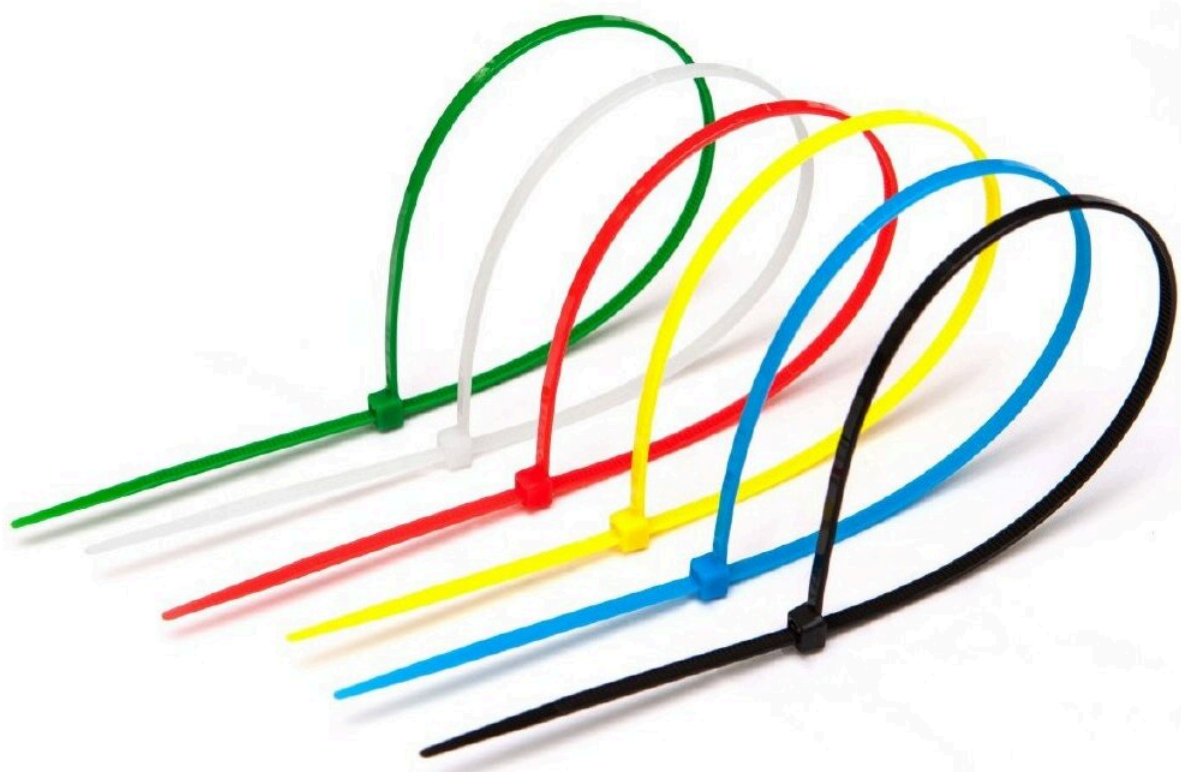


WIRE MANAGEMENT AND ELECTRICAL CONNECTION

Cable ties, mounts, heat shrink, terminals and lugs for the people who build and maintain industrial sites.



DATA CENTER

Power and data cable dressing

FACTORY AND PANEL

Machine wiring and control panels

SOLAR AND OUTDOOR

Cable runs in sun, heat and weather

ROBOTICS AND HARNESS

Compact harnesses that flex

WHERE EACH LINE GOES

Typical uses by site type. Start with your site, then turn to the page listed.

PRODUCT LINE	DATA CENTER	FACTORY AND PANEL	SOLAR AND OUTDOOR	ROBOTICS AND HARNESS	PAGE
Heavy-duty nylon ties 120 to 250 lb	Power whips, tray drops	Hose and machine bundles	UV black grade only	Not typical	3
Harness ties 18 to 50 lb	Rack and patch dressing	Panel wiring looms	Not typical	Harness branches	4
Hook-and-loop and releasable ties	Data and fiber bundles	Changeover wiring	Not typical	Prototype and service loops	4
Stainless steel ties	Not typical	Heat and washdown areas	Module and racking runs	Not typical	5
Mounts, edge clips and clamps	Rack and tray anchoring	Panel and frame routing	Edge clips, no drilling	Push-mount and fir-tree fixing	6
Heat shrink	Termination cover	Splice insulation	Sealed outdoor splices	Harness strain relief	7
Insulated terminals	Grounding, accessory power	Motor and device wiring	Accessory wiring	Sensor and actuator leads	8
Ferrules	PDU terminations	Control panel terminals	Inverter terminals	Controller terminals	9
Copper lugs	Power and grounding	Drives and motors	Grounding, battery cable	Battery and power leads	9
Tie and crimp tools	Tensioning, crimping and cutting tools matched to every line above				10
Spiral wrap and conduit	Not typical	Machine cable protection	Edge abrasion protection	Flexing cable protection	11
Nail-in cable clips	Building low-voltage work: coax, data and security cable on wood or masonry				11

CORE STOCK

Held in Nirah stock and shipped from the U.S.

ORDER-IN

Brought in against your order. Lead time 24 to 48 hours. No minimum order; case quantities preferred.

Uses shown are guidance. Confirm the rating, listing and environment each installation requires before ordering.

HEAVY-DUTY NYLON TIES

Self-locking nylon 6/6 ties for large bundles, hose and duct. Three strengths, lengths to 61 in.

DATA CENTER

FACTORY AND PANEL

SOLAR AND OUTDOOR

120 lb • 7.5 mm wide **CORE STOCK**

The standard heavy-duty tie. Fits the NR-519 tool on page 10.

ITEM	LENGTH	METRIC	WIDTH	MAX BUNDLE	TENSILE
NR-8x250	9.8 in	250 mm	7.5 mm	2.5 in	120 lb
NR-8x300	11.8 in	300 mm	7.5 mm	3.2 in	120 lb
NR-8x370	14.6 in	370 mm	7.5 mm	3.9 in	120 lb
NR-8x450	17.7 in	450 mm	7.5 mm	4.6 in	120 lb
NR-8x600	23.6 in	600 mm	7.5 mm	6.7 in	120 lb
NR-8x750	29.5 in	750 mm	7.5 mm	8.7 in	120 lb

175 lb • 9 mm wide **ORDER-IN**

Extra-heavy tie in long lengths for duct, hose and tray bundles.

ITEM	LENGTH	METRIC	WIDTH	MAX BUNDLE	TENSILE
NR-9x450	17.7 in	450 mm	9 mm	4.6 in	175 lb
NR-9x600	23.6 in	600 mm	9 mm	6.7 in	175 lb
NR-9x760	29.9 in	760 mm	9 mm	8.9 in	175 lb
NR-9x920	36.2 in	920 mm	9 mm	10.4 in	175 lb
NR-9x1200	47.2 in	1200 mm	9 mm	13.4 in	175 lb
NR-9x1550	61.0 in	1550 mm	9 mm	18.5 in	175 lb

250 lb • 12 to 12.7 mm wide **ORDER-IN**

The strongest nylon tie in the range.

ITEM	LENGTH	METRIC	WIDTH	MAX BUNDLE	TENSILE
NR-12x400	15.7 in	400 mm	12.7 mm	4.1 in	250 lb
NR-12x540	21.3 in	540 mm	12.7 mm	6.1 in	250 lb
NR-12x780	30.7 in	780 mm	12.7 mm	9.1 in	250 lb
NR-12x1000	39.4 in	1000 mm	12 mm	10.8 in	250 lb

Nylon 6/6, UL 94V-2 flammability rating. Service temperature -35 °C to 85 °C (-31 °F to 185 °F). Tensile is minimum loop tensile strength.



Black (UV-stabilized, outdoor) and natural white (indoor) as standard. Colors to order.

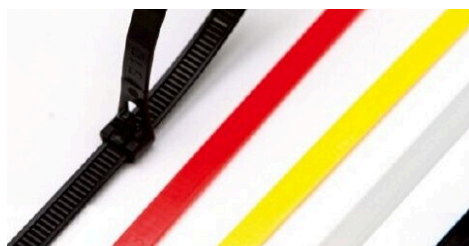
HARNESS AND REUSABLE TIES

Small ties for wiring looms, and ties you can open again when the cabling changes.

DATA CENTER

FACTORY AND PANEL

ROBOTICS AND HARNESS



RELEASABLE TIES



SCREW-MOUNT HEAD TIES



HOOK-AND-LOOP STRAPS

Harness ties • 18 to 50 lb ORDER-IN

Miniature to standard ties for looms and panel wiring.

ITEM	LENGTH	WIDTH	MAX BUNDLE	TENSILE
NR-3x100	3.9 in	2.5 mm	0.9 in	18 lb
NR-3x150	5.9 in	2.5 mm	1.4 in	18 lb
NR-4x150	5.9 in	3.5 mm	1.4 in	40 lb
NR-4x200	7.9 in	3.5 mm	2.0 in	40 lb
NR-5x200	7.9 in	4.5 mm	2.0 in	50 lb
NR-5x300	11.8 in	4.5 mm	3.2 in	50 lb

Screw-mount head ties • 120 lb ORDER-IN

Bundle the cable, then fix the head to the panel with a screw.

ITEM	LENGTH	WIDTH	MAX BUNDLE	TENSILE
NR-8x300MT	11.8 in	7.6 mm	3.1 in	120 lb
NR-8x380MT	15.0 in	7.6 mm	3.9 in	120 lb
NR-8x400MT	15.7 in	7.6 mm	4.3 in	120 lb

Releasable ties • 50 lb ORDER-IN

Press the latch to open and reuse. Nylon 6/6.

ITEM	LENGTH	WIDTH	MAX BUNDLE	TENSILE
NR-7.5x200RT	7.9 in	7.5 mm	2.0 in	50 lb
NR-7.5x300RT	11.8 in	7.5 mm	3.1 in	50 lb
NR-7.5x400RT	15.7 in	7.5 mm	3.9 in	50 lb

Hook-and-loop ORDER-IN

Soft, reusable wrap for data and fiber cable. Black, red, yellow, blue or green.

ITEM	FORM	WIDTH	LENGTH
NR-HL12x150	Strap	12 mm	5.9 in
NR-HL12x200	Strap	12 mm	7.9 in
NR-HL12x300	Strap	12 mm	11.8 in
NR-HL16x300	Strap	16 mm	11.8 in
NR-HL1/2-25	Roll	12.5 mm (1/2 in)	25 yd
NR-HL3/4-25	Roll	19 mm (3/4 in)	25 yd

Nylon ties: nylon 6/6, UL 94V-2 flammability rating. Tensile is minimum loop tensile strength. Hook-and-loop: polypropylene loop face, nylon hook face.

STAINLESS STEEL TIES

Self-locking steel ties for sun, heat and corrosive sites, where nylon has a short life.

SOLAR AND OUTDOOR

FACTORY AND PANEL



135 lb • 4.6 mm wide ORDER-IN

Light-duty steel tie for single cables and small bundles.

ITEM	LENGTH	METRIC	WIDTH	MAX BUNDLE	TENSILE
NR-SST-150	5.9 in	150 mm	4.6 mm	1.4 in	135 lb
NR-SST-200	7.9 in	200 mm	4.6 mm	2.0 in	135 lb
NR-SST-300	11.8 in	300 mm	4.6 mm	3.1 in	135 lb
NR-SST-400	15.7 in	400 mm	4.6 mm	4.1 in	135 lb
NR-SST-500	19.7 in	500 mm	4.6 mm	5.9 in	135 lb

180 lb • 7.9 mm wide ORDER-IN

General-purpose steel tie for cable runs and pipe.

ITEM	LENGTH	METRIC	WIDTH	MAX BUNDLE	TENSILE
NR-SLT-200	7.9 in	200 mm	7.9 mm	2.0 in	180 lb
NR-SLT-300	11.8 in	300 mm	7.9 mm	3.1 in	180 lb
NR-SLT-400	15.7 in	400 mm	7.9 mm	4.1 in	180 lb
NR-SLT-500	19.7 in	500 mm	7.9 mm	5.9 in	180 lb
NR-SLT-700	27.6 in	700 mm	7.9 mm	8.1 in	180 lb



Bare or plastic-coated. Coating cushions the cable jacket.

270 lb • 12 mm wide ORDER-IN

Heavy steel tie for large bundles, hose and signage.

ITEM	LENGTH	METRIC	WIDTH	MAX BUNDLE	TENSILE
NR-SBT-300	11.8 in	300 mm	12 mm	3.1 in	270 lb
NR-SBT-400	15.7 in	400 mm	12 mm	4.1 in	270 lb
NR-SBT-600	23.6 in	600 mm	12 mm	7.1 in	270 lb
NR-SBT-800	31.5 in	800 mm	12 mm	9.1 in	270 lb

Grades 201, 304 or 316: state the grade when ordering. For plastic-coated, add P to the item number (NR-SST-200P). Service temperature -60 °C to 150 °C (-76 °F to 302 °F). Tensile is minimum loop tensile strength. Tensioning tools are on page 10.

MOUNTS, CLIPS AND CLAMPS

Ways to fix a tied bundle to a panel, frame or edge, with or without drilling.

DATA CENTER

FACTORY AND PANEL

SOLAR AND OUTDOOR

ROBOTICS AND HARNESS



Saddle mounts

ORDER-IN

Screw-fixed anchor for ties up to 9 mm wide. Natural or black.

ITEM	BASE	TIE SLOT	SCREW HOLE
NR-SM2	22 × 16 mm	9.0 mm	6.3 mm
NR-SM3	22 × 16 mm	9.0 mm	5.3 mm
NR-SM4	29 × 15 mm	9.4 mm	5.3 mm



Edge clips

ORDER-IN

Push onto a panel edge; a metal clamp grips. Takes a 4.8 mm tie.

ITEM	PANEL EDGE	TIE WIDTH	TIE ENTRY
NR-ESS-1	1 to 3 mm	4.8 mm	Top
NR-ESS-3	3 to 6 mm	4.8 mm	Top
NR-ESC-1	1 to 3 mm	4.8 mm	Side
NR-ESC-3	3 to 6 mm	4.8 mm	Side



Push-mount ties

ORDER-IN

50 lb, 4.8 mm tie with a winged head that snaps into a panel hole.

ITEM	LENGTH	MAX BUNDLE	HOLE	PANEL
NR-4.8x120PT	4.7 in	1.0 in	6.4 mm	3.2 mm
NR-4.8x160PT	6.3 in	1.5 in	6.4 mm	3.2 mm
NR-4.8x190PT	7.5 in	1.8 in	6.4 mm	3.2 mm



Adhesive tie mounts

ORDER-IN

Peel-and-stick foam backing. Most sizes also take a screw.

ITEM	BASE	TIE SLOT	SCREW HOLE
NR-TM-20	20 × 20 mm	4.5 mm	3 mm
NR-TM-25	25 × 25 mm	6.2 mm	3.5 mm
NR-TM-30	30 × 30 mm	6.4 mm	4.5 mm
NR-TM-40	40 × 40 mm	10.8 mm	None



Fir-tree ties

ORDER-IN

40 lb tie with a ribbed stud that pushes into a panel hole.

ITEM	MAX BUNDLE	HOLE	PANEL
NR-5.3x180FTT	1.2 in	6.5 to 7 mm	0.6 to 4.5 mm
NR-5.4x210FTT	1.9 in	6.5 to 7.2 mm	1 to 8 mm



R-type cable clamps

ORDER-IN

Nylon 6/6 loop clamp. Lay the cable in and fix with one screw.

ITEM	CABLE DIAMETER	CLAMP WIDTH
NR-1/4R	1/4 in (6.35 mm)	10 mm
NR-3/8R	3/8 in (9.5 mm)	12 mm
NR-1/2R	1/2 in (12.7 mm)	12 mm
NR-3/4R	3/4 in (19.4 mm)	12 mm
NR-1R	1 in (25.4 mm)	12 mm

Edge clips are heat-stabilized nylon 6/6, rated -40 °C to 105 °C (-40 °F to 221 °F). Fir-tree and push-mount ties come in standard or heat-stabilized nylon 6/6. Panel is the panel thickness the part fits.

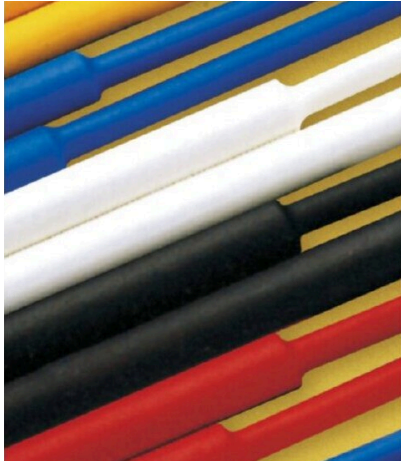
HEAT SHRINK

Tubing on the roll, bench kits, and sealed splices for wet or outdoor wiring.

FACTORY AND PANEL

SOLAR AND OUTDOOR

ROBOTICS AND HARNESS



Tubing on the roll • 2:1

ORDER-IN

Shrinks to half its supplied diameter. Black, white, red, blue, yellow, green and more.

ITEM	ID SUPPLIED	INCH SIZE	ID RECOVERED	WALL	ROLL
NR-DRS-3	3 mm	1/8 in	1.5 mm	0.45 mm	200 m
NR-DRS-5	5 mm	3/16 in	2.5 mm	0.55 mm	100 m
NR-DRS-6	6 mm	1/4 in	3 mm	0.55 mm	100 m
NR-DRS-10	10 mm	3/8 in	5 mm	0.60 mm	100 m
NR-DRS-13	13 mm	1/2 in	6.5 mm	0.70 mm	100 m
NR-DRS-20	20 mm	3/4 in	10 mm	0.90 mm	50 m
NR-DRS-25	25 mm	1 in	12.5 mm	0.90 mm	50 m

Tubing kits • 100 pieces

ORDER-IN

Cut lengths of 100 mm in six diameters, boxed.

ITEM	COLOR	PIECES BY DIAMETER
NR-100B	Black	30 × 1.5 mm, 30 × 2.5, 20 × 4, 10 × 6, 6 × 10, 4 × 13
NR-100C	One color per size	30 × 1.5 mm, 30 × 2.5, 20 × 4, 10 × 6, 6 × 10, 4 × 13

Heat-shrink butt connectors

ORDER-IN

Crimp, then heat. The adhesive-lined sleeve seals the splice.

ITEM	WIRE	COLOR	LENGTH
NR-KY-1	22 to 16 AWG	Red	37 mm
NR-KY-2	16 to 14 AWG	Blue	37 mm
NR-KY-5	12 to 10 AWG	Yellow	52 mm

Inch size is the nearest U.S. trade size. Wall is the wall thickness after shrinking. Butt connectors: polyolefin sleeve with hot-melt adhesive lining and tinned copper barrel, rated -55 °C to 125 °C (-67 °F to 257 °F).

INSULATED TERMINALS

Vinyl-insulated crimp terminals in the three standard wire ranges: red, blue and yellow.

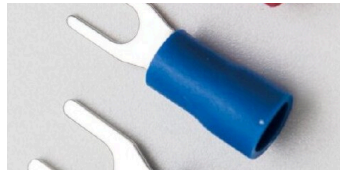
FACTORY AND PANEL

ROBOTICS AND HARNESS

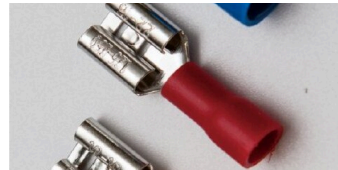
DATA CENTER



RING



FORK



QUICK DISCONNECT



BUTT CONNECTOR

Ring terminals ORDER-IN

Max current 19 A red, 27 A blue, 48 A yellow.

ITEM	WIRE AWG	STUD	COLOR
NR-RVS1.25-4	22 to 16	#8	Red
NR-RV1.25-5	22 to 16	#10	Red
NR-RVS2-4	16 to 14	#8	Blue
NR-RVS2-5	16 to 14	#10	Blue
NR-RV2-6	16 to 14	1/4 in	Blue
NR-RV2-8	16 to 14	5/16 in	Blue
NR-RVS5.5-4	12 to 10	#8	Yellow
NR-RV5.5-5	12 to 10	#10	Yellow
NR-RV5.5-6	12 to 10	1/4 in	Yellow
NR-RV5.5-8	12 to 10	5/16 in	Yellow
NR-RV5.5-10	12 to 10	3/8 in	Yellow

Butt connectors ORDER-IN

Inline splice. Sealed version on page 7.

ITEM	WIRE AWG	COLOR	MAX CURRENT
NR-BV1.25	22 to 16	Red	19 A
NR-BV2	16 to 14	Blue	27 A
NR-BV5.5	12 to 10	Yellow	48 A
NR-BV8	8	Red	62 A

Fork terminals ORDER-IN

Slides under a screw head without removing the screw.

ITEM	WIRE AWG	STUD	COLOR
NR-SVS1.25-4	22 to 16	#8	Red
NR-SVS1.25-5	22 to 16	#10	Red
NR-SVS2-4	16 to 14	#8	Blue
NR-SVS2-5	16 to 14	#10	Blue
NR-SVS5.5-4	12 to 10	#8	Yellow
NR-SV5.5-5	12 to 10	#10	Yellow

Quick disconnects ORDER-IN

Push-on tab connectors, .187 and .250 in.

ITEM	TYPE	WIRE AWG	TAB	MAX
NR-FDD1.25-187(8)	Female	22 to 16	.187 in	10 A
NR-FDD1.25-250	Female	22 to 16	.250 in	10 A
NR-FDD2-187(8)	Female	16 to 14	.187 in	15 A
NR-FDD2-250	Female	16 to 14	.250 in	15 A
NR-FDD5.5-250	Female	12 to 10	.250 in	24 A
NR-MDD1.25-250	Male	22 to 16	.250 in	10 A
NR-MDD2-250	Male	16 to 14	.250 in	15 A
NR-MDD5.5-250	Male	12 to 10	.250 in	24 A

FERRULES AND LUGS

Wire-end ferrules for terminal blocks, and copper tube lugs for power and grounding cable.

- DATA CENTER
- FACTORY AND PANEL
- SOLAR AND OUTDOOR
- ROBOTICS AND HARNESS



Insulated ferrules ORDER-IN

Crimp onto stranded wire so every strand lands in the terminal.

ITEM	WIRE AWG	WIRE MM ²	PIN LENGTH	OVERALL LENGTH
NR-E0508	22	0.5	8 mm	14 mm
NR-E7508	20	0.75	8 mm	14.6 mm
NR-E1008	18	1.0	8 mm	14.6 mm
NR-E1508	16	1.5	8 mm	14.6 mm
NR-E2508	14	2.5	8 mm	15.2 mm
NR-E4009	12	4	9 mm	16.5 mm
NR-E6012	10	6	12 mm	20 mm



Copper tube lugs ORDER-IN

One-hole compression lug with a sight hole to confirm the cable is seated.

ITEM	CONDUCTOR	NEAREST AWG	STUD HOLE	BARREL ID	LENGTH
NR-SC10-6	10 mm ²	8	1/4 in (6.5 mm)	4.5 mm	25 mm
NR-SC16-6	16 mm ²	6	1/4 in (6.5 mm)	5.4 mm	30 mm
NR-SC16-8	16 mm ²	6	5/16 in (8.4 mm)	5.4 mm	30 mm
NR-SC25-8	25 mm ²	4	5/16 in (8.4 mm)	6.8 mm	33 mm
NR-SC35-8	35 mm ²	2	5/16 in (8.4 mm)	8.2 mm	38 mm
NR-SC35-10	35 mm ²	2	3/8 in (10.5 mm)	8.2 mm	38 mm
NR-SC50-10	50 mm ²	1/0	3/8 in (10.5 mm)	9.5 mm	45 mm
NR-SC70-10	70 mm ²	2/0	3/8 in (10.5 mm)	11.2 mm	50 mm
NR-SC95-12	95 mm ²	3/0	1/2 in (13 mm)	13.5 mm	55 mm
NR-SC120-12	120 mm ²	4/0	1/2 in (13 mm)	15 mm	63 mm

Lugs are made to metric conductor sizes. Nearest AWG is a guide: check the barrel ID against your cable before ordering. Crimp tools for both lines are on page 10.

TIE AND CRIMP TOOLS

ORDER-IN

The hand tools that install the ties, terminals and lugs in this catalog.



NYLON TIE TOOL

NR-519

Tensions and cuts nylon ties 2.4 to 9 mm wide, up to 175 lb.



NYLON TIE TOOL

NR-CTG-001

Tension dial for ties up to 4.8 mm wide. Metal body.



STAINLESS TIE TOOL

NR-600N

For stainless ties 4.6 to 7.9 mm wide.



STAINLESS TIE TOOL

NR-CT-02

For stainless ties 4.6 to 12 mm wide.



STAINLESS TIE TOOL

NR-LQA-001

Tensions and cuts stainless ties. Adjustable tension.



CRIMP TOOL

NR-30J

For insulated terminals and butt connectors, 22 to 10 AWG.



CRIMP TOOL

NR-C8 6-6

For ferrules, 0.25 to 6 mm² (23 to 10 AWG).



CRIMP TOOL

NR-HX-50B

For copper lugs 6 to 50 mm². NR-HX-120B covers 10 to 120 mm².



CABLE CUTTER

NR-325A

Cuts cable up to 240 mm².

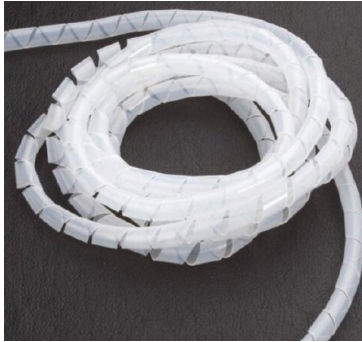
CABLE PROTECTION AND CLIPS

Wrap and conduit to guard cable that moves or rubs, and nail-in clips for low-voltage runs.

FACTORY AND PANEL

ROBOTICS AND HARNESS

LOW-VOLTAGE INSTALL



Spiral wrap

ORDER-IN

Polyethylene wrap that bundles and guards wire, and lets leads break out anywhere.

ITEM	INSIDE DIA.	OUTSIDE DIA.	BUNDLE RANGE	ROLL
NR-SWB-06	4 mm	6 mm	4 to 50 mm (0.16 to 2.0 in)	10 m
NR-SWB-10	7.5 mm	10 mm	7.5 to 60 mm (0.3 to 2.4 in)	10 m
NR-SWB-12	9 mm	12 mm	9 to 65 mm (0.35 to 2.6 in)	10 m
NR-SWB-19	15 mm	19 mm	15 to 100 mm (0.6 to 3.9 in)	10 m



Corrugated conduit

ORDER-IN

Flexible conduit in nylon 6, polyethylene or polypropylene. Black or grey.

ITEM	INSIDE DIA.	OUTSIDE DIA.	MIN. BEND RADIUS	ROLL
NR-CT10	6.5 mm	10.0 mm	14 mm	200 m
NR-CT13	9.5 mm	13.0 mm	20 mm	100 m
NR-CT15.8	12.0 mm	15.8 mm	27 mm	100 m
NR-CT21.2	17.0 mm	21.2 mm	40 mm	100 m
NR-CT28.5	23.0 mm	28.5 mm	47 mm	50 m



Nail-in cable clips

ORDER-IN

Polyethylene clip with the steel nail already fitted. White, grey, black or brown.

ITEM	CABLE DIAMETER	NAIL
NR-NC6	6 mm (0.24 in)	1.8 × 17 mm
NR-NC7	7 mm (0.28 in)	1.8 × 17 mm
NR-NC8	8 mm (0.31 in)	2.0 × 19 mm
NR-NC10	10 mm (0.39 in)	2.1 × 23 mm

Conduit bend radius is for a fixed installation. Nail-in clips are for low-voltage coax, data and security cable. Choose the size at or just above the cable diameter.

HOW TO ORDER

Send us item numbers and quantities. We reply with price and a ship date.

HOW WE STOCK

CORE STOCK

Held in Nirah stock and shipped from the U.S. Today that is the 120 lb heavy-duty nylon tie line on page 3.

ORDER-IN

Everything else is brought in against your order, so you get the full range without paying for stock we guessed at. Lead time 24 to 48 hours. No minimum order; case quantities preferred.

WHAT TO SEND US

Item number, as printed in the tables.

Quantity, in pieces, rolls or kits.

Color or grade where the page offers a choice: tie color, stainless grade 201, 304 or 316, coated or bare.

Ship-to address and the date you need it.

ABOUT THE SPECIFICATIONS

Dimensions and ratings are the manufacturer's published figures. Inch values are converted from metric and rounded. Confirm that a part meets the rating, listing and code requirements of your installation before you order.

PHONE

(312) 834-4799

WEB

www.nirahdistributors.com

EMAIL

info@nirahdistributors.com

ADDRESS

Chicago, Illinois