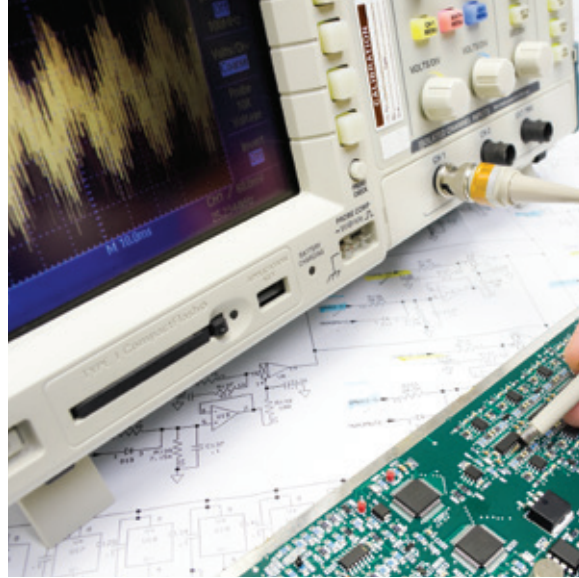


PARTNER | SOLVE | DELIVER

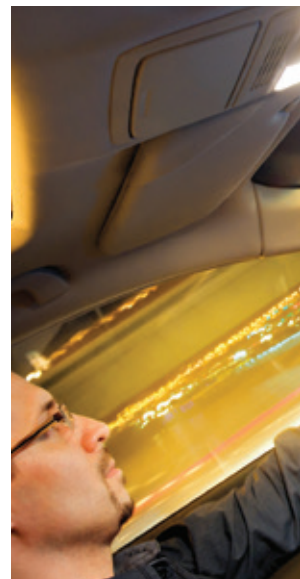
SENSOR & MAGNETIC SOLUTIONS



WE MATTER.TM
www.standexmeder.com



PRODUCT
SOLUTIONS.
AS DIVERSE
AS THE
MARKETS
WE SERVE.





OUR COMPANY

Standex-Meder Electronics is a worldwide market leader in the design, development and manufacture of standard and custom electro-magnetic components, including magnetics products and reed switch-based solutions.

Our magnetic offerings include planar, Rogowski, current, and low- and high-frequency transformers and inductors. Our reed switch-based solutions include Meder, Standex and OKI brand reed switches, as well as a complete portfolio of reed relays, and a comprehensive array of fluid level, proximity, motion, water flow, HVAC condensate, hydraulic pressure differential, capacitive, conductive and inductive sensors.



MARKETS WE SERVE

We offer engineered product solutions for a broad spectrum of product applications in all major markets, including but not limited to:

- Aerospace
- Alternative Energy
- Automotive / Transportation
- Fluid Flow
- Food Service
- General Industrial
- Heavy Duty Truck
- Household / Appliances
- HVAC/R
- Hydraulics
- Industrial / Power
- Lighting
- Medical
- Metering
- Military
- Off Highway
- Pool / Spa
- Recreational
- Security / Safety
- Space
- Test & Measurement
- Utilities / Smart Grid





CUSTOMER DRIVEN INNOVATION. PREMIER WORLDWIDE CAPABILITIES.

COMMITMENT & EXPERTISE

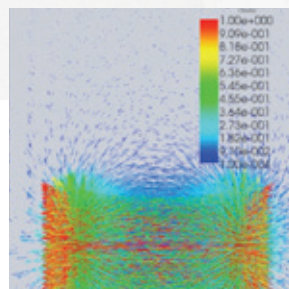
Standex-Meder Electronics has a commitment to absolute customer satisfaction and customer-driven innovation, with a global organization that offers premier sales support, engineering capabilities, and technical resources worldwide.

Headquartered in Cincinnati, Ohio, USA, Standex-Meder Electronics has eight manufacturing facilities in six countries, located in the United States, Germany, China, Mexico, the United Kingdom, and Canada.

MANUFACTURING

- Auto AT Switch Sorting
- Bobbin and Toroidal Winding

- Auto Termination
- Coil Molding & Packaging
- Insert and Thermoset Molding
- Low Pressure Molding (Hot Melt)
- Pick & Place – Vision & Camera System
- Plasma Surface Treatment
- Plastic Injection Molding
- Potting - 2 Component
- Progressive Stamping
- Reflow Oven – Multiple Zone Convection
- Reed Switch Manufacturing
- Reed Relay Design and Manufacturing - SMD, Low Thermal, High Insulation, High Voltage, High Frequency, Latching and Atex
- Selective Soldering





- Sensor Packaging
- Stainless Steel Fabrication and Precise Laser Welding
- Transformer Design And Manufacturing
- Wave Soldering

ENGINEERING

- Electronic sensor engineering
- Circuit Design and PCB Layout
- Patented Conductivity Sensors
- Patented Inductive Sensors
- 3-D CAD Modeling
- 3-D Magnetic Sensor Mapping
- EMS Software
- PCB Prototyper
- Quick Turn Samples
- 3-D Printing

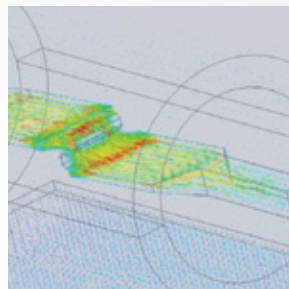
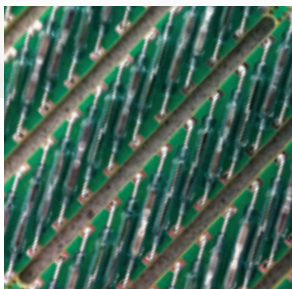
TESTING & TOOLING

- Automated Assembly and Test Systems
- Environmental and Durability Testing
- Life Testing
- Network Analyzers
- Fluxmeters
- Nanovoltmeters

- Picoammeters
- Destructive Pull Testers
- Gauss / Teslameters

QUALITY/ LAB CAPABILITIES

- Certifications: AS9100, ITAR, ISO9000, TS16949
- SPC Data Collection
- Fully Equipped Certified Test Labs
- Burn-in and Life Testing
- Complete, In-House Machine Shop
- Corona Discharge Testing Capabilities
- Microscopic Investigation / DPA
- Moisture Resistance and Seal Testing
- Radiographic
- Salt Fog and Solderability
- Scott T Angular Accuracy
- Terminal Strength
- Thermal Cycling
- Mechanical and Thermal Shock, Temperature Rise and Vibration



Reed Switch Technology

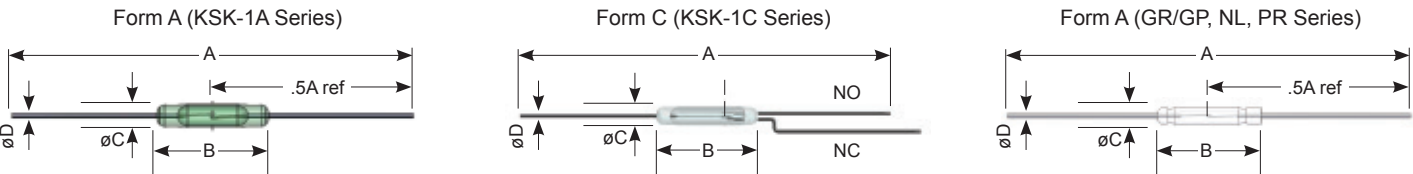
Standex-Meder offers the most comprehensive listing of reed switches that cover the majority of low power switching requirements. Reed relays and reed sensors both use the reed switch as the heart of their switching mechanism. New applications continue to arise at a significant pace for both products because of the reed switch's unique switching capability. What is driving these new applications is the ever broadening of new reed relay, reed sensor and fluid level designs by Standex-Meder.

For example, Standex-Meder offers a reed switch where the overall glass length is only 3.95 mm long (KSK-1A04) - the smallest in the industry. These small sizes pave the way for unique new applications in RF switching, medical applications and many more applications.

Because reed switches are hermetically sealed (glass to metal seal) they are impervious to almost all environments. This opens up a vast number of applications where they are the only technology capable of meeting specific requirements where certain mechanical switches and semiconductor switches are environmentally limited. Many thousands of reed switch applications currently exist with many more added on a regular basis. These applications span across all the major market segments.

Our engineers are always available to discuss your design requirements where specialized packaging is available in a very economical manner.

Standex-Meder is an authorized distributor of **OKI** reed switches such as ORD228VL, ORD324, ORD219, ORD211, ORD213, ORD2210V, ORD229, ORD872, ORT551



Dimensions in mm (inches)

Overall Length:
Glass Length Max.:
Glass Dia Max.:
Lead Dia.:

Specifications

Contact Form:
Pull-In Range:
Rated Power Max.:

KSK-1A04- *
Ultraminiature
A - 34.5 (1.358)
B - 3.95 (0.155)
C - 1.5 (0.059)
D - 0.8 (0.031) x 0.15 (0.006) max
World's Smallest/Flat Lead
1A
5-30 AT
3W/30VDC/0.3Amp DC

Dimensions in mm (inches)

Overall Length:
Glass Length Max.:
Glass Dia Max.:
Lead Dia.:

Specifications

Contact Form:
Pull-In Range:
Rated Power Max.:

KSK-1A80- *
Ultraminiature
A - 35.6 (1.401)
B - 7 (0.275)
C - 1.8 (0.070)
D - 0.3 (0.011)
Close Differential
1A
10-40 AT
10W/170VDC/0.5Amp DC

KSK-1A87- *
Miniature
A - 35.5 (1.397)
B - 10 (0.393)
C - 2 (0.078)
D - 0.4 (0.015)
Long Life
1A
10-40 AT
10W/200VDC/0.5Amp DC

GR400- *
Miniature
A - 54 (2.125)
B - 10.0 (0.394)
C - 1.9 (0.075)
D - 0.41 (0.016)
1A
10-30 AT
10W/180VDC/0.5Amp DC/AC

KSK-1A35- *
Miniature
A - 34.5 (1.358)
B - 10.5 (0.413)
C - 2.1 (0.082)
D - 1.2 (0.047) x 0.2 (0.008)
Flat Lead
1A
10-40 AT
20W/200VDC/1Amp DC

We reserve the right to make any changes according to technological progress or further developments.

* Most Used

Dimensions in mm (inches) Overall Length: Glass Length Max.: Glass Dia Max.: Lead Dia.:	KSK-1A35/1- * <i>Miniature/High Voltage</i> A - 34.5 (1.358) B - 10.5 (0.413) C - 2.1 (0.082) D - 1.2 (0.047) x 0.2 (0.008) Flat Lead	KSK-1A31- <i>Miniature/High Power</i> A - 41 (1.614) B - 11 (0.433) C - 2.5 (0.098) D - 0.64 (0.025) High Current/Mercury	KSK-1A46- <i>Miniature</i> A - 44.3 (1.744) B - 12 (0.472) C - 2 (0.078) D - 0.5 (0.019) Close Differential	GR/GP501- * <i>Miniature</i> A - 54 (2.125) B - 12.7 (0.5) C - 2.3 (0.090) D - 0.45 (0.017) High Stability (GP)
	Specifications Contact Form: 1A Pull-In Range: 20-35 AT Rated Power Max.: 10W/1000VDC/0.7Amp DC	Specifications Contact Form: 1A Pull-In Range: 20-45 AT Rated Power Max.: 50W/500VDC/2Amp DC	Specifications Contact Form: 1A Pull-In Range: 10-40 AT Rated Power Max.: 10W/200VDC/0.5Amp DC	Specifications Contact Form: 1A Pull-In Range: 10-35 AT Rated Power Max.: 10W/200VDC/0.5Amp DC/AC
Dimensions in mm (inches) Overall Length: Glass Length Max.: Glass Dia Max.: Lead Dia.:	KSK-1A66- * <i>Miniature</i> A - 44.1 (1.736) B - 14 (0.551) C - 2.2 (0.086) D - 0.5 (0.019) High Performance	KSK-1A66/3- * <i>Miniature</i> A - 44.1 (1.736) B - 14 (0.551) C - 2.2 (0.086) D - 0.5 (0.019)	GR/GP560- * <i>Miniature</i> A - 54 (2.125) B - 14.2 (0.559) C - 2.3 (0.090) D - 0.6 (0.023) High Stability (GP)	PR560- <i>AC Line Voltage/Miniature</i> A - 54 (2.125) B - 14.2 (0.559) C - 2.3 (0.090) D - 0.6 (0.023)
	Specifications Contact Form: 1A Pull-In Range: 10-40 AT Rated Power Max.: 10W/200VDC/0.5Amp DC	Specifications Contact Form: 1A Pull-In Range: 10-40 AT Rated Power Max.: 10W/200VDC/0.5Amp DC	Specifications Contact Form: 1A Pull-In Range: 10-50 AT Rated Power Max.: 10W/200VDC/1.0Amp DC/AC	Specifications Contact Form: 1A Pull-In Range: 20-40 AT Rated Power Max.: 10W/250VAC/100 VDC/1.0ADC/AC
Dimensions in mm (inches) Overall Length: Glass Length Max.: Glass Dia Max.: Lead Dia.:	KSK-1C90U- * <i>SPDT/Miniature</i> A - 56.1 (2.208) B - 14 (0.551) C - 2.54 (0.1) D - 0.5 (0.019)	KSK-1C90F- <i>SPDT/Miniature</i> A - 54.5 (2.145) B - 14 (0.551) C - 2.54 (0.1) D - 0.5 (0.019) NC Dog Leg Bend	KSK-1C10- <i>SPDT/High Power</i> A - 86.1 (3.390) B - 34.3 (1.350) C - 5.16 (0.203) D - 1.01 (0.040) High Current	KSK-1A82 <i>High Power</i> A - 44.1 (1.736) B - 16.5 (0.649) C - 2.8 (0.110) D - 0.6 (0.023) High Current
	Specifications Contact Form: 1C Pull-In Range: 15-40 AT Rated Power Max.: 10W/175VDC/0.5Amp DC	Specifications Contact Form: 1C Pull-In Range: 15-40 AT Rated Power Max.: 10W/175VDC/0.5Amp DC	Specifications Contact Form: 1C Pull-In Range: 60-80 AT Rated Power Max.: 100W/500VDC/3Amp DC	Specifications Contact Form: 1A Pull-In Range: 20-45 AT Rated Power Max.: 100W/120VDC/3Amp DC
Dimensions in mm (inches) Overall Length: Glass Length Max.: Glass Dia Max.: Lead Dia.:	KSK-1A55- <i>High Power</i> A - 43.9 (1.728) B - 16.5 (0.649) C - 2.8 (0.110) D - 0.6 (0.023)	NL126- <i>High Power</i> A - 54 (2.125) B - 20.3 (0.799) C - 2.5 (0.098) D - 0.7 (0.027)	PR126- <i>High Power</i> A - 54 (2.125) B - 20.3 (0.799) C - 2.5 (0.098) D - 0.7 (0.027) Line Voltage	KSK-1A52- <i>High Power</i> A - 55.4 (2.181) B - 21 (0.826) C - 2.75 (0.108) D - 0.6 (0.023)
	Specifications Contact Form: 1A Pull-In Range: 15-60 AT Rated Power Max.: 50W/100VDC/0.5Amp DC	Specifications Contact Form: 1A Pull-In Range: 20-60 AT Rated Power Max.: 50W/200VDC/150 VAC/1.5A DC/AC	Specifications Contact Form: 1A Pull-In Range: 20-50 AT Rated Power Max.: 70W/300VAC/200 VDC/1.5ADC/AC	Specifications Contact Form: 1A Pull-In Range: 15-70 AT Rated Power Max.: 50W/350VDC/0.7Amp DC
Dimensions in mm (inches) Overall Length: Glass Length Max.: Glass Dia Max.: Lead Dia.:	KSK-1A85- * <i>High Power/Voltage</i> A - 55.5 (2.185) B - 21 (0.826) C - 2.75 (0.108) D - 0.6 (0.023)	KSK-1B85- <i>High Power/Voltage</i> A - 55.5 (2.185) B - 21 (0.826) C - 2.75 (0.108) D - 0.6 (0.023) Normally Closed	KSK-1E85- <i>High Power/Voltage</i> A - 55.5 (2.185) B - 21 (0.826) C - 2.75 (0.108) D - 0.6 (0.023) Latching	KSK-1A69- <i>High Power/Voltage</i> A - 81.6 (3.212) B - 53.4 (2.102) C - 5.4 (0.212) D - 2.49 (0.098) x 0.54 (0.213) Flat Lead/High Current
	Specifications Contact Form: 1A Pull-In Range: 15-55 AT Rated Power Max.: 100W/1000VDC/1Amp DC	Specifications Contact Form: 1B Pull-In Range: 20-30 AT Rated Power Max.: 50W/300VDC/1Amp DC	Specifications Contact Form: 1E Pull-In Range: 20-30 AT Rated Power Max.: 50W/300VDC/1Amp DC	Specifications Contact Form: 1A Pull-In Range: 95-170 AT Rated Power Max.: 50W/1000VDC/3Amp DC
Dimensions in mm (inches) Overall Length: Glass Length Max.: Glass Dia Max.: Lead Dia.:	KSK-1A83 <i>High Power/Voltage</i> A - 81.6 (3.212) B - 53.4 (2.102) C - 5.4 (0.212) D - 2.49 (0.098) x 0.54 (0.213) Flat Lead/High Current	KSK-1A33- <i>High Power/Voltage</i> A - 79.0 (3.110) B - 52.0 (2.047) C - 5.4 (0.212) D - 0.5 (0.019) High Current	KSK-1A53- <i>High Frequency</i> A - 55 (2.165) B - 20.5 (0.807) C - 2.8 (0.110) D - 0.6 (0.023)	KSK-1A54- <i>High Frequency</i> A - 81.6 (3.212) B - 53.4 (2.102) C - 5.4 (0.212) D - 1.3 (0.051)
	Specifications Contact Form: 1A Pull-In Range: 100-150 AT Rated Power Max.: 50W/7500VDC/3Amp DC	Specifications Contact Form: 1A Pull-In Range: 80-100 AT Rated Power Max.: 50W/10000VDC/3Amp DC	Specifications Contact Form: 1A Pull-In Range: 10W/200VDC/1Amp DC	Specifications Contact Form: 1A Pull-In Range: 25 W/500VDC/1.5Amp DC

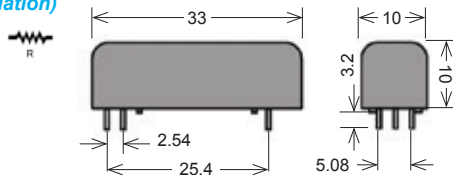
We reserve the right to make any changes according to technological progress or further developments.

* Most Used

BE (General Purpose/High Insulation)

Coil Voltage VDC: 5, 12, 24
 Coil Resistance Ω : 500-8000
 Contact Form: 1-5A, 2 (A,B,C,E), 2A+2B
 Rated Power Max.: 100W/1000VDC/1A

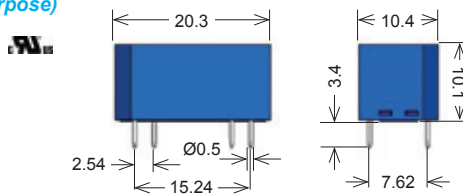
- Up to 5 form A switches
- Available in latching or high IR typical $10^{14} \Omega$
- Plastic or metal housing



DIL (General Purpose)

Coil Voltage VDC: 5, 12, 24
 Coil Resistance Ω : 500-10000
 Contact Form: 1-4A, 1 (B,C), 2 (A,C)
 Rated Power Max.: 50W/500VDC/2A

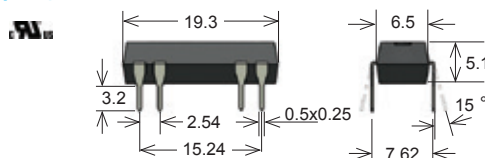
- Line sensing relay, coil up to 11,000 Ω
- Available with dielectric strength 4.25kVDC
- UL, Diode, Magnetic Shield



DIP (General Purpose)

Coil Voltage VDC: 3, 5, 12, 15, 24
 Coil Resistance Ω : 500-2000
 Contact Form: 1 (A,B,C), 2A
 Rated Power Max.: 50W/500VDC/2A

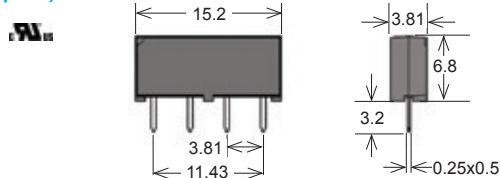
- Dual In-Line IC compatible relay
- Available with dielectric strength 4.25kVDC
- UL, Diode



MS (General Purpose)

Coil Voltage VDC: 5, 12
 Coil Resistance Ω : 280-700
 Contact Form: 1A, 1B
 Rated Power Max.: 10W/200VDC/0.5A

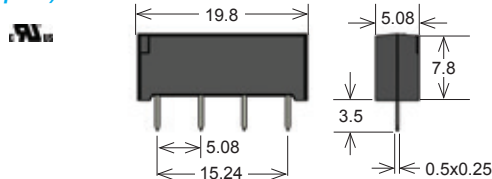
- Micro single In-line relay
- Available in High Frequency version to 1GHz
- UL, Diode



SIL (General Purpose)

Coil Voltage VDC: 3, 5, 12, 15, 24
 Coil Resistance Ω : 80-2000
 Contact Form: 1A, 1B, 1C
 Rated Power Max.: 50W/500VDC/2A

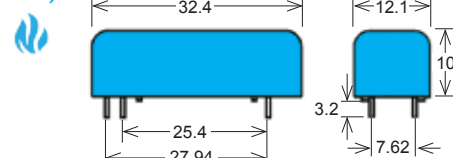
- Single In-Line relay
- Available with dielectric strength 4kVDC
- UL, Diode, Magnetic Shield



BT/BTS (Low Thermal)

Coil Voltage VDC: 5, 12, 24
 Coil Resistance Ω : 350-5000
 Contact Form: 2A
 Rated Power Max.: 100W/1000VDC/1A

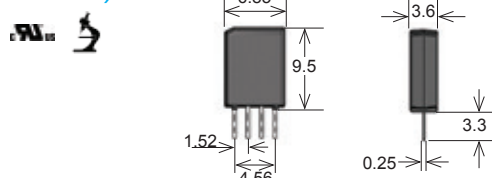
- Low thermal relay w/offset voltages $<1\mu V$
- Test & Measurement, Data Acquisition Systems
- Scanners, High Precision Measurement Devices



UMS (Ultraminiature)

Coil Voltage VDC: 5
 Coil Resistance Ω : 400-500
 Contact Form: 1A
 Rated Power Max.: 10W/170VDC/0.5A

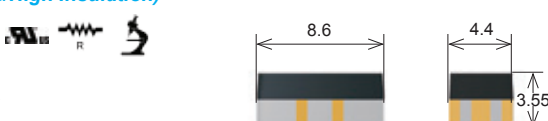
- Ultraminiature single-In line relay
- AEC-Q200 certified
- UL



CRR (SMD) / (Ultraminiature/High Insulation)

Coil Voltage VDC: 3, 5
 Coil Resistance Ω : 70-150
 Contact Form: 1A, 1B
 Rated Power Max.: 10W/170VDC/0.5A

- Ultraminiature SMD relay with high IR typical $10^{13} \Omega$
- Supplied in tape and reel
- UL, BGA



Note: All dimensions are in mm. Please refer to the product datasheets on our website for full dimensions, specifications, tolerances, etc. We reserve the right to make any changes according to technological progress or further developments. All product images are scaled 1:1 unless otherwise noted.



High Insulation
Resistance



Low
Thermal



Ultraminiature
8mm & below

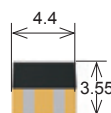
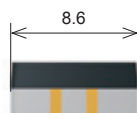
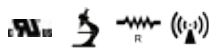


UL
Approval

CRF (SMD) / (Ultraminiature/High Frequency/Insulation)

Coil Voltage VDC: 3, 5
Coil Resistance Ω : 70-150
Contact Form: 1A, 1B
Rated Power Max.: 10W/170VDC/0.5A

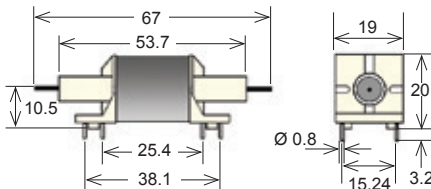
- 7GHz relay with high IR typical $10^{13} \Omega$
- Supplied in tape and reel
- UL, BGA



HF (High Frequency)

Coil Voltage VDC: 5, 12, 24
Coil Resistance Ω : 250-1000
Contact Form: 1A, 1B, 2A
Rated Power Max.: 25W/500VDC/1.5A

- High RF/power relay w/carry current capability 5A@30MHz
- Patented external electrostatic and magnetic shields
- Breakdown Voltage up to 9 kVDC

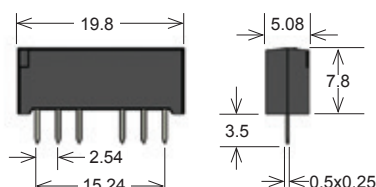


Scale 1:2

SIL RF (High Frequency)

Coil Voltage VDC: 5, 12
Coil Resistance Ω : 500-1000
Contact Form: 1A
Rated Power Max.: 10W/200VDC/0.5A

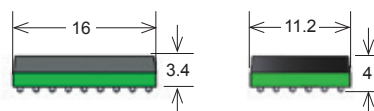
- High RF single in-line relay w/RF switch to 1.5GHz



RM05-4A (SMD) / (Relay Module/High Frequency)

Coil Voltage VDC: 5
Coil Resistance Ω : 185
Contact Form: 2A+2B, 4A, 2B
Rated Power Max.: 10W/170VDC/0.5A

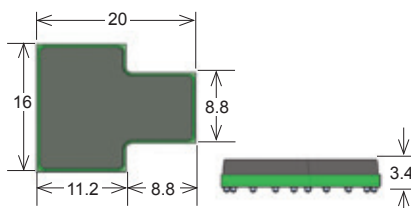
- 4-pole low profile SMD RF relay module
- <40ps rise times for switching fast pulses, BGA
- Test & Measurement, Telecommunications, High Frequency



RM05-6A (SMD) / (Relay Module/High Frequency)

Coil Voltage VDC: 5
Coil Resistance Ω : 185
Contact Form: 6A
Rated Power Max.: 10W/170VDC/0.5A

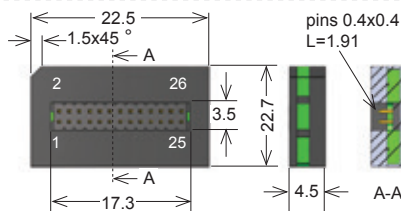
- 6-pole low profile SMD RF relay module
- <40ps rise times for switching fast pulses, BGA
- Test & Measurement, Telecommunications, High Frequency



RM05-4-BV10641 (SMD) / (Relay Module/High Frequency)

Coil Voltage VDC: 5
Coil Resistance Ω : 185
Contact Form: 4A
Rated Power Max.: 10W/100VDC/0.5A

- 4-pole low profile SMD w/socket RF relay module
- Female socket mounting on 1.27mm (0.05) pitch
- Test & Measurement, Telecom, High RF, Mixed Signal

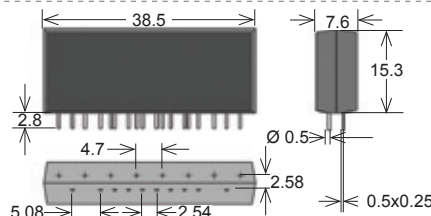


RM05-8A (Relay Module)

Coil Voltage VDC: 5
Coil Resistance Ω : 500
Contact Form: 8A (2C Matrix)
Rated Power Max.: 10W/125VDC/1A

- 8-pole low profile RF relay module
- 8 bit shift register 74 HC(T)595, new drivers
- Test & Measurement, Telecommunications

(Relay Module)

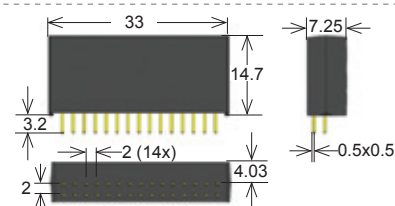


RM05-8A-S (Relay Module)

Coil Voltage VDC: 5
Coil Resistance Ω : 500
Contact Form: 8A (2C Matrix)
Rated Power Max.: 10W/170VDC/0.5A

- Ultraminiature 8-pole low profile RF relay module
- 8-channel relay driver max 4823 kickback protection
- Parallel activation electronics

(Relay Module)



Note: All dimensions are in mm. Please refer to the product datasheets on our website for full dimensions, specifications, tolerances, etc. We reserve the right to make any changes according to technological progress or further developments. All product images are scaled 1:1 unless otherwise noted



High Frequency



High Insulation Resistance



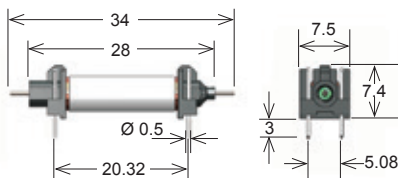
Ultraminiature 8mm & below

HI

(High Insulation)

Coil Voltage VDC: 5, 12
Coil Resistance Ω : 140-900
Contact Form: 1A
Rated Power Max.: 100W/1000VDC/1A

- HV / High insulation relay with high leakage distance
- High Insulation Resistance $> 10^{14} \Omega$
- Test & Measurement Equipment, Medical Devices

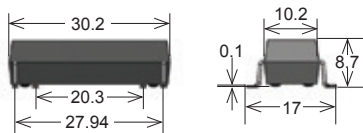
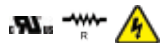


KT

(SMD, THT) / (High Voltage/Insulation)

Coil Voltage VDC: 5, 12, 24
Coil Resistance Ω : 100-2700
Contact Form: 1A
Rated Power Max.: 100W/1000VDC/1A

- HV thru-hole or SMD relay switch to 1kVDC/BV 4.2kVDC
- High Insulation Resistance $> 10^{13} \Omega$
- AEC-Q200 certified, UL, Insulation Voltage 7kVDC

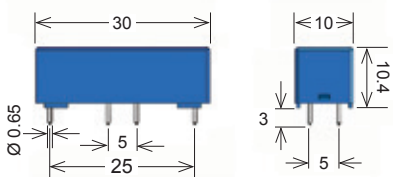


LI

(High Voltage/Insulation)

Coil Voltage VDC: 5, 12, 24
Coil Resistance Ω : 200-3600
Contact Form: 1A
Rated Power Max.: 100W/1000VDC/1A

- Miniature HV relay switch to 1kVDC/BV 4.2kVDC
- High Insulation Resistance $> 10^{13} \Omega$
- Insulation Voltage 7kVDC

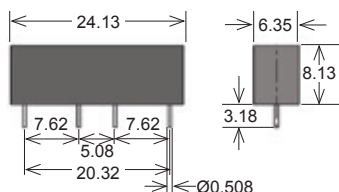


SIL HV

(High Voltage)

Coil Voltage VDC: 5, 12
Coil Resistance Ω : 230-700
Contact Form: 1A
Rated Power Max.: 100W/1000VDC/1A

- Ultraminiature HV relay switch to 1kVDC/BV 4kVDC
- High Insulation Resistance $> 5 \times 10^{12} \Omega$
- Portable Test & Medical Equipment, Defibrillators

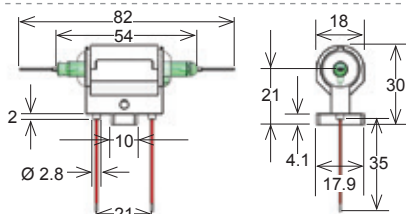


H

(High Voltage)

Coil Voltage VDC: 12, 24
Coil Resistance Ω : 230-700
Contact Form: 1A, 1B
Rated Power Max.: 50W/10000VDC/3A

- HV wire relay switching to 10kVDC/BV 15kVDC
- M4 screw mount
- Test & Medical Equipment, Replaces Mercury-Wet Relays



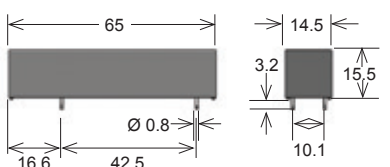
Scale 1:2

HE

(High Voltage)

Coil Voltage VDC: 5, 12, 24
Coil Resistance Ω : 50-1500
Contact Form: 1A, 1B, 2A
Rated Power Max.: 50W/10000VDC/3A

- HV relay switching to 10kVDC/BV 15kVDC
- Leakage distance $> 26\text{mm}$
- Latching version, pin-outs



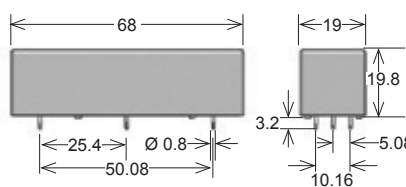
Scale 1:15

HM

(High Voltage)

Coil Voltage VDC: 5, 12, 24
Coil Resistance Ω : 10-1650
Contact Form: 1A, 1B, 1E
Rated Power Max.: 50W/10000VDC/3A

- HV thru-hole/wire relay switch to 10kVDC/BV 15kVDC
- Leakage distance $> 32\text{mm}$
- Latching version, pin-outs, external wires



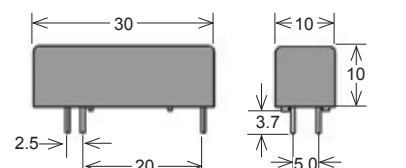
Scale 1:15

MRX

(PTB-01 ATEX 2050 U)

Coil Voltage VDC: 5, 12, 24
Coil Resistance Ω : 360-5580
Contact Form: 1A, 1C, ...4A
Rated Power Max.: 10W/170VDC/0.5A

- Ex-Approved for intrinsic safety circuits
- Up to 4 form A switches or 1 form C switch



Note: All dimensions are in mm. Please refer to the product datasheets on our website for full dimensions, specifications, tolerances, etc. We reserve the right to make any changes according to technological progress or further developments. All product images are scaled 1:1 unless otherwise noted.



High Insulation Resistance



High Voltage



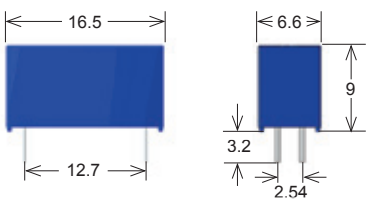

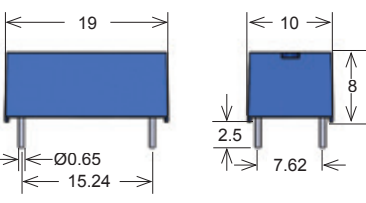

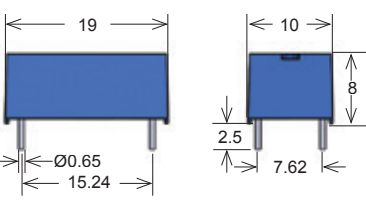

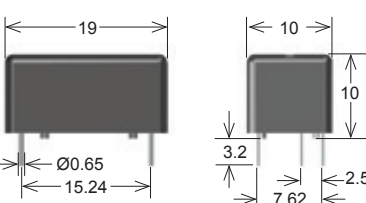
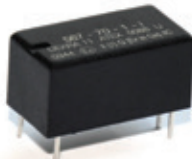
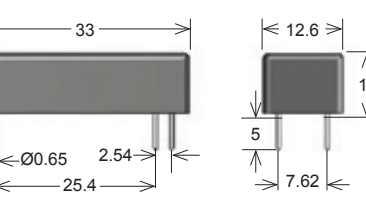

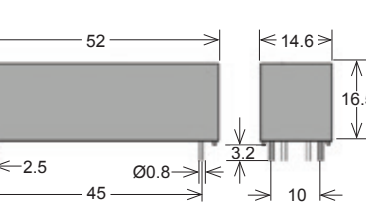

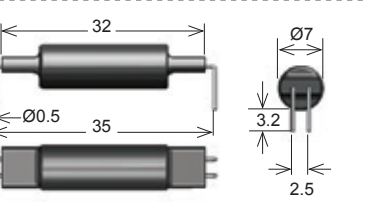

ATEX Certified



UL Approval

Explosive Atmospheres Approval (ATEX)

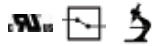
Often times electronic equipment is required to carry out certain functions in potentially explosive atmospheres. To prevent potential ignition of the explosive atmosphere via a spark or arc in these environments, all components must be selected very carefully. Components meeting these requirements are generally referred to as intrinsically safe. These components must be tested such that they will not become an ignition point when subjected to short circuits or adjacent component failures. They must also switch to a defined state when subjected to overload conditions. Our 522-03-i, 525-03-0-i, 535-04-0-i, and 567-70-i Optocoupler series are all ideal for this environment.

522 <i>(11ATEX 0086, DIN EN 60062)</i> Isolation Voltage Input/Output Min. (VDC): 4,000 Current Transfer Ratio Ic/I _f (If = 10mA) Min.: 0.5 Turn On/Off Time(μsec): 3.5/2.6 Collector-Emitter Voltage (VDC) Max.: 32 Creeping Distance, Air Path I/O Min. (mm): 12 Ambient Temperature °C: -40 to 85 • Insulation resistance input /output up to 10 ¹² Ω • Transmission frequencies up to 85KHz		
525 <i>(11ATEX 0086, DIN EN 60062)</i> Isolation Voltage Input/Output Min. (VDC): 4,000 Current Transfer Ratio Ic/I _f (If = 10mA) Min.: 0.5 Turn On/Off Time(μsec): 5.5/4.2 Collector-Emitter Voltage (VDC) Max.: 32 Creeping Distance, Air Path I/O Min. (mm): 14.5 Ambient Temperature °C: -40 to 85 • Insulation resistance input /output up to 10 ¹² Ω • Transmission frequencies up to 50KHz		
535 <i>(11ATEX 0086, DIN EN 60062)</i> Isolation Voltage Input/Output Min. (VDC): 4,000 Current Transfer Ratio Ic/I _f (If = 10mA) Min.: 3.0 Turn On/Off Time(μsec): 19.5/212 Collector-Emitter Voltage (VDC) Max.: 32 Creeping Distance, Air Path I/O Min. (mm): 14.5 Ambient Temperature °C: -40 to 85 • Insulation resistance input /output up to 10 ¹³ Ω • Transmission frequencies up to 2KHz		
567 <i>(11ATEX 0086, DIN EN 60062)</i> Isolation Voltage Input/Output Min. (VDC): 4,000 Output Current I _o (mA) Max.: 50 Supply Voltage (VDC) Max.: 5 Turn On/Off Time(μsec): 0.5/0.5 Creeping Distance, Air Path I/O Min. (mm): 14 Ambient Temperature °C: -20 to 85 • Insulation resistance input /output up to 10 ¹³ Ω • Transmission frequencies up to 500KHz		
521 Isolation Voltage Input/Output Min. (VDC): 6,000 Current Transfer Ratio Ic/I _f (If = 10mA) Min.: 0.5 Turn On/Off Time(μsec): 5.5/4.2 Collector-Emitter Voltage (VDC) Max.: 70 Creeping Distance, Air Path I/O Min. (mm): 24.5 Ambient Temperature °C: -40 to 85 • Insulation resistance input /output up to 10 ¹³ Ω • Transmission frequencies up to 50KHz		
528 Isolation Voltage Input/Output Min. (VDC): 10,000 Current Transfer Ratio Ic/I _f (If = 10mA) Min.: 0.9 Turn On/Off Time(μsec): 5.5/4.2 Collector-Emitter Voltage (VDC) Max.: 70 Creeping Distance, Air Path I/O Min. (mm): 42 Ambient Temperature °C: -40 to 85 • Insulation resistance input /output up to 10 ¹² Ω • Transmission frequencies up to 50KHz		 <p>Scale 1:125</p>
530 Isolation Voltage Input/Output Min. (VDC): 20,000 Current Transfer Ratio Ic/I _f (If = 10mA) Min.: 0.5 Turn On/Off Time(μsec): 5.5/4.2 Collector-Emitter Voltage (VDC) Max.: 32 Creeping Distance, Air Path I/O Min. (mm): 32 Ambient Temperature °C: -40 to 85 • Insulation resistance input /output up to 10 ¹² Ω • Transmission frequencies up to 50KHz		

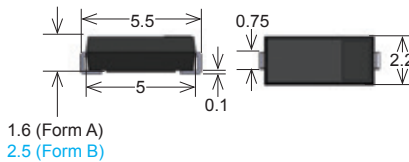
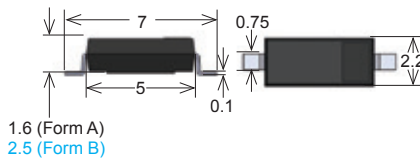
Important Notice: The scope of the technical and application information included in this catalog is necessarily limited. Operating environments and conditions can materially affect the operating results of Standex-Meder products. Users must determine the suitability of any Standex-Meder component for their specific application, including the level of reliability required, and are solely responsible for the function of the end-use product.

MK24 (SMD) / (Ultraminiature/SPST-NC Form B)

Operating Range: 5-30 AT
Contact Form: 1A, 1B
Rated Power Max.: 3W/30VDC/0.3A



- On/Off control switch, position detection
- Portable medical device, white goods, telecomm, security
- Supplied in tape and reel according to IEC 286/part 3
- Axial, gull-wing, or J-lead, normally closed, UL

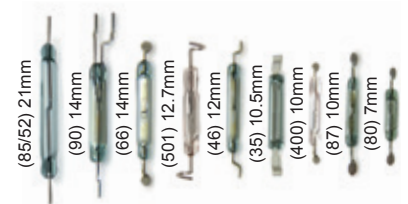
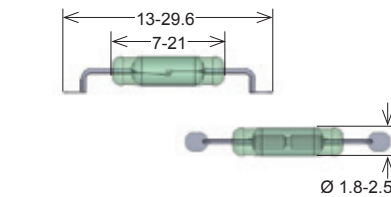


MK23 (SMD) / (Ultraminiature/HV/Best Value)

Operating Range: 10-60 AT
Contact Form: 1A, 1C
Rated Power Max.: 100W/1000VDC/1A



- On/Off control switch, position detection
- Telecomm, white goods, industrial, security
- Supplied in tape and reel according to IEC 286/part 3
- Axial, gull-wing, inverse gull-wing, J-lead or helix lead, UL

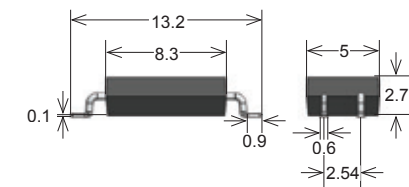


MK10 (SMD) / (Ultraminiature)

Operating Range: 10-40 AT
Contact Form: 1A
Rated Power Max.: 10W/170VDC/0.5A



- On/Off control switch, position detection
- Level sensing applications
- Supplied in tape and reel according to IEC 286/part 3
- Internal resistor (others available), gull-wing

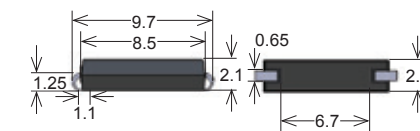
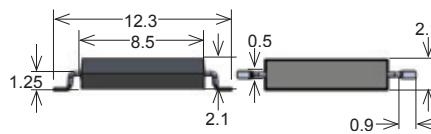


MK17 (SMD) / (Ultraminiature)

Operating Range: 10-40 AT
Contact Form: 1A
Rated Power Max.: 10W/170VDC/0.25A



- On/Off control switch, position detection
- Portable medical device, white goods, telecomm, security
- Supplied in tape and reel according to IEC 286/part 3
- Axial, gull-wing or J-lead, UL

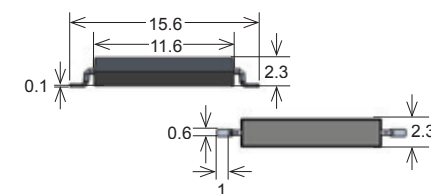


MK16-400 (SMD) / (Miniature/Best Value)

Operating Range: 7-30 AT
Contact Form: 1A
Rated Power Max.: 5W/180VDC/0.5A



- On/Off control switch, position detection
- Portable, white goods, telecomm, security
- Supplied in tape and reel according to IEC 286/part 3
- Axial or gull-wing lead

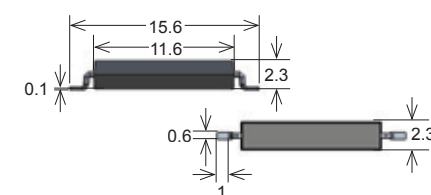


MK16 (SMD) / (Miniature)

Operating Range: 10-60 AT
Contact Form: 1A
Rated Power Max.: 10W/200VDC/0.5A



- On/Off control switch, position detection
- Portable medical device, white goods, telecomm, security
- Supplied in tape and reel according to IEC 286/part 3
- Axial or gull-wing lead, UL



Note: All dimensions are in mm. Please refer to the product datasheets on our website for full dimensions, specifications, tolerances, etc. We reserve the right to make any changes according to technological progress or further developments. All product images are scaled 1:1 unless otherwise noted. Matching magnets (sold separate) available - see page 16-17.



Best Value



High Voltage



SPST Normally-Closed



Miniature 9-14mm



Ultraminiature 8mm & below



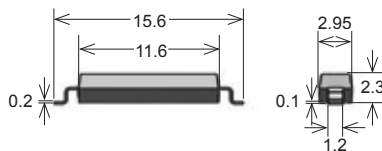
UL Approval

MK22

(SMD) / (Miniature)

Operating Range: 10-30 AT
Contact Form: 1A
Rated Power Max.: 20W/200VDC/1A

- On/Off control switch, position detection
- Portable medical device, white goods, telecom, security
- Supplied in tape and reel according to IEC 286/part 3
- Axial or gull-wing lead, UL

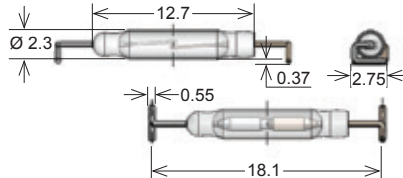


MK23-501

(SMD) / (Miniature/Best Value)

Operating Range: 7-30 AT
Contact Form: 1A
Rated Power Max.: 10VA/200VDC/0.5A

- On/Off control switch, position detection
- Telecomm, white goods, industrial, security
- Supplied in tape and reel according to IEC 286/part 3
- Axial, gull-wing or Helix lead, UL

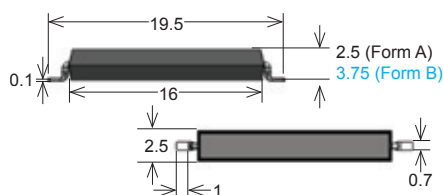


MK15

(SMD) / (SPST-NC Form B)

Operating Range: 10-60 AT
Contact Form: 1A, 1B
Rated Power Max.: 10W/200VDC/0.5A

- On/Off control switch, position detection
- Telecomm, white goods, industrial, security
- Supplied in tape and reel according to IEC 286/part 3
- Axial or gull-wing lead, high power switch, UL

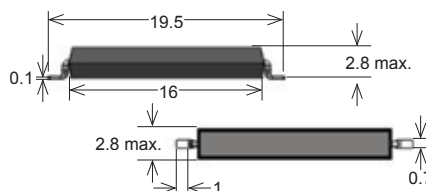


MK15-501

(SMD) / (Best Value)

Operating Range: 7-30 AT
Contact Form: 1A
Rated Power Max.: 10VA/200VDC/0.5A

- On/Off control switch, position detection
- Telecomm, white goods, industrial, security
- Supplied in tape and reel according to IEC 286/part 3, UL

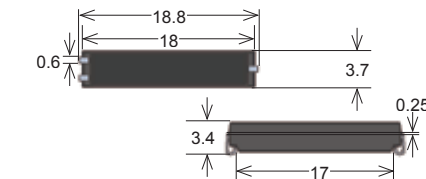


MK01

(SMD) / (SPDT Changerover)

Operating Range: 10-60 AT
Contact Form: 1A, 1B, 1C
Rated Power Max.: 10W/200VDC/0.5A

- On/Off control switch, position detection
- Telecomm, white goods, industrial, security
- Supplied in tape and reel according to IEC 286/part 3
- High power switch, UL

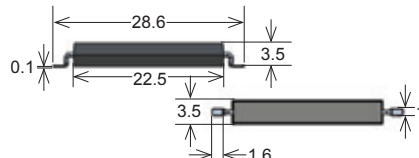


MK30

(SMD) / (High Volatage)

Operating Range: 15-50 AT
Contact Form: 1A
Rated Power Max.: 100W/1000VDC/1A

- On/Off control switch, position detection
- Telecomm, white goods, industrial, security
- Supplied in tape and reel according to IEC 286/part 3
- Gull-wing lead



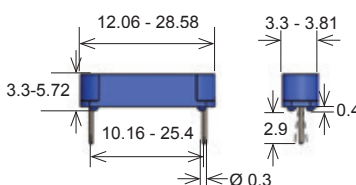
Scale 1:1.5

MK06

(THT) / (Miniature)

Operating Range: 10-60 AT
Contact Form: 1A, 1B, 1C, 1E
Rated Power Max.: 10W/170-200VDC/0.25-0.5A

- On/Off control switch, position detection
- Telecomm, white goods, industrial, security
- UL, 1inch (2.54mm) pin spacing



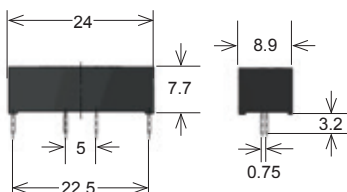
Scale 1:1.5

MK02/6, MK02/7

(THT) / (Metal Detection)

Operating Range: 4.5-15 MM
Contact Form: 1A
Rated Power Max.: 10W/200VDC/1.25A

- Ferrous metal detection, front or above operation
- Industrial, security



Note: All dimensions are in mm. Please refer to the product datasheets on our website for full dimensions, specifications, tolerances, etc. We reserve the right to make any changes according to technological progress or further developments. All product images are scaled 1:1 unless otherwise noted. Matching magnets (sold separate) available - see page 16-17.



Best Value



High Voltage



Metal Detection



SPST Normally-Closed



SPDT Changerover



Miniature 9-14mm



IP67 Approval



UL Approval

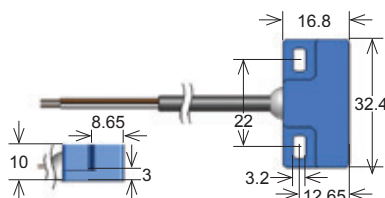
SENSOR PRODUCTS | Reed Sensors & Magnets

MK02 (Screw Mount) / (Metal Detection)

Operating Range: 4.5-15 MM
Contact Form: 1A, 1B, 1C
Rated Power Max.: 10W/200VDC/0.5A



- Ferrous metal detection, front or above operation
- Industrial, security
- IP67 Rated
- Integrated magnet (Only MK02/4 requires ext. magnet)



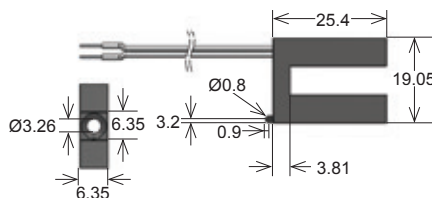
Scale 1:1.5

MK28 (Screw Mount) / (Metal Detection)

Operating Range: Exact
Contact Form: 1A, 1B, 1C
Rated Power Max.: 10W/175VDC/0.5A



- Vane operated screw mount proximity/motion Sensor
- Automotive, industrial automation equipment, and robotics
- Ideal in harsh environments, integrated magnet



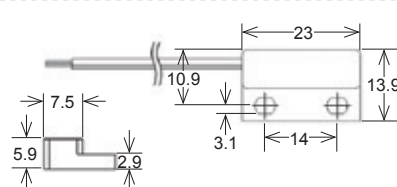
Scale 1:1.5

MK04 (Screw Mount) / (Best Value)

Operating Range: 10-60 AT
Contact Form: 1A, 1B, 1C
Rated Power Max.: 10W/400VDC/0.5A



- Position, level, and end limit sensing
- White goods, industrial, security
- UL, internal switch, cable, length, termination



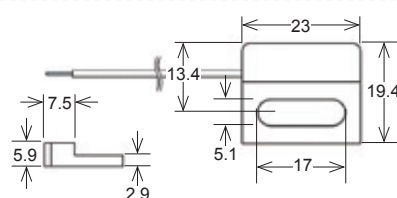
Scale 1:1.5

MK05 (Screw Mount) / (Best Value)

Operating Range: 10-60 AT
Contact Form: 1A, 1B, 1C
Rated Power Max.: 10W/400VDC/0.5A



- Position, level, and end limit sensing
- White goods, industrial, security
- UL, internal switch, cable, length, termination



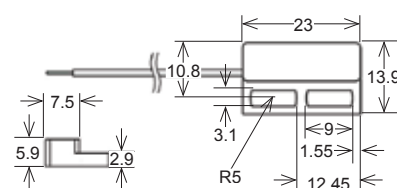
Scale 1:1.5

MK13 (Screw Mount) / (Best Value)

Operating Range: 10-60 AT
Contact Form: 1A, 1B, 1C, 1E
Rated Power Max.: 10W/400VDC/0.5A



- Position, level, and end limit sensing
- White goods, industrial, security
- UL, internal switch, cable, length, termination



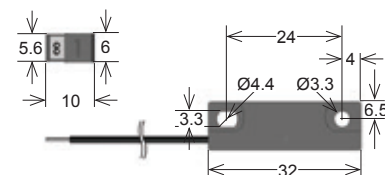
Scale 1:1.5

MK26 (Screw Mount) / (High Voltage)

Operating Range: 10-60 AT
Contact Form: 1A, 1B, 1C
Rated Power Max.: 100W/1000VDC/1A



- Position, level, and end limit sensing
- White goods, HVAC/R, industrial, security
- IP67 rated
- Internal switch, cable, length, termination



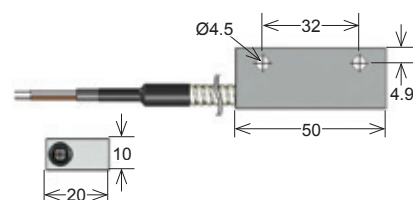
Scale 1:1.5

MK27 (Screw Mount) / (High Voltage)

Operating Range: 10-60 AT
Contact Form: 1A, 1B, 1C, 1E
Rated Power Max.: 100W/1000VDC/1A



- Aluminum, harsh environment position, end limit sensor
- Agriculture, construction, white goods, industrial, security
- IP67 rated, sensing distance up to 40mm
- Internal switch, cable, length, termination



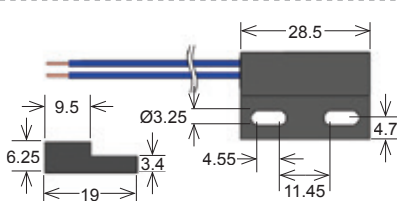
External Magnet Included
Scale 1:2

MK21P, MK21M (Screw Mount) / (High Temperature)

Operating Range: 10-60 AT
Contact Form: 1A, 1B, 1C, 1E
Rated Power Max.: 10W/500VDC/0.5A



- Position, level, and end limit sensing
- Automotive, white goods, industrial, security
- IP67 rated, (M) molded version for high temp (+150°C)
- UL, internal switch, cable, length, termination



Scale 1:1.5

Note: All dimensions are in mm. Please refer to the product datasheets on our website for full dimensions, specifications, tolerances, etc. We reserve the right to make any changes according to technological progress or further developments. All product images are scaled 1:1 unless otherwise noted. Matching magnets (sold separate) available - see page 16-17.



Best Value



High Temp Resistant



High Voltage



Metal Detection



IP67 Approval

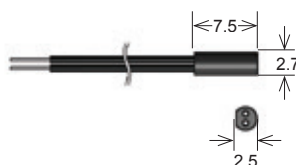


UL Approval

MK20/2 (Panel Mount) / (Ultraminiature)

Operating Range: 10-30 AT
Contact Form: 1A
Rated Power Max.: 3W/30VDC/0.25A

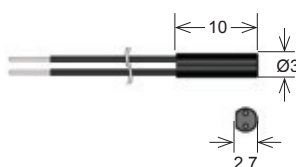
- Position, level, and end limit sensing
- White goods, industrial, security
- 2.7mm Cylindrical Proximity/Motion Sensor
- UL, cable, length, termination



MK20/1 (Panel Mount) / (Miniature)

Operating Range: 10-60 AT
Contact Form: 1A
Rated Power Max.: 10W/30VDC/0.25A

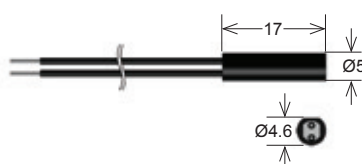
- Position, level, and end limit sensing
- White goods, industrial, security
- 3.0mm Cylindrical Proximity/Motion Sensor
- UL, cable, length, termination



MK18 (Panel Mount)

Operating Range: 10-60 AT
Contact Form: 1A
Rated Power Max.: 10W/200VDC/0.5A

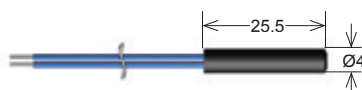
- Position, level, and end limit sensing
- White goods, industrial, security
- 5.0mm Cylindrical Proximity/Motion Sensor
- UL, internal switch, cable, length, termination



MK14 (Panel Mount)

Operating Range: 10-60 AT
Contact Form: 1A, 1B, 1C
Rated Power Max.: 10W/400VDC/0.5A

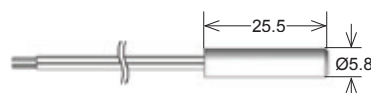
- Position, level, and end limit sensing
- White goods, industrial, security
- 4.0mm Cylindrical Proximity/Motion Sensor
- UL, internal switch, cable, length, termination



MK03 (Panel Mount)

Operating Range: 10-60 AT
Contact Form: 1A, 1B, 1C
Rated Power Max.: 10W/400VDC/0.5A

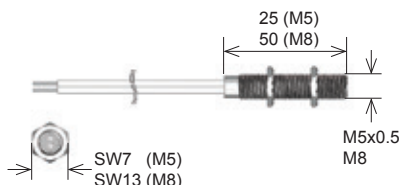
- Position, level, and end limit sensing
- White goods, industrial, security
- 5.75mm Cylindrical Proximity/Motion Sensor
- UL, internal switch, cable, length, termination



MK11 (S) (Adjustable Thread Mount)

Operating Range: 10-60 AT
Contact Form: 1A, 1B, 1C
Rated Power Max.: 10W/200VDC/0.5A

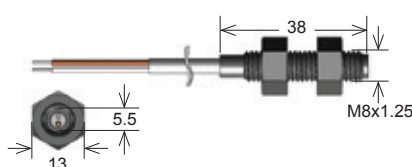
- Position, level, and end limit detection w/sensing adjustment
- White goods, food, industrial, security
- IP67 rated, stainless steel M5/M8 threaded panel mount
- UL, internal switch, cable, length, termination



MK11 (P) (Adjustable Thread Mount) / (High Voltage)

Operating Range: 10-60 AT
Contact Form: 1A, 1B, 1C
Rated Power Max.: 100W/1000VDC/1A

- Position, level, and end limit detection w/sensing adjustment
- White goods, industrial, security
- IP67 rated, plastic M8 threaded panel mount
- UL, internal switch, cable, length, termination

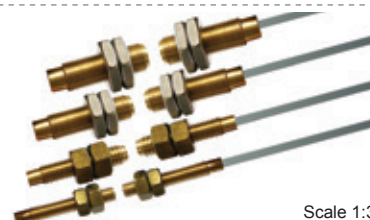
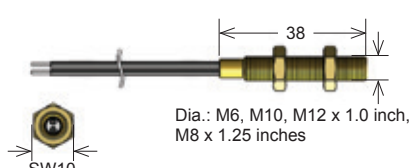


Scale 1:15

MK11 (B) (Adjustable Thread Mount) / (High Voltage)

Operating Range: 10-60 AT
Contact Form: 1A, 1B, 1C
Rated Power Max.: 100W/1000VDC/1A

- Position, level, and end limit detection w/sensing adjustment
- Machine safety controls, doors/gates, satellite antennas
- IP67 rated, brass M6-M12 threaded panel mount
- UL, internal switch, cable, length, termination



Scale 1:3

Note: All dimensions are in mm. Please refer to the product datasheets on our website for full dimensions, specifications, tolerances, etc. We reserve the right to make any changes according to technological progress or further developments. All product images are scaled 1:1 unless otherwise noted. Matching magnets (sold separate) available - see page 16-17.



High Voltage



Miniature
9-14mm



Ultraminiature
8mm & below



IP67
Approval

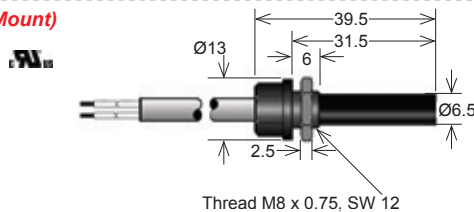


UL
Approval

MK07 (Adjustable Thread Mount)

Operating Range: 10-60 AT
Contact Form: 1A, 1B, 1C
Rated Power Max.: 10W/200VDC/0.5A

- Position, level, and end limit sensing
- White goods, industrial, security
- Plastic M8 threaded panel mount

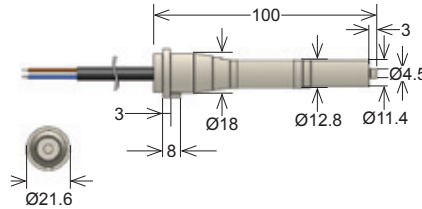


Scale 1:15

MK08 (Panel Mount) / (ATEX Approved)

Operating Range: 10-60 AT
Contact Form: 1A, 1B
Rated Power Max.: 60W/400VDC/1A

- Oil resistant wire
- Operate -40°C to +130°C,
- KEMA 00ATEX1112 X, IECEx KEM09.0006 X according to Din EN60062

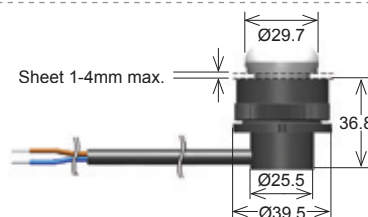


Scale 1:3

MK25 (Panel Mount) / (ATEX Approved)

Operating Temp: -40°C to +60°C
Contact Form: 1A, 1B, 1C
Rated Power Max.: 10W/400VDC/0.5A

- Contactless switching, push button reed sensor
- Industrial, mining, intrinsic safety circuits
- KEMA 05ATEX1206 X according to EN 60062



Scale 1:1.5

- Button plates, emergency stop buttons, etc. can be provided with laser inscriptions as required. The information is burnt into the surface and thus, unlike with print-inscribed elements, is very durable.



Button Accessories
Sold Separate

Magnets In Housings

M06

Dimensions in mm (inches)
L - 12.06-22.32 (0.475-0.879)
W - 3.3 (0.129)
H - 3.3 (0.129)



M04

Dimensions in mm (inches)
L - 23 (0.905)
W - 13.9 (0.547)
H - 5.9 (0.232)



M13

Dimensions in mm (inches)
L - 23 (0.905)
W - 13.9 (0.547)
H - 5.9 (0.232)



M05

Dimensions in mm (inches)
L - 23.2 (0.913)
W - 19.6 (0.771)
H - 5.9 (0.232)



M21P/1, M21P/2

Dimensions in mm (inches)
L - 28.6 (1.125)
W - 19 (0.748)
H - 6.35 (0.25)



Scale 1:125

Note: All dimensions are in mm. Please refer to the product datasheets on our website for full dimensions, specifications, tolerances, etc. We reserve the right to make any changes according to technological progress or further developments. All product images are scaled 1:1 unless otherwise noted.



ATEX
Certified



UL
Approval

M26

Dimensions in mm (inches)

L - 32 (1.260)
W - 10 (0.394)
H - 6 (0.236)



Scale 1:125

M02

Dimensions in mm (inches)

L - 32.4 (1.275)
W - 16.7 (0.657)
H - 10 (0.393)



M03

Dimensions in mm (inches)

L - 25 (0.984)
Ø - M5 x 0.5



M11 (SS)

Dimensions in mm (inches)

L - 25 (0.984)
Ø - M5 x 0.5 / M8 x 0.5



M11 (P)

Dimensions in mm (inches)

L - 38 (1.496)
Ø - M8 x 1.25



Scale 1:125

M11 (B)

Dimensions in mm (inches)

L - 38 (1.496)
Ø - M6-M12



Scale 1:225

Permanent Magnets

General Information

A Reed Switch requires either a permanent magnet or magnetic field in order to activate the switch, thus it is commonly called a magnetic reed switch. Magnets have reversible and irreversible demagnetization specifications. Engineers should consider shock, vibration, strong external magnetic fields as well as high temperatures in their designs. All these factors influence the magnetic force and the long term stability in different ways.

Preferably the magnet is mounted on the moving part of the application. Professional tuning of magnet and reed switch pairing can improve the functionality of the whole sensor-magnet system.

We offer the following types of permanent magnets:

- AlNiCo (Aluminum Nickel, Cobalt, Iron and Titanium)
- SmCo (Samarium-Cobalt) & NdFeB (Neodymium) - rare earth
- Hf - hard ferrite

These are some of our most widely used models, others available as required.

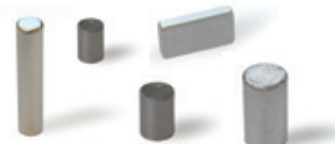
AlNiCo

Ø2.5 x 12.7 mm
Ø3.0 x 12.0 mm
Ø4.0 x 19.0 mm
Ø5.0 x 4.0 mm
Ø5.0 x 20.0 mm
Ø5.5 x 22.0 mm
Ø7.5 x 27.0 mm
3.2 x 3.2 x 19.0 mm



Rare Earth

NdFeB N35 Ø4 x 19 mm
NdFeB N35H Ø4 x 19 mm
NdFeB N45 Ø4 x 19 mm
NdFeB 250/175H Ø6 x 10 mm
NdFeB 250/175H 10 x 5 x 1.9 mm
SmCo5 Ø1.9 x 3 mm
SmCo5 Ø3 x 4 mm



Hard Ferrite

28/26 2.6 x 2.6 x 4.0 mm
28/26 3.5 x 1.8 x 1.8 mm
28/26 6.7 x 6.7 x 2.7 mm



costs	Ferrite	AlNiCo	NdFeB	SmCo
energy (WxH max.)	Ferrite	AlNiCo	SmCo	NdFeB
working temperature	NdFeB	Ferrite	SmCo	AlNiCo
corrosion - resistant	NdFeB	SmCo	AlNiCo	Ferrite
opposing field - resistant	AlNiCo	Ferrite	NdFeB	SmCo
mechanical strength	Ferrite	SmCo	NdFeB	AlNiCo
temperature coefficient	AlNiCo	SmCo	NdFeB	Ferrite

Note: All dimensions are in mm. Please refer to the product datasheets on our website for full dimensions, specifications, tolerances, etc. We reserve the right to make any changes according to technological progress or further developments. All product images are scaled 1:1 unless otherwise noted.

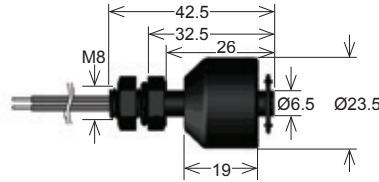
Fluid Level Sensors

Standex-Meder supplies fluid level sensors that use a wide range of technologies - from magnetic Reed Switch technology to conductive technology. Standex-Meder designs fluid level sensors that are appropriate for each individual application. From basic sensors which are driven by external electronics to turnkey sensor systems with switched outputs, Standex-Meder delivers solutions to the most demanding fluid level sensing applications.

LS01

Contact Form: 1A, 1B, 1C
Rated Power Max.: 100W/400VDC/1.0A
Shaft/Float: PA or PP / PA, PP, NBR

- Compact Single Level Vertical Mount Level Sensor
- Level control, detection and monitoring
- Auto, Appliance, HVAC/R, Test & Measurement
- High power switch option, other cables and connectors

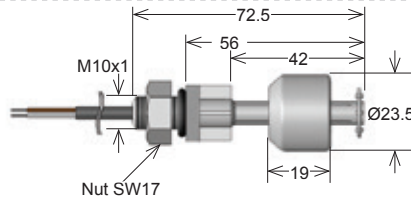


Scale 1:2

LS02

Contact Form: 1A, 1B, 1C
Rated Power Max.: 100W/400VDC/1.0A
Shaft/Float: PA, PP / PA, PP, NBR

- IP68-only up to screw in thread
- Level control, detection and monitoring
- Auto, Appliance, HVAC/R, Test & Measurement
- High power switch option, other cables and connectors

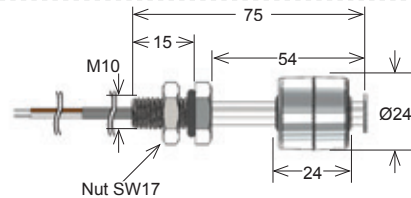


Scale 1:2

LS02-S

Contact Form: 1A, 1B, 1C
Rated Power Max.: 100W/400VDC/1.0A
Shaft/Float: SS / SS

- IP68-only up to screw in thread, High temp up to 120°C
- Level control, detection and monitoring
- Auto, Appliance, HVAC/R, Test & Measurement
- High power switch option, other cables and connectors

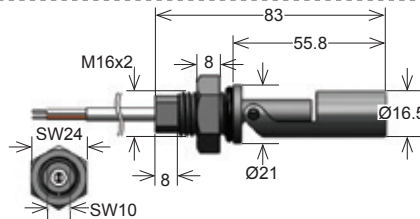


Scale 1:2

LS03

Contact Form: 1A, 1B, 1C
Rated Power Max.: 100W/400VDC/1.0A
Shaft/Float: PA, PP / PA, PP

- Single Level Horizontal Mount
- Level control, detection and monitoring
- Auto, Appliance, HVAC/R, Test & Measurement
- High power switch option, other cables and connectors

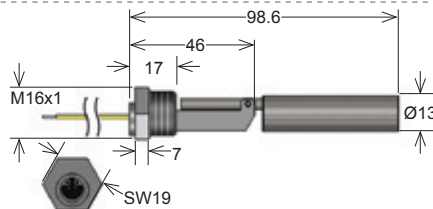


Scale 1:2

LS03-S

Contact Form: 1A, 1B, 1C
Rated Power Max.: 100W/400VDC/1.0A
Shaft/Float: SS / SS

- Single Level Horizontal Mount, High temp up to 150°C
- Level control, detection and monitoring
- Auto, Appliance, HVAC/R, Test & Measurement
- High power switch option, other cables and connectors



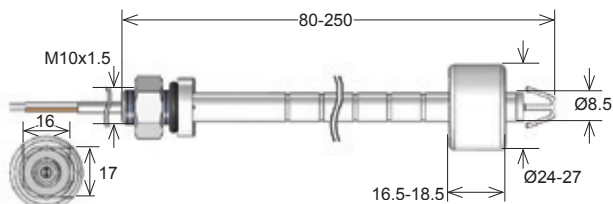
Scale 1:2

LS04

Contact Form: 1A, 1B, 1C
Rated Power Max.: 100W/400VDC/1.0A
Shaft: PP
Float: PA, PP, NBR



- Single, multi and continuous level control, detection and monitoring
- Reservoir, tank, bottle or other container mounting configurations
- Auto, Appliance, Aviation, Food & Beverage, Industrial, Laboratory, Marine
- Up to 6 floats, 1W-100W rated power, other cables, connectors



Scale 1:15

Note: All dimensions are in mm. Please refer to the product datasheets on our website for full dimensions, specifications, tolerances, etc. We reserve the right to make any changes according to technological progress or further developments. All product images are scaled 1:1 unless otherwise noted.



High Temp
Resistant



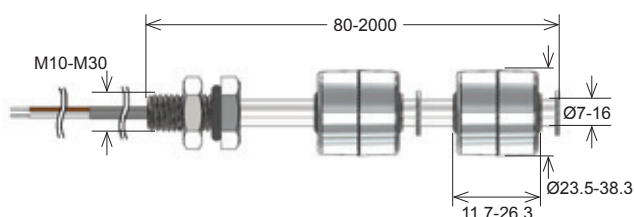
High
Voltage

LS05

Contact Form: 1A, 1B, 1C
 Rated Power Max.: 100W/400VDC/1.0A
 Shaft: SS
 Float: PA, PP, NBR, SS



- Single, multi and continuous level control, detection and monitoring
- High temp up to 200°C (SS) and pressure up to 12 bar
- Auto, Appliance, Aviation, Food & Beverage, Industrial, Laboratory, Marine
- Multiple floats w/min1.5" spacing, 1W-100W rated power, other cables, connectors



Scale 1:15

Magnetic Floats

Series	Material	Outside Dia. mm (inches)	Inside Dia. mm (inches)	Height mm (inches)	Use with sensor	Additional Information
MS01-NBR	NBR	24.5 (0.964)	8 (0.314)	19 (0.748)	LS01, LS02, LS02-S LS04, LS05	Excellent resistance to petroleum derived liquids
MS02-NBR	NBR	25 (0.984)	9.15 (0.360)	16.5 (0.649)		
MS01-PA	PA	23.5 (0.925)	8.5 (0.334)	19 (0.748)		
MS02-PA	PA	25 (0.984)	9.15 (0.360)	16.55 (0.651)	LS01, LS02-S LS05	High strength to weight ratio, shock and abrasion resistant
MS07-PA	PA	36 (1.417)	16.15 (0.635)	19 (0.748)		
MS01-PP	PP	23.5 (0.925)	8.4 (0.330)	19 (0.748)		
MS02-PP	PP	25.2 (0.992)	9.15 (0.360)	16.55 (0.651)	LS01, LS02 LS02-S LS04, LS05	Highly resistant to chemical solvents, bases and acids
MS03-PP	PP	27 (1.062)	11 (0.433)	11.7 (0.460)		
MS04-PP	PP	18.5 (0.728)	10.2 (0.401)	20 (0.787)		
MS08-PP	PP	20.0 (0.787)	9.15 (0.360)	16 (0.630)		
MS06-PP	PP	30 (1.181)	8 (0.314)	8 (0.314)	All Reed Sensors	Highly resistant to chemical solvents, bases and acids; also for food and beverage industry
B12469	PP	32.6 (1.283)	N/A	22.9 (0.901)	R12468	Float located in bottle assembly, specific gravity per application
B12482	PP	42 (1.653)	11.4 (0.448)	25 (0.984)	R12481	Float located in bottle assembly, specific gravity per application
B12450	PP	L - 17.5 (0.688)	W - 13.4 (0.527)	24.9 (0.980)	R11744 R12180	Float located in bottle assembly, operates with fluid specific gravity at 0.79 min
MS09-S	V2A	24 (0.944)	9.5 (0.374)	24 (0.944)	LS02-S LS05	Resistant to high temperatures and ideal for food and beverage industry
MS10-S	V2A	38.3 (1.507)	9.5 (0.374)	26.3 (1.035)		

PA (Polyamide) | PP (Polypropylene) | NBR (Nitrile Butadiene Rubber) | V2A (Stainless Steel)



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Planar Inductors & Transformers

Planar transformers and inductors from Standex-Meder Electronics feature high-performance from a compact, low-profile package. Planar transformers are steadily replacing the need for traditional wire-wound transformers in many industries. These proven designs are ideal for demanding applications where space and weight savings are vital. Industries such as appliance, automotive, electronics, industrial, military/aerospace, hybrid vehicles, and alternative energy can benefit from standard or custom Standex-Meder planar designs. Applications include but are not limited to: switching power supplies, DC/DC converters in distributed power systems, FPGA and low-profile high-current, high current POL converters, feedback control, overload sensing, load drop and shut down detection.

Ordering Information

Planar Transformers

SX58 - 12 - 240 - 120 - R/RS

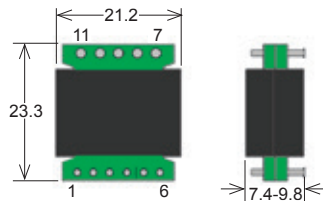
1 - **2** - **3** - **4** - **5**

1. Core size and series
2. Wattage, 100's of W
3. Min. volts in
4. Typ. volts out
5. Mechanical dimensions

SX40

Rated Power: 180W - 360W
Frequency Range: 100-800 KHz
Primary Inductance Min.: 117-345 μ H
Leakage Inductance Nom.: 0.1-0.4 μ H

- High power planar transformers
- Single interleave designs (H -7.4mm)/Double (H -9.8mm)
- Mounting and termination options available

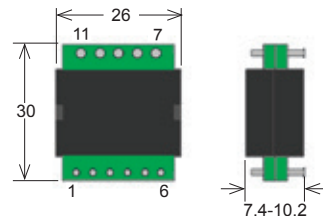


Scale 1:15

SX55

Rated Power: 350W - 700W
Frequency Range: 100-800 KHz
Primary Inductance Min.: 54-215 μ H / 216-860 μ H
Leakage Inductance Nom.: 0.1-0.33 μ H

- High power planar transformers
- Single interleave (H -7.4mm)/Double (H -10.2mm)
- Mounting and termination options available

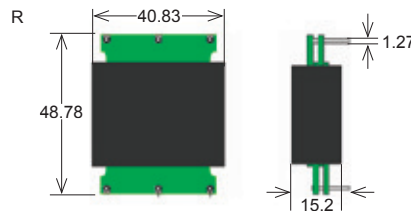


Scale 1:15

SX41 (R)

Rated Power: 500W - 2KW
Frequency Range: 50-400 KHz
Primary Inductance Min.: 3018 μ H
Leakage Inductance Nom.: 0.15 μ H

- Heatsink and thermal pad also available
- 12mm low profile height
- Mounting and termination options available

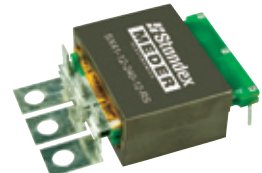
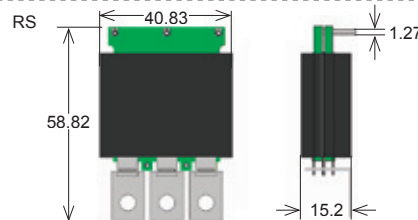


Scale 1:2

SX41 (RS)

Rated Power: 500W - 2KW
Frequency Range: 50-400 KHz
Primary Inductance Min.: 3018 μ H
Leakage Inductance Nom.: 0.15 μ H

- Heatsink and thermal pad also available
- 12mm low profile height
- Mounting and termination options available

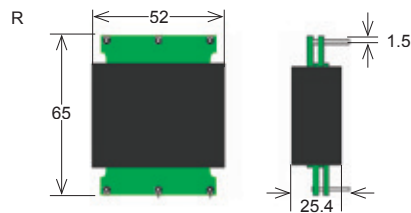


Scale 1:2

SX58 (R)

Rated Power: 1KW - 5KW
Frequency Range: 50-400 KHz
Primary Inductance Min.: 2932 μ H
Leakage Inductance Nom.: 0.1 μ H

- Heatsink and thermal pad also available
- High voltage isolation & 8 mm creepage capability
- Various mounting and termination options available

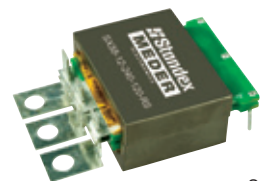
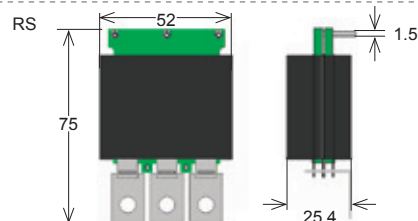


Scale 1:2

SX58 (RS)

Rated Power: 1KW - 5KW
Frequency Range: 50-400 KHz
Primary Inductance Min.: 2932 μ H
Leakage Inductance Nom.: 0.1 μ H

- Heatsink and thermal pad also available
- High voltage isolation & 8 mm creepage capability
- Various mounting and termination options available



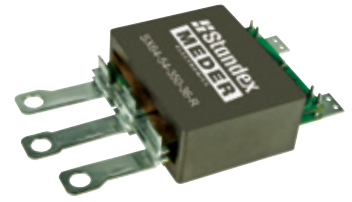
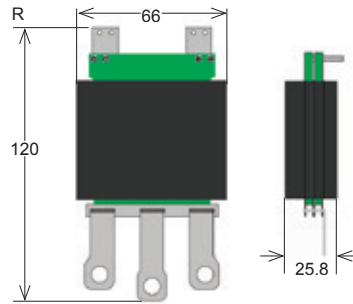
Scale 1:2

Note: All dimensions are in mm. Please refer to the product datasheets on our website for full dimensions, specifications, tolerances, etc. We reserve the right to make any changes according to technological progress or further developments. All product images are scaled 1:1 unless otherwise noted.

SX64 (R)

Rated Power: 1KW - 10KW
 Frequency Range: 50-400 KHz
 Primary Inductance Min.: 1265 μ H
 Leakage Inductance Nom.: 0.1 μ H

- Heatsink and thermal pad also available
- High voltage isolation & 8 mm creepage capability
- Various mounting and termination options available

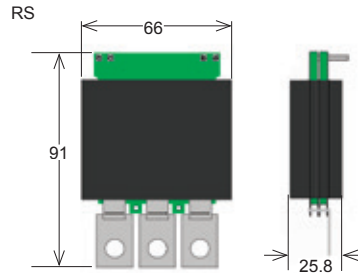


Scale 1:3

SX64 (RS)

Rated Power: 1KW - 10KW
 Frequency Range: 50-400 KHz
 Primary Inductance Min.: 1265 μ H
 Leakage Inductance Nom.: 0.1 μ H

- Heatsink and thermal pad also available
- High voltage isolation & 8 mm creepage capability
- Various mounting and termination options available



Scale 1:3

Ordering Information

Planar Inductors

PQ2007-0R4-70-G

1 - 2 - 3 - 4 - 5

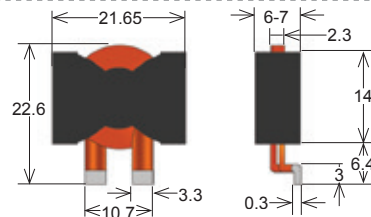
1. Core style and size
2. Typ. height in mm
3. Min. inductance in " μ H" "R" = decimal point
4. Typical Amp rating
5. Terminal style "G" = SMT/"T" = Through hole tabs

PQ20

(SMT/THT)

Inductance: 0.4 - 4.4 μ H
 Current Range Typ: 0.7 - 2.5 A
 Height Max.: 6.0 - 10.0 mm
 Footprint Max.: 22.6 x 21.65 mm

- Fixed power inductor w/ferrite core used in switching power supplies, DC/DC converters, FPGA and low/high profile current, high current POL converters, feedback control, overload sensing, load drop and shut down detection



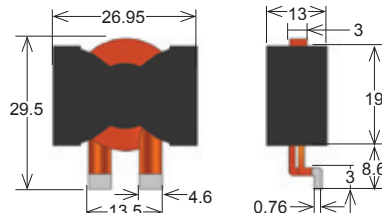
Scale 1:15

PQ26

(SMT/THT)

Inductance: 1.0 μ H
 Current Range Typ: 42 A
 Height Max.: 13.0 mm
 Footprint Max.: 29.5 x 26.95mm

- Fixed power inductor w/ferrite core used in switching power supplies, DC/DC converters, FPGA and low/high profile current, high current POL converters, feedback control, overload sensing, load drop and shut down detection



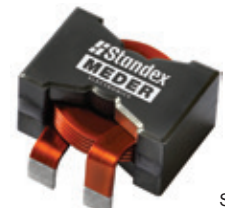
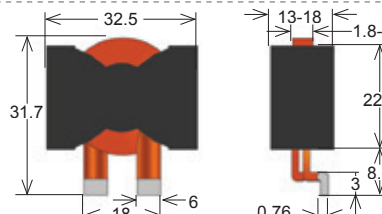
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PQ32

(SMT/THT)

Inductance: 0.9 - 6.0 μ H
 Current Range Typ: 45 - 60 A
 Height Max.: 11.0 - 18.0 mm
 Footprint Max.: 31.7 x 32.5mm

- Fixed power inductor w/ferrite core used in switching power supplies, DC/DC converters, FPGA and low/high profile current, high current POL converters, feedback control, overload sensing, load drop and shut down detection



Scale 1:15

Note: All dimensions are in mm. Please refer to the product datasheets on our website for full dimensions, specifications, tolerances, etc. We reserve the right to make any changes according to technological progress or further developments. All product images are scaled 1:1 unless otherwise noted.

Custom Reed Switches

Magnetic Reed Switches can be customized for your design needs. Some customization includes sorting specific magnetic sensitivity pull-in ranges and cutting and/or bending the Reed contact leads for either horizontal or vertical surface mount applications or other special mounting requirements.

All GR/GP, KSK and ORD Reed Switch series with normally open, normally closed or SPDT switching functions can be customized. Various different pad layouts, length of soldering pin and magnetic sensitivity class are standard options when it comes to customizing a reed switch.

In addition to these standard options, we can also customize any switch to your own design including many value add services such as PCB assembly, epoxy sealing, conformal coating, wire termination and much more. Custom switches can also be supplied in tape and reel or other desired packaging. Standex-Meder has the expertise and specialized equipment to ensure the highest quality during the custom reed switch manufacturing process.



Custom Reed Relays

Thanks to many years of experience in a Reed Technology design and production, Standex-Meder Electronics is able to provide highly specialized Reed Relays which meet the most demanding requirements of various applications. Reed Relays are ideally used for switching applications requiring low and stable contact resistance, low capacitance, high insulation resistance, long life and small size. For specialty requirements such as high RF switching, very high voltage switching, extremely low voltage or low current switching, Reed Relays are ideal.

Custom-made relays are designed to offer specific features and parameters, such as a latching function, very high insulation resistance, different shielding options etc., and thereby appropriately complete our product range of standard relays.

Do not hesitate to contact our sales offices for further information, our engineers will gladly provide you with all the necessary information and documents about our customized relays, their parameters and availability.

Options available:

- Customized series MRE, SPL and many others
- Latching versions with two switches or with two coils
- Changeover relays (Form 1C and 2C) up to 1000VDC / 1A
- Open designs for very high insulation resistance coil/contact $> 10^{14}$
- Electrostatic screening optional
- Magnetic shielding optional
- Customized nominal voltage of coil
- High coil resistance for a low consumption
- Customized pin-out



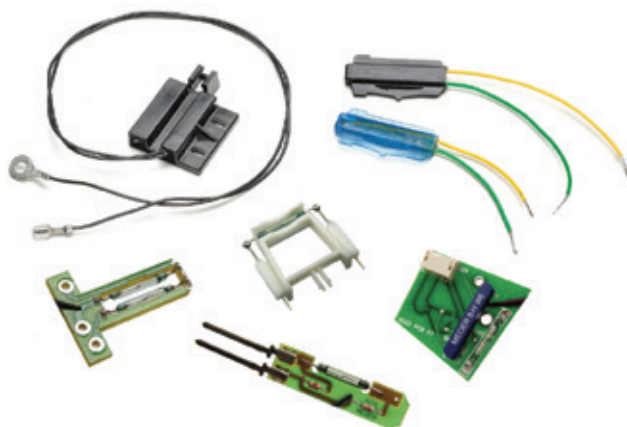
Custom Proximity & Motion Sensing Components

Reed Technology Sensors

Standex-Meder Electronics incorporates our magnetic reed switches into a wide variety of custom proximity sensors and switches. The reed sensors come in hundreds of different sizes and shapes to meet a multitude of different application requirements. Customers have the opportunity to work with our engineers to design or select the best packaging concept that will line up with their application.

Our unique and patented production process allows us to produce not only very small reed switches, but when we incorporate these into proximity sensors the result is a small sensor with big performance impact.

These ultra-miniature components allow big improvements in the performance of diverse products within medical devices, security systems, safes, and industrial control applications.



Inductive Technology Sensors

Standex-Meder Electronics manufactures custom inductive technology position, motion and speed sensors with the following features:

- Detect metallic objects without touching them -used for proximity sensing applications such as speed sensors
- Each project designed to exacting customer standards including the ability to withstand harsh environments
- Proven in appliance safety applications with thousands of cycles, and extreme "under hood" automotive applications



Custom Fluid Sensors - Level (Reed & Conductive), Flow & Pressure Differential

Fluid Level Sensors - Reed Technology

The fluid level reed sensors sense level changes in liquid in an assortment of liquid mediums. The sensors generally have an attached float with an embedded magnet that moves up and down on an encased stem where the reed switches are housed. The reed switches will change their closure state when the float comes within their magnetic influence. The closure initiates a sequence of events alerting the change of the liquid level.

We offer an extensive selection of different reed sensor packages, switch configurations, stem lengths, float density sensitivities allowing for diverse applications. Our engineers are ready to match custom designs to stringent requirements.

Our reed sensors are used in the automotive industry to measure fuel, oil, brake fluid, radiator, windshield washer level, and other fluids. They are also found in recreational vehicles, such as jet skis, sensing oil and fuel levels. Wherever a liquid exists or can accumulate, Standex-Meder offers a sensing solution.



Custom Fluid Sensors - Level (Reed & Conductive), Flow & Pressure Differential

HVAC/R Series Flood Prevention Switches -Reed Technology

Truly Reliable, Plug-N-Play and Hassle Free

Standex-Meder provides the HVAC industry with high performing Flood Prevention Switches (FPS's) that are easy to install and service. Our expertise and capabilities allow for reliable innovations that prevent overflowing that causes damage to floors, walls, ceilings and the like. For example, if water levels in the auxiliary or main drain pipe rose due to a clogged air conditioning condensate, the switch shuts off the system.



Fluid Level Sensors - Conductive Technology

Standex-Meder manufactures state-of-the-art conductive liquid sensors that detect changes in levels without the use of a float. These sensors are used generally in water based conductive fluids when the application cannot use a float based system. Our conductive fluid level sensors have a patented false full protection and current level shift to indicate fluid level. They guard against electrolysis and conduction paths along the sensor packaging with high quality performance. Applications include the measurement of syrups and juices in the food industry, measurement of liquid soaps in washing applications, liquid waste products, storm drains, bilge pumps, sump water, and many other functions.



Flow Sensors - Reed Technology

Standex-Meder designs and manufactures custom reed switch and magnet based flow switches for specific customer applications. The designs often include harsh environments, significant durability requirements, and precise flow rate switching. Designs can be intrusive or non-intrusive with multiple custom packaging options for terminating and wiring and add-ons for temperature sensing, salinity, and multiple trip points.

Utilizing our vast experience in reed switch application engineering, mechanical packaging, and related manufacturing process, Standex-Meder provides quality flow switching products for markets such as home appliances and pool/spa.



Pressure Differential Sensors - Reed Technology

Differential pressure sensors are utilized in the hydraulics industry to alert equipment operators that their hydraulic fluid filter has reached the end of its life. Standex-Meder designs and manufactures many configurations of these "filter bypass" sensors with options for custom connection methods, varying trip and reset pressures, NO/NC/SPDT switch configurations, mounting and sealing to the filter head.

The hermetically sealed reed switch contacts are more reliable in these applications than other technologies such as open mechanical contacts, visual pop-up indicators, or snap action switch assemblies. The contact quality, switching life and non-intrusive sensing arrangement of reed switches increases indicator reliability. We partner with the customer to design and validate the custom indicators to specific OEM requirements, often creating a proprietary product line for each customer.



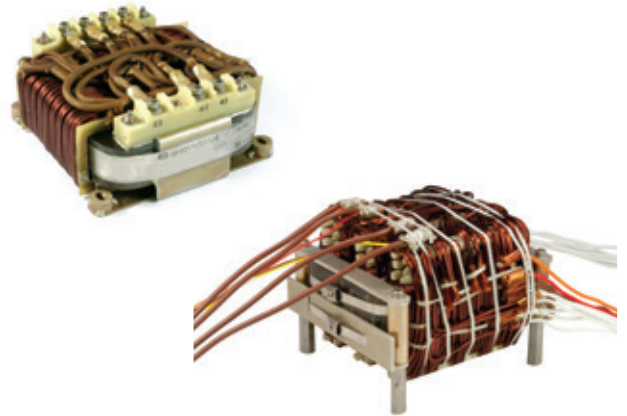
Custom Magnetic Products

Military/Aerospace

Military and aerospace design engineers trust Standex-Meder Electronics for planar transformers, Scott-T transformers, power supplies, current sense and custom electronic components. We have experience for applications such as aircraft controls, satellite / space applications, engine controls, Naval ship board power supplies, current transformers, and air core military radio antennas.

An example of our capabilities are the “flight” assemblies that are manufactured to the most stringent quality standards then proven in an industry leading environmental and electronic test lab.

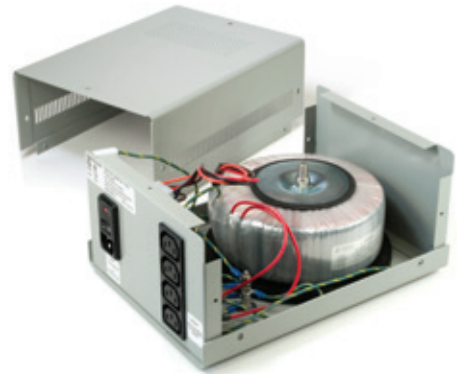
Manufacturing quality standards - Mil-Std 202, Mil-Std 981, Mil-PRF 27, NASA standard NHB 8739.3, AS9100, and ITAR



Medical Transformers

Standex-Meder manufactures key components for the medical industry. We assess every component to see whether custom designed solutions will better address a particular need.

From basic transformer coils to value added assemblies, Standex-Meder Electronics will engineer a custom solution that is on target and on budget. These transformers protect sensitive medical devices including those used in patient care environments. Compliant with UL/IEC 60601 specifications, these transformers feature extremely low leakage current between primary and secondary windings.



Current Sense Transformers

Standex-Meder Electronics has a long history of developing current sense transformers to solve unique customer challenges. We offer both standard products like CSB series plug-in solutions for PC board mounting - to custom engineered products designed for extreme conditions and hazards - like temperature, radiation, humidity and more.

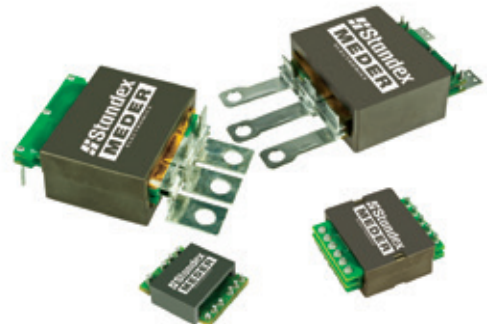
Designs are available in open toroidal construction or custom moldings - with virtually any current ratio, output or capacitance desired. Many termination options are available - including P.C. mount, flying lead, custom leads, connectors, and more.



Planar Transformers

Standex-Meder Electronics manufactures planar transformers for critical applications like military and aerospace projects. We can manufacture custom products to exact standards with precise electrical characteristics such as capacitance, output, and aspect ratio. We have proven ourselves in an industry leading environmental and electrical test facility.

Mounting and termination options are available to suit virtually any application requirements. Designers of critical electronic components rely on Standex-Meder to supply their planar transformers.



Planar Transformers -Continued

For demanding applications like military and aerospace

- High-performance from a compact, low-profile package:
- SX-40 Series with power ratings to 180W/360W
- SX-55 Series with power ratings to 350W/700W
- SX-58 Series for 1KW to 5KW applications
- SX-64 Series for 1KW to 10KW applications
- Manufactured to exacting standards with precise electrical characteristics like capacitance, output and aspect ratio
- Mounting and termination options are available to suit virtually any application requirements



Other Products - Antennas & Coils, Hermetic Connectors, Custom Assemblies & Lighting

Antennas & Coils

Standex-Meder supplies antenna coils and components using leading edge design and manufacturing technologies. Our products are used throughout the world in automotive keyless entry, garage door openers, and military sonobuoys in remote locations. Our immobilizer security antennas are used in many automotive, motorcycle and marine ignition systems - while our antenna coils are found on in-home security systems. The 125 KHz RFID antenna receivers can be custom molded into any configuration for virtually limitless applications.



Hermetic Connectors

Standex-Meder can mold, crimp, form, stamp and create almost any type of terminal connection imaginable. Our team has the ability to lead these efforts in-house to expedite quickly, while ensuring that all components fit together and function properly. With high-volume progressive die stamping capabilities, wire prep and wire harness assembly, and connector and terminal engineering, we are prepared to address your connector challenges. We can even integrate into upstream/downstream components, such as sensors, to simplify installation and reduce costs.



Custom Assemblies & Lighting

Custom transformers and electronic assemblies from Standex-Meder have been in use for decades. Our solid state ignitors initiate the "turn on" sequence to light bulbs to illuminate roadways, outdoor sporting events, and facilities with high bay lighting. All components undergo rigorous lifecycle testing under severe conditions. Here is a sampling of custom assemblies:

- Ideal for high current metering applications
- Rogowski coils are wire wound "air" core toroids which are used to measure AC current
- The AC current that is measured creates a magnetic field which induces a voltage in the coil that is proportional to the change in current
- This innovative technology has been used in high current metering applications with a very high accuracy



Tool Shop - Machinery & Equipment, Tools & Assembly Services

Since 1996 Standex-Meder Electronics has its own tool shop. It was founded, as a result of the growing demand for high precision quality tooling for our Reed Products as well as a means of expanding our customer service offering. Our tool shop is a qualified and reliable partner providing customer support in the areas of planning, designing and constructing molding tools, punching tools and smaller pressure die-casting tools. Whether single piece or mass production tooling, a team of highly motivated and qualified employees will work with you to design and construct the tooling that is according to your specifications as agreed upon in the form of a written quotation. The most advanced techniques will be utilized in milling, wire eroding, die sinking and grinding, as well as a select grade of steel in connection with the ideal coating will be used to guarantee that the best quality and durability is achieved for the longest life of the tool. In general, sampling, optimizing and in-house maintenance are provided for all tooling as well as first sample and failure analysis reporting.



Machinery & Equipment

- Sink EDM machine (EXERON / INGERSOLL) machining stroke max. 620x420x400 mm
- Milling machine (HERMLE / HURCO) machining stroke max. 760x600x610 mm
- Wire EDM machine (SODICK / MITSUBISHI) machining stroke max. 530x370x265 mm
- Grinding machine (ELB-SCHLIFF) machining stroke max. 800x400x475 mm
- Injection molding machine (ARBURG) clamping force max. 750kN
- Automatic punching press (PASU) pressing force max. 400kN
- Measuring machine (ScanMax) machining stroke 450x450x400 mm

Specific Tools

Die-cast zinc tools



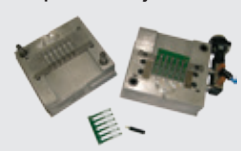
Various types for prototyping, molding and stamping



Transfer molding tools

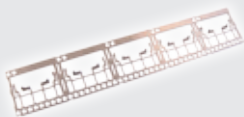


Low-pressure injection molding



Stamping Tools

Progressive stamping tools for lead frames



Stamped parts for housing shields and contact pins



Injection Mold Tools

Design parts with high quality surfaces



Optical components



Technical molded parts Gearwheels, spindles, frames and holders



High quality tool design manufacturing



Machine & Assembly Services

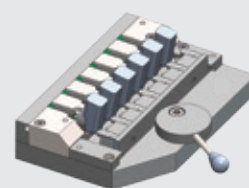
Stainless steel tube machining cutting, laser welding, marking



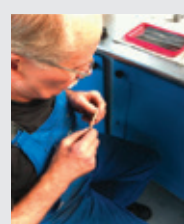
Manufacturing of electrodes in copper or graphite



Fixture design and production



Tooling repair and maintenance



Development, design and construction



CNC design, simulation, verification and integration



REED SWITCHES • REED RELAYS • REED SENSORS • PROXIMITY SENSORS
 MAGNETS • FLUID SENSORS • OPTOCOUPLERS • FLOATS • TRANSFORMERS
 INDUCTORS • CURRENT SENSE TRANSFORMERS • PLANAR TRANSFORMERS
 ANTENNAS • COILS • HERMETIC CONNECTOR PRODUCTS



Custom
 Engineered
 Solutions for
 Tomorrow



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