205-0906 25MM X 10M, 10MM THICK

# A4 STAINLESS STEEL PLAIN WASHER - METRIC

- RS PRO washers are an essential part of any fastener assembly, as they serve to incorporate spacing and distribute load when placed between a nut and bolts.
- These washers will help prevent wear and distortion of installation surfaces over time.





**189-664** M8

# A4 STAINLESS STEEL HEX NUTS - METRIC

537-5488 RS SEALED LEAD-ACID BATTERY,12V 7AH

- Ideal for use in chemical processing equipment and marine environments due to its higher resistance to tarnish and corrosion.
- Metric hex nuts
- To DIN934
- A4 grade 18/8 stainless steel (Type 316 S16) – long lasting
- Good resistance to corrosion and saltwater
- Due to the hexagon nut having six sides it makes it easier to work with and is very versatile
- Easy to tighten and loosen





**189-591** M6 **189-585** M5

# COLOPHONY-FREE TIN/ LEAD SOLDER WIRE

- Versatile soldering wire that can be used for a wide range of soldering tasks
- Alloy used consists of 60% tin and 40% lead
- Melting point between 183-188°C
- · Low odour formulation with 1.1% flux content
- Soldering iron typical tip temperature for this solder wire is 320-360°C





**800-7661** 0.7MM

**756-8871** 0.4MM

# **Our Solutions**

# Our solutions support you across the product lifecycle through design, build and maintain.

We can also give you advice on flexible delivery options, cost-saving ways to help you manage your inventory and procurement, through to preventative maintenance and eCommerce solutions.



- We offer easy access to product support resources online or by phone.
- Our Customer Services team can help understand your needs offering product support or directing your enquiry to a qualified engineer.
- Speak to a live chat member on our website for help in finding products or other technical information.
- Or take a look at our technical data sheets which are available at product level. This can help save time, allowing you access to technical information 24/7.

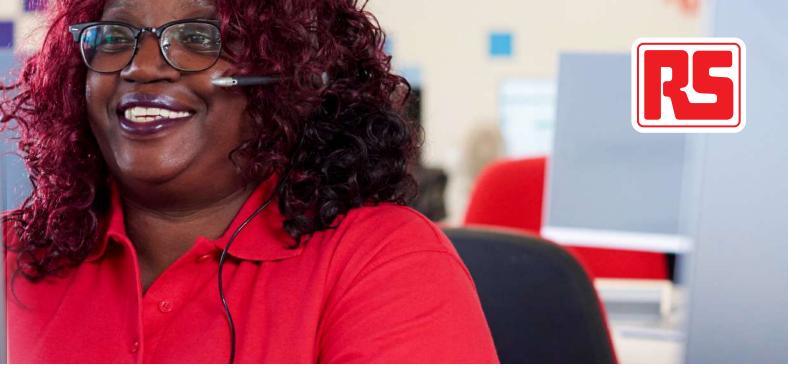




# Delivery and Invoice Options

With a range of flexible delivery and invoicing options all designed to suit you

- Fast and flexible delivery and consolidated delivery, we've a range of flexible delivery options to suit you.
- Stay in control of your spend and reduce your purchase to pay costs with our invoicing and payment services.





# **Solutions** Procurement Solutions

We have different solutions to help you manage your RS orders. From simple web tools to integrated eProcurement solutions.

Our procurement solutions support customers with complex needs to drive vendor consolidation, reduce costs, improve productivity and deliver innovation.

# **Product Plus**

RS Product Plus is an exclusive service for customers looking to consolidate their spend. Our specialist team can support your requirements and help you source products not published on our

Using our expertise and relationships with over 2,500 key manufacturers, we provide access to over a million products. We will also let you know if we find an alternative product offering extract functionallty or value for money benefits.

- Consolidate your vendors: saving time managing multiple suppliers and reducing purchase-to-pay costs
- Leverage your spend: by placing your orders with fewer suppliers
- Save time and speed up sourcing: as there's no need for your teams to search and negotiate with multiple suppliers



# **eCommerce Solutions**

For a more efficient process for your industrial and electronics product procurement, we have a service to fit your business requirements. From web-based and mobile ordering through to integrated procurement solutions.

# **PurchasingManager™**

A free web order management solution that helps you manage your spend, whilst providing visibility of orders placed through the RS website.

# **PunchOut**

Integrated into your own eProcurement system, providing fast and easy access to our full product range and purchase information.

# **eOrdering**

Fast and secure ordering direct from your system to ours. Improves accuracy by eliminating order and invoicing errors.

# elnvoicing

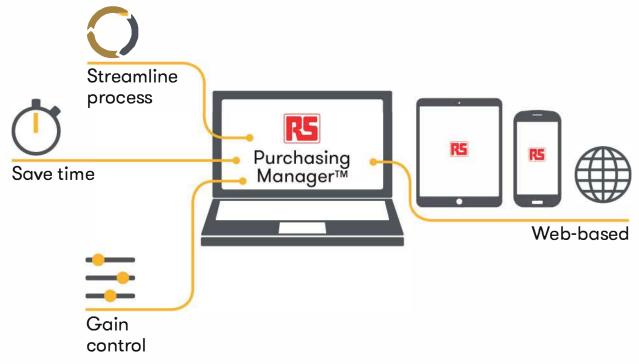
Fast and secure invoicing direct from our system to yours. Eliminates paper, whilst saving you time and money in administration processes.



RS Purchasing Manager®

# Streamline your processes, gain control & reduce costs

Conventional procure-2-pay processes are often ineffective for indirect materials; attracting many hidden costs, creating delays, and using valuable internal resources.



With RS Purchasing Manager®, our web-based order management and procurement system, you can gain control of spend and save time.



**Ease of ordering -** Find what is needed quickly, with simple ordering processes that allow your people to focus on critical activities



**Remote Access -** With many key organisations facing enhanced numbers of remote and field workers, ordering and approval activities need to be easy and flexible



**Visibility & Control -** Managing capital is important – businesses need rapid access to items without compromising balance sheets



**Social Distancing** - To help prevent the spread of Covid-19, updated processes and limiting human interactions are essential

# Cut costs and take control with an RS eCommerce Solution

If multiple people across your organisation are placing large numbers of low-value orders, you have little control over who's ordering what. And you're almost certainly wasting both resources and money. You could also be losing valuable production time if the ordering process only starts when a part or item needs replacing. Delays can occur while the purchasing process lumbers into action – meaning costly downtime. The good news is there's a simple and effective way to cut your company's procurement costs and gain control of your budget spend.

Purchasing action	Average process cost	The difference with an RS eCommerce Solution
Searching for supplier and product	\$21.76	Direct access to our inventory of over 500k products means less time shopping around. You can search directly for the parts you need with our eCommerce Solutions.
Placing the order	<b>\$40.80</b>	Check stock availability, prices and technical data instantly.  No more inaccurate data, time-wasting repetition or needless manual input.
Chasing supplier and receiving delivery	\$25.84	Count on us for on-time deliveries and efficient fulfilment.
Processing invoices	\$42.16	We can support fast and efficient elnvoicing or consolidated monthly summaries, personalised to suit your business.
Paying supplier	<b>\$5.</b> 44	Our elnvoicing capabilities ensure easy invoice reconciliation and quicker payment processing.
<b>9</b>	\$136.00 Total process cost	A simplified procure-to-pay process, saving you money

# Cutting the MRO costs of a confectionary giant

RS has helped a leading confectionery manufacturer achieve significant cost savings in the indirect procurement process through its Purchasing Manager<sup>™</sup> system.

# End inefficient, costly procurement processes

Procurement teams and engineers face a number of challenges when it comes to the maintenance, repair and operation of their organisation's assets and facilities. The supply chain for indirect materials is complex due to the number of stakeholders involved, a fragmented supply base and the sheer number of products split across multiple categories. In addition, there is constant pressure from senior management to reduce costs.

As one of the largest suppliers of industrial supplies, RS is in a unique position to understand the complex needs of its customers and to help these businesses improve their processes and make efficiencies.

The crucial statistic for organisations to understand is that with indirect procurement, process costs can be twice as much as the amount spent on the products themselves. So if your organisation spends \$170,000 on purchasing products over the course of a year, you will spend a further \$340,000 on processing or 'soft costs'.



As such, there is significant value in reducing process costs, rather than focusing purely on the purchase price of individual items.

# The challenge

An example of how RS has been able to help a customer take better control of its process costs is our work with a well-known confectionery manufacturer, a market leader within its category with a turnover in excess of \$170 million.

RS has worked with this company for a number of years, supplying a wide variety of products. This includes electrical and automation products, PPE equipment, tools and test equipment, which are used by maintenance engineers to help keep operations running.

As a large organisation, the confectionary manufacturer had a long-term plan to streamline their purchasing process, which included reviewing all indirect spend. The procurement department was challenged to reduce admin and bureaucracy around the purchasing process so that it would be quicker and require less input from multiple stakeholders across the business.

Typically, the customer was spending significant time locating suppliers who had the products they needed and then comparing quotes; raising POs with a finance team; and arranging for delivery to be achieved in a time that didn't impact the day-day business.

They also felt there was a great deal of duplication and manual entry of information during purchasing. In short, the process was delaying procurement of low-value products, while taking valuable time away from employees' core responsibilities.

# The solution

The first step was to process map the company's current procure-to-pay process. This was led by RS's dedicated team of eCommerce specialists and the customer's key stakeholders then, using a process cost calculator (produced in collaboration with Chartered Institute of Procurement & Supply), it was possible to calculate the time taken for each process step in order to produce the total cost to the company for every order they place.

By doing this, it was identified that each PO raised, took 88 minutes from end to end, costing \$126 per order. For RS alone, they were placing over 200 orders annually, with a similar number of orders being placed with multiple suppliers.

RS found that the simplest way to remove many of the issues (and additional cost) in the process was to introduce PurchasingManager™ to the customer. PurchasingManager™ is a web-based, order management system used alongside the RS website. Buyers can create account structures across their organisation, assign spend controls, cost centres and approval limits to help manage all RS Online purchasing.

The system allows the end user, usually an engineer, to go onto the RS website, choose the product they need, order it and see when the delivery will be made. Behind the scenes a confirmation request is sent to a senior colleague who can quickly approve the cost and the order is processed.

PurchasingManager™ addressed the authorisation process and became the only authorisation required to approve an order from RS. Once an order is approved, it is sent directly to RS without procurement being involved. The confectionery customer was able to use a single monthly blanket order rather than individual POs, meaning that the only PO processing now takes place at the end of the month.



# The existing process was unnecessarily complicated:

- An engineer would choose a basket of goods, raise a paper requisition and send it to their superior for authorisation
- Once this authorisation was granted the requisition was sent to procurement.
   Procurement would then check the price online before raising a purchase order
- The purchase order would need to be signed off by the head of procurement before the PO was emailed to RS for fulfilment
- Once the goods were delivered, a three-way match was needed between the email request, the PO on their system and the individual invoices

# The outcome

The customer now has a simplified workflow with empowered end users, which has significantly reduced processing costs, enabling all functions involved in the indirect purchasing process to focus on value added activities in their respective roles. The customer has moved from an average cost per order of \$126 before PurchasingManager™ was introduced, to \$78 now. The number of orders also increased to 1,089 annually as they consolidated more orders with RS, reducing their supplier base. Based on the new cost per order, this equated to a \$51,836 saving annually compared to their old process.

The entire purchasing process has been greatly speeded up, more employees are ordering from trusted suppliers (rather than using local or online purchases), which improves contract compliance, and parts are being successfully delivered when engineers want them, which means there is far less downtime.

The result is that the customer has gone from an inefficient, costly process with too much duplication of tasks and a lack of clarity to becoming highly efficient with real transparency throughout the purchase-to-pay process.

\$51,836

(3.7 weeks)

Savings per year

Time per year

