



MRO August 2020 Solutions



MRO offers food for thought
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New Product Highlights
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18% OFF
Schneider Electric
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How calibration improves optimization
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Digitising Supply Chains
Page 14

No time for downtime!

Whether you are processing food or packaging beverages, we're by your side keeping factories and production lines running.



th.rs-online.com



[@rscomponents](https://www.instagram.com/rscomponents)



Supporting you every day, we're by your side



We carry more than 600,000 industrial and electronics products from over 2,500 leading suppliers. From the niche specialists to the big global brands, we stock every brand you're likely to have heard of, and many more besides. This includes our own-brand RS PRO, which offers more than 50,000 products.

With fast and easy access to a broad range of products, reliable delivery, expert technical advice and solutions to streamline your processes, we'll help you keep things running smoothly.



Customer Service

Take advantage of our customer support, technical advice & dedicated account managers.



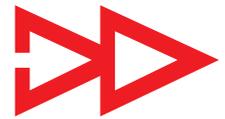
Competitive Quotes

Local team dedicated to quoting you the best price possible for all your orders.



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T: +66 2 648 6868
Email tech.th@rs-components.com



Getting Back to Business

We're by your side to help you get your business back up and running safely.

Businesses have had clear guidance from the government on how to re-configure their workplaces to allow their workforce to continue or return to their jobs in safe, socially distanced manner.

Brands and suppliers need to innovate with speed and agility to meet the meet changing demands from APAC's consumers amid the Covid-19 pandemic, the impact on the industry was unprecedented, both from a supply change and consumer trends perspective.

From our perspective we have seen demand levels from across all sectors starting to increase as we moved through June into July. Many sectors are now starting to show signs of recovery in terms of increased demand for parts and consumable supplies that are so vital to keeping businesses running. Of course, some sectors have stood out such as Food & Beverage manufacturing.

Throughout the crisis we have been proud to have supported thousands of businesses to operate in a new way, quickly adapted our own operation to allow this. So, we know the value of having the right products available, and how we must all transform our businesses to drive efficiency.

In this brochure we highlight products suitable for the food & beverage and associated industries, and a range of solutions to drive efficiency through e-Procurement, managed inventory and more.

Quality and safety is paramount, and the consistently high quality of Australian food production is supported by strict safety standards that are regulated and enforced along the supply chain.

From paddock to port, RS Components supplies the Food & Beverage Industry with innovative products from the leading suppliers backed by reliable world-class delivery.

Regards,

Kanyathorn Pogladd

General Manager
RS Components Thailand



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Published by: RS Components Co., Ltd. 50 GMM Grammy Place, 19th Floor, Unit 1901-1904, Sukhumvit 21 Road (Asoke, Klongtoey Nua, Wattana, Bangkok, Thailand 10110)

RS Components Co., Ltd. August 2020
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MRO Offers Food for Thought



In the competitive world of food and beverage manufacturing, achieving cost efficiencies through better MRO spend could add significant value to a business's bottom line.

Food and beverage is a major industry sector for the Asian economy, in terms of both its financial contribution and employment.

Food and beverage processing is one of the Southeast Asia's largest manufacturing industries. Industry players are diverse in size - from multinationals producing large volume fast-moving consumer goods through to smaller players with flexibility to meet demand for niche gourmet items.

The industry is highly dynamic driven by demanding consumers seeking diversity, quality and value whilst looking for better quality products and healthier or ethical alternatives, but still at a low price. This means there is a constant need to improve to stay competitive but still achieve a profit, which is why cutting costs is high on the agenda of food and beverage companies. This can result in companies pushing their manufacturing equipment harder to cope with growing demand.

The 2019 Indirect Procurement Report, carried out by RS Components and the Chartered Institute of Procurement and Supply (CIPS), found that the three biggest business pressures were reducing operational budgets (62%), reducing inventory costs (42%) and improving asset performance (39%).

However, focusing on the indirect procurement cost of industrial supplies for Maintenance, Repair and Operations (MRO) can help businesses achieve significant savings, if done correctly.

The type of MRO spend in the industry varies widely, from plant components to safety equipment and facilities products. The bottom line though, is that MRO represents a hefty annual spend for most organisations and there are often misunderstandings about the level of spending and the potential savings that can be achieved.

Consolidate suppliers

MRO is a complicated beast and is frequently overlooked as customers spend a disproportionate time on direct spend categories.

The MRO process is about businesses truly realising how inefficiencies can be pushed out in three main areas: working capital, procurement and downtime, all of which is driven by data.

Planning, organising, controlling and optimizing the 'indirect spend' process is valuable to all companies as it increases efficiencies and reduces significant 'hidden' cost of purchase of products, parts and services. As opposed to 'cost cutting' the focus should be in reducing the 'non-value' added costs while maintaining quality, delivery, reliability and high service to streamline MRO spend. The end-result is that the organisations continue to function, as needed without interruption, with increased efficiencies and reduces the actual cost of indirect expenditures. As **many** companies move out of lockdown and get back to business and adjust to the post-COVID way of operating, this will become even more imperative.

But how do you choose the right suppliers? The first step, according to Helen Alder, Head of Knowledge at the Chartered Institute of Procurement and Supply, is to draw up a list of key MRO products that are critical to your business operations.

“The procurement department needs to work with engineers and other end users to draw up this list,” explains Alder. “You then need to find a reliable set of approved suppliers you can trust to have the products you need in stock, at a price you are willing to pay and that can deliver when and where you need it.”

Knowing the industry

In an industry where there are strict regulations to protect consumers, it's also very important to work with suppliers that understand the challenges.

Food and beverage companies naturally must be extremely vigilant around contamination and traceability, whether it's the food products, or the lubricants and greases which help keep production runs operating. As the pressures on improving speed and efficiency increase, there are greater risks regarding health and safety so it's important for companies to work with distributors with a full, traceable supply chain.

Finally, but no less important, is the need to keep operations running as close to 100% as possible. Planned, and especially unplanned, maintenance must have as little effect on operations as possible, which means suppliers must have key parts in stock and be able to deliver them to site quickly.

When it comes to business-critical parts, cost may well be lower down the priority list. The importance of being able to get stock and have it delivered quickly makes it worth potentially paying a higher price for, because any delays in getting a critical part would cost the business much more in the long term.

RS understands the products that are needed day-to-day to keep warehouses running smoothly and safely.

We have invested in additional stock in our Sydney warehouse of our top selling products, ensuring we continue to be able to provide the products you need.

This article was originally published by Connected Thinking.

For more information and articles on Driving MRO procurement efficiency, MRO strategy, savings and efficiencies, visit our online portal:

connectedthinking.com



Welcome to our Product Launchpad

NEW

Whatever your mission, we're constantly launching new products and brands. Keep coming back to see what we've added.

Visit th.rs-online.com/new



PSENcode Coded safety switches

- Transponder technology for presence detection
Pilz coding type: fully coded
Dual-channel operation



PILZ
THE SPIRIT OF SAFETY

1919798	PSEN cs2.1n / PSEN cs2.1 1 Unit	540103
1919805	PSEN cs4.1p / PSEN cs4.1 1unit	541110

Magnetostrictive Sensors

- Exceptionally well-suited for use in hydraulic cylinders for position feedback, for molding and rolling mills, or for elevator and hoisting technology
The sensors are installed in the pressure area of the hydraulic cylinder and have the same pressure resistance as the cylinder itself



1947630	20 Ma	BTL7-E501-M0300-P-S32
1947625	5 mA, 10 V	BTL7-A501-M0300-P-S32

Solenoid Valves

- Operating pressure range: -100kPa to 0.7MPa
Response time ms (at 0.5MPa): 18 or less
Coil rated voltage: 12, 24VDC



SMC

1964568	5 Port	SV1200-5FUD
1964556	3 Port	SYJ522-5LOU-M5-Q

Low Cost Non-Contact Thermometers

- Built-in laser targeting allows for better and more accurate targeting
Temperature range of +32°C to +42.5°C with an accuracy of ±0.3°C
Optimum measurement distance 5 to 15 cm



RS PRO

2010208	DT-8806H Forehead Thermometer
2010210	DT-8806 Forehead Thermometer

STANLEY® FATMAX® Socket Set

- Large, flush quick release button enables the easy removal of sockets
Low profile switch lever prevents the accidental turning of the ratchet and allows for easy, one-handed operation
Bi-material handle for comfort, grip and ultimate



STANLEY

1931823	26 Pieces	FMMT82685-1
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Energizer MAX Alkaline Batteries

- Energizer MAX Alkaline long lasting AA and AAA batteries, that can hold their power for up to 10 years while in storage.



1974301	AAA (Pack of 12)	AAA 8+4 MAX RS
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E3AS-F Series Distance-settable Photoelectric Sensors

- Wide sensing distance of 50 to 1,500 mm, enabling use on any conveyor line width. TOF-type sensors for used with any type of conveyed workpiece. Compact-sized body can be mounted anywhere.



1938353	NPN M8 4-pin	E3AS-F1000IMN M3
1938356	PNP IO-Link M8 4-pin	E3AS-F1000IPT M3

Filter Fans with Fan Flaps

- New air-flap outlet technology for high airflow
- Easy mounting
- Protection type test/Environmental rating by independent testing institutes (VDE and UL)



1947673	1031m³/h	01884.9-01
1947674	624m³/h	01874.0-31
1947675	665m³/h	01874.9-31
1950670	±2%RH (Pack of 5)	SHTC3
1950666	±0.1°C (Pack of 5)	STS35-DIS

Midi TwinLIGHT free-standing Beacons

- Operating temperature is from -30°C to +60°C
- Push-in terminal connection
- Type 12 UL Rating



1974197	115-230Vac Red	26111060
1974214	115-230Vac Blue	26151060
1974274	115-230Vac Green	46121060
1974204	115-230Vac Yellow	26131060

Heat shrink tubing

- Flexible, standard wall polyolefin heat shrink tubing
- Excellent tensile strength and strain relief
- Provides excellent moisture protection



1946394	0.1673611111111111	301-10025
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E-Stop Pushbuttons

- Robust mono-block
- Foolproof and fail-safe design
- Very low back panel depth
- Attractive, modern design



1942038	1NC, illuminated LED	84-5321.2B20
1942039	1NC 1NO, non illumina	84-5330.0020
1942043	2NC, illuminated LED	84-5341.2B20
1942041	1NC 1NO, illuminated	84-5331.2B20

TE Connectivity High Temperature Wire

- Dual wall construction
- Small diameter
- Lightweight



1135872	0.22 mm² CSA, White 100m Reel (Pack of 100)	M81044/12-24-9
1135782	1.3 mm² CSA, White 100m Reel (Pack of 100)	M22759/32-16-9

USB3F TV - Reduced Flange Connectors

- Derived from standard USB3F TV, Reduced Flange USB3F TV is ideal for applications where small dimensions and lower weight are critical
- With USB field, you can insert a standard USB 3.0 cordset into a metallic plug which will protect it from shocks, dust and fluids



1946528	USB3FTV7AGF312
1946529	USB3FTV7AZNF312
1946532	RJFTV67A1GF312
1946530	USB3FTV7ANF312

OsiSense XS Inductive proximity sensor

- Body Style Barrel
- Thread Size M30 x 1.5
- Output Type NC



1951876	1NC 24-240V 2m	XS630B4MBL2
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DT-156H Coating thickness tester

- Measured Coatings: Non-Magnetic Coatings (e.g. paint, Zinc) on steel; Insulating coatings (e.g. paint, anodizing coatings) on non-ferrous metals
- Operating with MENU easily
- Memory for 1500 readings



1924382	+40°C
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Body/Fixing Collar, ZB4-B

- The fixing collar is designed to be used with the Harmony XB4 series of push button switches.

SAVE 18%



3310142 Mounting block for pushbutton switch ZB4BZ009

CT-ERE (On Delay)

- Functions - 111 1 time range per model
- Direct reading scales for fast positive adjustment
- LEDs for status indication
- Operating temperature range: -20°C → +60°C



4429045 CT-ERE SPDT on-delay timer, 0.3-30seconds 1SVR550107R4100

NULL

- RS PRO
- Sensor Tester for Proximity Switch 18 V dc 35 mA



8399875 Hand Held Proximity Switch Tester TM800

Extended Sensing Range

- Twice nominal sensing distance Flush mount
- Fast switching frequency 2 & 3 wire controlled devices LED status display
- Reverse polarity and short circuit protection (dc types only)



4443271 Sensor, Inductive, M12, Sr 4mm, PNP XS612B1PAM12
4443293 Sensor, Inductive, M18, Sr 8mm, PNP XS618B1PAM12

Schneider Electric Harmony XB4 Series Emergency Stop Push Button Switch 22 mm

SAVE 18%

- Easy mountable, using a single installer
- Clip-together component system (head, body, contact blocks).
- Chromium plated metal, durable and easy to recycle
- Shock protection level up to IK06 provided



4258449 E Stop 40mm Trig Act Turn Rel Red 1NO1NC XB4BS8445

Transparent Boots

SAVE 18%

- For use with Harmony Style 5 - Double insulated bezel



3422920 Single transparent boot for pushbutton ZBPO

Schneider Electric Selector Switch Heads Harmony ZB4 Series for use with XB4 Switches

SAVE 18%

- Low-load electrical contact
- Screw clamp connection, pins for printed circuit
- Ingenious locking system

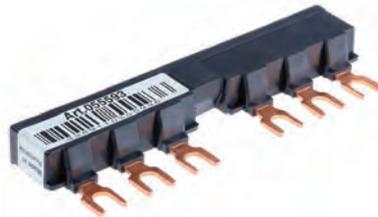


3309041 2 position stayput twist selector switch ZB4BD2

Power Terminal Busbar GV2

SAVE 18%

- For incoming power connections to a GV2 motor circuit breaker



6088214 MINI BUSBAR, GV2G254 GV2G254

Schneider Electric Harmony XB4 Series Flush Push Buttons

SAVE 18%

- Chromium plated metal bezel with a Zamak fixing collar easy to maintain and keep clean.
- Small, compact 22 mm mounting diameter
- 1,000,000 cycles of high-performance mechanical



3308638 Push button Flush Green 1NO Complete XB4BA31

Legend Plates

- Black or red blanks produce white lettering
- White or yellow blanks produce black lettering
- Rectangular legend dimensions: 18 x 27 mm



SAVE 18%

Illuminated Heads for Spring Return Pushbuttons

- Flush type round heads for spring return illuminated pushbuttons
- Can be used with XAL control stations



SAVE 18%

Power Terminal Block GV2

- May be used with GV2 motor circuit breaker and front mounted auxiliary block



SAVE 18%



8827897 60MM EMERGENCY STOP 3D LEGEND PLATE ZBY9320



3422891 Illuminated head for LED PB body, green ZB5AW333



4001984 Power terminal block for busbar GV1G09

Body/Fixing Collar

- Schneider Electric Harmony XB5 Collar for use with XB5 Series



SAVE 18%

Schneider Electric Harmony XB4 Series Push Buttons

- Slow break contact operation as standard. Small, compact 22 mm mounting diameter
- Perfect for panel mounting, especially where space may be restricted.



SAVE 18%

Schneider Electric Harmony XB4/5 Series (ZBV) Light Block

- Lightweight, easy to fit and configure screw clamp terminal connectors. Easily removable and adjustable.



SAVE 18%



6093143 Body Fixing Collar for Electrical Block ZB5AZ009



3308795 Push button Green Clear Booted Head 1NO XB4BP31



6102837 Light block, red, integral LED, 24V ZBVB4

Base Mounting Switch Disconnectors

- Suitable for main 690V nominal voltage
- Ingress protection IP55
- Full compliance with BS/EN 60947-3



SAVE 18%

Schneider Electric Harmony 9001K Series (KA) Contact Block

- Lightweight, easy to fit and configure screw clamp terminal connectors. Easily removable and adjustable.



SAVE 18%

Schneider Electric Selector Switch Heads Harmony ZB4 Series for use with XB4 Switches

- Low-load electrical contact
- Screw clamp connection, pins for printed circuit
- Ingenious locking system
- Flexible and robust



SAVE 18%



2573752 1 NO 1 NC auxiliary attachment contact VZ7



8151676 ZB2 Contact Block 10A 600V NO Slow Break ZB2BE101



3309057 3 position stayput twist selector switch ZB4BD3



AZ16, Standard

- Standard, simple machine guard safety switch
- Housing has 4 entry points - front, rear and 2 at top
- Not sensitive to dirty conditions by virtue of patented roller system



SCHMERSAL

6233234 Standard actuator AZ15/16 AZ 15/16-B1

Klaxon Flashguard Xenon Beacons

- These weatherproof Flashguard beacons from Klaxon have xenon flash tubes and are fitted with a diffuser for greater visibility and spread of light. They have a low profile design and are constructed of high-quality polycarbonate.



klaxon

3095764 Red standard xenon beacon, 12/24Vdc QBS-0052
3095865 Red standard xenon beacon, 230Vac QBS-0017

XCS PA Series, Miniature

- 2 positive opening contacts as standard, on guard opening
- Head rotates in 90° steps giving 8 actuator entry points
- Minimum operating force for positive opening: 15N
- Ingress protection IP67
- 1 x cable entry tapped M16 x 1.5 ISO or PG11



Telemecanique
Sensors

3051966 XCS PA rotating hinge switch, PG11 2NO XCSPA791

Schneider Electric Harmony XALK Series Emergency Stop Push Button Switch

SAVE 18%

- Bright Yellow RAL 7035 & Light Grey RAL 7035 panel base unit for greater visibility and awareness in your working environment.
- Mushroom head push button, red unmarked for clear visibility. Easily resettable with turn-to-release.
- Plug & Play surface



Schneider Electric

6094708 Emergency Stop Station 1NO/1NC Turn Rel XALK178E
6094714 Emergency Stop Station 1NO/2NC Turn Rel XALK178G

Emergency Stop Module, BD5935.48

- Machine emergency stop switches
- Monitoring sliding grill guards SK 4 (with equivalent switching)
- Ultra compact unit (width 45 mm)
- Output: 3 N/Os, 1 N/C 1 or 2-channel configuration
- Line termination detection on the ON button
- Programmable: cross-fault detected



DIS
DOLD

2408692 SWITCH INTERLOCK BD5935 BD5935.48 DC24V

10-Tone High Output Sounder Beacon - Sonora

- 2-stage alarm
- Automatically synchronising
- Reverse polarity diode protection
- Xenon tube 4 gland knockouts in side and back



e2S
sonora

6173558 24Vdc high o/p 10-tone red sndr, red bcn SONFL1XDC024R/R-H
6173609 24Vdc high o/p 10-tone wht sndr, amb bcn SONFL1XDC024W/A-H

Schneider Electric Harmony XB4 Series (ZB4-B) Light Block

SAVE 18%

- Lightweight, easy to fit and configure screw clamp terminal connectors. Easily removable and adjustable. Mechanical durability of 5,000,000 cycles of use.
- Rigorously tested by Schneider to ensure the highest quality product reaches you. Schneider



Schneider Electric

3310158 IP20 1NO contact body ZB4 ZB4BZ101
3422784 IP20 2 NC contact body ZB4 ZB4BZ104
3310186 IP20 2NO contact body, ZB4 ZB4BZ103

IDEM HYGIEMAG SMR Non Contact Safety Switches

- Hygiemag SMR Magnetic Safety Switch, 316 Stainless Steel, 250 V ac



IDEM
SAFETY SWITCHES

8264296 SMR Non Contact Switch, 2m 2NC 1NO 139013

BNS 260, Miniature Coded

- Smallest design
- Actuation only possible with BPS260, available separately
- Left-hand or right-hand side versions for door-mounting
- Control category up to 4 to EN954-1 IP67 protection
- Connector 8 mm, 6-pole, latching interlocking
- Dimensions: L13 x W26 x H3



SCHMERSAL

6175374 Standard magnetic actuator BPS260-1 BPS 260-1

PSENmag Non Contact Switches, Square

- The PSENmag Non-contact Switch meets the highest safety requirements offers a complete solution that is safe and economical.
- It is approved up to PL e of EN ISO 13849-1, SIL 3 of EN/IEC 62061 and Category 4 of EN 954-1.



PILZ
THE SPIRIT OF SAFETY

6192818 Non-cont square safety sw.,8mm sw/dist 504220

AZ16, Standard

- Standard, simple machine guard safety switch
- Housing has 4 entry points - front, rear and 2 at top
- Not sensitive to dirty conditions by virtue of patented roller system
- Multiple coding IP67 protection



SCHMERSAL

6233054 IP67 safety switch M20 30N 1NO/2NC AZ16-12ZVRK-M20

6232988 IP67 safety switch M20 30N 1NO/1NC AZ16ZVRK-M20

Schneider Electric Harmony ZB4-B Series Emergency Stop Push Button Switch

SAVE 18%

- 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 elect



Schneider Electric

3309388 Twist to release emergency stop switch ZB4BS844

PSR Safety Relay with Time Delay

- Two-channel control
- Up to SIL 3 according to IEC 61508
- PL e (according to ISO 13849-1)
- Manually monitored and automatic activation
- Input voltage 24 V dc
- Adjustable and fixed release delay time versions available
- Cage clamp or screw terminal



PHENIX CONTACT

6667053 PSR-SCP-24DC/ESD/5X1/1X2/300 2981428

SICK RE1 & RE2 Series of Non-Contact Safety Switches

- Response range from 7-9 mm.
- Magnetic sensor principle.
- Built-in LED response indicator.
- Performance level up to PL e / Cat. 4 (EN ISO 13849).
- Glass-fibre reinforced PPS rectangular housing.
- High tolerances for door misalignment.
- 2-3 contacts



SICK

7974872 RE2 magnetic switch, sn 9mm, 5m cable RE27-SA05L

AZ15, Standard

- Not sensitive to dirty conditions by virtue of patented roller system IP67 protection



SCHMERSAL

6250374 IP67 safety interlock sw M20 30N 1 N/C20 AZ15ZVRK-M20

XCS-DMC/XCS-DMP Coded Magnetic Switches, Rectangular

- Preventa XCS-DMP Magnetic Safety Switch.
- Plastic
- 24 V dc



Telemecanique Sensors

4225095 Contactless std magnetic switch,2NC 1NO XCSDMP7002

Schneider Electric Harmony XALK Series Emergency Stop Push Button

SAVE 18%

- 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 Polycarbonat



Schneider Electric

7951295 Emergency Stop Station 1NC Turn Release XALK178

Schneider Electric Harmony XB5 Series Emergency Stop Push Buttons

SAVE 18%

- An instantaneous disconnect of your circuit upon alarm & activation of this emergency stop control unit
- Modular system, nearly all shapes and functions are compatible with each other

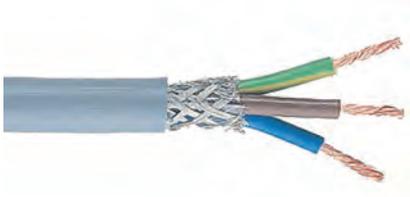


Schneider Electric

4262808 E Stop 40mm Trig Action Turn Release Red ZB5AS844

Control Cable CY Type

- CY Cables are screened flexible cables used as interconnecting cables for control, regulation and measurement in control equipment.



363395 Grey 3core CY control cable, 2.5sq.mm 50m **CYSE03.0050**

ABL Sursum Panel Mount British Standard Socket IP54

- Material PVC Screwed terminal connection type
Child safety protection
Cover lid IP54 rated



8245646 BS1363 panel mount socket IP54 black **BS13630**

RS Pro Tri Rated Cable

- From RS Pro a high quality Tri Rated cable with a 1 m length and colour coding recognised Under the European Harmonised designation (HAR) codes H05V2-K and H07V2-K



8111442 Black tri-rated cable 4.0mm 100m **6A-4.0TRI-BK-100R**

RS PRO BASEC Approved H03VV-F Harmonised Flexible PVC Insulated Mains Cable

- From RS PRO a high-quality BASEC approved light duty harmonised H03VVH2-F flexible mains power cable with PVC insulation and a PVC jacket. This mains cable has a voltage rating of 300 V and is designed for use indoors for wiring in mobile and lightweight household and office applications



491879 0.75mm 2183Y Black Cable **1-2183Y0.75-BK-50R**

Alpha Wire Pro-Tekt European Cable System

- Stranded conductors for increased flexibility;
Operating temperature range: -30°C to +105°C; UV and oil resistant PVC sheath and insulation;
Choice of shielding options;
Nylon ripcord;
Choice of shielding options;
Colour coded tinned copper conductors; Good abra



7404516 ProTekt 300V Unshielded 24AWG 10 Core **B953101 GE321**

RS PRO Lockout Starter Kit

- Portable kit
Basic lockout for valves and electrical panels
24 products



8625247 Lockout Starter Kit **LOTO STARTER KIT**

RS PRO YY Cables

- The YY control cables from RS PRO are number coded, reliable connecting electrical cables which combine the characteristics of a flexible mains cable, coupled with saving space due to the small cable diameters suitable for fixed installations.



8274293 YY 7 core 0.5mm control cable 50m **1119007**

RS Pro Unscreened Multicore Cable - Core Strands 7/0.2 mm

- 7/0.2 mm core strands
High performing copper conductor
0.22 mm² CSA
Black PVC sheath
High performance multicore



6604030 3 core unscreened cable, 7x0.2mm 25m **32051774**

RNF 100 Mixed Heat Shrink Kit

- High quality heat shrink tubing
450 pieces in the kit
Supplied in a storage box
Shrink ratio of 2:1
Supplied in a wide range of diameters in 7 colours and various lengths
Excellent physical, chemical and electrical properties
Excellent abras



1132596 RNF100 mixed heatshrink kit **RNF 100 KIT**

Overall Shielded Multi-core Cable

- Features and Benefits
Overall Beldfoil® screen
Grey PVC overall sheath
Voltage rating: 300 V



382447 Grey 5 core overall shielded cable, 304m 9535.00U305

RS Pro Unscreened Multicore Cable - Core Strands 7/0.2 mm

- 7/0.2 mm core strands
High performing copper conductor
0.22 mm² CSA
Black PVC sheath
High performance multicore



6604021 2 core unscreened cable, 7x0.2mm 100m RS-160
6600439 4 core screened cable, 7x0.2mm 100m RS-119

RS Intruder Alarm/Signal Cable

- 7 strands Grade 1 tinned annealed copper conductors
PVC insulated Lead and tin free
White PVC sheath
Easy to strip
Flexible 100 and 500m lengths



8200185 White 4 core signal cable, 7/0.2mm 100m VSC-4W

TE Connectivity SUPERSEAL Series 1.5 Single Wire Seals

- SUPERSEAL Series 1.5 single wire seals made from silicon rubber. These single wire seals are crimped simultaneously with the contacts.



3141154 Superseal 1.5 yellow wire seal, 1.8-2.4mm 281934-2
3141160 Superseal 1.5 red wire seal, 2.6-3.3mm 281934-3

RS Pro Unscreened Multicore Cable - Core Strands 7/0.2 mm

- 7/0.2 mm core strands
High performing copper conductor
0.22 mm² CSA
Black PVC sheath
High performance multicore



6604046 4 core unscreened cable, 7x0.2mm 100m RS-167

TE Connectivity SUPERSEAL Series 1.5 Tab and Receptacle Contacts

- From TE Connectivity, this range of tab and receptacle style crimp contacts are for use with the SUPERSEAL series of automotive wire connectors. The crimp contacts in this range are constructed from tin plated brass for the tabs and tin plated phosphor bronze for the receptacles.



3141334 Superseal 1.5 socket crimp contact 183035-1

TE Connectivity 1.5 Superseal Series, Connector Housings - AMP Superseal 1.5

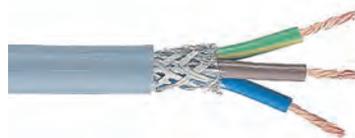
- Comprised of black 6.6 glass filled polyamide
1 - 6 positions
Plug housings for receptacle contacts, cap housings and tab contact variants
Pre-assembled secondary lock
Silicon rubber seals
Panel or cable mount
Temperature range of the 1.5 mm pitch superseal series is of -40 to +125°C



3141255 Superseal 1.5 2 way cap housing black 282104-1

Control Cable CY Type

- CY Cables are screened flexible cables used as interconnecting cables for control, regulation and measurement in control equipment.



363367 Gry 3core CY control cable, 0.75sq.mm 50m CYSB03.0050

Unshielded Audio, Control & Instrumentation Cable

- Features and Benefits
Unshielded
Stranded conductors
Conductors coloured:
Black, white, red and green



823055 AZ16, Standard 8444 060500

The power of digitising supply chains in the region

By Syed Suroor Anwar



The Asian retail market is beginning to see light again with the gradual reopening of the supply chain trade. Along with the recent commitment by APEC member economies to strengthen supply chains and promote the digital economy to fast-track recovery from the economic crisis, businesses need to adopt technology to reduce uncertainties and protect their employees and customers in the process.

We are also entering a new era of supply chain management where digitisation is no longer a luxury but a necessity. Businesses across the region are looking to pursue the digitisation of their supply chains effectively whilst remaining cost-efficient. Focussing particularly on the area of logistics and distribution, this piece will look at how the digitising of supply chains can aid overall economic recovery in the region, and how companies can benefit from e-solutions to manage supply chains better going forward.

Digitising logistics with AI technology

We've seen how Industry 4.0 has impacted the area of logistics. Machine learning (ML) and automation has shifted the demand for specific skills sets, bringing unprecedented change to the logistics sector. As the pandemic continues to loom over our heads and put a strain on businesses, more procurement specialists and engineers are turning to artificial intelligence (AI) and automation to improve their supply chain processes.

From data tracking, detection of anomalies, to making predictions, AI and ML has transformed the logistics industry in many ways. Interactive chatbots have become commonplace, replacing roles traditionally held by humans. These capabilities lower operational costs and help streamline supply chain processes with a more uniformed approach. The capabilities of AI to make data-backed predictions for the future also improves efficiency for the logistics business.

On the retail front, mobile technology has taken centre stage particularly amidst the Covid-19 pandemic due to hygiene factors. A survey by SOTI reveals that shoppers prefer to shop independently, with 66 percent of consumers choosing self-service technology over a salesperson. As shoppers go digital, retailers can track and trace every product on the shelf, making sure that they remain stocked 24/7. Doing so eliminates the problem of over or under supply which can be particularly helpful for smaller businesses and SMEs, who are often most affected by resource wastages.

But in order to expand and shrink according to market demands, businesses will require a more flexible, or elastic logistics pipeline. This can be done with the help of AI to schedule, maximise container utilisation, and ensure route optimisation.

Web-based procurement and purchasing solutions can also be integrated into company systems, allowing businesses to reap the benefits such as complete visibility and control over supply chain management, in turn allowing faster time to market for their products and reducing costs.

Creating an ecosystem for distribution

As the logistics sector relies on AI technology to streamline its operations, distribution lines will also need to be equipped with real-time inventory management tools. This is where blockchain technology can help, along with the adoption of the Internet of Things (IoT). The transparency of blockchain technology provides an end-to-end visibility of the supply chain. It also allows different components of a supply chain to be integrated into a single platform, from freight forwarders to billing. Having everything on one platform reduces any hiccups along the way and allows distributors to quickly identify issues when they happen.

The adoption of IoT can also help businesses optimise their assets. With sensors that provide live tracking updates on shipping and delivery, companies will have better control of inventory, leading to more efficient distribution solutions backed by data.

The idea of adopting blockchain and IoT can sound like a lofty one, but smaller organisations should not discount themselves from the picture. Regardless of size, the digitisation of distribution channels is relevant to all businesses. For example, a weak distribution strategy, even for a fantastic product, will delay time to market and this can be catastrophic especially if an SME is trying to compete with bigger firms targeting the same audience. If smaller organisations leave it only to the big players, they will quickly be left behind.

Digitising supply chains is likely the solution to aid overall economic recovery in the region, but it will need to be a collective effort. It requires buy-in from big and small players, so that they can all fit into one ecosystem, streamlining processes. It is only a matter of time before digitising the supply chain becomes a requirement; after all, consumers are already headed in that direction.

The views expressed in this column are the author's own and do not necessarily reflect this publication's view, and this article is not edited by Retail Asia. The author was not remunerated for this article.

Syed Suroor Anwar Vice President-Strategy and Commercial for Asia Pacific - RS Components

Syed Suroor Anwar has vast international experiences in Asia, Europe and North America with key

e-commerce and technology companies. As Vice President of Strategy and Commercial for APAC, Suroor is responsible to formulate the Go-to-market Strategy for RS APAC and

implement that through managing the overall product and supplier offer on the website and sales enablement through digital marketing, sales effectiveness and customer experience.



Article from
retail asia



Series 1 Contacts

- For 1.5 - 2.5mm² contacts use crimp tool stock no. 459-6252 and die set stock no. 452-6679
- For all other contacts use tool stock no. 849-114 and die set stock no. 372-440



238123	Series 1 tin plated skt contact,18-16awg	1-66101-9
238094	Series 1 tin plated pin contact,24-20awg	1-66103-8
238117	Series 1 tin plated skt contact,24-20awg	1-66105-9

TE Connectivity Mini Universal MATE-N-LOK Contacts & Crimp Tooling

- A range of various TE Connectivity Mini Universal MATE-N-LOK Contacts & Crimp Tooling.



3020445	Mate-N-Lok socket contact,22-18awg	170366-1
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TE Connectivity Universal MATE-N-LOK Connector Housings

- 6.35 mm pitch
- Free hanging or panel mount receptacle style connector
- Nylon housing material
- UL94V-0, UL94V-2 flammability rating
- Snap-lock latches to ensure a quick release
- Polarisation to ensure accurate mating
- Robust and reliable



1151761	2 way white receptacle housing	350778-1
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Splices

- Red 0.25 - 1.6 mm²
- Blue 1.0 - 2.6 mm²
- Yellow 2.7 - 6.6 mm²



533667	Blue sealed splice terminal,1-2.5sq. mm	DS-14-16-RS
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TE Connectivity Tubular End Sleeves / Bootlace Ferrules

- A range of tubular end sleeves or bootlace ferrules



7187353	Ferrule 26AWG Grey 0.12-0.15mm ²	966066-5
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TE Connectivity HDP-20 Crimp Contacts

- Compatible Tools:
Crimp Tool - 446-816
Insertion/Extraction Tool - 446-822



446800	AMPLIMITE HDP-20 socket crimp contact	1-66504-0
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TE Connectivity FASTON 250 Stud Mount Tab Terminals

- FASTON 250 stud mount tab terminals designed specifically for quick connections with FASTON 250 series receptacles. When used with correct tooling these FASTON 250 stud mount tab terminals can be applied speedily to conductors.



1611904	Tab terminal, stud mount,FASTON 250, 45°	140814-1
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TE Connectivity Uninsulated Signal Contacts - Multimate VI Series

- These Multimate VI Series uninsulated signal crimp contacts have a stainless steel spring and tin plated brass bodies.



7455454	Contact Pin Crimp 24-20AWG Multimate	66593-1
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TE Connectivity Mini Universal MATE-N-LOK Contacts & Crimp Tooling

- A range of various TE Connectivity Mini Universal MATE-N-LOK Contacts & Crimp Tooling.



2742223	Mate-N-Lok pin contact,26-22awg	170363-1
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TE Connectivity PLASTI-GRIP Ring Tongue Wire Crimp Terminals

- Red 0.25 - 1.6 mm²
- Blue 1.0 - 2.6 mm²
- Yellow 2.7 - 6.6 mm²



842040 Ring terminal, PLASTI-GRIP, blue, M5 130102

TE Connectivity FASTON 187 Series Quick Disconnect Stud Mount Tab Terminals

- A range of FASTON 187 series quick disconnect single connection stud mount tab terminals made from tin plated brass. These FASTON 187 series stud mount tab terminals are available with a 90° or 45° mount angle and have a 3.30mm stud diameter and 0.51mm stock thickness.



7187955 Tab terminal, stud mount, FASTON 187, 90° 170001-2

7187882 Tab terminal, stud mount, FASTON 250, 90° 41480

RNF-100 Heat-Shrink Tubing 2:1 (1.2m lengths)

- The RNF-100 Series of heat shrink tubing has specifically been designed to be used in challenging and demanding environments.



1706585 Clear heatshrink tubing, 2.4mm bore RNF-100-3/32-X-STK

TE Connectivity AMPMODU Mod IV Contacts

- A range of TE Connectivity AMPMODU Mod IV Contacts.



7194284 AMP Modu IV contact, rcp, 0.12-0.40mm² 87756-6

TE Connectivity Commercial MATE-N-LOK Free Hanging Socket (Plug) Housings

- Commercial MATE-N-LOK free hanging socket (plug) housings with a 5.08mm centreline that accept crimp socket contacts (see stock number 710-0554 typically).



520321 2w Socket housing free hanging 1-480318-0

TE Connectivity SUPERSEAL Series 1.5 Tab and Receptacle Contacts

- From TE Connectivity, this range of tab and receptacle style crimp contacts are for use with the SUPERSEAL series of automotive wire connectors. The SUPERSEAL crimp contacts utilise a 2-step positive lock when the contact is inserted into housing, and can maintain an IP67



3141340 Supersel 1.5 crimp contact 20-16A 183025-1

Heatshrink Pre-Printed Cable Markers

- Irradiated polyolefin heat-shrinkable cable markers which shrink to 33% of their supplied diameter when heated above 120°C. The legends are printed in black against a white background, thus giving clear identification even under poor lighting conditions.



392387 Heatshrink cable marker ' 1', 3mm i/d TRSA-1019/C/1/1

Cable Clamps Series 1& 2

- Designed for use with TE Connectivity's CPC (Circular Plastic Connectors) range, these cable clamp shells offer housing for a robust and reliable connection system.



411444 CPC cable clamp, Shell size 23A 182652-1

Series 1 Contacts

- For 1.5 - 2.5mm² contacts use crimp tool stock no. 459-6252 and die set stock no. 452-6679
- For all other contacts use tool stock no. 849-114 and die set stock no. 372-440



372399 Series1 gold plated pin contact, 18-16awg 66099-4

TE Connectivity Universal MATE-N-LOK Contacts

- For MATE-N-LOK Plug Housings see stock number 680-0890
- For MATE-N-LOK Receptacle Housings see stock number 115-1761
- Positive crimp & poke assembly
- For tooling see stock no. 849-114



849079 Mate-N-Lok pin contact, 24-18awg 926896-1

Mate-N-Lok Contacts for Sealed Connectors

- The male contact comes in two versions: the rigid version is used with 2 to 4 way packages
- split version is recommended for 6 to 15 way packages, to reduce the connector insertion force
- Blanking pins are provided to block off holes not containing contacts



3664376 Mate-N-Lok rigid male contact 350547-1

Heatshrink Pre-Printed Cable Markers

- Irradiated polyolefin heat-shrinkable cable markers which shrink to 33% of their supplied diameter when heated above 120°C.
- The legends are printed in black against a white background, thus giving clear identification even under poor lighting conditions.



392416 Heatshrink cable marker '4', 3mm i/d TRSA-1019/C/1/4

TE Connectivity Mini Universal MATE-N-LOK Contacts & Crimp Tooling

- A range of various TE Connectivity Mini Universal MATE-N-LOK Contacts & Crimp Tooling.



6805040 Contact, crimp, pin, Mate-n-lok, 26-22awg 170359-1

Heatshrink Pre-Printed Cable Markers

- Irradiated polyolefin heat-shrinkable cable markers which shrink to 33% of their supplied diameter when heated above 120°C.
- The legends are printed in black against a white background, thus giving clear identification even under poor lighting conditions.
- The cable markers are highly flame-retardant to ASTM B876 (burn time more than 5 seconds).



392422 Heatshrink cable marker '5', 3mm i/d TRSA-1019/C/1/5

TE Connectivity PLASTI-GRIP Ring Tongue Wire Crimp Terminals

- Red 0.25 - 1.6 mm²
- Blue 1.0 - 2.6 mm²
- Yellow 2.7 - 6.6 mm²



841974 Ring terminal, PLASTI-GRIP, red, M3.5 34142

Heatshrink Pre-Printed Cable Markers

- Irradiated polyolefin heat-shrinkable cable markers which shrink to 33% of their supplied diameter when heated above 120°C.
- The legends are printed in black against a white background, thus giving clear identification even under poor lighting conditions.



392438 Heatshrink cable marker '6', 3mm

TE Connectivity Universal MATE-N-LOK Contacts

- For MATE-N-LOK Plug Housings see stock number 680-0890
- For MATE-N-LOK Receptacle Housings see stock number 115-1761
- Positive crimp & poke assembly
- For tooling see stock no. 849-114



849091 Mate-N-Lok socket contact, 24-18awg 926895-1

MULTILOCK 040 & 070 Contacts & Tooling

- Current rating - BA
- Withstand voltage: 1kVac per 1 minute
- Low level resistance: 10 mΩ max [initial]
- Overall resistance: 20 mΩ max [final]
- Operating temperature: -30 - 105 °C
- Crimp terminating contacts
- Snap-in fixing connector cavities



3628869 Multilock 040 socket, 24-20 awg 175062-1



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Easy solution WAIT / ENTER Signalisation

Schneider Electric

Harmony XB5R Push Button

- These push buttons are a great asset to any control panel or safety board used to control certain e-stop functions or similar functions within several types of environments.
- Wireless and batteryless package, containing a push-button, set of caps and receiver.
- Flexible due to its mobility, giving greater control to operators. Can be used to remotely control machines up to 25 m away.

SAVE 18%



Schneider Electric

7398076
7398070

Harmony XVU Beacon

- These push buttons are a great asset to any control panel or safety board used to control certain e-stop functions or similar functions within several types of environments.
- Wireless and batteryless package, containing a push-button, set of caps and receiver.
- Flexible due to its mobility, giving greater control to operators.

SAVE 18%



Schneider Electric

8812790
8812801
8812791 LED, Steady Light Effect, 24

Harmony XVU Terminal unit

- Free of charge configuration software enables the audible signal to be customised via an SD card
- The sounder module plays voice message when customer inputs PLC signals
- Adjustable volume range up to 86dB at 1m
- Multi-colour LED module with a choice of six colours and four light patterns

SAVE 18%



Schneider Electric

8812845
8812832 LED, Steady Light Effect, 24

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XPE Plastic Foot Switches



8151755

Industrial Duty Foot Switch



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XPE Plastic Foot Switches



1238173

Industrial Duty Foot Switch



5375264
5375270
5375286

FOOT SWITCHES

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Easy Clean Push-Button & Touch Screen

Harmony Push-Button XB5 Range

- Magelis operator dialogue terminals communicate with automation system equipment via a serial link or by means of integration into an Ethernet TCP/IP architecture
- The interface and structure have been created and designed with customers best interest in mind, they offer high-performance visualisation applications at machine-level

**SAVE
18%**



7951312
3310221
6092998 HMI 3.5 in TFT 320 x 240pixels

HMISCU Series Magelis SCU Touch Screen

- Magelis SCU HMI Controller, 5.7" (HMISCU8A5)
- Controller Software SoMachine V4.1 DVD + License (SOMNACS41)
- Power Supply Phase0 24V (ABL8MEM24012)
- USB PC/Terminal Cable (BMXXCAUSBH018)

**SAVE
18%**



8874755 HMI Starter Kit 5.7 in TFT 320 x 240pixels

Magelis GTO Touch Screen

- Magelis operator dialogue terminals communicate with automation system equipment via a serial link or by means of integration into an Ethernet TCP/IP architecture
- The interface and structure have been created and designed with customers best interest in mind, they offer high-performance visualisation applications at machine-level

**SAVE
18%**



7815900 HMI 12.1 in TFT 800 x 600pixels

HMISCU Series Magelis SCU Touch Screen

- Each touch screen HMI display has an LED backlight which enables energy saving
- Magelis series feature terminals that have an integrated RS 232 or RS 422/485 asynchronous serial link on-board

**SAVE
18%**



7815890 HMI 10.4 in TFT 640 x 480pixels

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RS Pro Nylon Air Hose

- Flexible, lightweight and durable over a wide temperature range
Mirror smooth inner for improved flow
Manufactured from heat and light stabilised Type 12 Nylon to precise tolerances
Resistant to a wide range of chemicals
High resistance to moisture absorption



4834958 Blk std nylon tube,6mm OD/4mm ID 30m L CT004-001-NY-BK-02

Basic 2 Plate Adjustable Friction Clutches with Set Screw & Clamp Fixings

- Friction clutches from Huco Vari-Tork designed with adjustable drag or slip torque.
Controlled slip takes place between the hub and housing whenever the load exceeds the set torque.



748601 2mm plate, adj friction clutch,53Ncm 271.25.28

RS Pro Nylon Air Hose

- Highly flexible, cut and abrasion resistant
Silicone free
Ideal for pneumatic control and chemical transfer lines
Temperature range -50 to +55°C
Low gas permeability



7747012 Polyurethane tube,Black 4mm ID , 6mm OD US98A6040-30M-BLACK

Twin Tube Polyurethane

- Ideal for differentiation of circuits via two colours (black and blue)
Allows complex pneumatic circuits to be contained within a smaller space



4928637 Blu/blk polyurethane 2 tube,4ODx2.5IDmm 1420U04 41

Tubing Cap KQ2C

- The special profile design of the seal provides positive sealing under pressure without reduced flow
Release button allows tube to be removed easily without damage
Maximum operating pressure 10 bar
Maximum vacuum operating pressure -100kPa
Proof pressure



9075930 Tube Cap, One-Touch Fitting, 8mm KQ2C08-00A

Torque Discs

- One complete coupling comprises two aluminium hubs and a "spider" torque disc (to order separately)
Use 85 Shore
A spider to give the best damping characteristics and 98 Shore
A spider for the best torsional rigidity
Snap-fit spider ensures zero backlash



4231911 Torque disk,3.3Nm 25mm hub 92 shore JD16/25-92Y

RS Pro Nylon Air Hose

- Highly flexible, cut and abrasion resistant
Silicone free
Ideal for pneumatic control and chemical transfer lines
Temperature range -50 to +55°C
Low gas permeability



7747043 Polyurethane tube,Blue 5mm ID, 8mm OD US98A8050-30M-BLUE

RS Pro Nylon Air Hose

- Flexible, lightweight and durable over a wide temperature range
Mirror smooth inner for improved flow
Manufactured from heat and light stabilised Type 12 Nylon to precise tolerances
Resistant to a wide range of chemicals
High resistance



4834970 Blu std nylon tube,6mm OD/4mm ID 30m L CT004-001-NY-BL-02
4835030 Blu std nylon tube,8mm OD/5.5mm ID 30m L CT018-001-NY-BL-01

Straight Union KQ2H

- Tube-to-tube fitting the special profile design of the seal provides positive sealing under pressure without reduced flow
Release button allows tube to be removed easily without damage
Maximum operating pressure 10 bar
Maximum vacuum operating pressure -10



7715046 Straight Union 4mm KQ2H04-00A

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**Compact,
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VZQA: Pneumatically controlled 2/2-way pinch valve in NC and NO versions.

Versatile application areas, especially for filling and dosing applications. The elastomer closing element is perfect for all types of powder, fine granulate or any other abrasive media. The compact design allows installations in small spaces. Very easy to maintain or to exchange the sealing cartridge. Also for hygienic applications suitable for FDA approval.

Diameter: DN 6...25mm

Temperature: -5...150° C

Media pressure: 1...6 bar

Flow (k_v): 0.7...18m³/h

www.festo.com

RS Pro 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



558802 Single ended cotton buds,150mm L 200/box **558802**

Foam-tipped Buds

- Rigid 150mm long plastic stick with a foam bud attached, which is suitable for use in awkward corners and difficult to reach parts of computer hardware.
- The absorbent foam material ensures thorough cleaning of surface.
- RoHS compliant



494562 Plastic foam tipped buds,150mm L 25/box **494562**

Hepa-Flo Replacement Filter Bags

- Genuine Numatic Hepa-Flo replacement dust bags for a wide range of Numatic machines.
- Designed to fit Henry, Henry eco, Henry HVR200-22, Hetty, Hetty eco, James, Basil, Henry Extra, Henry Turbo and Henry Hound.
- Supplied in packs of ten.



7388776 Hepa/Fil Vac Bags x 10 for HVR200 **604015**

Kimtech Science Delicate Task Wipes

- Effective cleaning of equipment, materials and working environments is important to ensure the accuracy, stability and longevity of your lab.
- Kimtech Science provides wipes for delicate tasks, designed to maintain cleanliness in your laboratory or working environment.



1223088 Science Delicate Wipes - box of 200

7558

Refuse Sacks

- Plastic disposal bag
- High tensile strength 40 mu Tri-ex blend film
- Box of 50



7716569 Yellow refuse sack 200 gauge

34-2016

Kimtech Science Delicate Task Wipes

- Effective cleaning of equipment, materials and working environments is important to ensure the accuracy, stability and longevity of your lab.
- Kimtech Science provides wipes for delicate tasks, designed to maintain cleanliness in your laboratory or working environment.



1223087 Science Delicate Task Wipes - box of 100

7557

Wooden Angled Brushes

- Standard brushes: bristle length 35mm, bristle width 9mm, bristle trim length 15mm, handle length 185mm
- Large brushes: bristle length 53mm, bristle width 12mm, bristle trim length 15mm
- Staple set bristles



1345715 Wooden angled brush with brass bristle

IW00053

edding 750 paint marker

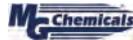
- The edding 750 paint marker specialises on writing on any surface, regardless if it's smooth, rough or sparkling clean. It is especially ideal for labelling on glass, plastic, wood and metal, making it the ultimate versatile marker for DIY enthusiasts.



806189 Yel medium tipped pen, 2.4mm stroke width 750-005

MG Chemicals 8481 Carbon Conductive Greases

- Improves electrical connections between irregular or pitted surfaces;
- Ensures electrical contact between loose or vibrating parts;
- Prevents arching, pitting, hotspots, and welds;
- Strong corrosion resistance, withstands over 300 hours of salt fog expo



1247686 MG Premium Carbon conductive grease 85ml 8481-1

THK - Grease

- A range of greases manufactured by THK to meet the needs of linear motion systems.



8100240 THK AFB-LF+70 General Purpose Grease AFB-LF+70

edding 751 Gloss Paint Marker

- Stroke width: 1 - 2 mm
- Nib: bullet nib
- Available in 14 different colours
- Activate: shake the pen firmly with the cap closed.
- Open and place the nib on a piece of scrap paper and carefully pump it up and down
- Ink: water-based pigment ink



806145 White fine tipped pen, 1.2mm stroke width 751-049

Multipurpose Grease

- Maintains low contact resistance on all types of wiping, sliding and non-arcng electrical contacts, including low power make-and-break switches
- First-class mechanical lubricant for bearings, small gears, pivots and slides, but not meter and watch bearing



556446 Non melting multipurpose grease, 50ml 556446

edding 780 Gloss Paint Marker

- Stroke width: 0.8 mm
- For glass, metal and plastic
- Activate: shake the pen firmly with the cap closed.
- Open and place the nib on a piece of scrap paper and carefully pump it up and down
- Ink: low-odour pigment ink



1955642 Black extra fine tipped pen, 0.8mm width 780-001

edding 780 Gloss Paint Marker

- Stroke width: 0.8 mm For glass, metal and plastic
- Activate: shake the pen firmly with the cap closed.
- Open and place the nib on a piece of scrap paper and carefully pump it up and down
- Ink: low-odour pigment ink



1955658 White extra fine tipped pen, 0.8mm width 780-049

Superlube®

- Multi-purpose synthetic lubricant with PTFE
- Reduces friction and wear with the added lubricity of PTFE
- Prevents rust and corrosion
- Withstands temperatures of -23°C to 176°C continuous
- Safe on metal, rubber, plastic, wood, leather, fabric & painted surface



3303986 Super Lube 400gm grease, cartridge 399421

Polyamide Pertex mini roller

- Polyamide Pertex mini roller



2076481 Polyamide Pertex mini roller 1034C



Prepare Your Workplace and Protect Your Staff

With more people heading back to work RS Components understands how fundamental it is to ensure a comfortable and safe work environment for people.

That's why we've introduced **RS PRO Protective Measures kits and bundles.**

These product solutions are designed to protect and support employees returning to work in production facilities and commercial premises as the COVID-19 restrictions start to ease. From solutions to provide each employee with hygiene and safety products, to facility cleaning products, from safe distancing essentials to temperature measurement, we've got the right products for your business.



Safety Signage

Our new range of safety signs are designed to help promote a safe work environment, keeping employees aware of potential hazards and reinforcing important safety precautions and policies.



Cleaning and Janitorial

Our new RS PRO Janitorial Kits, comprise of shadow boards fully stocked with colour-coded cleaning equipment to streamline workplace procedures, segregate departments, and identify missing items at a glance.



Temperature Measurement

The new RS PRO range of non-contact forehead thermometers can help ease the screening process at your workplace by easily detecting a person's temperature while reducing cross-contamination risk and minimizing the risk of spreading disease.

In addition to these kits and bundles, RS has added around 120 new product variants to its existing rich RS PRO range that further support the demand for protective measures against the COVID-19 virus.

All RS PRO products are competitively priced and come with the RS PRO Seal of Approval, an assurance to customers that products are rigorously tested for quality, durability and consistency.

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RS Pro Refill Pack for PU Foam Ear Plug Dispenser

- FEATURES and BENEFITS:
Holds up to 5000 disposable ear plugs
Uncorded ear plugs PU
Durable foam
Moulds to the contour of the rear
Easy to insert and remove
Protects the ear from hazardous noise



9185703 Ear plug dispenser refill pack 500 pairs EP21ORR

6000 Series Gas & Vapour ABEK1 Filters

- 3M 6059 Ammonia, Gas, Vapour Filter Cartridge for use with 6000 & 7000 Series
Half & Full Face Mask



2872677 ABEK1 6059 respirator combination filter 6059

3M™ Peltor™ Optime III™ Ear Defenders

- The 3M™ Peltor™ Optime III ear defenders are designed for use in extremely tough and noisy environments. These provide high levels of attenuation, particularly with sound dominated by low frequencies.



4496499 Black/red optime III ear defender,35dB H540A-411

3M™ 1100/1110 Earplugs

- Soft disposable earplugs produced in polyurethane for extra comfort; Tapered shape adjusts to most ear canals; Produced in hypoallergenic material; Brightly coloured for high visibility and spot safety checks



1905877 Disposable soft foam uncorded ear plug 1100

3M™ E-A-R™ Ultrafit™ Earplugs, 32 dB, Corded, UF-01-000

- The 3M™ E-A-R™ Ultrafit™ Earplugs have a proven pre-moulded triple flange that is designed to fit most ear canals and offer substantial ear protection. These are made from a durable material and are easy to use again and again.



282754 ULTRAFIT EARPLUG UF-01-000

3M Fahrenheit Safety Goggles

- Specially designed to fit with prescription glasses, dust mask or respiratory half-mask
Aerodynamic shape with cylindrical lens for 180° of distortion-free vision
The benefit of DX coating is a lens that is anti-scratch, anti-mist, anti-static



6667707 Fahrenheit Goggle DX Coating

3M™ E-A-R™ Tracers™ Earplugs, 32 dB

- The 3M™ E-A-R™ Tracers™ earplugs have a proven pre-moulded triple flange that is designed to fit most ear canals and offer substantial ear protection. These are made from a durable material and are easy to use again and again.



562485 Blue high visibility EAR tracer earplug TR-01-020

6000 Series Gas and Vapour Filters

- 3M 6051 Gas, Vapour Filter Cartridge for use with 6000 & 7000 Series
Half & Full Face Mask



766198 A1 6051 respirator organic vapour filter 6051

RUSH+ Safety Spectacles

- RUSH+ Safety Spectacles
Upper protection
Non-slip bridge
PLATINUM coating
Co-injected ultra-flexible two-coloured temples
Class 1 optical



7948643 Rush + Safety Glasses, Clear RUSHPPSI

How Calibration Improves Optimisation

Brought to you by **FLUKE**

With the fluctuating price of raw materials, industries are faced with a challenge to adjust to the times and the profit margins. One of the few ways to control costs in all of industry, in fact, is to get leaner and more efficient.

And one of the best ways to control those costs is finding the waste in your process. That means a lot of fine tuning to make sure, from an instrumentation standpoint, that you're getting the temperatures and pressures right for high quality production and the efficient use of input.

Calibrating equipment improves optimization and quality—and that holds true in other process industries as well, whether it is chemical processing, nuclear power, pharmaceutical or pulp and paper. Process manufacturing plants require hundreds, even thousands of sophisticated devices that perform countless critical operations ceaselessly, accurately, and reliably. Those devices in turn require regular inspection, testing, calibration, and repair.

Centuries of industrial experience has established the value of carefully recording the details of those inspections, tests, calibrations, and repairs. More than a best practice, businesses and governments often require highly specific record keeping to assure that full value is delivered to customers and that the health and safety of citizens is protected.

However, traditional testing, calibration and documentation practices are also labor-intensive, and with senior operators in scarce supply, down-sized teams sometimes choose to defer regular calibration. The latest industry findings suggest that smaller teams can feasibly conduct and document device calibrations, at a lower overall cost, with additional productivity and operational reliability benefits.

Calibration is typically performed either where the device is located (called in situ calibration, from the Latin for "in position") or in an instrument shop.

Pro tip: When a field instrument is manufactured, both the primary element and the transmitter (or the actuator, if a control valve) are calibrated at the factory and the calibration information is supplied with the unit. This calibration data is often lost. Entering this information into centralized calibration records when the device is put into service should be part of standard work, and not just for efficiency's sake. Centralizing calibration information ensures knowledge stays with the facility even as teams change.

Most field instruments are made up of two parts: a primary element and a transmitter.

- Primary elements include flow tubes, orifice plates, pressure sensors, wet chemistry sensors such as pH, ORP, and conductivity probes, level gauges of all types, temperature probes, and others. Primary elements typically produce a signal—usually voltage, current, or resistance—that is proportional to the variable they are designed to measure, such as level, flow, temperature, pressure, or chemistry. Primary elements are connected to the input of field transmitters.
- Field transmitters include pressure, temperature and flow devices. They process the signal generated by the primary element, first characterizing it in linear format and applying engineering unit coefficients to it, before then transmitting it in analog (usually 4-20 mA dc) or digital format (usually some variety of fieldbus).

Analog devices

Analog devices—often called “4 to 20 milliamp loop” devices—are so called because they transmit a signal that is an electrical “analog” representation of a measured physical quantity (temperature, for example). They transmit an electric current that is proportional (analogous) to the magnitude of a measured physical quantity, with 4 milliamps of current representing the minimum scaled value and 20 milliamps representing the maximum scaled value. Although many system aspects are now digital, analog devices are still in active use throughout the process manufacturing world.

Digital devices

Digital devices convert a measured physical value into a digital signal. Many different digital encoding methods are used in the process industry, including Foundation Fieldbus, Profibus, and HART. There is a widespread belief that fieldbus (digital) field devices do not require calibration. This is not true. Although a fieldbus signal (whether Foundation Fieldbus, Profibus, or connected HART) provides diagnostic information, it does not provide information about the accuracy of the device, nor does it verify that the device is reporting the process accurately and precisely.

Top 3 calibration tools to keep your processes lean

- Fluke 754 Multifunction Documenting Calibrator with HART capabilities and automated calibration procedures and of course, meets rigorous safety standards.
- Fluke 721 Precision Pressure Calibrator high precision with dual isolated sensors for gas custody transfer applications.
- Fluke 700G Precision Pressure Gauge Calibrator high-quality and rugged, high-quality pressure for fast and accurate test results.

Control valves

Control valves have actuators that also require calibration to adjust for wear, re-packing of the valve for leakage remediation and the effects of sticking or “stiction.” Often these valves must be given a full or partial stroke test if they haven’t been actuated regularly to ensure dependable operation.

Permitting and paperwork

Administrative tasks, from getting permits to documenting and filing results, can add to the cost and time required to perform even an in-situ calibration. As Ian Verhappen, of Industrial Automation Networks, and a former Chair of the Fieldbus Foundation User Group, has said, “In many cases getting all the necessary paperwork (permits, isolation, etc.) in order often takes longer than the work itself.”

Challenges of documenting calibration

Documenting a calibration has traditionally meant using a logbook to hand-write the date and time, the pre-calibration readings, the post-calibration readings, and any other observations the technicians made. Surprisingly, many plants continue to document calibration work by hand. But pencil-and-paper documentation has many shortcomings.

First, it both produces and perpetuates errors. The data in handwritten records is often simply illegible or insufficient. Facilities that use a computerized maintenance management system (CMMS) must then account for the additional time required to manually enter handwritten data, with additional possibilities for error.

Changing workforce

The 1980s brought budget cuts and layoffs. Engineering, maintenance and operations staffs were cut substantially and a new “lean manufacturing” philosophy took root that continues today, especially in developed economies.

Smaller teams have less time for mentoring and on-the-job training, to the point where equipment and system-specific knowledge is not being successfully transferred from the individual to the institution. As older operators and engineers retire, they take their equipment and system knowledge with them.

“Every day at 4 pm, the plant’s institutional knowledge walks out the front gate,” says the Chief Instrumentation and Controls Engineer of a large Midwestern refinery, “and sometimes it doesn’t come back.”

Meanwhile, many facilities still need two technicians for each in-situ calibration—one at the transmitter and one at the control system. The Fieldbus Foundation estimates that commissioning requires two techs for a minimum of two hours.

Use multifunction, documenting calibrators

A new generation of “smarter” field calibration tools are increasing worker productivity by consolidating multiple tools into one and performing functions beyond basic test and measurement, such as assisting with analysis and documentation. Multifunction “documenting process calibrators” are handheld, electronic test tools that consolidate multiple calibration steps and functions into a single device, sourcing simulating and measuring pressure, temperature, and a wide variety of electrical and electronic signals.

Benefits:

- Fewer tools that technicians need to train on and carry into the field
- Similar calibration processes and data output across multiple devices, compared to a different process to collect a different set of data from each tool and device
- Automated procedures replace many manual calibration steps
- No second technician required to record the as-found and as-left state of the field device.
- Faster calibration time per device
- Calculate the error of a single tool rather than adding the errors of several tools

Use calibration routes

The biggest savings from using a documenting calibrator comes in the route management tool built into the device. Using a single set of permits and paperwork for an entire set of calibrations reduces costs considerably. Implement an asset management, calibration management, or computerized maintenance management system (CMMS).

Unlike paper documentation, calibrator data is never illegible, cryptic, or partial. Documenting calibrator data can be directly downloaded into a variety of different CMMS systems with no transcription or filing. Because documenting process calibrators automatically record the as-found and as-left state of each field device, in situ, and can be operated by a single technician, route-based practices utilizing documenting calibrators can save as much as 50 percent of the time and cost of traditional manual, single-device calibration methods. Stated differently, the same lean team can accomplish twice as many calibrations in a given period of time.

Running a lean team under the traditional operational requirements is a recipe for error. Calibrations simply don’t happen the way they should. Instead of ignoring the looming threat, investigate how existing practices can be made more efficient. Implement route-based calibration, paperless documentation, and CMMS data management. More calibrations will occur more consistently, knowledge will be transferred from the individual to the team and to the institution, and both productivity and quality will increase.

Calibrating multiple instruments in the course of a route reduces the cost per calibration, compared to individually calibrating single instruments. Besides saving maintenance costs, the legal costs and lost revenue from accidents can be in the millions. Good calibration maintenance practices help reduce the probability of such an incident. If the event that disaster strikes, good calibration records can be a part of a facility’s defence in the event of legal action just as poor records can put an organization in a less defensible legal position.



5% OFF

SELECTED CALIBRATORS

PROMO CODE

FLUKE5

Please use code when you checkout

715 Current & Voltage Calibrator

- Clear 5-digit LCD display
- Operating temperature ranges between -10°C and +55°C
- Measure voltage output process signals from PLCs, transmitters
- Source or simulate 24mA loop current
- Source voltage to 200mV or 10V
- *Provides 24V loop supply with simultaneous current measurement



SAVE 5%

FLUKE

2632700 0 → 24 mA

707EX Current Loop Calibrator 24mA

- Extremely fast and easy to use.
- Fluke offers a push-button and knob-base current loop calibrator which is an intrinsically safe instrument for use in potentially explosive environments.

SAVE 5%



FLUKE

4547266 2032187 Intrinsically Safe

707 Current Loop Calibrator 24mA

- A clear large simultaneous mA and % of span display, alongside the simple rotary button allows adjustments and quick selections with one hand.
- Fluke's calibrator includes 24 volt loop supply, allowing you to power and read a transmitter at the same time.

SAVE 5%



FLUKE

4262678 707 Loop Calibrator

714B Multi Function Calibrator 30V 20mA

- The Fluke temperature calibrator is an ideal tool for professionals who want a highly accurate, easy-to-use, single-function temperature calibrator.

SAVE 5%



FLUKE

8052416 714B Temperature Calibrator

724 Multi Function Calibrator 30V 24mA

- The Fluke multifunction calibrator is everything you need to troubleshoot and calibrate temperature. Now you can carry one tool to expertly test all the temperature sensors and transmitters in your plant.
- The Fluke 724 can measure and source 12 thermocouple types and 7 RTD types with volts and ohms.
- It even handles high speed pulsed RTD circuits and provides loop power.

SAVE 5%



FLUKE

3751616

789 Multi Function Calibrator 1A

- Combined multimeter and current loop calibrator features double troubleshooting capabilities, a mA loop calibrator and safety rated digital multimeter have been combined into one compact tool for easy measurement.
- Wireless monitoring is made easy with Fluke Connect® mobile app and desktop software compatibility, this allows users to easily share data from anywhere.

SAVE 5%



FLUKE

4477707 Fluke 789 ProcessMeter™

15% OFF

SELECTED ITEMS

Please use code **FLUKE15** when you checkout

62 MAX Infrared Thermometer

- IP54 rated for dust and water resistance
3 m (9.8 ft) drop tested
- Small and lightweight
- The 62 MAX+ has dual rotating lasers to help identify area to be measured (the measurement area is the spot between the dots)

SAVE
15%



FLUKE

7600385 Fluke 62 MAX and MAX

1550C, Insulation Tester

- 99 measurements storage and recall and PC interface
- Automatic calculation of Dielectric Absorption (DAR) and Polarization Index (PI)
- Capacitance and leakage current measurement

SAVE
15%



FLUKE

7051957 1TQ CAT III 1000 V, CAT IV 600 V

1507, Insulation Tester

- Accepts optional fluke TPAK magnetic hanging system
- Auto discharge of capacitive voltage for added user protection
- Automatic calculation of polarisation index and dielectric absorption ratio

SAVE
15%



FLUKE

5186008 10GΩ CAT III 600 V, CAT IV 600 V

TIS75 Thermal Imaging Camera

- Manual focus flexibility for quality images as close as 0.15 m (6 in)
- Excellent performance even when user needs a safe distance with a D:S of 504:1
- Exact location viewing with precisely blended IR-Fusion visual and infrared images or picture-in-picture

SAVE
15%



FLUKE

9108043 Temp Range: -20 → +650 °C 320 x 240pixel

28EX Handheld Digital Multimeter

- The Fluke 28II Ex is the most rugged intrinsically safe digital multimeter in the world.
- This one device equips you with all the testing and troubleshooting power you need, wherever you go.

SAVE
15%



FLUKE

7600398 10A ac 1000V ac 10A dc 1000V dc

325 Clamp Meter

- The Fluke 320 series True-RMS clamp meter measures current up to 400A AC/DC and voltage up to 600V AC/DC.
- This product is designed to verify the presence of load current, AC voltage and continuity of circuits, switches, fuses and contacts.

SAVE
15%



FLUKE

7653660 Temp Range: -20 → +650 °C 320 x 240pixel

62 MAX PLUS Infrared Thermometer

- IP54 rated for dust and water resistance
3 m (9.8 ft) drop tested
- The 62 MAX+ has dual rotating lasers to help identify area to be measured
- Displays the minimum, maximum or average temperature - or the difference between two measurements

SAVE
15%



FLUKE

7600389

561 Infrared Thermometer

- Two in one thermometer IR and K Type thermocouple
- Velcro pipe probe included
- Laser sighting
- LCD backlit display
- 3 Step emissivity adjustment (Low Medium & High)

SAVE
15%



FLUKE

6134193 2032187 Intrinsic Safe

1625 Earth & Ground Resistance Tester

- The Fluke 1625-2 offers data storage and download capabilities via USB port.
- It's a distinctive earth ground tester that can perform all four types of earth ground measurement.
- Able to measure earth ground loop resistances using only clamps.

SAVE
15%



FLUKE

7983961 300kΩ CAT II 300 V

Connection loops for PCBs

- This assembly is designed to act as a connection terminal on a printed circuit board (fixing an oscilloscope probe, etc.). The special shape of the spring means the terminal can be inserted into a metal hole without damaging the latter.



1012391 Loop terminal assembly, black 1.02mm dia 20-2137

Insulated Panel Socket

- Plastic M8 thread with metal nut, suitable for fitting into pre-drilled panels (8.3mm hole dia)
Fitted with solder tag terminal



4333332 Black insulated panel skt w/solder,4mm 23.0450-21

Non-Stackable Shrouded Plugs

- Comes in a wide range of colours. The centre pins are made of electro-tinned brass. High-quality polypropylene moulded parts are reliable for the most demanding test and measurements applications. These plugs accept cable to a maximum 4.3mm diameter.



454299 Blue shrouded unstackable plug,4mm 134003/BL/RS

pH Indicator Strips

- From Instruments Direct, a selection of individual pH test strips designed for measuring how acidic or alkaline a sample or solution is. The pH test strips feature a non-bleed, padded paper test tip attached to a vinyl wand.



2618603 pH indicator test strip,1 - 14pH CZ-0114

2618619 Water hardness test strip w/colour chart CZHT100

Peroxide Test Strips

- From Instruments Direct, a pack of individual peroxide test strips designed for measuring the levels of peroxide present in water or a solution. The peroxide strips are made from a plastic section with a sealed test paper in the tip.



3870830 Peroxide test strip,0-100ppm PER100

Miniature Insulated Crocodile Clip

- Brought to you under the trusted RS Brand, these crocodile clips are both economic and versatile. The nickel-plated crocodile clips come supplied with PE insulated covers, and are available in both red (see stock number: 483-843) and black (see stock number: 483-859)



483843 Red miniature insulated crocodile clip SK345-RD-CG RS

Plastigauges

- Can highlight, clearance, lobing, ovality on shafts
Volumetric measurement takes surface roughness into account
Calibration card supplied
Clearance measurement 0.001in. to 0.020in. (0.025 to 0.5mm) can be taken.
Non corrosive and oil soluble



2224444 Plastigauge,0.001-0.007in/0.025-0.175mm 187-0017

Test Terminals

- Phosphor bronze terminals solder tinned
Spring action prevents through hole damage and ensures a solid fit prior to soldering
Borosilicate sintered high temperature glass beads in 5 colours, ideal for prototyping
Suitable for attaching probes



2622034 Yellow standard PCB test terminal,1mm 200-202

Mueller Miniature, Pee Wee and Micro Alligator Clips

- Mueller miniature pee wee and micro alligator clips with solderthreaded barrel and crimp terminations
Suitable for a wide variety of purposes including test lead termination and test harnesses amongst others.



7564699 Micro alligator steel clip, 5A BU-34

Miniature Insulated Crocodile Clip

- Brought to you under the trusted RS Brand, these crocodile clips are both economic and versatile. The nickel-plated crocodile clips come supplied with PE insulated covers



483859 Black miniature insulated crocodile clip SK345-BK-CG-RS

Insulated Alligator Clips

- A range of alligator clips featuring insulating vinyl covers from RS.



7385856 Alligator clips red O85-00007

TT Series Dispensing Needles

- Molded in high density polyethylene with UV light block additive
Double helix luer lock hub
Tapered tip prevents blockage and increases the flow of high viscosity materials
Sold in packs of 50.



6693863 Dispenser needle 20 GA Taper Pink x 50 RS-920125-DHUV

Insulated Alligator Clips

- A range of alligator clips featuring insulating vinyl covers from RS.



7385850 Alligator clips black O85-00008

Plastigauges

- Can highlight, clearance, lobing, ovality on shafts
Volumetric measurement takes surface roughness into account
Calibration card supplied
Clearance measurement 0.001in. to 0.020in. (0.025 to 0.5mm) can be taken.
Non corrosive and oil soluble



2224472 Plastigauge, 0.008-0.020in/0.02-0.5mm 187-0019

RS-3893 Thermo-Anemometer

- This RS PRO anemometer has a high-quality and robust design that offers accurate and reliable results and can be used across a variety of applications



1938696 Air Flow, Air Velocity, Temperature

RS Tachometer Accessories

- Suitable for Rotaro Tachometer 845-9674 / 845-9738
Replacement contact adaptor 845-9781
Welding wire speed adaptor
Suitable for Optical Tachometers 845-9674



8459731 Reflective Tape A2-1003

VSB 20 Fully Mating Connector

- Fully mating connector with cable entries lengthways or transverse
Touch-safe tower construction
Screw connection up to maximum conductor cross-section of 2.5 mm
External diameter for the cable to be connected max. Ø 4 mm
Inflammability



1560070 PLUG 4MM VSB20 BLACK 930435100

SDG6022X Arbitrary Waveform Generator

- Dual-channel, 200MHz maximum bandwidth, 20Vpp maximum output amplitude, high fidelity output with 80dB dynamic range
Clear results with the high-performance sampling system with 2.4GSa/s sampling rate and 16-bit vertical resolution



1882475 200MHz

Lead-Free Solder

- 3% halide-activated non-corrosive rosin flux



1850058 Tin-copper lead-free solder, 1.22mm, 500g 289813

Lead-Free Solder

- 3% halide-activated non-corrosive rosin flux



1850042 Tin-copper lead-free solder, 1.22mm, 250g 291275

RS PRO Standard Utility Knife Blades

- Blades made from steel (EN42C); Available in packs of 5 and 10; Able to cut through various materials; Designed for manoeuvrability



5416646 SPARE TRAPEZOID BLADE DB-0419

60/40 Tin-Lead Solder

- 5 cores of Ersin® flux; Excellent Joint Strength; Easy to use



6195615 60/40 tin-lead multicore solder, 1.22mm, 250g 291340

Swann-Morton Carbon Steel Scalpel Blades

- Blade size marked directly onto scalpel for easy identification of the right blade
Designed to fit into any standard scalpel handle for ease and convenience
Manufactured from Carbon Steel for a strong reliable edge



8477596 No 11 Non-Sterile Blades 100 Pack 103

Swann-Morton Carbon Steel Scalpel Blades

- Blade size marked directly onto scalpel for easy identification of the right blade
Designed to fit into any standard scalpel handle for ease and convenience
Manufactured from Carbon Steel for a strong reliable edge



8477593 No 10A Non-Sterile Blades 100 Pack 102

Solder Wire Sn96.5 Ag3 Cu0.5

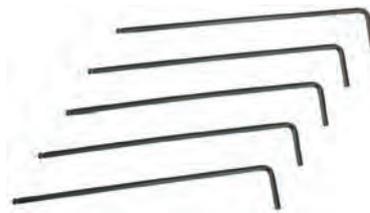
- No-clean solder wire (RT15) and activated no-clean solder wire (A11). A11 spools are designed for soldering connectors to all substrates. RT15 spools with fast wetting are suitable for SMD repairs.



555276 SOLDER SN96.5 AG3 CU0.5 7/10 100G SN96.5 AG3 CU0.5 7/10 A11 - 100G

RS PRO Long Arm Ball End Hex Key

- Chrome vanadium steel construction
Ball end allows users to screw at an angle
Make use of both ends of the hex key
Chemically blackened finish
High quality
L shaped hex keys



735071 L-shape hexagon ball driver, 2.5mm A/F WD1860

Utility and Trimming Blades

- Engineered for general purpose cutting
Precision honed edge for consistent and long cutting life
Fits most standard utility knives



4847522 Heavy duty general purpose blade 2-11-921

AUTOFIL A11 Sn60Pb40 activated solder wire

- Activated No-Clean solder alloy with incorporated resinous flux. Designed for industrial applications in the electronics and connector industries. Excellent wetting on tin-plated substrates. Generates minimal fumes and residue. Chlorine content: 1.1 %



547269 SOLDER SN PB 10/10 100G SN60 PB 10/10 - 3 CANAUX A11 - 100G

Cloth Roll - Aluminium Oxide 1

- Flexible J cloth with aluminium oxide abrasive Suitable for polishing and de-rusting metals Can be used with oil, paraffin, grease or water Supplied in packs of different grit sizes



762613 Al oxide abrasive cloth,25mm W 400 grit 63642531793

Solder Wire Sn96.5 Ag3 Cu0.5

- No-clean solder wire (RT15) and activated no-clean solder wire (A11). A11 spools are designed for soldering connectors to all substrates. RT15 spools with fast wetting are suitable for SMD repairs.



555272 SOLDER SN96.5 AG3 CU0.5 5/10 100G SN96.5 AG3 CU0.5 5/10 A11 - 100G

RS Pro HSS Jobber Drill Bit

- Titanium Nitride Coated (TiN) Longer shaft length Right angle cutting tip 118° cutting angle Available in sizes from 0.25 - 20mm Suitable for metals, woods, plastics



213304 TiN coated HSS drill,3.5mm dia H10400350

Scotch-Brite™ Hand Pads 7447

- The Scotch-Brite™ 7447 are general purpose hand pads that combine flexibility with an effective cutting action with precise hand control. The 7447 handpads use aluminium oxide which cuts fast and fine, leaving a smooth finish on the surface.



1115353 Scotch-Brite 7447 Very Fine H/Pad Bx20 1623654

Swann-Morton Carbon Steel Scalpel Blades

- Blade size marked directly onto scalpel for easy identification of the right blade Designed to fit into any standard scalpel handle for ease and convenience Manufactured from Carbon Steel for a strong reliable edge



8477584 No 10 Non-Sterile Blades 100 Pack 101

100mm x 1mm metal cutting

- Fast Cutting. No Burn Mark and Bur. Can Cut Steel, Stainless Steel, Aluminium & Copper



1887124 NULL B-12201-10

Stanley General Purpose Snap-Off Safety Blade, 8 Blade Segments

- Durable Snap-Off safety blade
- Plastic blade dispenser included with built in blade snapper
- Compatible with several knives
- 8 cutting points Length: 108 mm Thickness: 0.51 mm Width: 18 mm



841788 Blade for lightduty snapoff knife,18mm L 0-11-301

Bonpen Replacement Tips

- For use with the Bonpen empty flux dispensing pens



8526222 Replaceablefor BON-102F-Flat felt. BR-102F

DPI 705E Series

Druck Handheld Pressure Indicators



Safe Area
Pressure Indicator



Hazardous Area
Pressure Indicator

The Druck DPI 705E Series of handheld pressure and optional temperature indicators combine tough and rugged design with accurate and reliable measurements.

Compact and robust, the DPI 705E Series is designed for single handed operation and provides many essential features required for routine maintenance and system troubleshooting.

Features

- 48 pressure ranges from ± 25 mbar to 1,400 bar (± 1.69 psi to 20,000 psi / 2.5 KPa to 140 MPa)
- Total 1 year uncertainty down to 0.05% full scale (FS) over temperature range of -10°C to $+50^{\circ}\text{C}$
- Integral calibration record with calibration due count-down display
- Rugged, handheld design with backlit high-contrast display
- Leak test, tare, maximum/minimum and filter
- Hazardous Area (Intrinsically safe) version available
- Optional remote plug and play pressure and Resistance Temperature Detector (RTD) sensors
- Optional pneumatic and hydraulic hand pumps

To view the range,
search DPI705E at
RS Online today!

DPI 705E and DPI 705E-IS Handheld Pressure Indicators

- 48 pressure ranges from ± 25 mbar to 1,400 bar (± 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



2012867 10 bar, Safe Area

DPI705E-1-11G-P1-H0-U0-OP0

Druck Genii Multi Function Calibrator

- Multifunction capabilities, electrical frequency, temperature and pressure
- Complete HART communicator
- Optional Fieldbus communicator



1236022 30 V dc, 300 V ac 55mA 1000bar

DPI620G-IS-L

DPI 620 Multi function Calibrator

- 3 tools in one - calibrator, test meter and HART® communicator
- Simple, user-friendly touch screen interface
- Multi-function - electrical, frequency, temperature and pressure parameters



8159995 30 V dc, 300 V ac 55mA 1000bar

DPI620G-L

Druck DPI 104 Digital Pressure Gauge

- Five-digit resolution and pressure reading
- Programmable to provide a 0-5V output signal, this is configurable



5326290 700bar

DPI104-22S

PM700E Remote Pressure Sensors

- External sensor has precedence over the internal sensor
- Operating temperature range of -10°C to +50°C
- Integral calibration record with calibration due count-down display



2012892 70bar

PM700EIS-1-16G-P1-H1-OP0

2012890 350bar

PM700E-1-20A-P6-H0-OP0

RTD Hazardous Area Probes

- The Druck Optional remote RTD temperature Interface/Probe Enabling users to perform plug and play temperature measurement capability, displaying units as resistance or temperature



2012896 Hazardous Area

RTD-PROBE-IS

Supporting our customers, we're by your side.



High stock levels

\$600m of inventory readily available



Next day delivery

We use a national carrier network to maintain continuity of service



Order online 24/7

We are here when you need us, with up-to-date inventory levels



Product Plus sourcing

Whatever you need however obscure – we can get it



Best in class eCommerce experience

Our RS PurchasingManager® web order management tool & eProcurement solutions can help streamline ordering processes

Protecting our people



People First

Home working wherever possible. In the workplace - managed cells, social distancing, enhanced PPE requirements

By your side

Connect to a full range of services



Free & Flexible Delivery

With a range of flexible delivery and collection options we make it easy for you to receive your order when and where you need it.



Local Technical Support

We offer easy access to product support resources - online or by phone.



Local Stock Holding

With over 60,000 products stocked for next day delivery, you can focus on what matters most when time is of the essence.



eProcurement Solutions

Our experienced teams are here to help you consolidate vendors, remove complexity and reduce cost within your process.



DesignSpark Community

Join our community of over half a million engineers, designers and students to access free CAD software, design tools and resources.



Online Invoicing

Stay in control of your spend & reduce your purchase to pay costs with our invoicing and payment services.

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