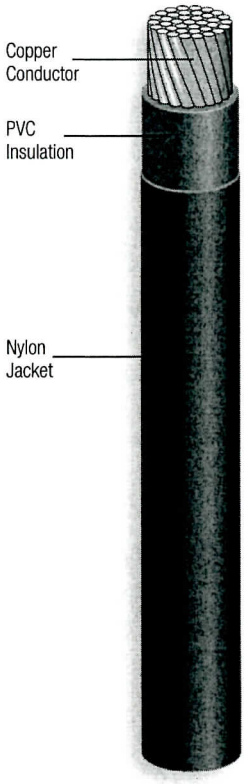


ENGINEERING SPECIFICATIONS:

Listed Solid E-123774
Stranded E-156879

Standards:

Underwriters Laboratories Standards UL-83, UL-1063, UL-758
AWM Spec 1316, 1317, 1318, 1319, 1320, 1321
ASTM Stranding Class B3, B8, B787
Federal Specification A-A-59544
Canadian Standards Association C22.2 No. 75
NEMA WC70/ICEA S-95-658
Institute of Electrical and Electronics Engineers
ARRA 2009; Section 1605 "Buy American" Compliant

CONSTRUCTION:

Conductors:

Solid, uncoated copper conductors per ASTM-B3
Stranded, uncoated copper conductors per ASTM-B3, ASTM-B787 and ASTM-B8

Insulation:

Color-coded Polyvinyl Chloride (PVC), heat and moisture-resistant, flame-retardant compound per UL-1063 and UL-83

Applications:

Type THHN/THWN-2 building wire is intended for general purpose applications as defined by the National Electrical Code (NEC). Type THHN/THWN-2 is permitted for new construction or rewiring for 600-volt applications. Applications requiring Type THHN or THWN-2: the conductor is appropriate for use in wet or dry locations at temperatures not to exceed 90°C or not to exceed 75°C in oil or coolants. Applications requiring Type MTW: the conductor is appropriate for use in dry locations at 90°C, or not to exceed 60°C in wet locations or where exposed to oils or coolants. Applications requiring Type AWM: the conductor is appropriate for use at temperatures to not exceed 105°C in dry locations.

Features:

Slick, Nylon outer jacket for easy pulling. VW-1 rated 14 AWG - 8 AWG. All sizes are rated gasoline and oil-resistant II.

Jacket:

A tough, polyamide, Nylon outer covering per UL-1063 and UL-83.

THHN/MTW/THWN-2/T90 Copper Conductor 600V

Size (AWG or KCMIL)	Number of Strands	Cross Sect. Area (mm²)	PVC Insulation Thickness (Conductor)		Nylon Jacket Thickness		Outside Diameter		Approximate Net Weight		Allowable Ampacity (Amps)*			Standard Packaging (ft)
			(mm)	(in)	(mm)	(in)	(mm)	(in)	(kg/km)	(lbs/1000 ft)	60°C	75°C	90°C	
14	Solid	2.08	0.380	0.015	0.100	0.004	2.57	0.101	22	15	15	15	15	2000 carton (4x500), 2500' reels
12	Solid	3.31	0.380	0.015	0.100	0.004	3.05	0.120	34	23	20	20	20	2000 carton (4x500), 2500' reels
10	Solid	5.26	0.510	0.020	0.100	0.004	3.78	0.149	55	37	30	30	30	1000 carton (2x500), 2500' reels
14	19	2.08	0.380	0.015	0.100	0.004	2.77	0.109	25	16	15	15	15	2000 carton (4x500), 2500' reels
12	19	3.31	0.380	0.015	0.100	0.004	3.23	0.127	36	23	20	20	20	2000 carton (4x500), 2500' reels
10	19	5.26	0.510	0.020	0.100	0.004	4.07	0.160	57	38	30	30	30	1000 carton (2x500), 2500' reels
8	19	8.37	0.760	0.030	0.130	0.005	5.39	0.212	94	62	40	50	55	500' 1000' 2500' 5000' reels

*Allowable ampacity shown above is per the National Electrical Code. The above data is approximate and subject to normal manufacturing tolerances.

PRINT LEGEND:

SOLID CONDUCTOR SIZES 14 AWG THROUGH 10 AWG: ENCORE WIRE CORPORATION (SIZE) AWG TYPE THHN OR THWN-2 GR II VW-1 600 VOLTS (UL) OR AWM OR C-(UL) TYPE T90 NYLON OR TWN 75 FT1. DATE/TIME/OPER/QC

STRANDED CONDUCTOR SIZES 14 AWG THROUGH 8 AWG: ENCORE WIRE CORPORATION (SIZE) AWG TYPE MTW OR THHN OR THWN-2 GR II VW-1 600 VOLTS (UL) OR AWM OR C-(UL) TYPE T90 NYLON OR TWN 75 FT1 DATE/TIME/OPER/QC

LIQUID-TUFF™ – UL Liquidtight Flexible Steel Conduit, Type LFMC (Grey, Black, Red, Orange, Yellow, Green)

Description

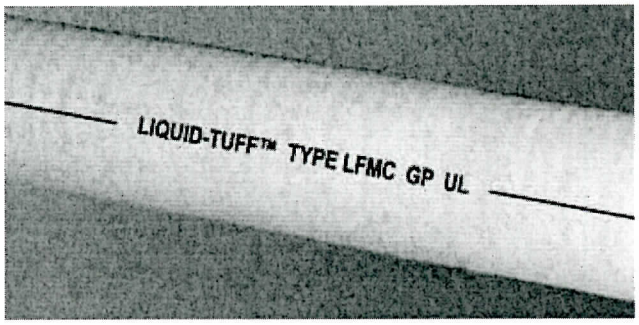
- UL bonded strip 3/8" - 1¼" for grounding
- UL Liquidtight all sizes
- Sunlight resistant
- Flame retardant PVC jacket
- Hot dipped zinc galvanized low carbon steel core
- Available in Grey, Black, Red, Orange, Yellow or Green

Temperature Rating

- 80°C to -30°C Dry
- 60°C Wet
- 70°C Oil resistant

Applications

- 600 volt and lower circuits
- Direct burial in earth
- Concrete embedment
- Sunlight and weather exposure
- Suitable for grounding per NEC® 250.118(6), 3/8" - 1¼"
- Hazardous location per NEC® 501
- Raised computer room floors per NEC® 645.5(D)
- Service entrance wiring up to 6 feet per NEC® 230.43(15)
- Feeders and services for marina and boat yards



References & Ratings

- UL 360, File Reference E26540, CSA Certified File LL51593, CSA C22.2 Number 56
- NEC® 250.118(6), 350.60, 390.15, 501.10(B)(2), 502.10(A)(2), 503.10(A)(2), 511.7(A)(1), 620.21(A)(d), 645.5(D)(2), 680.21, 680.42, 695.6(E), 695.14(E)
- Canadian Electrical Code (CEC) Part I Clause 12-1300
- UL approved for use in direct burial applications including concrete and earth burial (Sizes 3/8" through 4")
- Conduit in sizes 1½" and larger requires grounding conductor per NEC® 350.60
- May be installed under raised computer room floors per NEC® 645.5(D)

Ordering Information / Product Dimensions/Bend Radius

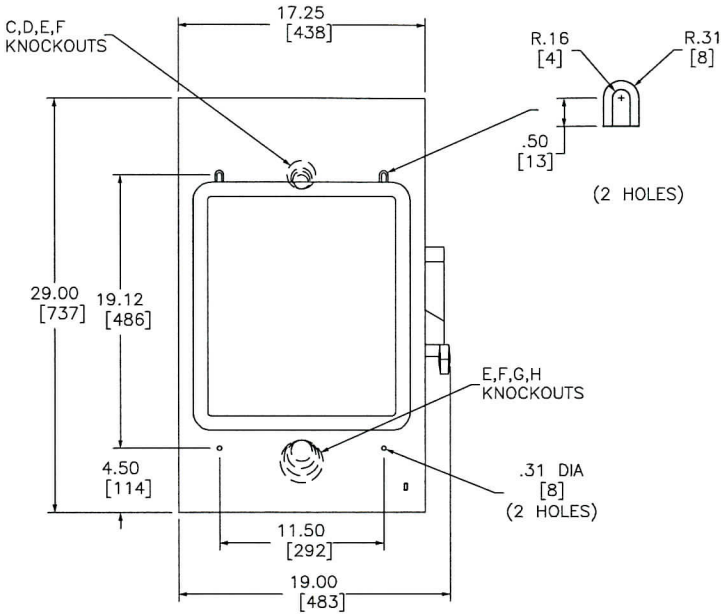
Product Code Black	Trade Size (inches)	Trade Size (mm)	Coil Length (feet)	Reel Length (feet)	Approx. Weight/ 100 feet (pounds)	External Diameter (inches)		Internal Diameter (min/max) inches	Bend Radius (inches)
						Over Conduit (min/max)	Over Jacket (min/max)		
6201-30-BK	3/8	12	100'	–	24	0.594/0.614	0.690/0.710	0.484/0.504	2
6202-30-BK	1/2	16	100'	–	31	0.732/0.765	0.820/0.840	0.622/0.642	3.25
6202-45-BK	1/2	16	–	500'	31	0.732/0.765	0.820/0.840	0.622/0.642	3.25
6202-60-BK	1/2	16	–	1000'	31	0.732/0.765	0.820/0.840	0.622/0.642	3.25
6203-30-BK	3/4	21	100'	–	49	0.930/0.960	1.030/1.050	0.820/0.840	4.25
6203-45-BK	3/4	21	–	500'	49	0.930/0.960	1.030/1.050	0.820/0.840	4.25
6203-60-BK	3/4	21	–	1000'	49	0.930/0.960	1.030/1.050	0.820/0.840	4.25
6204-30-BK	1	27	100'	–	79	1.201/1.226	1.290/1.315	1.041/1.066	6.5
6204-80-BK	1	27	–	400'	79	1.201/1.226	1.290/1.315	1.041/1.066	6.5
6205-24-BK	1¼	35	50'	–	103	1.540/1.570	1.630/1.660	1.380/1.410	8
6205-40-BK	1¼	35	–	200'	103	1.540/1.570	1.630/1.660	1.380/1.410	8
★6206-24-BK	1½	41	50'	–	109	1.735/1.770	1.865/1.900	1.575/1.600	9
★6206-35-BK	1½	41	–	150'	109	1.735/1.770	1.865/1.900	1.575/1.600	9
★6207-30-BK	2	53	–	100'	146	2.180/2.215	2.340/2.375	2.020/2.045	11.12

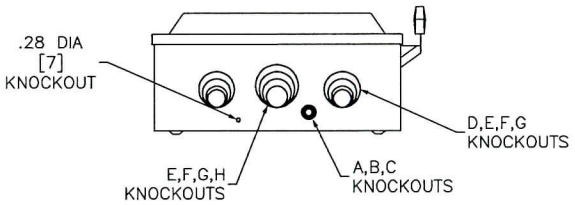
NOTE: All dimensions and weights are subject to normal manufacturing tolerances.

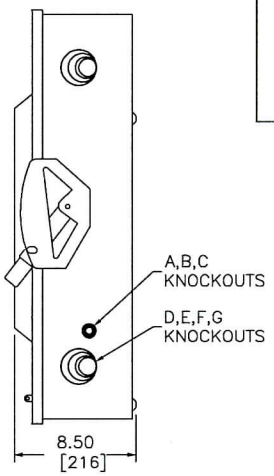
Review NEC® 350.60 and 250.118(6) for grounding requirements, conduit sizes 1½" and larger.

★Minimum order quantity required.

For more colors and sizes see the next page.







NEMA TYPE 1
ILLUSTRATED

WIRING DIAGRAMS

FUSIBLE	NOT FUSIBLE
A B	C

TERMINAL LUGS ‡			
AMPERES	MAX WIRE	MIN WIRE	TYPE
200	250 KCMIL	#6 AWG	AL OR CU

KNOCKOUTS		
SYMBOL	CONDUIT SIZE IN	CONDUIT SIZE MM
A	.50	13
B	.75	19
C	1.00	25
D	1.25	32
E	1.50	38
F	2.00	51
G	2.50	64
H	3.00	76

DUAL DIMENSIONS: INCHES / MILLIMETERS

CATALOG NUMBER	VOLTAGE RATINGS	WIRING DIAG	HORSEPOWER RATINGS 240VAC STD 1Ø	STD 3Ø	MAX 1Ø	MAX 3Ø
D224N	240VAC	A	15	25&	–	60&
D324N	240VAC	B	15^	25#	–	60#
DU324■	240VAC	C	–	–	15^	60<

NOTES:
FINISH – GRAY BAKED ENAMEL
UL LISTED – FILE E-2875
ALL NEUTRALS – INSULATED GROUNDABLE
SUITABLE FOR USE AS SERVICE EQUIPMENT
SHORT CIRCUIT CURRENT RATINGS:
10,000 AMPERES WITH CLASS H OR K FUSES.
100,000 AMPERES WITH CLASS R FUSES (HAVING CLASS R REJECTION KITS INSTALLED) OR WITH CLASS J FUSES.
WHEN MOUNTING THESE SWITCHES, ALLOW 4.00 [102] MIN CLEARANCE BETWEEN ENCLOSURES FOR OPENING OF SIDE HINGED DOOR.
‡ LUGS SUITABLE FOR 75°C CONDUCTORS.
& FOR CORNER GROUNDED DELTA, USE SWITCHING POLES FOR UNGROUNDED CONDUCTORS. USE ANY TOW SWITCHING POLES.
# IF CORNER GROUNDED DELTA, USE OUTER SWITCHING POLES FOR UNGROUNDED CONDUCTORS.
< IF CORNER GROUNDED DELTA, INSTALL NEUTRAL AND USE OUTER SWITCHING POLES FOR UNGROUNDED CONTUCTORS.
■ REQUIRES FIELD INSTALLATION OF EQUIPMENT GROUNDING KIT PKOGTA-2 WHEN USED AS SERVICE EQUIPMENT.

GENERAL DUTY SAFETY SWITCHES
VISIBLE BLADE TYPE
200 AMPERE – SERIES F1
ENCLOSURE – NEMA TYPE 1 GENERAL PURPOSE

SQUARE D COMPANY

DWG# NO. 3228

DECEMBER 2001

TRI-ONIC®

TR & TRS

Ferraz Shawmut

TIME DELAY / CLASS RK5

THE INDUSTRY'S MOST POPULAR FUSE FOR MOTOR CIRCUIT PROTECTION.

Tri-onic® SmartSpot® fuses now provide a visual open fuse indicator. With advanced material technology added to the existing product the TR and TRS current limiting time delay fuses are engineered for overcurrent protection of motors and transformers, service entrance equipment, feeder and branch circuits. Tri-onic proven time delay characteristic safely handles harmless starting currents and inrush currents associated with today's motors and transformers.

Features/Benefits

- **Solid State SmartSpot Indicator**
- **Time delay** for motor start-ups and transformer inrush currents *without* nuisance opening
- **Current limiting** for low peak let-thru current
- **Rejection-style design** prevents replacement errors (when used with recommended fuse blocks)
- **Easy-to-read label** for quick recognition and replacement
- **Metal-embossed date and catalog number** for traceability and lasting identification
- **Fiberglass body** provides dimensional stability in harsh industrial settings
- **Brass end-caps** (blade-style) for cooler operation and superior performance
- **High-grade** silica filler ensures fast arc quenching and high current limitation

HIGHLIGHTS:

- Time Delay
- Current Limiting
- AC & DC Rated

APPLICATIONS:

- Motor Circuits
- Mains
- Feeders
- Branch Circuits
- Transformers
- Service Entrance Equipment
- General-purpose Protection

Ratings

- **TR**
  AC: 1/10 to 600A 250VAC, 200kA I.R.
  DC: 1/10 to 2 8/10A & 35 to 400A, 250VDC, 20kA I.R.; 3 to 30A & 450 to 600A, 160VDC, 20kA I.R.
- **TRS**
  AC: 1/10 to 600A 600VAC, 200kA I.R.
  DC: 1/10 to 12A, 600VDC, 20kA I.R.; 70 to 600A, 600VDC, 100kA I.R.; 15 to 60A, 300VDC, 20kA I.R.

Approvals

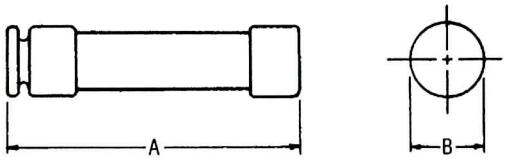
- UL Listed to Standard 248-12
- CSA Certified to Standard C22.2 No. 248.12
- DC Listed to UL Standard 198L

TIME DELAY / CLASS RK5 FUSES

TR & TRS

Standard Fuse Ampere Ratings, Catalog Numbers

Ampere Rating	Catalog Number 250V	Catalog Number 600V	Ampere Rating	Catalog Number 250V	Catalog Number 600V	Ampere Rating	Catalog Number 250V	Catalog Number 600V
1/10	TR1/10R	TRS1/10R	3-1/2	TR3-1/2R	TRS3-1/2R	50	TR50R	TRS50R
15/100	TR15/100R	TRS15/100R	4	TR4R	TRS4R	60	TR60R	TRS60R
2/10	TR2/10R	TRS2/10R	4-1/2	TR4-1/2R	TRS4-1/2R	70	TR70R	TRS70R
3/10	TR3/10R	TRS3/10R	5	TR5R	TRS5R	75	TR75R	TRS75R
4/10	TR4/10R	TRS4/10R	5-6/10	TR5-6/10R	TRS5-6/10R	80	TR80R	TRS80R
1/2	TR1/2R	TRS1/2R	6	TR6R	TRS6R	90	TR90R	TRS90R
6/10	TR6/10R	TRS6/10R	6-1/4	TR6-1/4R	TRS6-1/4R	100	TR100R	TRS100R
8/10	TR8/10R	TRS8/10R	7	TR7R	TRS7R	110	TR110R	TRS110R
1	TR1R	TRS1R	8	TR8R	TRS8R	125	TR125R	TRS125R
1-1/8	TR1-1/8R	TRS1-1/8R	9	TR9R	TRS9R	150	TR150R	TRS150R
1-1/4	TR1-1/4R	TRS1-1/4R	10	TR10R	TRS10R	175	TR175R	TRS175R
1-4/10	TR1-4/10R	TRS1-4/10R	12	TR12R	TRS12R	200	TR200R	TRS200R
1-6/10	TR1-6/10R	TRS1-6/10R	15	TR15R	TRS15R	225	TR225R	TRS225R
1-8/10	TR1-8/10R	TRS1-8/10R	17-1/2	TR17-1/2R	TRS17-1/2R	250	TR250R	TRS250R
2	TR2R	TRS2R	20	TR20R	TRS20R	300	TR300R	TRS300R
2-1/4	TR2-1/4R	TRS2-1/4R	25	TR25R	TRS25R	350	TR350R	TRS350R
2-1/2	TR2-1/2R	TRS2-1/2R	30	TR30R	TRS30R	400	TR400R	TRS400R
2-8/10	TR2-8/10R	TRS2-8/10R	35	TR35R	TRS35R	450	TR450R	TRS450R
3	TR3R	TRS3R	40	TR40R	TRS40R	500	TR500R	TRS500R
3-2/10	TR3-2/10R	TRS3-2/10R	45	TR45R	TRS45R	600	TR600R	TRS600R



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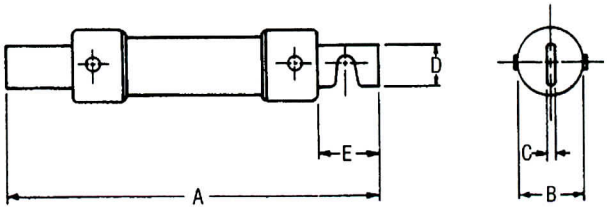


61-600A

Dimensions

AMPERE RATING	A In.	A mm	B In.	B mm	C In.	C mm	D In.	D mm	E In.	E mm
250V-TR FUSES										
0-30	2	51	9/16	14	-	-	-	-	-	-
31-60	3	76	13/16	21	-	-	-	-	-	-
61-100	5-7/8	149	1-1/16	27	1/8	3	3/4	19	1	25
101-200	7-1/8	181	1-9/16	40	3/16	5	1-1/8	28	1-3/8	35
201-400	8-5/8	219	2-1/16	53	1/4	6	1-5/8	41	1-7/8	48
401-600	10-3/8	264	2-9/16	66	1/4	6	2	51	2-1/4	57
600V-TRS FUSES										
0-30	5	127	13/16	21	-	-	-	-	-	-
31-60	5-1/2	139	1-1/16	27	-	-	-	-	-	-
61-100	7-7/8	200	1-5/16	34	1/8	3	3/4	19	1	25
101-200	9-5/8	244	1-13/16	46	3/16	5	1-1/8	28	1-3/8	35
201-400	11-5/8	295	2-9/16	66	1/4	6	1-5/8	41	1-7/8	48
401-600	13-3/8	340	3-1/8	80	1/4	6	2	51	2-1/4	57

Recommended Fuse Blocks With Box Connectors For Tri-onic® Class RK5 Fuses

Fuse Ampere Rating	Catalog Number 250V 1 Pole	Catalog Number 250V 3 pole	Catalog Number 600V 1 pole	Catalog Number 600V 3 pole
0-30	20306R	20308R	60306R	60308R
31-60	20606R	20608R	60606R	60608R
61-100	21036R	21038R	61036R	61038R
101-200	22001R	22003R	62001R	62003R
201-400	24001R	24003R	64001R	64003R
401-600	2631R	2633R	6631R	6633R

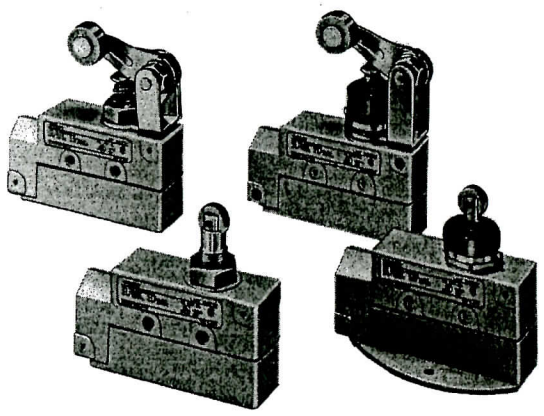
OMRON

Enclosed Limit Switches

ZE/ZV/ZV2

Large Switching Capacity and Long Service Life

- 15-amp, 125 VAC switching capacity
- Wide selection of actuators
- Rugged diecast housing
- Sealed (booted) switches meet NEMA types 1, 2, 3, 4 and 5
- Three mounting styles available:
  - Side mounting (ZE)
  - Diagonal side mounting (ZV2) is ideal for gang mounting several switches
  - Flanged base mounting (ZV)



Ordering Information

■ SIDE-MOUNTING SWITCHES

Actuators	General-purpose	Sealed (booted)
Plunger	**ZE-Q-2S**	**ZE-N-2S**
Roller plunger	**ZE-Q22-2S**	**ZE-N22-2S**
Cross roller plunger	**ZE-Q21-2S**	**ZE-N21-2S**
Roller arm lever	**ZE-QA2-2S**	**ZE-NA2-2S**
One-way action arm lever	**ZE-QA277-2S**	**ZE-NA277-2S**
Rod lever	**ZE-QCL-2S**	**ZE-NCL-2S**
Coil spring	—	**ZE-NJ-2S**

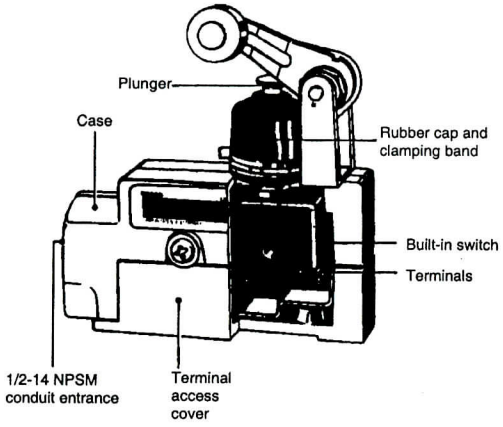
■ DIAGONAL SIDE-MOUNTING SWITCHES

Actuators	General-purpose	Sealed (booted)
Plunger	**ZV2-Q-2S**	**ZV2-N-2S**
Roller plunger	**ZV2-Q22-2S**	**ZV2-N22-2S**
Cross roller plunger	**ZV2-Q21-2S**	**ZV2-N21-2S**
Roller arm lever	**ZV2-QA2-2S**	**ZV2-NA2-2S**
One-way action arm lever	**ZV2-QA277-2S**	**ZV2-NA277-2S**
Rod lever	**ZV2-QCL-2S**	**ZV2-NCL-2S**
Coil spring	—	**ZV2-NJ-2S**

■ FLANGED BASE-MOUNTING SWITCHES

Actuators	General-purpose	Sealed (booted)
Plunger	**ZV-Q-2S**	**ZV-N-2S**
Roller plunger	**ZV-Q22-2S**	—
Cross roller plunger	**ZV-Q21-2S**	—
Roller arm lever	**ZV-QA2-2S**	**ZV-NA2-2S**
One-way action arm lever	**ZV-QA277-2S**	**ZV-NA277-2S**
Rod lever	**ZV-QCL-2S**	**ZV-NCL-2S**
Coil spring	—	**ZV-NJ-2S**

Construction



Specifications

■ RATINGS

Maximum Carrying Currents

Rated voltage	Non-inductive load (amps)				Inductive load (amps)				Inrush current (amps)	
	Resistive load		Lamp load		Inductive load		Motor load			
	NC	NO	NC	NO	NC	NO	NC	NO	NC	NO
125 VAC	15	15	3	1.5	15	15	5	2.5	30 max.	15 max.
250 VAC	15	15	2.5	1.25	15	15	3	1.5		
480 VAC	10	10	1.5	0.75	6	6	1.5	0.75		
125 VDC	0.5	0.5	0.5	0.5	0.05	0.05	0.05	0.05		
250 VDC	0.25	0.25	0.25	0.25	0.03	0.03	0.03	0.03		

Note:
1. Inductive load has a power factor of 0.4 minimum (AC) and a time constant of 7 msec (DC).
2. Lamp load has an inrush current of 10 times the steady-state current, while motor load has an inrush current of 6 times the steady-state current.

■ CHARACTERISTICS

Enclosure rating	UL	Types 3, 4, and 13
	NEMA	Types 1, 2, 3, 4, 5 for "-N types"; Type 1 for "-Q" types; Type 13 for ZV2-Q models
	IEC 144	IP65 for "-N types"; IP50 for "-Q types"
Mechanical life		10 million operations min.; 100,000 operations min. for ZE-NRN-S and ZV-NRN-S
Ambient operating temperature		-10° to 80°C (14° to 176°F)
Vibration	Malfunction durability	10 to 55 Hz, 1.5 mm (0.06 in) double amplitude
Shock	Malfunction durability	20 G
	Mechanical durability	100 G

Cartridge Heaters

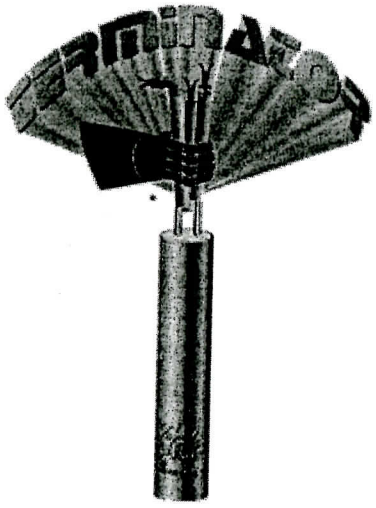
Cartridge Heaters manufactured by Tempco are suitable for many diverse applications. Hi-Density Cartridge Heaters feature a swaged construction suitable for temperatures up to 1400°F (760°C). Low density Cartridge Heaters are an economical alternative that can be used in applications requiring lower operating temperatures and watt densities.

The Pennybottom Hi-Density Cartridge Heater for plastic injection runnerless molding has a flat copper end disc to maximize heat transfer to the gate area of probes and bushings.

Tempco Terminator Program

Custom Terminated Hi-Density Cartridge Heaters Fast

The Terminator Advantage...



The Tempco Terminator Lead Conversion Program guarantees 24 to 48 hours shipping on custom terminated heaters.

How do we do it?

By maintaining over 65,000 Hi-Density Cartridge Heaters in stock in order to offer you over 1000 standard sizes and electrical ratings and 26 lead terminations to select from.

Hi-Density Cartridge Heaters are approved as components under the UL and CSA Recognition Programs. UL Product Category KSOT2, File E65652. CSA File LR43099-4.

Terminator Program
(Hi-Density Cartridge Heaters In-Stock)

BALDOR • RELIANCE

Integral Horsepower
AC Induction Motors
ODP, WPI Enclosures
TENV, TEAO, TEFC Enclosure
Explosion Proof

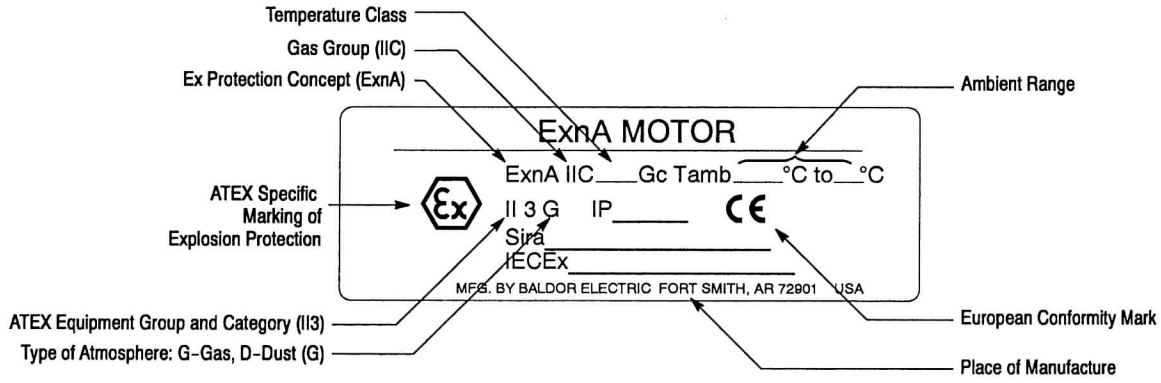
Installation & Operating Manual

8/12 MN408

Equipment Marking for IEC Certified Product

IEC certified products have special markings that identify the protection concept and environment requirements. An example is shown in Figure 3-1.

Figure 3-1 IEC Certified Product Markings

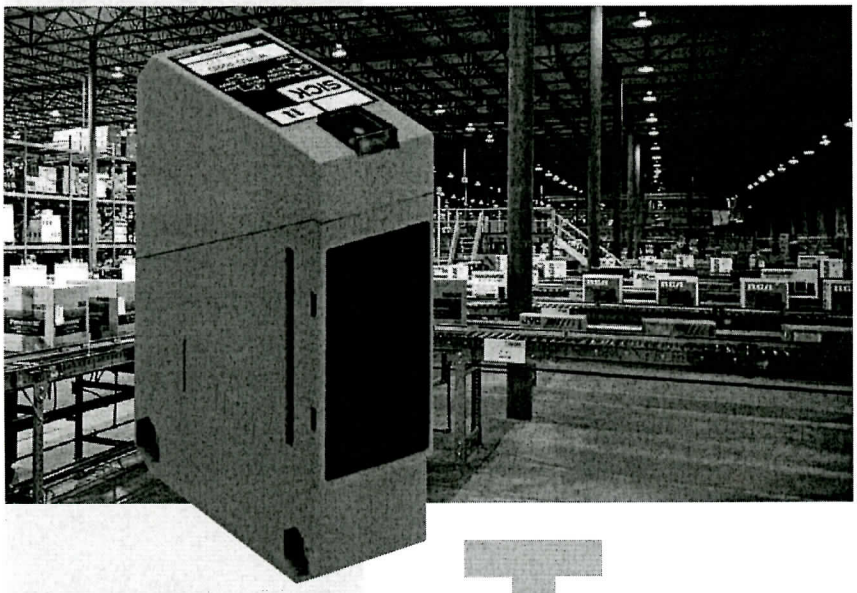


Specific Conditions of Use:
If the motor certificate number is followed by the symbol "X", this indicates that the motor has specific conditions of use which are indicated on the certificate. It is necessary to review the product certification certificate in conjunction with this instruction manual.

Operation On Frequency Converters:
If the motor is evaluated for operation with an adjustable speed drive, the type of converter (for example PWM for Pulse Width Modulated) and safe speed ranges (for example 0–120Hz) will be specified in the certification documents or on motor nameplates. It is necessary to consult the adjustable speed drive manual for proper set up. IECEx Certificates are available online at www.iecex.com

Photoelectric proximity switches, BGS
Photoelectric proximity switches, energetic
Photoelectric reflex switches

W 260 series standard photoelectric switches for a wide range of applications



Through-beam photoelectric switches
Photoelectric fibre-optic switches (proximity)
Photoelectric fibre-optic switches (through-beam)

The W 260 series with its sensible ranges and useful technical features is superbly designed for a wide range of applications. Six different detection methods are available in one configuration, saving on mounting systems and stockholding.

The outstanding features are the long ranges and scanning distances of each system. The sensor, with a variety of adjustable features including teach-in for a fast set-up, is ideally suited to a wide range of applications Glass and stainless steel fibre-optic cables open up new areas of application in restricted environments.

The easily accessible terminal chamber electrical connection ensures that the sensor can be connected and commissioned easily and quickly Furthermore, mounting brackets and reflector (WL 260 only) are included in the supply.

Overview of W 260:

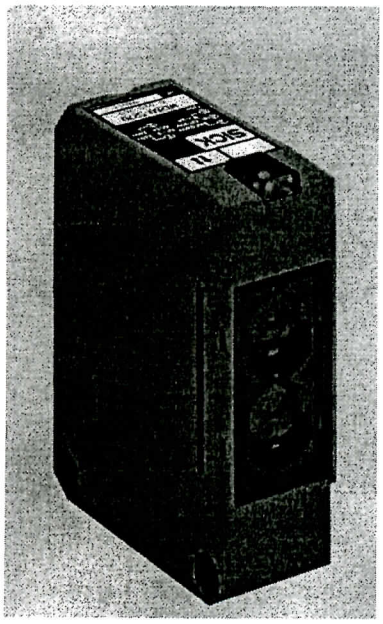
- 6 different detection systems in one configuration = standardised mounting system,
- DC/AC devices conform to EN 61000-6-3 (interference emission in "residential and commercial areas"),
- comprehensive range of fibre-optic cables covers many applications,
- universal supply voltage.

Main industries:

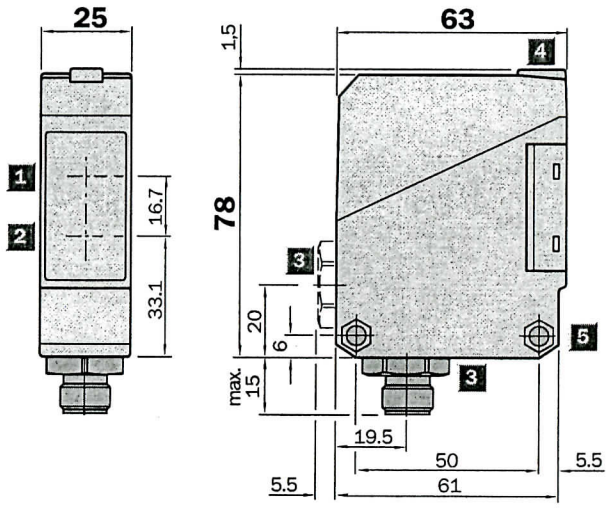
- Plastics technology,
- Materials handling,
- Mechanical engineering,
- Door/gate and, access control.

Scanning distance
5 ... 1500 mm
Photoelectric proximity switch

- Sensitivity, adjustable
- Terminal chamber or plug M12, 4-pin
- Test input

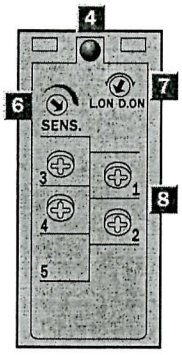


Dimensional drawing



Adjustments possible

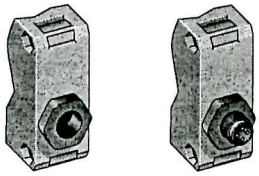
WT 260-F 270
WT 260-F 470
WT 260-E 270
WT 260-E 470



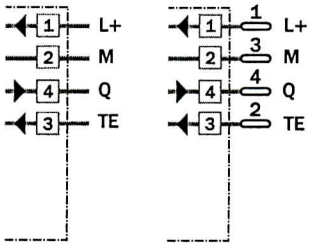
1 Middle of optic axis, receiver
2 Middle of optic axis, sender
3 Cable entry gland 1/2" PF thread
for cable diameters from 6 to 10 mm
optionally at bottom or rear;
or M12 equipment plug, bottom
4 LED signal strength indicator, yellow,
switching output active
5 Through hole Ø 5.2 mm on both sides
for M5 hex nut
6 Scanning distance adjuster
7 Light/dark rotary switch
L.ON = light-switching, D.ON = dark-switching
8 Terminals

Connection types

WT 260-F 270	WT 260-F 470
WT 260-E 270	WT 260-E 470



Terminals	4-pin, M12



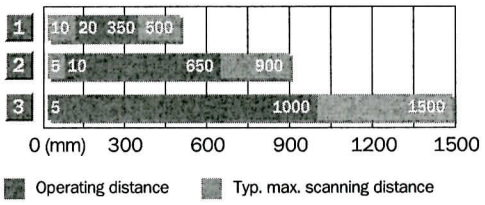
See chapter Accessories
Cables and connectors
Mounting systems*)

*) Mounting bracket included with delivery

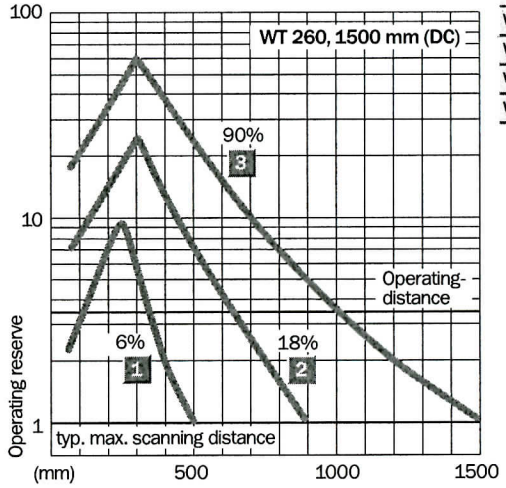
Technical data	WT 260-	F 270	F 470	E 270	E 470
Scanning distance, typ. max.	15 to 1500 mm, adjustable [1]	■	■	■	■
Operating distance	5 to 1000 mm, adjustable [1]	■	■	■	■
Scanning distance setting	per potentiometer 270°	■	■	■	■
Light source [2]	LED, visible red light	■	■	■	■
Light spot diameter	Approx. 45 mm at 1000 mm	■	■	■	■
Aperture angle sender	Approx. 2.5°	■	■	■	■
Supply voltage V_S	10 to 30 V DC [3]	■	■	■	■
Ripple [4]	≤ 5 V_{PP}	■	■	■	■
Current consumption [5]	≤ 35 mA	■	■	■	■
Switching outputs	PNP, open collector: Q	■	■		
	NPN, open collector: Q			■	■
Output current I_A max.	100 mA	■	■	■	■
Light receiver, switching mode	Light-/dark-switching by rotary switch	■	■	■	■
Response time [6]	≤ 0.5 ms	■	■	■	■
Switching frequency max. [7]	1000/s	■	■	■	■
Test input »TE« sender off	PNP: TE to + V_S	■	■		
	NPN: TE to 0 V			■	■
Connection types	Terminal chamber	■		■	
	Plug M12, 4-pin		■		■
VDE protection class [8]	⊡	■	■	■	■
Circuit protection [9]	A, B, C, D	■	■	■	■
Enclosure rating	IP 67	■	■	■	■
Ambient temperature T_A	Operation – 25 °C ... + 55 °C	■	■	■	■
	Storage – 40 °C ... + 70 °C	■	■	■	■
Weight	Approx. 120 g	■	■	■	■
Material	Housing: ABS; Optics: PC	■	■	■	■

1) Object with 90 % remission (based on standard white DIN 5033)
2) Average service life 100,000 h at T_A = + 25 °C
3) Limit values, operation in short circuit protected network max. 8 A
4) Must be within V_S tolerances
5) Without load
6) With resistive load
7) With light/dark ratio 1:1
8) Reference voltage 50 V DC
9) A = V_S connections reverse-polarity protected
B = Inputs/outputs reverse-polarity protected
C = Interference suppression
D = Outputs overcurrent and short-circuit protected

Scanning distance



1 Scanning range on black, 6 % remission
2 Scanning range on grey, 18 % remission
3 Scanning range on white, 90 % remission



Order information

Type	Order no.
WT 260-F 270	6 020 979
WT 260-F 470	6 020 980
WT 260-E 270	6 020 981
WT 260-E 470	6 021 815

Product Data Sheet

8910DPA63V02

Definite Purpose Contactor , Non-Reversing, 60A, 3-Phase, 3-Pole

SQUARE D
by Schneider Electric

Technical Characteristics

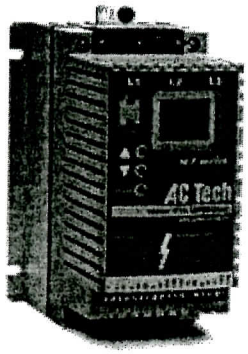
Enclosure Type	Open
Ampere Rating	60A
Approvals	UL Listed - CSA Certified - CE Marked
Horsepower Rating (1-Phase)	5HP@115VAC - 10HP@230VAC
Maximum Voltage Rating	600VAC
Mounting Type	Panel
Number of Poles	3-Pole
Locked Rotor Amperes	360A@230VAC - 300A@460VAC - 240A@575VAC
Horsepower Rating (3-Phase)	25HP@230VAC - 30HP@460/575VAC
Operating Voltage	120VAC@60Hz - 110VAC@50Hz
Phase	3-Phase
Action	Non-Reversing
Type	DPA
Depth	3.67 Inches
Height	4.06 Inches
Width	2.56 Inches

Shipping and Ordering

Category	21346 - Contactors, Definite Purpose, 60 Amp
Discount Schedule	CP1B
GTIN	00785901080817
Package Quantity	1
Weight	1.64 lbs.
Availability Code	Stock Item: This item is normally stocked in our distribution facility.
Returnability	Y
Country of Origin	MX

document.

Schneider Electric



SCF frequency inverters: Features and Options

Standard Features

Enclosure:
IP20

Control Terminals
Digital Inputs (Active low, NPN)
1 Dedicated Stop
1 Dedicated Start
3 Programmable
Digital Outputs:
2 Open Collector (NPN)
Analog Inputs:
1 voltage (0-10VDC)
1 current (4-20mA)
Analog Outputs:
2 Outputs (0-10 VDC, 2-10 VDC can be converted to 4-20mA) proportional to speed and load
Serial Communications:
2-Wire RS-485 Modbus RTU protocol for programming, monitoring and controlling
Other:
Speed Potentiometer Power Supply
Signal Common
12 VDC 50 mA Supply

Programmable Features:
Carrier Freq. 4 – 10 kHz
Independent Accel and Decel Ramps
2nd Accel / decal ramp
Auxiliary Ramp to Stop
240 Hz Maximum Output Freq.
DC Injection Braking

Speed References:
Keypad
JOG (Fwd or Rev)
Floating Point Control (MOP)
0-10 VDC Analog Reference (scalable)

4-20 mA Analog Reference (scalable)
Potentiometer
8 Programmable Preset Speeds
Modbus RTU Serial Speed Reference

Standards and Conformance

UL & cUL (North America)
CE (Europe)
Low Voltage Directive (EN61800-5-1)
EMC Directive (EN61800-3) *when suitably filtered*

Two Year Warranty

Options:

Remote Keypad

Simple 4 wire connection to the SCF drive, the remote keypad provides for drive operation (start, stop, direction and speed) and programming. Includes 3 digit LED. Measures only 3.4in (H) x2.2 in (W). Includes gasketing to meet up to NEMA 4X rated environments.

Dynamic Braking

Packaged Dynamic brake option includes control and resistors in an easy to implement solution for fast stopping or deceleration requirements.

EMC Filter

To meet the EU requirements for susceptibility and emissions of electrical and radiated noise (EN 61800-3 and EN 5501). The footprint design allows the filter to mount between the panel and the drive providing the most efficient use of panel space.

High Frequency Output

1,000 Hz Maximum output frequency for high speed motors

PI Setpoint Control Software

For setpoint control of a process using an analog feedback signal (4-20 mA or 0-10 VDC)

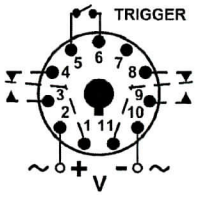
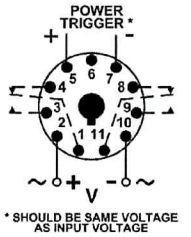
Thru-Hole Mounting

This option allows the inverter heatsink to be mounted through the back of the electrical enclosure or cubicle to reduce overall enclosure size. The heatsink is anodized and gasketed for use in NEMA 4X environments.

TIME DELAY RELAYS

TR-5 SERIES NON-PROGRAMMABLE PLUG-IN

OFF DELAY, SINGLE SHOT, WATCHDOG & SINGLE SHOT FALLING EDGE

FUNCTION ■ ▲	INPUT VOLTAGE 50/60Hz.	PRODUCT NUMBER **	WIRING/ SOCKETS ▲
OFF DELAY Control Switch Trigger **C**	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-51622-** TR-51626-** TR-51628-** TR-51621-**	11 PIN OCTAL **70170-D**  **DIAGRAM 2**
SINGLE SHOT Control Switch Trigger **D**	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-51522-** TR-51526-** TR-51528-** TR-51521-**	
WATCHDOG Control Switch Trigger (Retriggerable Single Shot) **J**	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-51322-** TR-51326-** TR-51328-** TR-51321-**	
SINGLE SHOT FALLING EDGE Control Switch Trigger **H**	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-52222-** TR-52226-** TR-52228-** TR-52221-**	
OFF DELAY Power Trigger **C**	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-51922-** TR-51926-** TR-51928-** TR-51921-**	11 PIN OCTAL **70170-D**  * SHOULD BE SAME VOLTAGE AS INPUT VOLTAGE **DIAGRAM 4**
SINGLE SHOT Power Trigger **D**	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-51722-** TR-51726-** TR-51728-** TR-51721-**	
WATCHDOG Power Trigger (Retriggerable Single Shot) **J**	120V AC/DC 12V DC 24V AC/DC 240V AC	TR-51822-** TR-51826-** TR-51828-** TR-51821-**	

■ See Pages 77-79 for definitions & explanations of Timing Functions.

** Complete Product Number using two-digit Code from Table below.

▲ 8 Pin SPDT versions of these functions (except Single Shot Falling Edge) are available–see Page 60.

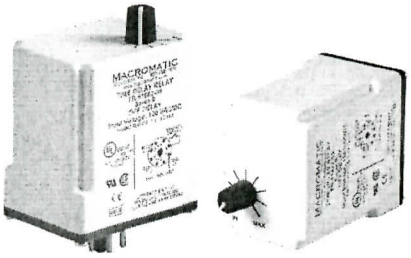
TIME DELAYS

TR-5 Series Products have three time delay options:

- **Onboard Adjustable Time Delay**--complete Product Number by adding two-digit Code from Table at right, i.e., TR-51622-05 is an Off Delay with a time delay range of 0.1-10 seconds.
- **Onboard Fixed Time Delay**--replace two-digit Code with suffix "F" followed by delay [0.1 ... 100] followed by (S) seconds, (M) minutes or (H) hours, i.e., TR-51622-F5S is an Off Delay with a time delay fixed at 5 seconds.
- **Remote Time Delay**--Selected TR-5 Series products can be built with two terminals for remote adjustable or fixed time delays. See ***www.macromatic.com/remote*** for information.

** TIMING RANGE TABLE	
Time Delay Range	**Code**
0.05 - 5 Sec.	04
0.1 - 10 Sec.	05
0.3 - 30 Sec.	07
0.6 - 60 Sec.	08
1.2 - 120 Sec.	09
1.8 - 180 Sec.	10
3 - 300 Sec.	12
0.1 - 10 Min.	22
0.3 - 30 Min.	15
0.6 - 60 Min.	16
1.2 - 120 Min.	17

Application Data & Dimensions–Page 59
Sockets & Accessories–Pages 80 & 81



- Onboard & remote adjustable or fixed time delays from 0.05 seconds to 2 hours
- Uses industry-standard 11 pin octal sockets
- 10A DPDT output contacts
- cULus CSA CE

UL LISTED with appropriate socket

MACROMATIC
800-238-7474
www.macromatic.com
sales@macromatic.com

APPLICATION DATA

Voltage Tolerance:
AC Operation: +10/-15% of nominal at 50/60 Hz.
DC Operation: +10/-15% of nominal.

Load (Burden):
Maximum of 2 VA for all voltages

Setting Accuracy:
Maximum Setting (Adjustable): +5%, -0%
Minimum Setting (Adjustable): +0%, -50%
Fixed Time Delay: ±2%

Repeat Accuracy (constant voltage and temperature):
±0.1% or ± 0.04 seconds, whichever is greater

Reset Time:
Input Voltage (All Functions) 0.100 Seconds
Triggered Functions only 0.04 Seconds

Start-up Time:
(Time from when power is applied until unit is timing)
0.05 Seconds

Maintain Function Time:
(Time unit continues to operate after power is removed)
0.01 Seconds for all units

Temperature:
-28° to 65°C (-18° to 149°F)

Output Contacts:
DPDT 10A @ 240V AC/30V DC,
1/2HP @ 120/240V AC (N.O.), 1/3HP @ 120/240V AC (N.C.)
B300 & R300; AC15 & DC13

Life:
Mechanical: 10,000,000 operations
Full Load: 100,000 operations

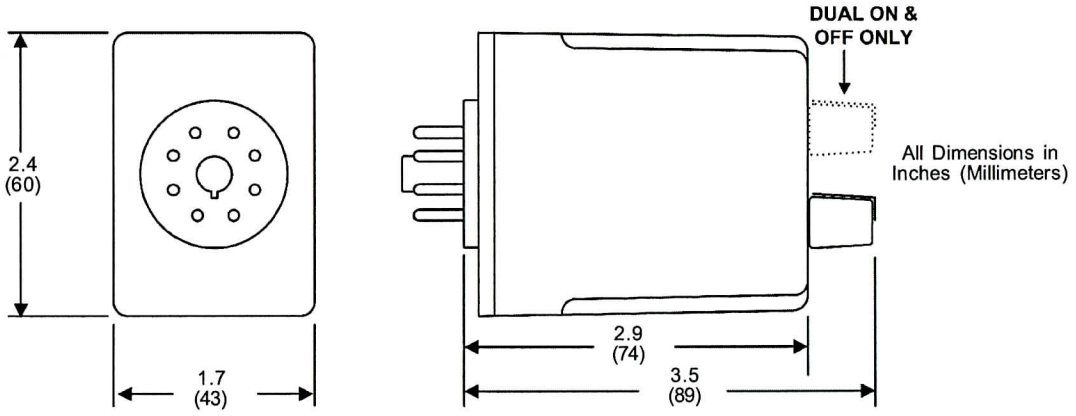
Compatibility:
Using a solid state switch to initiate the time sequence is acceptable. See ***www.macromatic.com/leakage*** or contact Macromatic for information regarding leakage current limits and other solid state design considerations.

Triggering Off Delay, Single Shot or Watchdog Units:
Timing sequence must be initiated only after input voltage is applied to unit. Minimum required trigger switch closure time is 0.05 seconds.

Approvals:

File #E109466 File #LR45565 Low Voltage & EMC Directives EN60947-1, EN60947-5-1 with appropriate socket File #E109466

DIMENSIONS



Products

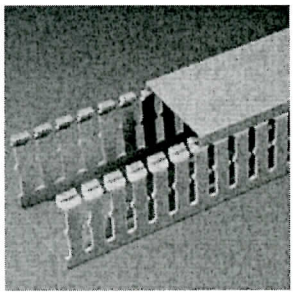
Product On-Line Catalog
Wiring Duct
Evaluate
- FAQ's
Design a Solution
- Catalog Cut Sheet
- PDF-F.5X.5LG6 Pr
- Part Drawings
- PDF-Type F .5x.5 ..
- DXF-Type F .5x.5 ..
- DWG-Type F .5x.5 ..
How to Buy
- Bill of Material
- Favorite Products List
- Locate Distributor

Home>Product On-Line Catalog>Wiring Duct>PVC Wiring Duct and Cover > Narrow Slot Wiring Duct > Panduct® Type F Narrow Slot Wiring Duct

Current refinements (click ☒ to remove) Search Tips

☒ PVC Wiring Duct and Cover > ☒ Narrow Slot Wiring Duct > ☒ Panduct® Type F Narrow Slot Wiring Duct

F.5X.5LG6



Choose from 31 sizes of Panduit Type F Wiring Duct from 0.5" x 0.5" up to 6.0" x 4.0". Used for general purpose control panel wiring in communication closets. Ideal for use with high-density terminal blocks. The non-slip cover conceals all wiring and is easy to install. The duct and cover form a flush sidewall providing increased capacity and improved aesthetics.

Specifications

- **Base and covers sold separately**
- Made of lead-free PVC
- UL Recognized continuous use temperature: 50°C (122° F)
- UL94 Flammability Rating of V-0
- Conforms with NFPA 79-2002 section 14.3.1 requirement for flame retardant material
- Available in Light Gray and White
- Provided with mounting holes

Features and Benefits

- Narrow finger/slot design allows further fanning of wires for neater wire management in high-density control panels
- Panduit exclusive rounded edges protects hands and wiring/cabling from abrasion
- Non-slip cover stays in place during shipment, vibration and when in a vertical orientation, eliminating rework
- Flush cover design holds 10-12% more wires than traditional duct designs
- Double scoreline allows quick modification for larger cabling bundles saving installation time leading to a lower installed cost
- Specially formulated lead-free material eliminates health concerns associated with PVC that contains lead
- Double restricted slot design retains wire in slot for fast, easy wire installation or removal

Base and cover sold separately.

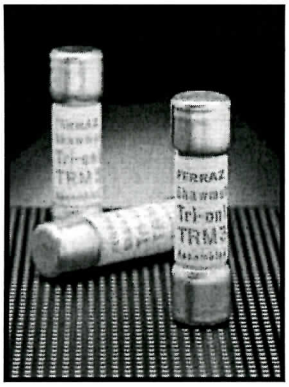
Part Number	F.5X.5LG6
RoHS Compliancy Status	Compliant
Part Description	Narrow finger, slotted wiring duct. Base and covers sold separately.
Product Type	Type F Narrow Slot Wiring Duct
Material	Lead-Free PVC
Color	Light Gray
CSA Certified	Yes
UL Recognized (File No. E147128)	Yes
Height (In.)	0.60
Height (mm)	15.2
Length (ft.)	6
Length (mm)	1828.8
Width (In.)	0.69
Width (mm)	17.5
CE Compliant	Yes
Duct Size W x H (In.)	0.69 x 0.60
Duct Size W x H (mm)	17.5 x 15.2
Mounting Method	Standard Mounting Holes
Pricing Description	Slotted Duct,PVC, .5"X.5"X6',LGray
Slot Width (In.)	0.20
Slot Width (mm)	5.0
Cover Part Number	C.5LG6
Min. Order UOM	FT
Min. Order Qty.	6

Related Products

Panduct® Handheld ..
Panduct® Notching ..
Panduct® Nylon Riv ..
Panduct® Divider Wall
Panduct® Mounting ..
More...

TRM

1-1/2" X 13/32" MIDGET FUSES



Tri-onic TRM time-delay midget fuses are rated 250 volts AC and are offered in ampere ratings from 1/10A to 30A. They have 12 seconds time delay at 200% rating to provide supplemental protection of small motors, small transformers and other high inrush loads, plus many other 250 volt applications. (Not for Branch Circuit Protection).

Features/Benefits

- **Numerous ratings** for a wide variety of applications
- **250VAC rating** in all sizes up to 30A
- **Time delay** for circuits with high inrush currrent
- Can be used with **ULTRASAFE™** fuse holders

C

HIGHLIGHTS:

- Time Delay
- 250 VAC Rated

APPLICATIONS:

- Small Motors
- Small Transformers
- Lighting Circuits
- Control Circuits

Ratings

- **AC:** 1/10 to 30A 250VAC, 10kA I.R.

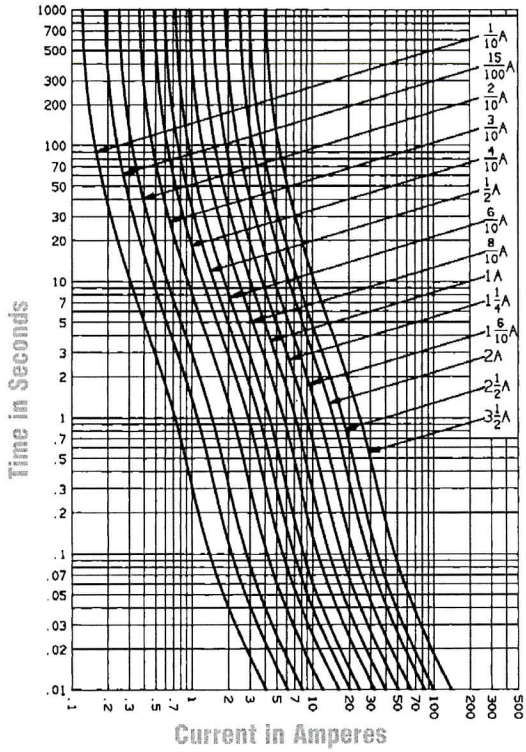
Approvals

- UL Listed to Standard 248-14 File E33925
- CSA Certified to Standard C22.2 No. 248.14

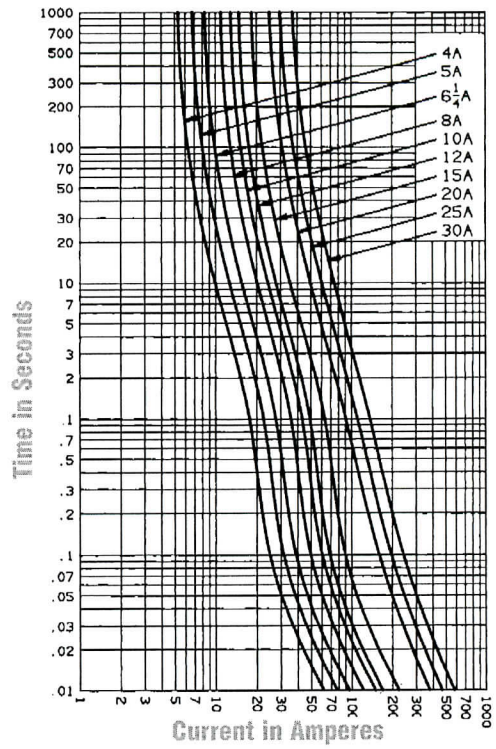
Standard Fuse Ampere Ratings, Catalog Numbers

AMPERE RATING	CATALOG NUMBER	AMPERE RATING	CATALOG NUMBER	AMPERE RATING	CATALOG NUMBER	AMPERE RATING	CATALOG NUMBER	AMPERE RATING	CATALOG NUMBER	AMPERE RATING	CATALOG NUMBER
1/10	TRM1/10	6/10	TRM6/10	1-6/10	TRM1-6/10	3	TRM3	5-6/10	TRM5-6/10	10	TRM10
15/100	TRM15/100	8/10	TRM8/10	1-8/10	TRM1-8/10	3-2/10	TRM3-2/10	6	TRM6	12	TRM12
2/10	TRM2/10	1	TRM1	2	TRM2	3-1/2	TRM3-1/2	6-1/4	TRM6-1/4	15	TRM15
1/4	TRM1/4	1-1/8	TRM1-1/8	2-1/4	TRM2-1/4	4	TRM4	7	TRM7	20	TRM20
3/10	TRM3/10	1-1/4	TRM1-1/4	2-1/2	TRM2-1/2	4-1/2	TRM4-1/2	8	TRM8	25	TRM25
4/10	TRM4/10	1-4/10	TRM1-4/10	2-8/10	TRM2-8/10	5	TRM5	9	TRM9	30	TRM30
1/2	TRM1/2										

Melting Time – Current Data 1/10 - 3-1/2 Amperes, 250 Volts AC



Melting Time – Current Data 4 - 30 Amperes, 250 Volts AC



CSA Group

Certification Record

CUSTOMER	CLASS	FILE
Mersen USA Newburyport-MA, LLC. 374 Merrimac St, Newburyport MA 01950-1998 USA	1422-01 FUSES-Special Type **Refer to Class Description for program details**	012636_0_000

Special Type Glass Cartridge fuses, non-renewable, 1/4in dia:

- Type GGX, 2A and less, 250V, 2.5 to 5A, 125V;
- Type GGC, 3A and less, 250V.
- Type GAB, 0.125-15A, 250V.
- Types GDL and GDV, 0.01-3A, 250V.
- Type GGJ, 0.1-5A, 250V.
- Type GGL, 7-10A, 250V.
- Special-type cartridge fuses, non-renewable, Cat No ATM, supplementary type, 600V ac or less, 30A and less, IR600-100kA; Cat No TRM, 250V ac or less, 25A and less Type GFN, 10A and less, 125/250V, Type GFN, 12-15A, 125V ac and less; Cat No OTM, 250V ac or less, 30A and less.
- Special-type cartridge fuses, non-renewable, "AMP TRAP" types, Cat No ATQ, 500V ac or less, 30A and less, time delay type; "TRIONIC" types, Cat No TRM, 30A, max, 250V ac, non-renewable time delay type.

Note: Fuses with a 125/250V rating are for use as supplementary protection at 250V.

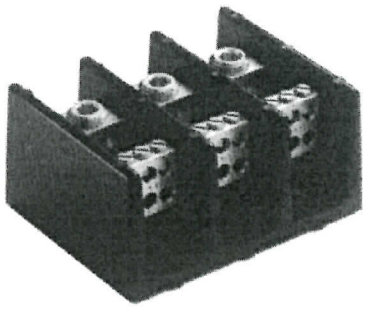
- Type SBS, 30A and less, 600V ac and less, IR 600-100kA.
- Cartridge Fuses, Non-Renewable, Class 'G' Fuses: Cat No AG 1/2-20A, 600V ac, IR 600V-100kA; Cat No AG 21-60A, 480V ac, IR 480V-100kA; Ratings 6-60A are Time-Delay type.

/vem

Power Distribution & Terminal Blocks

PDB

Power Distribution Blocks
600 Volt AC or DC



Catalog Symbol: Power Distribution Blocks
Voltage Rating: 600 Volts AC or DC maximum
Agency Information:
UL Recognized, Guide XCFR2, File E221592
CSA Certified, Class 6228-01, File 15364

Example: A 3-pole, 16023 series is 16023-3. The **line** side of the device has (1) conductor opening per pole that accepts 350kcmil - #6 CU/AL. The **load** side of the device has (6) conductor openings per pole that each accepts #4 - #14 CU or #4 - #12 AL.

Power Distribution Blocks (600V) Catalog Data

Catalog Number	1-Pole	2-Pole	3-Pole	4-Pole	Connection Line	Connection Load	Connector Material and Ampacity	UL	CSA
16021	NA	-2	-3	-4	2/0 - #14CU, 2/0 - #8AL	(6) #4 - #14CU, #4 - #8AL	AL-175A	•	•
16023	NA	-2	-3	-4	350kcmil - #6CU-AL	(6) #4 - #14CU, #4 - #12AL	AL-310A	•	•
16220	-1	-2	-3	NA	2/0 - #14CU, 2/0 - #8AL	(4) #4 - #14CU, #4 - #8AL	AL-175A	•	•
16321	-1	-2	-3	NA	2/0 - #14CU, 2/0 - #8AL	(6) #4 - #14CU, #4 - #8AL	AL-175A	•	•
16323	-1	-2	-3	NA	350kcmil - #6CU-AL	(6) #4 - #14CU, #4 - #12AL	AL-310A	•	•
16325	-1	-2	-3	NA	(2) 2/0 - #14CU, 2/0 - #8AL	(6) #4 - #14CU, #4 - #8AL	AL-350A	•	•
16330	-1	-2	-3	NA	500kcmil - #6CU-AL	(6)#2 - #14CU, #2 - #12AL	AL-380A	•	•
16332	-1	-2	-3	NA	350kcmil - #6CU-AL	(3) #2 - #14CU, #2 - #8AL (2) 1/0 - #14CU, 1/0 - #8AL	AL-310A	•	•
16335	-1	-2	-3	NA	500kcmil - #6CU-AL	(3) #2 - #14 CU, #2 - #8AL (2) 1/0 - #14CU, 1/0 - #8AL	AL-380A	•	•
16370	-1	-2	-3	NA	350kcmil - #6CU-AL	(12) #4 - #14CU, #4 - #12AL	AL-310A	•	•
16371	-1	-2	-3	NA	350kcmil - #6CU-AL	(6) #2 - #14CU, #2 - #8AL (3) 1/0 - #14CU, 1/0 - #8AL	AL-310A	•	•
16372	-1	-2	-3	NA	350kcmil - #6CU-AL	(21) #10 - #14CU, #10AL	AL-310A	•	•
16373	-1	-2	-3	NA	350kcmil - #6CU-AL	(3) 1/0 - #14CU-AL (14) #10 - #14CU, #10AL	AL-310A	•	•
16375	-1	-2	-3	NA	600kcmil - #2CU-AL	(12) #4 - #14CU, #4 - #12AL	AL-420A	•	•
16376	-1	-2	-3	NA	600kcmil - #2CU-AL	(6) #2 - #14CU, #2 -8AL (3) 1/0 - #14CU, 1/0 - #8AL	AL-420A	•	•
16377	-1	-2	-3	NA	(2)300kcmil - #4CU-AL	(12) #4 - #14CU, #4 - #12AL	AL-570A	•	•
16528	-1	-2	-3	NA	(2) 600kcmil - #2CU-AL	(4) 3/0 - #6CU-AL (4) #4 - #14CU-AL	AL-840A	•	•
16530	-1	-2	-3	NA	(2) 500kcmil - #6CU-AL	(12) #4 - #14CU-AL	AL-760A	•	•
16541	–1	-2	–3	NA	500kcmil - #6CU-AL	(21) #6 - #14CU-AL	AL-380A	•	•

How To Order: Catalog Number + # of Poles
Example: 16021-3 (complete part number)

Dimensional information on page 3

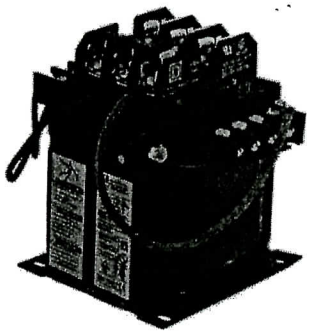
Optional covers:
160 Series: CPB160 - (pole)
162 Series: CPB162 - (pole)
163 Series: CPDB - (pole)
165 Series: CPDB165 (1 for each pole)

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000Vac, 75-1500Vdc). Refer to Data Sheet: 8002 or contact Bussmann Application Engineering at 636-527-1270 for more information.

Schneider Electric

9070TF500D1 Transformer

TRANSFORMER CONTROL 500VA 240/480V-120V



Stock Item: This item is normally stocked in our distribution facility.

- Product Information (#)

Features and Specifications

Application: Develop to help customers comply with UL Standard 508 and NEC 450

Specifications: 0.41 x 1.50 Inch (Class CC) Primary Fuse Holders

Terminal Type: Screw Clamp

Type: TF

Mounting Type: Panel

Approvals: UL Listed File Number: E61239 - CSA Certified File Number: LR37055 Guide: 184-N-90 - CE Marked

Phase: 1-Phase

Fuse Block: Top Mounted

Enclosure Type: Open

Primary: 240x480V or 230x460V or 220x440V

Rating: 500VA

Insulation Temperature: 180 Degrees C

Secondary: 120V or 115V or 110V

Temperature Rise: 115 Degrees C

Winding Material: Copper

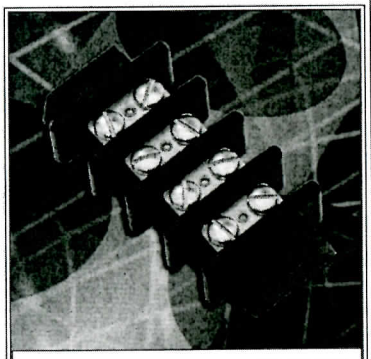
Height: 5.10 Inches

Width: 4.50 Inches

Depth: 5.46 Inches

Series 140

Features | Electrical & Mechanical Characteristics | Parts | Dimensions



Related Items

Download Barrier Blocks Catalog Pages

Features

Interposing barriers between terminals yield higher electrical ratings and provide additional protection against frayed wire shorting.

- A wide variety of barrier blocks makes it possible to select the combination of mechanical and electrical characteristics that best meet the exact requirements of your application.
- A wide selection of optional terminals and fanning strips permits the equipment designer to choose the method of termination most suitable for his environmental specifications and manufacturing requirements.
- RoHS compliant

Materials

- Insulation Material: Molded monoblock, general purpose phenolic, black, UL Rated 94V-1
- Eyelet Material: Brass
- Eyelet Plating: Nickel
- Screw Material: Steel – 140 Std has a combination screw – with the Y terminal – binder head screw
- Screw Plating: Nickel over copper flash
- Solder Terminal Material: Brass
- Solder Terminal Plating: Electro-Tin
- Marker Strip Material: Nema Grade XPC, UL Rated 94V-O

Environmental

- Operating Temperature: -55° to +300°F
- Certifications: UL Recognized – File E61245 CSA – LR 67357

back to top

Electrical & Mechanical Characteristics

Electrical Characteristics

- Voltage Rating: 250 VAC RMS maximum
- Current Rating: 15 Amps maximum
- Maximum Watts Per Terminal: 3750

Mechanical Characteristics

- Maximum Wire Size: #16 AWG
- Recommended Screw Eyelet Tightening Torque: 9 lb.-in.

back to top

Part Number Listing

Ordering Information

No. of Terminals	M Dim.	L Dim.	Std. Screw Catalog No.	Solder Y Catalog No.
1	.750	1.032	1-140	1-140-Y
2	1.125	1.407	2-140	2-140-Y
3	1.500	1.782	3-140	3-140-Y
4	1.875	2.157	4-140	4-140-Y
5	2.250	2.532	5-140	5-140-Y
6	2.625	2.907	6-140	6-140-Y
7	3.000	3.282	7-140	7-140-Y
8	3.375	3.657	8-140	8-140-Y
9	3.750	4.032	9-140	9-140-Y
10	4.125	4.407	10-140	10-140-Y
11	4.500	4.782	11-140	11-140-Y
12	4.875	5.157	12-140	12-140-Y
13	5.250	5.532	13-140	13-140-Y
14	5.625	5.907	14-140	14-140-Y

Malleable Liquidtight Insulated Fittings

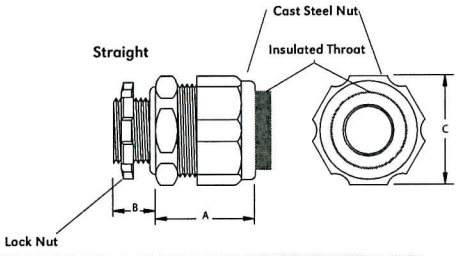
Specification/Ordering Information

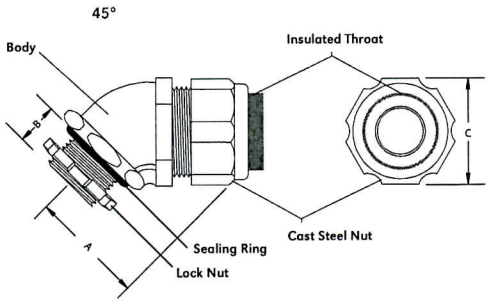
Straight Insulated

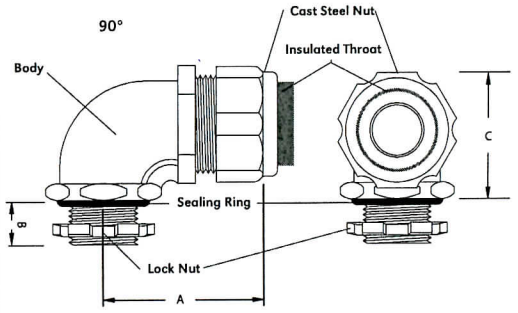
PRODUCT CODE	CATALOG NUMBER	WEIGHT PER/C	TRADE SIZE	DIMENSION IN INCHES A	B	C	CARTON INNER	COUNT MASTER
4201-22-00	LSI-38	16	3/8"	1.0629	0.4800	1.1020	25	250
4202-22-00	LSI-50	22	1/2"	1.0826	0.4800	1.2990	25	250
4203-20-00	LSI-75	31	3/4"	1.3385	0.5110	1.5354	20	200
4204-10-00	LSI-100	40	1"	1.3976	0.6690	1.7716	10	100
4205-05-00	LSI-125	74	1-1/4"	1.4760	0.7200	2.1650	5	50
4206-04-00	LSI-150	103	1-1/2"	1.7200	0.8260	2.4800	4	40
4207-03-00	LSI-200	163	2"	2.000	0.9170	2.9330	3	30
4208-05-00	LSI-250	260	2-1/2"	2.5200	1.2800	3.8780	*	5
4209-05-00	LSI-300	380	3"	2.5300	1.3385	4.6260	*	5
4210-05-00	LSI-350	440	3-1/2"	2.4400	1.4170	5.1180	*	5
4211-05-00	LSI-400	540	4"	2.5590	1.4763	5.7480	*	5
45º Insulated								
4301-15-00	LI-438	25	3/8"	1.2400	0.4800	1.1020	15	150
4302-15-00	LI-450	31	1/2"	1.3980	0.4800	1.2990	15	150
4303-10-00	LI-475	42	3/4"	1.6730	0.5110	1.5354	10	100
4304-05-00	LI-4100	56	1"	1.8891	0.6690	1.7716	5	50
4305-04-00	LI-4125	110	1-1/4"	2.2040	0.7200	2.1650	4	40
4306-03-00	LI-4150	160	1-1/2	2.4400	0.8260	2.4800	3	30
4307-02-00	LI-4200	245	2"	3.0300	0.9170	2.9330	2	20
4308-01-00	LI-4250	500	2-1/2"	4.0940	1.2800	3.8780	*	1
4309-01-00	LI-4300	700	3"	4.5670	1.3385	4.6260	*	1
4311-01-00	LI-4400	1200	4"	5.6690	1.4763	5.7480	*	1
90º Insulated								
4401-15-00	LI-938	25	3/8"	1.5354	0.4800	1.4170	15	150
4402-15-00	LI-950	37	1/2"	1.8110	0.4800	1.5354	15	150
4403-10-00	LI-975	50	3/4"	2.0470	0.5100	1.8500	10	100
4404-05-00	LI-9100	68	1"	2.1260	0.6690	2.1260	5	50
4405-04-00	LI-9125	118	1-1/4"	2.6378	0.7200	2.4800	4	40
4406-03-00	LI-9150	200	1-1/2"	3.0300	0.8260	3.0710	3	30
4407-02-00	LI-9200	280	2"	3.7790	0.9170	3.5000	2	20
4408-01-00	LI-9250	700	2-1/2"	6.8900	1.2800	6.5750	*	1
4409-01-00	LI-9300	1100	3"	7.4400	1.3385	7.7165	*	1
4410-01-00	LI-9350	1300	3-1/2"	8.4253	1.4170	8.8190	*	1
4411-01-00	LI-9400	1300	4"	9.5670	1.4763	10.3150	*	1

Features/Industry Standards

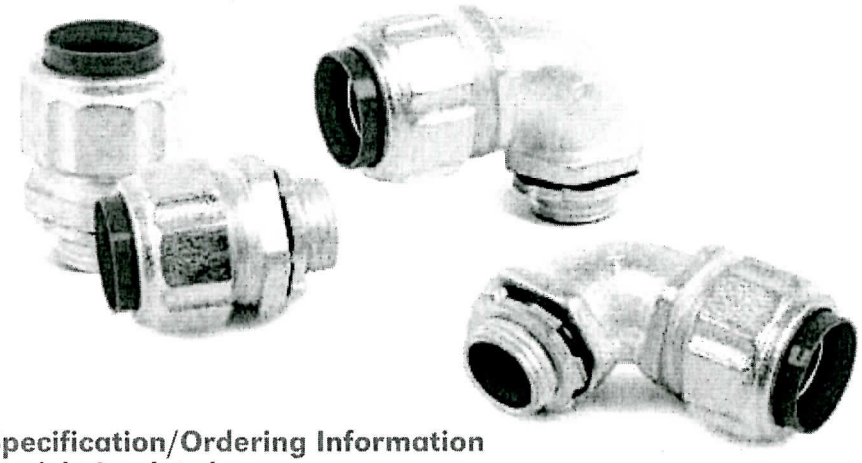
- Designed and engineered to ensure excellent performance
- Heavy-duty, impact resistant construction
- Factory installed "O" ring seals against lubricants and other liquids
- All malleable iron construction
- Full-size UL locknut
- Threaded locking mechanism ensures secure fit and better holding strength
- Outer bushing conforms to nut and conduit for fast and easy installation
- UL Standard 514B, UL Listed File # E-167170
- ANSI/NEMA FB-1
- C-UL certified for Canada
- Federal Specification A-A-50552
- NEC Classified: Class I, Div. 2 per NEC 501.10(B)(2)(3)







Malleable Liquidtight Insulated Fittings



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4208-05-00	LSI-250	260	2-1/2"	2.5200	1.2800	3.8780	*	5
4209-05-00	LSI-300	380	3"	2.5300	1.3385	4.6260	*	5
4210-05-00	LSI-350	440	3-1/2"	2.4400	1.4170	5.1180	*	5
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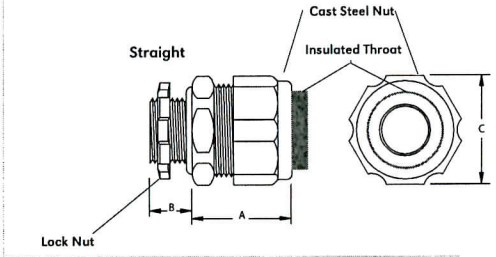

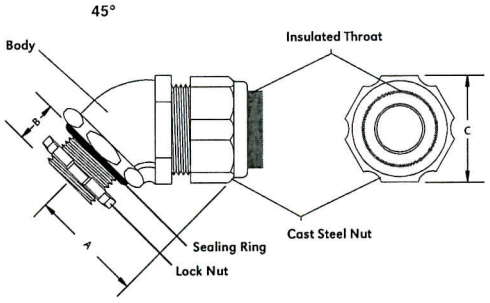

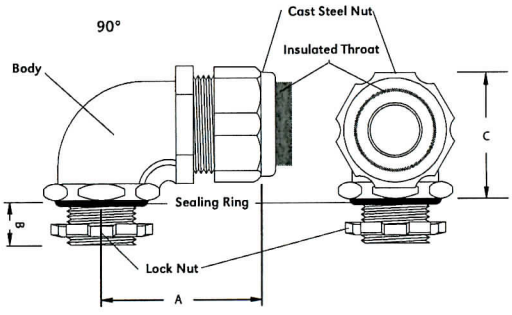

PRODUCT SPECIFICATION

KRIMPTITE AND VIBRAKRIMP QUICK DISCONNECTS

1.0 SCOPE

A. THIS PRODUCT SPECIFICATION COVERS THE KRIMPTITE AND VIBRAKRIMP QUICK DISCONNECTS (UNINSULATED) FOR 22 AWG TO 10 AWG WIRE.

2.0 PRODUCT DESCRIPTION

2.1 UNINSULATED QUICK DISCONNECTS

A. 19008 KRIMPTITE UNINSULATED FEMALE FLAG QUICK DISCONNECTS (22 – 10 AWG)
B. 19009 VIBRAKRIMP UNINSULATED FEMALE FLAG QUICK DISCONNECTS (22 – 14 AWG)
C. 19016 KRIMPTITE UNINSULATED FEMALE STRAIGHT QUICK DISCONNECTS (22 – 10 AWG)
D. 19018 VIBRAKRIMP UNINSULATED FEMALE STRAIGHT QUICK DISCONNECTS (22 – 14 AWG)
E. 19022 KRIMPTITE UNINSULATED MALE STRAIGHT QUICK DISCONNECTS (22 – 10 AWG)
F. 19024 VIBRAKRIMP UNINSULATED MALE STRAIGHT QUICK DISCONNECTS (22 – 10 AWG)

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

A. THE DIMENSIONAL CHARACTERISTICS ARE IDENTIFIED ON THE SALES DRAWINGS.
B. MATERIALS:
   I. BASE MATERIAL IS C26000 BRASS IN VARIOUS THICKNESSES WITH THE EXCEPTION OF 19022 AND 19024, WHICH ARE MADE FROM C26000 BRASS OR C11000 COPPER.
   II. PLATING IS MATTE TIN WITH THE FOLLOWING EXCEPTIONS
      1. 19022 AND 19024 ARE PLATED WITH ZINC CHROMATE.
      2. SOME SPECIAL PARTS ARE NICKEL OR NICKEL-OVER-TIN PLATED, TYPICALLY INDICATED WITH A "-N" AS A SUFFIX TO THE ENGINEERING NUMBER.
   III. PARTS HAVE NO INSULATION. SERIES 19009 AND 19018 HAVE A BUILT-IN WIRE INSULATION GRIP, AND SERIES 19024 WIRE GRIP CONSISTS OF A TIN-PLATED BRASS FERRULE.

2.3 SAFETY AGENCY APPROVALS

A. MOST PARTS ARE UL LISTED E79133 CATEGORY RFWV, CONSULT WEBSITE OR FACTORY FOR DETAILS
B. MOST PARTS ARE CSA CERTIFIED LR18689 CLASS 6227-01, CONSULT WEBSITE OR FACTORY FOR DETAILS
C. ALL PARTS ARE ROHS COMPLIANT

PRODUCT SPECIFICATION

KRIMPTITE AND VIBRAKRIMP QUICK DISCONNECTS

1.0 SCOPE

A. THIS PRODUCT SPECIFICATION COVERS THE KRIMPTITE AND VIBRAKRIMP QUICK DISCONNECTS (UNINSULATED) FOR 22 AWG TO 10 AWG WIRE.

2.0 PRODUCT DESCRIPTION

2.1 UNINSULATED QUICK DISCONNECTS

A. 19008 KRIMPTITE UNINSULATED FEMALE FLAG QUICK DISCONNECTS (22 – 10 AWG)
B. 19009 VIBRAKRIMP UNINSULATED FEMALE FLAG QUICK DISCONNECTS (22 – 14 AWG)
C. 19016 KRIMPTITE UNINSULATED FEMALE STRAIGHT QUICK DISCONNECTS (22 – 10 AWG)
D. 19018 VIBRAKRIMP UNINSULATED FEMALE STRAIGHT QUICK DISCONNECTS (22 – 14 AWG)
E. 19022 KRIMPTITE UNINSULATED MALE STRAIGHT QUICK DISCONNECTS (22 – 10 AWG)
F. 19024 VIBRAKRIMP UNINSULATED MALE STRAIGHT QUICK DISCONNECTS (22 – 10 AWG)

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

A. THE DIMENSIONAL CHARACTERISTICS ARE IDENTIFIED ON THE SALES DRAWINGS.
B. MATERIALS:
   I. BASE MATERIAL IS C26000 BRASS IN VARIOUS THICKNESSES WITH THE EXCEPTION OF 19022 AND 19024, WHICH ARE MADE FROM C26000 BRASS OR C11000 COPPER.
   II. PLATING IS MATTE TIN WITH THE FOLLOWING EXCEPTIONS
      1. 19022 AND 19024 ARE PLATED WITH ZINC CHROMATE.
      2. SOME SPECIAL PARTS ARE NICKEL OR NICKEL-OVER-TIN PLATED, TYPICALLY INDICATED WITH A "-N" AS A SUFFIX TO THE ENGINEERING NUMBER.
   III. PARTS HAVE NO INSULATION. SERIES 19009 AND 19018 HAVE A BUILT-IN WIRE INSULATION GRIP, AND SERIES 19024 WIRE GRIP CONSISTS OF A TIN-PLATED BRASS FERRULE.

2.3 SAFETY AGENCY APPROVALS

A. MOST PARTS ARE UL LISTED E79133 CATEGORY RFWV, CONSULT WEBSITE OR FACTORY FOR DETAILS
B. MOST PARTS ARE CSA CERTIFIED LR18689 CLASS 6227-01, CONSULT WEBSITE OR FACTORY FOR DETAILS
C. ALL PARTS ARE ROHS COMPLIANT

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

A. UL STANDARD FOR ELECTRICAL QUICK-CONNECT TERMINALS ANSI/UL 310
B. CSA STANDARD CSA-C22.2 NO 153-09 FOR ELECTRICAL QUICK-CONNECT TERMINALS

4.0 RATINGS

4.1 VOLTAGE

A. VOLTAGE RATINGS APPLY TO INSULATED PARTS AND THEREFORE DO NOT APPLY TO PARTS COVERED IN THIS SPECIFICATION.

4.2 CURRENT

A. THE AMPERAGE RATING IS BASED ON THE WIRE AWG APPLIED TO THE TERMINALS PER UL 310 SHOWN BELOW.

TABLE 4.2.B

WIRE AWG	MAX AMPERE RATING
22	3
20	4
18	7
16	10
14	15
12	20
10	24

4.3 MAXIMUM OPERATING TEMPERATURE – 149°C (300°F)

5.0 PERFORMANCE – SAMPLE PREPARATION, WIRE REQUIREMENTS, TESTS DESCRIPTIONS AND TABLE INFORMATION ARE PER UL STANDARD 310.

5.1 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Crimp Pullout Force (Axial)	Test Samples Crimped to Min/Max wire awg are subjected to an axial pullout force on the wire at a rate of 25 ± 6 mm (1 ± ¼ inch) per minute.	The Test Samples must withstand Table 10.1 Force applied for 1 minute
2	Engage / Disengage Test	Samples to be Mated/Unmated to Unplated Brass Test Tabs for 6 Mating Cycles	Samples must meet the Requirements of Table 11.1

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

A. UL STANDARD FOR ELECTRICAL QUICK-CONNECT TERMINALS ANSI/UL 310
B. CSA STANDARD CSA-C22.2 NO 153-09 FOR ELECTRICAL QUICK-CONNECT TERMINALS

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20	4
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5.0 PERFORMANCE – SAMPLE PREPARATION, WIRE REQUIREMENTS, TESTS DESCRIPTIONS AND TABLE INFORMATION ARE PER UL STANDARD 310.

5.1 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Crimp Pullout Force (Axial)	Test Samples Crimped to Min/Max wire awg are subjected to an axial pullout force on the wire at a rate of 25 ± 6 mm (1 ± ¼ inch) per minute.	The Test Samples must withstand Table 10.1 Force applied for 1 minute
2	Engage / Disengage Test	Samples to be Mated/Unmated to Unplated Brass Test Tabs for 6 Mating Cycles	Samples must meet the Requirements of Table 11.1

5.2 ELECTRICAL REQUIREMENTS

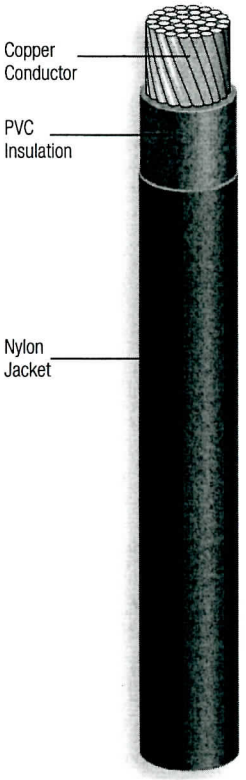
ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
3	Temperature Test	The Test Specimens shall are subjected to continuous current per Table 4.2.B until Stabilization.	Temperature Rise must not exceed 30C
4	Heat Cycling Test	The Temperature Test Samples shall complete 500 cycles of equal current on and off (45 min on/ 15 min off) at the current levels noted in Table 12.1.	Temperature Rise shall not rise more than 15C from 24th Cycle and not more than 85C at the 500th Cycle

Table 10.1

WIRE AWG	MIN PULL FORCE (LBS)
22	8
20	13
18	20
16	30
14	50
12	70
10	80

TABLE 11.1

Tab size	First Insertion Force (lbs)	First Withdrawal Force (lbs)	Sixth Withdrawal Force (lbs)
.250 x .032 (6.35 x 0.81)	16 MAX	3 MIN, 16 MAX	3 MIN
.205 x .020 (5.21 x 0.51)	15 MAX	3 MIN, 20 MAX	2 MIN
.205 x .032 (5.21 x 0.81)	15 MAX	3 MIN, 20 MAX	2 MIN
.187 x .020 (4.75 x 0.51)	15 MAX	3 MIN, 20 MAX	2 MIN
.187 x .032 (4.75 x 0.81)	15 MAX	3 MIN, 20 MAX	2 MIN
.110 x .020 (2.79 x 0.51)	12 MAX	2 MIN, 14 MAX	1 MIN
.110 x .032 (2.79 x 0.81)	12 MAX	2 MIN, 14 MAX	1 MIN



ENGINEERING SPECIFICATIONS:

Stranded E-156879

Standards:

Underwriters Laboratories Standards UL-83, UL-1063, UL-758
AWM Spec 1316, 1317, 1318, 1319, 1320, 1321
ASTM Stranding Class B3, B8, B787
Federal Specification A-A-59544
Canadian Standards Association C22.2 No. 75
NEMA WC70/ICEA S-95-658
Institute of Electrical and Electronics Engineers IEEE 1202/FT4
ICEA T-29-520 (210,000 Btu/hr) Flame Test
ARRA 2009; Section 1605 "Buy American" Compliant

CONSTRUCTION:

Conductors:

Solid, uncoated copper conductors per ASTM-B3
Stranded, uncoated copper conductors per ASTM-B3, ASTM-B787 and ASTM-B8

Insulation:

Color-coded Polyvinyl Chloride (PVC), heat and moisture-resistant, flame-retardant compound per UL-1063 and UL-83

Applications:

Type THHN/THWN-2 building wire is intended for general purpose applications as defined by the National Electrical Code (NEC). Type THHN/THWN-2 is permitted for new construction or rewiring for 600-volt applications. Applications requiring Type THHN or THWN-2: the conductor is appropriate for use in wet or dry locations at temperatures not to exceed 90°C or not to exceed 75°C in oil or coolants. Applications requiring Type MTW: the conductor is appropriate for use in dry locations at 90°C, or not to exceed 60°C in wet locations or where exposed to oils or coolants. Applications requiring Type AWM: the conductor is appropriate for use at temperatures to not exceed 105°C in dry locations.

Features:

Slick Nylon outer jacket for easy pulling. 6 AWG and larger Sunlight Resistant in all colors. All sizes rated gasoline and oil resistant II. On 250 KCMIL and larger, sequential footage markings located every foot for easy measuring. For 1 AWG through 4/0 AWG sequential foot markings on master reels only unless otherwise specified. 1/0 AWG and larger are rated for cable tray use and comply with IEEE 1202/FT4 (70,000 Btu/hr.) flame test and ICEA T-29-520 (210,000 Btu/hr.) flame test.

Jacket:

A tough, polyamide, Nylon outer covering per UL-1063 and UL-83.

THHN/MTW/THWN-2/T90 Copper Conductor 600V

Size (AWG or KCMIL)	Number of Strands	Cross Sect. Area (mm²)	PVC Insulation Thickness (Conductor)		Nylon Jacket Thickness		Outside Diameter		Approximate Net Weight		Allowable Ampacity (Amps)*			Standard Packaging (ft)
			(mm)	(in)	(mm)	(in)	(mm)	(in)	(kg/km)	(lbs/1000 ft)	60°C	75°C	90°C	
6	19	13.30	0.760	0.030	0.130	0.005	6.30	0.248	141	94	55	65	75	500' 1000' 2500' 5000' 25,000' reels
4	19	21.20	1.020	0.040	0.150	0.006	8.06	0.317	228	153	70	85	95	500' 1000' 2500' 5000' 20,000' reels
3	19	26.70	1.020	0.040	0.150	0.006	8.74	0.344	281	189	85	100	110	500' 1000' 2500' 5000' 15,000' reels
2	19	33.60	1.020	0.040	0.150	0.006	9.53	0.375	348	233	95	115	130	500' 1000' 2500' 5000' 14,000' reels
1	19	42.40	1.270	0.050	0.180	0.007	11.05	0.435	445	298	110	130	150	500' 1000' 2500' 5000' 22,000' reels
1/0	19	53.50	1.270	0.050	0.180	0.007	12.04	0.474	554	372	125	150	170	500' 1000' 2500' 5000' 16,000' reels
2/0	19	67.40	1.270	0.050	0.180	0.007	13.16	0.518	687	462	145	175	195	500' 1000' 2500' 5000' 14,000' reels
3/0	19	85.00	1.270	0.050	0.180	0.007	14.43	0.568	851	572	165	200	225	500' 1000' 2500' 5000' 12,000' reels
4/0	19	107.00	1.270	0.050	0.180	0.007	15.85	0.624	1059	712	195	230	260	500' 1000' 2500' 5000' 9000' reels
250	37	127.00	1.520	0.060	0.200	0.008	17.23	0.678	1266	849	215	255	290	500' 1000' 2500' 4000' 8500' reels
300	37	152.00	1.524	0.060	0.203	0.008	18.54	0.730	1503	1010	240	285	320	500' 1000' 3500' 7000' reels
350	37	177.00	1.520	0.060	0.200	0.008	19.74	0.777	1741	1170	260	310	350	500' 1000' 3000' 6000' reels
400	37	203.00	1.524	0.060	0.203	0.008	20.85	0.821	1979	1330	280	335	380	500' 1000' 3000' 5000' reels
500	37	253.00	1.520	0.060	0.200	0.008	22.91	0.902	2455	1650	320	380	430	500' 1000' 2500' 4000' reels
600	61	304.00	1.778	0.070	0.229	0.009	26.70	1.051	3004	2019	355	420	475	500' 1000' 2000' 3000' reels
750	61	380.00	1.778	0.070	0.229	0.009	29.36	1.156	3670	2466	400	475	535	500' 1000' 1500' 2500' reels
1000	61	507.00	1.778	0.070	0.229	0.009	33.27	1.310	4851	3260	455	545	615	500' 1000' 2000' reels

*Allowable ampacity shown above is per the National Electrical Code. The above data is approximate and subject to normal manufacturing tolerances.

PRINT LEGEND:
STRANDED CONDUCTORS-SIZES 6 AWG THROUGH 1 AWG: ENCORE WIRE CORPORATION (size) TYPE MTW OR THHN OR THWN-2 GR II SUN-RES VW-1 600 VOLTS (UL) OR AWM OR C(UL) TYPE T90 NYLON OR TWN 75 FT1 DATE/TIME/OPER/QC
CONDUCTOR SIZES 1/0 AWG THROUGH 1000 KCMIL: ENCORE WIRE CORPORATION (size) TYPE MTW OR THHN OR THWN-2 GR II SUN-RES FOR CT USE (UL) OR C(UL) TYPE T90 NYLON OR TWN 75 FT1 DATE/TIME/OPER/QC

Product Data Sheet

XB4BT42

PUSHBUTTON OPERATOR 22MM XB4B +OPTIONS

Technical Characteristics

Ampere Rating	10A
Approvals	UL Listed File Number E164353 CCN NKCR - CSA Certified File Number LR44087 Class 321103 - CE Marked
Bezel Material	Chromium Plated Metal
Style	Mushroom: 40mm
Button/Cap Color	Red
Enclosure Type	Water tight, Dust tight and Corrosion Resistant (Indoor/Outdoor)
Markings	None
Enclosure Rating	NEMA 4/4X/13
Maximum Voltage Rating	600V
Head Type	Round
Mounting Type	Panel
Operator Action	Maintained - Push-Pull
Operator Type	Non-Illuminated
Size	22mm
Terminal Type	Screw Clamp
Type	XB4
Utilization Category	AC15 - DC13
Contact Configuration	1 NC

Shipping and Ordering

Category	22468 - Push Buttons, Metal, 22mm, ZB4, XB4
Discount Schedule	CS2
GTIN	00785901381013
Package Quantity	1
Weight	0.25 lbs.
Availability Code	Stock Item: This item is normally stocked in our distribution facility.
Returnability	Y
Country of Origin	CZ

As standards, specifications, and designs change from time to time, please ask for confirmation of the information given in this document.

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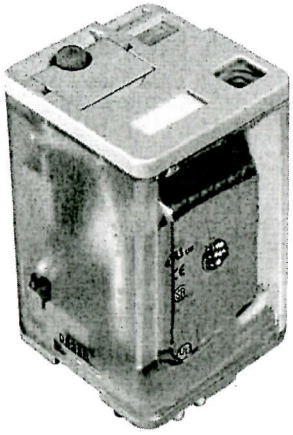
Schneider Electric

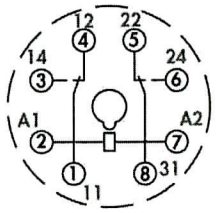
PRODUCT INFORMATION SHEET

DAYTON RELAYS

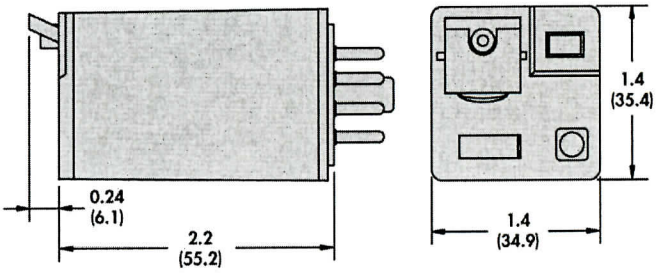
Model	1EGY1
Description	Octal Relay
Contacts Configuration	DPDT
Current	AC Operated
Coil Voltage	120 VAC 50/60 Hz
Mounting	Plug-in Socket Mount
Features	Locking Push Button LED Status Lamp Flag Indicator Removable ID Tag
Contact Characteristics	
Contact Materials	Silver Alloy
Thermal (Carrying) Current Rating (A)	16
Maximum Switching Voltage (V)	300
Switching Current at Voltage (AC, Resistive)	16A @ 120 VAC 50/60 Hz 16A @ 277 VAC 50/60 Hz
Switching Current at Voltage (DC, Resistive)	16A @ 28 VDC
Switching Current at Voltage (HP)	1/3 hp @ 120 VAC 1/2 hp @ 240 VAC
Switching Current at Voltage (Pilot Duty)	B300
Minimum Switching Requirement	100mA @ 5 VDC
Coil Characteristics	
Coil Resistance (Ohm)	1,700.0
Operating Range - % of Nominal (AC) (%)	85 to 110
Operating Range - % of Nominal (AC) (%)	85 to 110
Average Consumption (AC) (VA)	3.00
Average Consumption (DC) (W)	3.00
Drop-out Voltage Threshold (AC) (%)	15
Drop-out Voltage Threshold (DC) (%)	80 to 110
Performance Characteristics	
Electrical Life (UL508) Operations at Rated Current (Resistive)	100,000
Mechanical Life, Unpowered	5,000,000
Operating Time (Response Time) (ms)	20
Dielectric Strength - Between Coil and Contact (AC) (V(rms))	1500
Dielectric Strength - Between Poles (AC) (V(rms))	1500
Dielectric Strength - Between Contacts (AC) (V)	1500
Environment	
Product Certifications	cULus, cURus, CSA, UL, RoHS
Ambient Air Temperature around the Device - Storage (°C)	-40 to +85
Ambient Air Temperature around the Device - Operation (°C)	-40 to +55
Vibration Resistance - Operational (g-n)	3 g-n at 10-55 Hz
Shock Resistance (g-n)	10
Degree of Protection	IP 40
Weight (g)	89



Wiring Diagram



NEMA
IEC



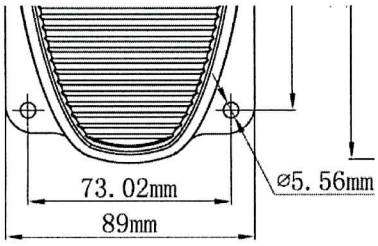
6GNZ9	
6GPC2	

NOTE: Product photos are shown for display purposes only and may not be representative of the actual product. The product is to be manufactured according to the specific requirements listed below Sections 4.0 through 11.0 below and the included technical drawings.

4.0 PRODUCT REQUIREMENTS:

4.1 Key Product Attributes
Foot Switch, SPDT,10A, 15A ,25A, Medium Duty **cULus Component recognized, CE. UL # E240199** **UL and cUL recognized following guidelines found in UL Standards 508, 60947-1, 60947-4-1A.**

This specification is based on the manufacturer's design and is to be used as a Quality Control document.



For single switch type

4.4 Finish / Color	Requirement
All Surface Finishes	a) Surface finishes must be uniform and continuous. The surface finish must not exhibit any visual defects such as blisters, rust, corrosion, scratches, peeling, bubbles, and/or cracking. b) All exposed surfaces must be free of burrs and sharp edges. c) All applied finishes must adhere to the surface and show no signs of delamination or peeling. d) All painted or coated surface finishes must be lead-free.

SKU	6GPF5	6GPF2	6GPG0	6GPE9	6GPC0	6GPC8	6GNZ9	6GPC2
finish	Spray-paint	Spray-paint	Spray-paint	Spray-paint	Spray-paint	Spray-paint	Spray-paint	Spray-paint
Color	Black	Black	Black	Black	Black	Black	Black	Black

4.5 Labels or Printing Applied to Product	Requirement
Appearance of all Labels and/or Printing	All labels must be applied straight and even without any air-bubbles or creases. The labels must adhere uniformly to the surface. Any surface printing must be permanent and legible without pinholes, smearing, or other such defects that would render the print unreadable.
Connection diagram	Marked on body
Voltage and amp ratings, Mfr. Model no.	Marked on body
HP ratings, cRUus mark, CE, mark	Marked on body
Country of origin	Marked on body

4.6 Product Packaging	Requirement
Product Packaging (including Master Pack, Inner Pack, and Sell Pack): Ship Test Integrity & Durability **See Section 2.2 of the GGS Supplier Handbook for General Shipping & Packaging Requirements**	a) All products must be securely packaged in such a manner as to pass the **ISTA 1A or 1B** (refer to www.ista.org) shock/drop test or other GGS Engineering defined tests as outlined in this specification. These tests simulate repeated product handling and shipping by sea, air, rail and truck. b) The product must be packaged and protected as necessary to prevent any shipping damage that may be incurred by abrasion, corrosion, humidity, vibration and/or shock. c) Upon receipt at GGS, all packaging must be intact and all product components must remain functional and firmly attached to the product as when the unit was originally built. There shall be no evidence of breakage, scratches, burnishing, rust, corrosion and/or dents.
Special Packaging Requirements	

5.0 ACCESSORIES TO BE INCLUDED WITH THE PRODUCT:

Description	Quantity / Notes
OIPM, Instruction Sheet, Separate Parts, Assembly Drawings, etc.	None

6.0 AGENCY CERTIFICATION & REGULATORY COMPLIANCE:

6.1 Agency Certification (UL, CSA, NSF, ANSI, etc.)	Requirement
UL, CSA (E240199)	**UL and cUL recognized following guidelines found in UL Standards 508, 60947-1, 60947-4-1A.**

This specification is based on the manufacturer's design and is to be used as a Quality Control document.