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SECTION H STRAIN RELIEF BUSHINGS

H1



STRAIN RELIEF BUSHINGS / LIQUID TIGHT

Strain Relief Bushings / Liquid Tight

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Bushings

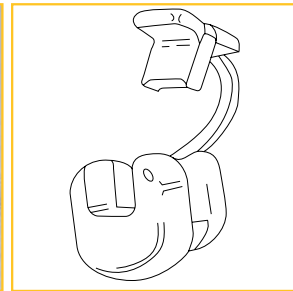
STRAIN RELIEF BUSHINGS STRAIGHT THROUGH TYPE

H2

Strain Relief Bushings - Straight Through Type

DESCRIPTION						DIMENSIONS				
ITEM NUMBER	UL / CSA DESCRIPTION	CROSS SECTION	CABLE SIZE	CABLE TYPE	GAUGE (AWG)	MOUNTING HOLE		MAX PANEL THICKNESS	BUSHINGS	
						DIAMETER	FLATS		LENGTH	WIDTH
ESR2M4	MP2M4	ROUND	0.156 X 0.187 (3.9 X 4.7)	AWN	14	0.375 (9.6)	0.330 (8.4)	0.062 (1.6)	0.410 (10.4)	0.391 (9.9)
ESR2M5	MP2M5	ROUND	0.125 X 0.156 (3.2 X 3.9)	AWN	16	0.375 (9.6)	0.330 (8.4)	0.062 (1.6)	0.410 (10.4)	0.391 (9.9)
ESR3P4	MP3P4	FLAT	0.120 X 0.220 (3.0 X 5.6)	SP1	18/2	0.437 (11.1)	0.390 (9.9)	0.062 (1.6)	0.410 (10.4)	0.484 (12.3)
			0.120 X 0.220 (3.0 X 5.6)	SPT-1	18/2	0.437 (11.1)	0.390 (9.9)	0.062 (1.6)	0.410 (10.4)	0.484 (12.3)
ESR4K1	MP4K1	FLAT	0.150 X 0.400 (3.8 X 10.1)	SPT-2	18/3	0.500 (12.7)	0.460 (11.7)	0.095 (2.4)	0.495 (12.6)	0.565 (14.4)
			0.160 X 0.300 (4.1 X 7.6)	HPN	16/2	0.500 (12.7)	0.460 (11.7)	0.095 (2.4)	0.495 (12.6)	0.565 (14.4)
			0.160 X 0.300 (4.1 X 7.6)	SPT-2	16/2	0.500 (12.7)	0.460 (11.7)	0.095 (2.4)	0.495 (12.6)	0.565 (14.4)
			0.150 X 0.280 (3.8 X 7.1)	HPN	18/2	0.500 (12.7)	0.460 (11.7)	0.095 (2.4)	0.495 (12.6)	0.565 (14.4)
			0.150 X 0.280 (3.8 X 7.1)	SPT-2	18/2	0.500 (12.7)	0.460 (11.7)	0.095 (2.4)	0.495 (12.6)	0.565 (14.4)
ESR4K4	MP4K4	FLAT	0.120 X 0.300 (3.0 X 7.6)	SPT-1	18/3	0.500 (12.7)	0.465 (11.8)	0.100 (2.5)	0.406 (10.3)	0.578 (14.7)
			0.120 X 0.300 (3.0 X 7.6)	SPT-2	18/2	0.500 (12.7)	0.465 (11.8)	0.100 (2.5)	0.406 (10.3)	0.578 (14.7)
			0.120 X 0.300 (3.0 X 7.6)	HPN	18/2	0.500 (12.7)	0.465 (11.8)	0.100 (2.5)	0.406 (10.3)	0.578 (14.7)
ESR4L4	MP4L4	FLAT	0.120 X 0.300 (3.0 X 7.6)	SPT-1	18/3	0.500 (12.7)	0.465 (11.8)	0.156 (3.9)	0.406 (10.3)	0.578 (14.7)
			0.120 X 0.300 (3.0 X 7.6)	SPT-2	18/2	0.500 (12.7)	0.465 (11.8)	0.156 (3.9)	0.406 (10.3)	0.578 (14.7)
			0.120 X 0.300 (3.0 X 7.6)	HPN	18/2	0.500 (12.7)	0.465 (11.8)	0.156 (3.9)	0.406 (10.3)	0.578 (14.7)
ESR4N4	MP4N4	FLAT	0.120 X 0.300 (3.0 X 7.6)	SPT-1	18/3	0.500 (12.7)	0.465 (11.8)	0.062 (1.6)	0.406 (10.3)	0.578 (14.7)
			0.120 X 0.300 (3.0 X 7.6)	SPT-2	18/2	0.500 (12.7)	0.465 (11.8)	0.062 (1.6)	0.406 (10.3)	0.578 (14.7)
			0.120 X 0.300 (3.0 X 7.6)	HPN	18/2	0.500 (12.7)	0.465 (11.8)	0.062 (1.6)	0.406 (10.3)	0.578 (14.7)

Bushings



Strain Relief Bushings – Straight Through Type

Etlin Strain Reliefs securely anchor, absorb and protect cables and wires from push, pull and twist forces and insulate them from irregular or sharp panel edges. They are made of tough heat-stabilized nylon and are fully CSA and UL approved. They are easily and quickly installed using special bushing pliers or other hand tools.

Holes shaped with flats prevent rotation of the bushing if the cable is subject to twist.

1. Position on the wire
2. Compress with pliers
3. Push into panel hole

Installation Tool – IT100

Adjustable for all strain relief bushings that assemble into holes up to 7/8" diameter. Indispensable for fast, accurate assembly of the bushings.

Certifications:
UR
CSA
VDE

H.B. ETLIN CO. LTD.

FOR MORE INFORMATION CALL
1-800-661-9610 (Canada) **1-888-762-5384** (USA)

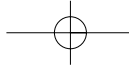
**STRAIN RELIEF BUSHINGS
STRAIGHT THROUGH TYPE**

Strain Relief Bushings - Straight Through Type (cont'd)

H3

DESCRIPTION						DIMENSIONS				
ITEM NUMBER	UL / CSA DESCRIPTION	CROSS SECTION	CABLE SIZE	CABLE TYPE	GAUGE (AWG)	MOUNTING HOLE		MAX PANEL THICKNESS	BUSHINGS	
						DIAMETER	FLATS		LENGTH	WIDTH
ESR5K4	MP5K4	FLAT	0.150 x 0.160 (3.8 x 4.1)	SPT-2	18/3	0.562 (14.3)	0.530 (13.5)	0.125 (3.2)	0.609 (15.5)	0.625 (15.9)
ESR5KN4	MP5KN4	FLAT	0.150 X 0.400 (3.8 X 10.1)	SPT-2	18/3	0.562 (14.3)	0.530 (13.5)	0.062 (1.6)	0.609 (15.5)	0.625 (15.9)
			0.160 X 0.300 (4.1 X 7.6)	SPT-2	16/3	0.562 (14.3)	0.530 (13.5)	0.062 (1.6)	0.609 (15.5)	0.625 (15.9)
ESR5N4	MP5N4	ROUND	0.250 (6.4)	SV	18/2	0.500 (12.7)	0.450 (11.4)	0.062 (1.6)	0.438 (11.1)	0.578 (14.7)
			0.250 (6.4)	SVT	18/2	0.500 (12.7)	0.450 (11.4)	0.062 (1.6)	0.438 (11.1)	0.578 (14.7)
			0.255 (6.5)	SV	18/3	0.500 - 0.515	0.450 (11.4)	0.062 (1.6)	0.438 (11.1)	0.578 (14.7)
			0.255 (6.5)	SVT	18/3	0.500 - 0.515	0.450 (11.4)	0.062 (1.6)	0.438 (11.1)	0.578 (14.7)
			0.290 (7.4)	HPD	16/2	0.500 - 0.515	0.450 (11.4)	0.062 (1.6)	0.438 (11.1)	0.578 (14.7)
ESR5P4	MP5P4	ROUND	0.250 (6.4)	SV	18/2	0.500 (12.7)	0.450 (11.4)	0.100 (2.5)	0.438 (11.1)	0.578 (14.7)
			0.250 (6.4)	SVT	18/2	0.500 (12.7)	0.450 (11.4)	0.100 (2.5)	0.438 (11.1)	0.578 (14.7)
			0.255 (6.5)	SV	18/3	0.500 - 0.515	0.450 (11.4)	0.100 (2.5)	0.438 (11.1)	0.578 (14.7)
			0.255 (6.5)	SVT	18/3	0.500 - 0.515	0.450 (11.4)	0.100 (2.5)	0.438 (11.1)	0.578 (14.7)
			0.290 (7.4)	HPD	16/2	0.500 - 0.515	0.450 (11.4)	0.100 (2.5)	0.438 (11.1)	0.578 (14.7)
ESR5W1	MP5W1	FLAT	0.120 X 0.300 (3.0 X 7.6)	SPT-2	18/3	0.562 (14.3)	0.530 (13.5)	0.125 (3.2)	0.609 (15.5)	0.625 (15.9)
			0.160 X 0.300 (4.1 X 7.6)	SPT-2	16/2	0.562 (14.3)	0.530 (13.5)	0.125 (3.2)	0.609 (15.5)	0.625 (15.9)
			0.160 X 0.410 (4.1 X 10.4)	SPT-2	16/3	0.562 (14.3)	0.530 (13.5)	0.125 (3.2)	0.609 (15.5)	0.625 (15.9)
			0.160 X 0.370 (4.1 X 9.4)	HPN	16/3	0.562 (14.3)	0.530 (13.5)	0.125 (3.2)	0.609 (15.5)	0.625 (15.9)
ESR6N34	MP6N34	ROUND	0.355 (9.0)	SJ	16/3	0.625 (15.9)	0.550 (14.0)	0.062 (1.6)	0.580 (14.7)	0.703 (17.9)
			0.405 (10.3)	SJT	18/3	0.625 (15.9)	0.550 (14.0)	0.062 (1.6)	0.580 (14.7)	0.703 (17.9)
			0.430 (10.9)	SJT	16/3	0.625 (15.9)	0.550 (14.0)	0.062 (1.6)	0.580 (14.7)	0.703 (17.9)
ESR6N35	MP6N35	ROUND	0.390 (9.9)	SJO	18/2	0.625 (15.9)	0.550 (14.0)	0.062 (1.6)	0.580 (14.7)	0.703 (17.9)
			0.390 (9.9)	SJ	18/2	0.625 (15.9)	0.550 (14.0)	0.062 (1.6)	0.580 (14.7)	0.703 (17.9)
			0.405 (10.3)	SJT	16/2	0.625 (15.9)	0.550 (14.0)	0.062 (1.6)	0.580 (14.7)	0.703 (17.9)
			0.405 (10.3)	SJO	16/2	0.625 (15.9)	0.550 (14.0)	0.062 (1.6)	0.580 (14.7)	0.703 (17.9)
			0.390 (9.9)	SJT	18/2	0.625 (15.9)	0.550 (14.0)	0.062 (1.6)	0.580 (14.7)	0.703 (17.9)
ESR6N4	MP6N4	ROUND	0.300 (7.2)	SJT	18/2	0.625 (15.9)	0.550 (14.0)	0.062 (1.6)	0.580 (14.7)	0.703 (17.9)
			0.300 (7.2)	SJO	18/2	0.625 (15.9)	0.550 (14.0)	0.062 (1.6)	0.580 (14.7)	0.703 (17.9)
ESR6N44	MP6N44	FLAT	0.120 X 0.300 (3.0 X 7.6)	SPT-1	18/3	0.625 (15.9)	0.570 (14.4)	0.062 (1.6)	0.600 (15.2)	0.690 (17.5)
ESR6P34	MP6P34	ROUND	0.325 X 0.360 (8.3 X 9.1)	SJ	18/3	0.625 (15.9)	0.550 (14.0)	0.125 (3.2)	0.580 (14.7)	0.703 (17.9)
			0.325 X 0.360 (8.3 X 9.1)	SJT	16/3, 18/3	0.625 (15.9)	0.550 (14.0)	0.125 (3.2)	0.580 (14.7)	0.703 (17.9)
			0.325 X 0.360 (8.3 X 9.1)	SJO	18/3	0.625 (15.9)	0.550 (14.0)	0.125 (3.2)	0.580 (14.7)	0.703 (17.9)
ESR6P35	MP6P35	ROUND	0.325 X 0.360 (8.3 X 9.1)	SJ	18/2, 18/3, 16/2	0.625 (15.9)	0.550 (14.0)	0.125 (3.2)	0.580 (14.7)	0.703 (17.9)
			0.325 X 0.360 (8.3 X 9.1)	SJT	16/2, 18/2	0.625 (15.9)	0.550 (14.0)	0.125 (3.2)	0.580 (14.7)	0.703 (17.9)
			0.325 X 0.360 (8.3 X 9.1)	SJO	18/2, 18/3, 16/2	0.625 (15.9)	0.550 (14.0)	0.125 (3.2)	0.580 (14.7)	0.703 (17.9)

Bushings



Bushings

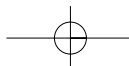
STRAIN RELIEF BUSHINGS STRAIGHT THROUGH TYPE

H4

Strain Relief Bushings - Straight Through Type (cont'd)

DESCRIPTION						DIMENSIONS				
ITEM NUMBER	UL / CSA DESCRIPTION	CROSS SECTION	CABLE SIZE	CABLE TYPE	GAUGE (AWG)	MOUNTING HOLE		MAX PANEL THICKNESS	BUSHINGS	
						DIAMETER	FLATS		LENGTH	WIDTH
ESR6P4	MP6P4	ROUND	0.300 (7.6)	SJ	18/2	0.625 (15.9)	0.550 (14.0)	0.125 (3.2)	0.580 (14.7)	0.703 (17.9)
			0.300 (7.6)	SJT	18/2	0.625 (15.9)	0.550 (14.0)	0.125 (3.2)	0.580 (14.7)	0.703 (17.9)
			0.300 (7.6)	SJO	18/2	0.625 (15.9)	0.550 (14.0)	0.125 (3.2)	0.580 (14.7)	0.703 (17.9)
ESR6L1	MP6L1	ROUND	0.325 X 0.430 (8.3 X 10.9)	SJ	18/2, 18/3, 16/2	0.625 (15.9)	0.550 (14.0)	0.125 (3.2)	0.580 (14.7)	0.703 (17.9)
			0.325 X 0.430 (8.3 X 10.9)	SJT	18/2, 18/3, 16/2	0.625 (15.9)	0.550 (14.0)	0.125 (3.2)	0.580 (14.7)	0.703 (17.9)
			0.325 X 0.430 (8.3 X 10.9)	SJO	18/2, 18/3, 16/2	0.625 (15.9)	0.550 (14.0)	0.125 (3.2)	0.580 (14.7)	0.703 (17.9)
ESR6W1	MP6W1	ROUND	0.300 (7.6)	SJ	18/2	0.500 (12.7)	0.465 (11.8)	0.090 (2.3)	0.437 (11.1)	0.563 (14.3)
			0.300 (7.6)	SJT	18/2	0.500 (12.7)	0.465 (11.8)	0.090 (2.3)	0.437 (11.1)	0.563 (14.3)
			0.300 (7.6)	SJO	18/2	0.500 (12.7)	0.465 (11.8)	0.090 (2.3)	0.437 (11.1)	0.563 (14.3)
ESR7K2	MP7K2	ROUND	0.325 X 0.360 (8.3 X 9.1)	SJ	18/4, 16/2, 16/3, 14/2	0.875 (22.2)	0.770 (19.6)	0.125 (3.2)	0.750 (19.1)	0.922 (23.4)
			0.325 X 0.360 (8.3 X 9.1)	SJT	18/3, 16/3	0.875 (22.2)	0.770 (19.6)	0.125 (3.2)	0.750 (19.1)	0.922 (23.4)
			0.325 X 0.360 (8.3 X 9.1)	SJO	14/2, 16/3, 18/4	0.875 (22.2)	0.770 (19.6)	0.125 (3.2)	0.750 (19.1)	0.922 (23.4)
ESR7K3	MP7K3	ROUND	0.325 X 0.360 (8.3 X 9.1)	SJ	18/3, 16/2	0.875 (22.2)	0.770 (19.6)	0.125 (3.2)	0.750 (19.1)	0.922 (23.4)
			0.325 X 0.360 (8.3 X 9.1)	SJT	16/2	0.875 (22.2)	0.770 (19.6)	0.125 (3.2)	0.750 (19.1)	0.922 (23.4)
			0.325 X 0.360 (8.3 X 9.1)	SJO	18/3, 16/2	0.875 (22.2)	0.770 (19.6)	0.125 (3.2)	0.750 (19.1)	0.922 (23.4)
ESR7P2	MP7P2	ROUND	0.360 (9.1)	SJTO	18/4	0.750 (19.0)	0.660 (16.8)	0.125 (3.2)	0.745 (18.9)	0.830 (21.0)
			0.370 (9.4)	SJT	14/3	0.750 (19.0)	0.660 (16.8)	0.125 (3.2)	0.745 (18.9)	0.830 (21.0)
			0.405 (10.3)	S	18/3	0.750 (19.0)	0.660 (16.8)	0.125 (3.2)	0.745 (18.9)	0.830 (21.0)
			0.430 (10.9)	S	16/3	0.750 (19.0)	0.660 (16.8)	0.125 (3.2)	0.745 (18.9)	0.830 (21.0)
			0.405 (10.3)	DTO	18/3	0.750 (19.0)	0.660 (16.8)	0.125 (3.2)	0.745 (18.9)	0.830 (21.0)
			0.430 (10.9)	STO	16/3	0.750 (19.0)	0.660 (16.8)	0.125 (3.2)	0.745 (18.9)	0.830 (21.0)
			0.405 (10.3)	S	16/2	0.750 (19.0)	0.660 (16.8)	0.125 (3.2)	0.745 (18.9)	0.830 (21.0)
			0.390 (9.9)	S	18/2	0.750 (19.0)	0.660 (16.8)	0.125 (3.2)	0.745 (18.9)	0.830 (21.0)
			0.390 (9.9)	STO	18/2	0.750 (19.0)	0.660 (16.8)	0.125 (3.2)	0.745 (18.9)	0.830 (21.0)
0.405 (10.3)	STO	16/2	0.750 (19.0)	0.660 (16.8)	0.125 (3.2)	0.745 (18.9)	0.830 (21.0)			
ESR7P3	MP7P3	FLAT	0.160 X 0.410 (4.1 X 10.4)	SPT-2	16/3	0.736 (18.7)	0.657 (16.7)	0.125 (3.2)	0.590 (14.9)	0.785 (19.9)
ESR7W2	MP7W2	ROUND	0.370 X 0.425 (9.4 X 10.8)	SJT	14/3, 12/3	0.875 (22.2)	0.770 (19.6)	0.125 (3.2)	0.750 (19.1)	0.922 (23.4)
			0.390 X 0.430 (9.9 X 10.9)	S	18/3, 16/3	0.875 (22.2)	0.770 (19.6)	0.125 (3.2)	0.750 (19.1)	0.922 (23.4)
			0.390 X 0.430 (9.9 X 10.9)	STO	16/2, 16/3, 18/3	0.875 (22.2)	0.770 (19.6)	0.125 (3.2)	0.750 (19.1)	0.922 (23.4)
ESR8P2	MP8P2	ROUND	0.530 X 0.600 (13.5 X 15.2)	S	14/2, 14/3	0.875 (22.2)	0.840 (21.3)	0.125 (3.2)	0.812 (20.6)	0.922 (23.4)
			0.530 X 0.600 (13.5 X 15.2)	ST	12/2	0.875 (22.2)	0.840 (21.3)	0.125 (3.2)	0.812 (20.6)	0.922 (23.4)
ESR9P2	MP9P2	ROUND	0.570 (14.4)	S	12/2	1.093 (27.7)	1.000 (25.4)	0.281 (7.1)	0.990 (25.1)	1.215 (30.8)
			0.640 (16.3)	S	12/3	1.125 (28.6)	1.000 (25.4)	0.281 (7.1)	0.990 (25.1)	1.215 (30.8)
			0.650 (16.5)	S	10/2	1.093 (27.7)	1.000 (25.4)	0.281 (7.1)	0.990 (25.1)	1.215 (30.8)
			0.700 (17.7)	S	10/3	1.187 (30.1)	1.000 (25.4)	0.281 (7.1)	0.990 (25.1)	1.215 (30.8)

Bushings



**STRAIN RELIEF BUSHINGS
STRAIGHT THROUGH TYPE**

Strain Relief Bushings - Straight Through Type (cont'd)

H5

DESCRIPTION						DIMENSIONS				
ITEM NUMBER	UL / CSA DESCRIPTION	CROSS SECTION	CABLE SIZE	CABLE TYPE	GAUGE (AWG)	MOUNTING HOLE		MAX PANEL THICKNESS	BUSHINGS	
						DIAMETER	FLATS		LENGTH	WIDTH
ESR30-10	MP30-1	FLAT	0.160 X 0.410 (4.1 X 10.4)	SPT-2	16/3	0.560 (14.2)	0.730 (18.5)	0.125 (3.2)	0.670 (17.0)	0.750 (19.6)
ESR30-20	MP30-2	FLAT	0.120 X 0.300 (3.0 X 7.6)	SPT-1	18/3	0.625 / 0.375 (15.9 / 9.5)	0.625 (15.9)	0.100 (2.5)	0.460 (11.6)	0.660 (16.7)
			0.150 X 0.400 (3.8 X 10.1)	SPT-2	18/3	0.625 / 0.375 (15.9 / 9.5)	0.625 (15.9)	0.100 (2.5)	0.460 (11.6)	0.660 (16.7)
			0.160 X 0.410 (4.1 X 10.4)	SPT-2	16/3	0.625 / 0.375 (15.9 / 9.5)	0.625 (15.9)	0.100 (2.5)	0.460 (11.6)	0.660 (16.7)
ESR31-20	MP31-2	FLAT	0.320 X 0.650 (8.1 X 16.5)	SPT-3	12/3	0.875 (22.2)	0.840 (21.3)	0.125 (3.2)	0.812 (20.6)	0.922 (23.4)
		ROUND	0.425 X 0.475 (10.8 X 12.1)	SJT	12/3	0.875 (22.2)	0.840 (21.3)	0.125 (3.2)	0.812 (20.6)	0.922 (23.4)
ESR33-10	MP33-10	FLAT	0.180 X 0.425 (4.5 X 10.8)	SPT-3	16/3	0.750 / 0.875 (19.1 / 22.2)	0.875 (22.2)	0.125 (3.2)	0.770 (19.5)	0.895 (22.7)
			0.245 X 0.425 (6.2 X 10.8)	SPT-3	14/2	0.750 / 0.875 (19.1 / 22.2)	0.875 (22.2)	0.125 (3.2)	0.770 (19.5)	0.895 (22.7)
			0.240 X 0.420 (6.1 X 10.7)	SPT-3	14/3	0.750 / 0.875 (19.1 / 22.2)	0.875 (22.2)	0.125 (3.2)	0.770 (19.5)	0.895 (22.7)
			0.240 X 0.525 (6.1 X 13.3)	HPN	14/3	0.750 / 0.875 (19.1 / 22.2)	0.875 (22.2)	0.125 (3.2)	0.770 (19.5)	0.895 (22.7)
ESR34-2	MP34-2	FLAT	0.240 X 0.420 (6.1 X 10.7)	SPT-3	14/3	0.875 (22.2)	0.840 (21.3)	0.125 (3.2)	0.812 (20.6)	0.922 (23.4)
			0.290 X 0.650 (7.4 X 16.5)	SPT-3	12/3	0.875 (22.2)	0.840 (21.3)	0.125 (3.2)	0.812 (20.6)	0.922 (23.4)
ESR34-2X	MP34-2X	FLAT	0.240 X 0.420 (6.1 X 10.7)	SPT-3	14/3, 12/3	0.875 (22.2)	0.840 (21.3)	0.125 (3.2)	0.812 (20.6)	0.922 (23.4)

Strain Relief Bushings - 90° Angle Style

DESCRIPTION						DIMENSIONS				
ITEM NUMBER	UL / CSA DESCRIPTION	CROSS SECTION	CABLE SIZE	CABLE TYPE	GAUGE (AWG)	MOUNTING HOLE		MAX PANEL THICKNESS	BUSHINGS	
						DIAMETER	FLATS		LENGTH	WIDTH
ESR13L1	MP13L1	FLAT	0.120 X 0.220 (3.1 X 5.6)	SPT-1	18/2	0.437 (11.1)	0.390 (9.9)	0.062 (1.6)	0.500 (12.7)	0.510 (12.9)
ESR14L1	MP14L1	FLAT	0.150 X 0.280 (3.8 X 7.1)	SPT-2	18/2, 16/2	0.500 (12.7)	0.450 (11.4)	0.100 (2.5)	0.687 (17.5)	0.563 (14.3)
			0.160 X 0.300 (4.1 X 7.6)	HPN	16/2	0.500 (12.7)	0.450 (11.4)	0.100 (2.5)	0.687 (17.5)	0.563 (14.3)
ESR15L1	MP15L1	ROUND	0.250 X 0.265 (6.4 X 6.7)	SVT	18/2, 18/3	0.500 (12.7)	0.450 (11.4)	0.100 (2.5)	0.687 (17.5)	0.563 (14.3)

Strain Relief Bushings - Style ?

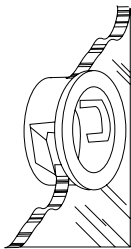
DESCRIPTION						DIMENSIONS				
ITEM NUMBER	UL / CSA DESCRIPTION	CROSS SECTION	CABLE SIZE	CABLE TYPE	GAUGE (AWG)	MOUNTING HOLE		MAX PANEL THICKNESS	BUSHINGS	
						DIAMETER	FLATS		LENGTH	WIDTH
ESR1410	MP14L1	FLAT	0.150 X 0.300 (3.8 X 7.6)	SPT-2	18/2, 16/2	0.500 (12.7)	0.450 (11.4)	0.100 (2.5)	0.687 (17.5)	0.563 (14.3)
ESR1510	MP15L1	ROUND	0.250 X 0.265 (6.4 X 6.7)	SVT	18/2, 18/3	0.500 (12.7)	0.450 (11.4)	0.100 (2.5)	0.687 (17.5)	0.563 (14.3)

Bushings

INSULATING BUSHINGS

H6

Insulating Bushings - Miniature Bushings Series



ITEM NUMBER	INSIDE DIAMETER A	HEAD DIAMETER B	THICKNESS C	PANEL HOLE DIAMETER
MB187-125	.125 (3.2)	.250 (6.4)	.234 (6.2)	.187 (4.8)
MB312-250	.250 (6.4)	.375 (9.5)	.234 (6.2)	.312 (8.0)
MB468-343	.343 (8.8)	.531 (13.5)	.250 (6.4)	.468 (11.9)
MB500-375	.375 (9.5)	.562 (14.3)	.250 (6.4)	.500 (12.7)
MB531-406	.406 (10.3)	.593 (15.2)	.250 (6.4)	.531 (13.5)
MB625-500	.500 (12.7)	.703 (17.9)	.250 (6.4)	.625 (15.9)
MB750-625	.625 (16.0)	.828 (21.0)	.250 (6.4)	.750 (19.0)
MB781-625	.625 (16.0)	.859 (21.5)	.250 (6.4)	.781 (19.9)
MB875-750	.750 (19.0)	.937 (23.8)	.250 (6.4)	.875 (22.2)

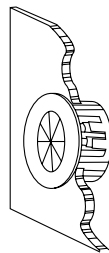
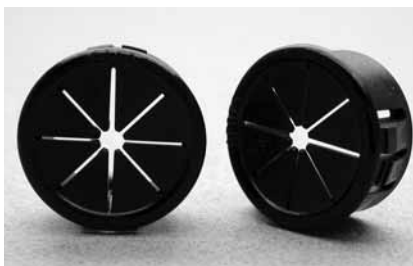
Insulating Bushings - Miniature Series

These bushings are the economical solution to insulate wires, cables, etc. from raw edges in compact designs where internal clearances are critical. Miniature bushings accommodate panels up to 1/16" thickness and require only 1/8" clearance. Material: Nylon 6/6 UL 94V2, Temperature Index 105°C. Stocked in Standard Black; colours available upon request.

Bushings

Insulating Bushings - All-Fit Adjustable Series

ITEM NUMBER	CHASSIS DIMENSIONS		PART DIMENSIONS		
	HOLE DIAMETER	MAX THICKNESS	HEAD DIAMETER	THICKNESS	MAXIMUM ID
UBE625	.625 (15.9)	.125 (3.2)	.718 (18.2)	.406 (10.3)	.437 (11.1)
UBE750	.750 (19.0)	.125 (3.2)	.859 (21.8)	.390 (9.9)	.500 (12.7)
UBE812	.812 (20.6)	.125 (3.2)	.890 (22.6)	.390 (9.9)	.500 (12.7)
UBE875	.875 (22.2)	.125 (3.2)	.937 (23.8)	.453 (11.5)	.562 (14.3)
UBE1000	1.000 (25.4)	.125 (3.2)	1.062 (26.9)	.453 (11.5)	.750 (19.0)
UBE1093	1.093 (27.8)	.125 (3.2)	1.156 (29.3)	.453 (11.5)	.812 (20.6)



Insulating Bushings - All-Fit Series

Etlin Nylon "All-Fit" Adjustable Bushings are designed to protect wire, cable, tubing or irregular shaped items from sharp, unfinished edges. The specially designed, resilient multiple supports absorb shock and vibration, and adjust to accept various diameters and shapes.

The All-Fit Bushing is equipped with multiple locks to positively snap in panel thickness' ranging from 1/32" to 1/8". Bushings are molded and stocked in Black heat stabilized nylon.

Certifications:
UR
CSA

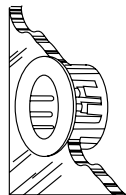
INSULATING BUSHINGS

Insulating Bushings - Standard Series

H7

ITEM NUMBER	PART DIMENSIONS			CHASSIS DIMENSIONS	
	INSIDE DIAMETER A	HEAD DIAMETER B	THICKNESS C	HOLE DIAMETER	MAX THICKNESS
SBE250-2	.125 (3.2)	.312 (8.0)	.312 (8.0)	.250 (6.4)	.062 (1.6)
SBE312-3	.187 (4.8)	.375 (9.5)	.312 (8.0)	.312 (8.0)	.062 (1.6)
SBE375-3	.187 (4.8)	.468 (11.9)	.406 (10.3)	.375 (9.5)	.125 (3.2)
SBE375-4	.250 (6.4)	.468 (11.9)	.406 (10.3)	.375 (9.5)	.125 (3.2)
SBE437-4	.250 (6.4)	.531 (13.5)	.406 (10.3)	.437 (11.1)	.125 (3.2)
SBE437-5	.312 (8.0)	.531 (13.5)	.406 (10.3)	.437 (11.1)	.125 (3.2)
SBE437-6	.243 (6.2)	.531 (13.5)	.406 (10.3)	.437 (11.1)	.125 (3.2)
SBE500-4	.250 (6.4)	.578 (14.7)	.406 (10.3)	.500 (12.7)	.125 (3.2)
SBE500-5	.312 (8.0)	.578 (14.7)	.406 (10.3)	.500 (12.7)	.125 (3.2)
SBE500-6	.375 (9.5)	.578 (14.7)	.406 (10.3)	.500 (12.7)	.125 (3.2)
SBE562-5	.312 (8.0)	.656 (16.7)	.406 (10.3)	.562 (14.3)	.125 (3.2)
SBE562-6	.375 (9.5)	.656 (16.7)	.406 (10.3)	.562 (14.3)	.125 (3.2)
SBE562-7	.437 (11.1)	.656 (16.7)	.406 (10.3)	.562 (14.3)	.125 (3.2)
SBE625-4	.250 (6.4)	.718 (18.2)	.406 (10.3)	.625 (15.9)	.125 (3.2)
SBE625-7	.437 (11.1)	.718 (18.2)	.406 (10.3)	.625 (15.9)	.125 (3.2)
SBE625-8	.500 (12.7)	.718 (18.2)	.406 (10.3)	.625 (15.9)	.125 (3.2)
SBE687-8	.500 (12.7)	.781 (19.8)	.406 (10.3)	.687 (17.4)	.125 (3.2)
SBE687-9	.562 (14.3)	.781 (19.8)	.406 (10.3)	.687 (17.4)	.125 (3.2)
SBE750-6	.375 (9.5)	.843 (21.4)	.406 (10.3)	.750 (19.0)	.125 (3.2)
SBE750-8	.500 (12.7)	.843 (21.4)	.406 (10.3)	.750 (19.0)	.125 (3.2)
SBE750-9	.562 (14.3)	.843 (21.4)	.406 (10.3)	.750 (19.0)	.125 (3.2)
SBE750-10	.625 (15.9)	.843 (21.4)	.406 (10.3)	.750 (19.0)	.125 (3.2)
SBE812-9	.562 (14.3)	.890 (22.6)	.406 (10.3)	.812 (20.6)	.125 (3.2)
SBE812-10	.625 (15.9)	.890 (22.6)	.406 (10.3)	.812 (20.6)	.125 (3.2)
SBE875-6	.375 (9.5)	.953 (24.2)	.453 (11.5)	.875 (20.6)	.125 (3.2)
SBE875-7	.437 (11.1)	.953 (24.2)	.453 (11.5)	.875 (20.6)	.125 (3.2)
SBE875-8	.500 (12.7)	.953 (24.2)	.453 (11.5)	.875 (20.6)	.125 (3.2)
SBE875-9	.562 (14.3)	.953 (24.2)	.453 (11.5)	.875 (20.6)	.125 (3.2)
SBE875-10	.625 (15.9)	.953 (24.2)	.453 (11.5)	.875 (20.6)	.125 (3.2)
SBE875-11	.687 (17.4)	.953 (24.2)	.453 (11.5)	.875 (20.6)	.125 (3.2)
SBE1000-12	.750 (19.0)	1.125 (28.6)	.453 (11.5)	1.000 (25.4)	.125 (3.2)
SBE1093-13	.812 (20.6)	1.218 (30.9)	.453 (11.5)	1.093 (27.8)	.125 (3.2)
SBE1093-14	.875 (22.2)	1.218 (30.9)	.453 (11.5)	1.093 (27.8)	.125 (3.2)
SBE1093-15	.937 (23.8)	1.218 (30.9)	.453 (11.5)	1.093 (27.8)	.125 (3.2)
SBE1187-15	.937 (23.8)	1.312 (33.3)	.453 (11.5)	1.187 (30.2)	.125 (3.2)
SBE1250-15	.937 (23.8)	1.468 (37.3)	.453 (11.5)	1.250 (31.7)	.125 (3.2)
SBE1375-16	1.000 (25.4)	1.468 (37.3)	.453 (11.5)	1.375 (34.9)	.125 (3.2)
SBE1500-17	1.062 (27.0)	1.609 (40.9)	.453 (11.5)	1.500 (38.1)	.125 (3.2)
SBE1500-18	1.125 (28.5)	1.609 (40.9)	.453 (11.5)	1.500 (38.1)	.125 (3.2)
SBE1500-21	1.312 (30.1)	1.609 (40.9)	.453 (11.5)	1.500 (38.1)	.125 (3.2)
SBE1750-22	1.375 (34.9)	1.875 (47.6)	.453 (11.5)	1.750 (44.4)	.125 (3.2)
SBE2000-26	1.625 (41.2)	2.125 (54.0)	.453 (11.5)	2.000 (50.8)	.125 (3.2)

Bushings



Insulating Bushings – Standard Series

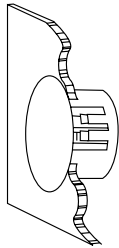
These bushings are available in a large selection of sizes from ¼" to 2" in various inside diameter openings. Standard bushings are designed with multiple locks to positively snap in panels ranging from ½" to ⅝" thickness. Standard bushings meet UL and CSA temperature and pull-out tests.

Plugs

SNAP-IN HOLE PLUGS

H8

Snap-In Hole Plugs - Standard Series



ITEM NUMBER	CHASSIS DIMENSIONS		PART DIMENSIONS	
	HOLE DIAMETER	MAXIMUM THICKNESS	HEAD DIAMETER	THICKNESS
DPE-187	.187 (4.8)	.062 (1.6)	.250 (6.4)	.234 (5.9)
DPE-250	.250 (6.4)	.062 (1.6)	.312 (8.0)	.312 (8.0)
DPE-312	.312 (8.0)	.062 (1.6)	.375 (9.5)	.312 (8.0)
DPE-375	.375 (9.5)	.125 (3.2)	.468 (12.0)	.406 (10.3)
DPE-437	.437 (11.1)	.125 (3.2)	.531 (13.5)	.406 (10.3)
DPE-500	.500 (12.7)	.125 (3.2)	.578 (14.6)	.406 (10.3)
DPE-562	.562 (14.3)	.125 (3.2)	.656 (16.7)	.406 (10.3)
DPE-625	.625 (15.9)	.125 (3.2)	.718 (18.2)	.406 (10.3)
DPE-687	.687 (17.5)	.125 (3.2)	.781 (20.0)	.406 (10.3)
DPE-750	.750 (19.0)	.125 (3.2)	.922 (23.2)	.406 (10.3)
DPE-812	.812 (20.6)	.125 (3.2)	.890 (22.6)	.406 (10.3)
DPE-875	.875 (22.2)	.125 (3.2)	1.016 (25.8)	.453 (11.5)
DPE-1000	1.000 (25.4)	.125 (3.2)	1.203 (30.5)	.453 (11.5)
DPE-1093	1.093 (28.0)	.125 (3.2)	1.218 (31.0)	.453 (11.5)
DPE-1187	1.187 (30.1)	.125 (3.2)	1.312 (33.3)	.453 (11.5)
DPE-1250	1.250 (32.0)	.125 (3.2)	1.375 (34.9)	.453 (11.5)
DPE-1375	1.375 (35.0)	.125 (3.2)	1.500 (38.0)	.453 (11.5)
DPE-1500	1.500 (38.0)	.125 (3.2)	1.672 (42.7)	.453 (11.5)
DPE-1750	1.750 (45.0)	.125 (3.2)	1.906 (48.4)	.453 (11.5)
DPE-2000	2.000 (51.0)	.125 (3.2)	2.140 (55.0)	.453 (11.5)
DPE-2500	2.500 (63.5)	.125 (3.2)	2.700 (68.6)	.453 (11.5)

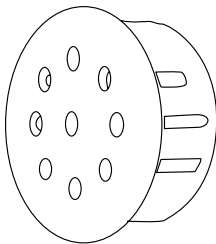
Bushings

Snap-In Hole Plugs – Standard Series

Nylon Locking Hole Plugs are available in a large selection of sizes from 3/16" to 2 1/2". These hole plugs are designed with multiple locks to positively snap in panel thickness' ranging from 1/4" to 1/8".

Locking Hole Plugs are used to close excess chassis holes, wiring outlets, and production access holes. These hole plugs are molded of heat stabilized nylon (UL 94V2) and may be more suitable for critical or elevated temperature applications.

Snap-In Vent Plugs



ITEM NUMBER	CHASSIS DIMENSIONS		PART DIMENSIONS	
	HOLE DIAMETER	MAXIMUM THICKNESS	HEAD DIAMETER	THICKNESS
VP875	.875 (22.2)	.125 (3.2)	1.016 (25.8)	.453 (11.5)
VP1000	1.000 (25.4)	.125 (3.2)	1.203 (30.6)	.453 (11.5)

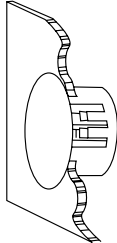
Snap-In Vent Plugs

Vent Plugs are available in the 7/8" and 1" diameters. Locking hole plugs are stocked in Black. Other colours are available in volume requirements.

SNAP-IN HOLE PLUGS

Poly Hole Plugs

H9

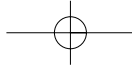


Etlin economical snap-in Poly Plugs will close unneeded chassis holes, wiring outlets, fill unused accessory openings, cover inspection and production access holes. They can be used as tube end caps and protective bumpers. Poly Plugs are molded in Nylon 6/6, which is abrasion and vibration resistant, making them ideal for drawer glides and small appliance feet. Poly Plugs are designed with special flexible and tapered prongs which snugly lock in place with finger pressure, but can be removed and reused when necessary. Parts can be furnished in natural nylon or dyed in colours. Poly Plugs are available in smooth, gloss finish or dull, matte finish.

Bold part numbers are stock items. All others are a special order.

ITEM NUMBER	HEAD STYLE	FINISH	HOLE SIZE A	PANEL THICKNESS B	HEAD SIZE D	HEAD HEIGHT H
PP187BS	BINDER	SMOOTH	.187 (4.75)	.031/.140 (0.79/3.56)	11/32 (8.74)	.040 (1.02)
PP187BM	BINDER	MATTE	.187 (4.75)	.031/.140 (0.79/3.56)	11/32 (8.74)	.040 (1.02)
PP218DS	DOME	SMOOTH	.218 (5.54)	.031/.062 (0.79/1.58)	3/8 (9.53)	.250 (6.35)
PP250BS	BINDER	SMOOTH	.250 (6.35)	.031/.062 (0.79/1.58)	27/64 (10.72)	.040 (1.02)
PP250BM	BINDER	MATTE	.250 (6.35)	.031/.062 (0.79/1.58)	27/64 (10.72)	.040 (1.02)
PP312BS	BINDER	SMOOTH	.312 (7.93)	.031/.140 (0.79/3.56)	29/64 (11.51)	.050 (1.27)
PP312BM	BINDER	MATTE	.312 (7.93)	.031/.140 (0.79/3.56)	29/64 (11.51)	.050 (1.27)
PP125BS	BINDER	SMOOTH	.125 (3.18)	.031/.094 (0.79/2.39)	13/64 (5.16)	.040 (1.02)
PP150BS	BINDER	SMOOTH	.150 (3.81)	.031/.094 (0.79/2.39)	1/4 (6.35)	.040 (1.02)
PP375BS	BINDER	SMOOTH	.375 (9.53)	.031/.140 (0.79/3.56)	43/64 (17.07)	.062 (1.58)
PP375BS-1	BINDER	SMOOTH	.375 (9.53)	.031/.140 (0.79/3.56)	37/64 (14.68)	.050 (1.27)
PP375BM	BINDER	MATTE	.375 (9.53)	.031/.140 (0.79/3.56)	37/64 (14.68)	.050 (1.27)
PP437BS	BINDER	SMOOTH	.437 (11.1)	.031/.171 (0.79/4.34)	39/64 (15.47)	.050 (1.27)
PP437BM	BINDER	MATTE	.437 (11.1)	.031/.171 (0.79/4.34)	39/64 (15.47)	.050 (1.27)
PP500BS	BINDER	SMOOTH	.500 (12.7)	.031/.140 (0.79/3.56)	43/64 (17.07)	.062 (1.58)
PP500BMW	BINDER	MATTE	.500 (12.7)	.031/.140 (0.79/3.56)	43/64 (17.07)	.062 (1.58)
PP562BS	BINDER	SMOOTH	.562 (14.28)	.031/.140 (0.79/3.56)	47/64 (18.64)	.062 (1.58)
PP562BM	BINDER	MATTE	.562 (14.28)	.031/.140 (0.79/3.56)	47/64 (18.64)	.062 (1.58)
PP625BS	BINDER	SMOOTH	.625 (15.88)	.031/.072 (0.79/1.83)	51/64 (20.24)	.062 (1.58)
PP625BMW	BINDER	MATTE	.625 (15.88)	.031/.072 (0.79/1.83)	51/64 (20.24)	.062 (1.58)
PP687BS	BINDER	SMOOTH	.687 (17.45)	.031/.109 (0.79/2.77)	57/64 (22.63)	.062 (1.58)
PP687BM	BINDER	MATTE	.687 (17.45)	.031/.109 (0.79/2.77)	57/64 (22.63)	.062 (1.58)
PP750BS	BINDER	SMOOTH	.750 (19.05)	.031/.109 (0.79/2.77)	63/64 (25.0)	.062 (1.58)
PP750BM	BINDER	MATTE	.750 (19.05)	.031/.109 (0.79/2.77)	63/64 (25.0)	.062 (1.58)
PP787BS	BINDER	SMOOTH	.787 (20.0)	.059/.080 (1.50/2.03)	63/64 (25.0)	.062 (1.58)
PP787BM	BINDER	MATTE	.787 (20.0)	.059/.080 (1.50/2.03)	63/64 (25.0)	.062 (1.58)
PP812BS	BINDER	SMOOTH	.812 (20.63)	.031/.109 (0.79/2.77)	1-1/32 (26.19)	.062 (1.58)
PP812BM	BINDER	MATTE	.812 (20.63)	.031/.109 (0.79/2.77)	1-1/32 (26.19)	.062 (1.58)
PP875BS	BINDER	SMOOTH	.875 (22.23)	.031/.109 (0.79/2.77)	1-5/64 (27.38)	.062 (1.58)
PP875BM	BINDER	MATTE	.875 (22.23)	.031/.109 (0.79/2.77)	1-5/64 (27.38)	.062 (1.58)
PP1000BS	BINDER	SMOOTH	1.000 (25.4)	.031/.109 (0.79/2.77)	1-7/32 (30.96)	.062 (1.58)
PP1000BM	BINDER	MATTE	1.000 (25.4)	.031/.109 (0.79/2.77)	1-7/32 (30.96)	.062 (1.58)

Bushings

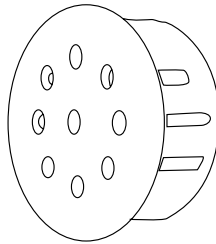
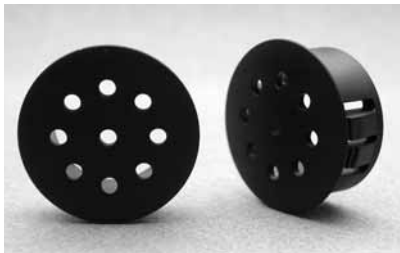


Plugs / Misc

VENT PLUGS & MISCELLANEOUS BUSHINGS

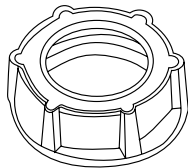
H10 Poly Vent Plugs

ITEM NUMBER	HEAD STYLE	FINISH	HOLE SIZE	PANEL THICKNESS	HEAD SIZE	HEAD HEIGHT
VP875BM	BINDER	MATTE	.875 (22.23)	.031/.109 (0.79/2.77)	1-5/64 (27.38)	.062 (1.58)
VP1000BM	BINDER	MATTE	1.000 (25.40)	.031/.109 (0.79/2.77)	1-7/32 (30.96)	.062 (1.58)



Vent Plugs are available in 7/8" and 1" diameters.

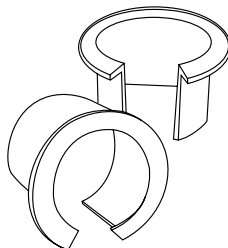
Threaded Lampcord Bushings



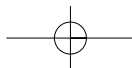
ITEM NUMBER	FOR	A	B
125TLP	1/8" IPS PIPE	19/32"	9/32"
250TLP	1/4" IPS PIPE	23/32"	3/8"
375TLP	3/8" IPS PIPE	7/8"	15/32"

These bushings are designed to protect the lampcord from the knife-edge of the threaded pipe used in the light fixtures. They will easily thread onto standard lamp fixture 1/8 IPS, 1/4 IPS and 3/8 IPS threaded ends. They provide safe, reliable and insulated connections.

Anti-Short Bushings



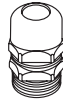
ITEM NUMBER	CABLE SIZE	FLEX CONDUIT
AS-0	14/2 - 14/3, 12/2	5/16"
AS-1	14/4 - 12/3, 6/1 - 4/1	3/8"
AS-2	12/4 - 10/2, 10/3 - 2/1	7/16"
AS-3	10/4 - 8/2, 3/3 - 1/1	1/2"
AS-4	8/4 - 6/2, 6/3 - 4/2, 4/3 - 6/4	3/4"



Liquid Tight

LIQUID TIGHT STRAIN RELIEF CONNECTOR FOR CABLE, WIRE & TUBING

Liquid Tight Strain Relief Connectors - Dome Style



Dome Nut With Inside Taper: As the dome nut is tightened the seal ring grips and holds the cable, wire or tubing positively in place.

Lead Screw Thread: The dome nut can be firmly tightened due to the high strength of the lead screw thread.

Body Seal: Annular concentric rings form a liquid tight seal between body and housing.

Standard Colours: Black and Grey.

Seal and Grip Ring: Superior pull-out resistance due to recessed configuration of the body, holding the Buna-N seal ring in place.

Clamping Spines: Various sizes and odd shaped cables, wires and tubing can be accommodated due to overlapping diagonally split clamping spines.

H11

ITEM NUMBER	CABLE DIAMETER	THREAD TYPE	DIMENSIONS					
			CLEARANCE HOLE	MAX OA DOME LENGTH	MAX OA FLEX LENGTH	THREAD LENGTH	WRENCHING NUT THICKNESS	WRENCHING FLATS
CD07AA-BK	.11 - .26	PG7	.490"	1.17	2.50"	.31"	.20"	.59"
CD07AR-BK	.07 - .12	PG7	.490"	1.17	2.50"	.31"	.20"	.59"
CD09AA-BK	.15 - .32	PG9	.600"	1.34"	3.00"	.31"	.22"	.75"
CD09AR-BK	.07 - .24	PG9	.600"	1.34"	3.00"	.31"	.22"	.75"
CD09NA-BK	.15 - .32	3/8" NPT	.680"	1.59"	3.25"	.56"	.22"	.88"
CD09NR-BK	.07 - .24	3/8" NPT	.680"	1.59"	3.25"	.56"	.22"	.88"
CD11AA-BK	.19 - .39	PG11	.730"	1.50"	3.50"	.31"	.22"	.88"
CD11AR-BK	.11 - .28	PG11	.730"	1.50"	3.50"	.31"	.22"	.88"
CD13AA-BK	.23 - .47	PG13	.800"	1.56"	4.00"	.34"	.22"	.94"
CD13AR-BK	.19 - .35	PG13	.800"	1.56"	4.00"	.34"	.22"	.94"
CD13NA-BK	.23 - .47	1/2" NPT	.830"	1.77"	4.22"	.56"	.22"	.94"
CD13NR-BK	.19 - .35	1/2" NPT	.830"	1.77"	4.22"	.56"	.22"	.94"
CD16AA-BK	.39 - .56	PG16	.890"	1.69"	4.44"	.39"	.23"	1.06"
CD16AR-BK	.27 - .47	PG16	.890"	1.69"	4.44"	.39"	.23"	1.06"
CD21AA-BK	.51 - .71	PG21	1.120"	1.81"	5.00"	.44"	.23"	1.30"
CD21AR-BK	.35 - .63	PG21	1.120"	1.81"	5.00"	.44"	.23"	1.30"
CD21NA-BK	.51 - .71	3/4" NPT	1.050"	1.97"	5.12"	.56"	.28"	1.30"
CD21NR-BK	.35 - .63	3/4" NPT	1.050"	1.97"	5.12"	.56"	.28"	1.30"
DOME STYLE - SPECIAL ORDER								
CD29AA-BK	.70 - .98	PG29	1.47"	2.03"	--	.44"	.30"	1.65"
CD29AR-BK	.51 - .79	PG29	1.47"	2.03"	--	.44"	.30"	1.65"
CD29NA-BK	.70 - .98	1" NPT	1.35"	2.24"	--	.75"	.28"	1.65"
CD29NR-BK	.51 - .79	1" NPT	1.35"	2.24"	--	.75"	.28"	1.65"
CD29LA-BK	.70 - .98	1-1/4" NPT	1.65"	2.15"	--	.62"	.28"	1.65"
CD29LR-BK	.51 - .79	1-1/4" NPT	1.65"	2.15"	--	.62"	.28"	1.65"
CD36AA-BK	.86 - 1.26	PG36	1.85"	2.00"	--	.51"	.32"	2.09"
CD36AR-BK	.78 - 1.02	PG36	1.85"	2.00"	--	.51"	.32"	2.09"
CD36NA-BK	.86 - 1.26	1-1/2" NPT	1.92"	2.60"	--	.79"	.32"	2.09"
CD36NR-BK	.78 - 1.02	1-1/2" NPT	1.92"	2.60"	--	.79"	.32"	2.09"
CD42AA-BK	1.26 - 1.50	PG42	2.13"	2.16"	--	.51"	.35"	2.38"
CD42AR-BK	.98 - 1.22	PG42	2.13"	2.16"	--	.51"	.35"	2.38"
CD48AA-BK	1.45 - 1.75	PG48	2.34"	2.13"	--	.55"	.35"	2.56"
CD48AR-BK	1.14 - 1.38	PG48	2.34"	2.13"	--	.55"	.35"	2.56"

*FOR GREY COLOUR, REPLACE '-BK' WITH '-GY'

H.B. ETLIN CO. LTD.

FOR MORE INFORMATION CALL
1-800-661-9610 (Canada) 1-888-762-5384 (USA)

Bushings

Liquid Tight

LIQUID TIGHT STRAIN RELIEF CONNECTOR FOR CABLE, WIRE & TUBING

H12

Liquid Tight Strain Relief Connectors - Flex Style



Flex Protecting Extension: Installs in either clearance or threaded holes. Kinking or caving of cable or tubing is eliminated with use of the flex connector.

Non-Corrosive: The Nylon strain relief connector is resistant to salt water, weak acids, weak alkalis, alcohol, esters, ketones, ether, gasoline, mineral oil, animal and vegetable oil.

Large Range: Ten sizes accommodate diameters from 1/16" to 1 1/2".

Easy, Time Saving Installation: Simply push cable or tubing through installed strain relief connector and tighten dome nut. No disassembly is required.

Applications: Underwater to 300 feet, underground for direct burial cables, control cabinets, car washes, hot tubs, instruments, carpet cleaning machines, etc.

ITEM NUMBER	CABLE DIAMETER	THREAD TYPE	DIMENSIONS					
			CLEARANCE HOLE	MAX OA DOME LENGTH	MAX OA FLEX LENGTH	THREAD LENGTH	WRENCHING NUT THICKNESS	WRENCHING FLATS
CF07AA-BK	.11 - .26	PG7	.490"	1.17	2.50"	.31"	.20"	.59"
CF07AR-BK	.07 - .12	PG7	.490"	1.17	2.50"	.31"	.20"	.59"
CF09AA-BK	.15 - .32	PG9	.600"	1.34"	3.00"	.31"	.22"	.75"
CF09AR-BK	.07 - .24	PG9	.600"	1.34"	3.00"	.31"	.22"	.75"
CF09NA-BK	.15 - .32	3/8" NPT	.680"	1.59"	3.25"	.56"	.22"	.88"
CF09NR-BK	.07 - .24	3/8" NPT	.680"	1.59"	3.25"	.56"	.22"	.88"
CF11AA-BK	.19 - .39	PG11	.730"	1.50"	3.50"	.31"	.22"	.88"
CF11AR-BK	.11 - .28	PG11	.730"	1.50"	3.50"	.31"	.22"	.88"
CF13AA-BK	.23 - .47	PG13	.800"	1.56"	4.00"	.34"	.22"	.94"
CF13AR-BK	.19 - .35	PG13	.800"	1.56"	4.00"	.34"	.22"	.94"
CF13NA-BK	.23 - .47	1/2" NPT	.830"	1.77"	4.22"	.56"	.22"	.94"
CF13NR-BK	.19 - .35	1/2" NPT	.830"	1.77"	4.22"	.56"	.22"	.94"
CF21NA-BK	.51 - .71	3/4" NPT	1.050"	1.97"	5.12"	.56"	.28"	1.30"
CF21NR-BK	.35 - .63	3/4" NPT	1.050"	1.97"	5.12"	.56"	.28"	1.30"
FLEX STYLE - SPECIAL ORDER								
CF16AA-BK	.39 - .56	PG16	.890"	1.69"	4.44"	.39"	.23"	1.06"
CF16AR-BK	.27 - .47	PG16	.890"	1.69"	4.44"	.39"	.23"	1.06"
CF21AA-BK	.51 - .71	PG21	1.12"	1.81"	5.00"	.44"	.23"	1.30"
CF21AR-BK	.35 - .63	PG21	1.12"	1.81"	5.00"	.44"	.23"	1.30"

*FOR GREY COLOUR, REPLACE '-BK' WITH '-GY'

Bushings

Liquid Tight

LIQUID TIGHT STRAIN RELIEF CONNECTOR FOR CABLE, WIRE & TUBING

Liquid Tight Strain Relief Connectors - Dome Elbow Style

H13



Dome Elbow Liquidtight:



ITEM NUMBER	CABLE DIAMETER	THREAD TYPE	DIMENSIONS					
			CLEARANCE HOLE	MAX OA DOME LENGTH	MAX OA FLEX LENGTH	THREAD LENGTH	WRENCHING NUT THICKNESS	WRENCHING FLATS
ED09AA-BK	.15 - .32	PG9	.600"	1.79"	3.34"	.91"	.31"	.75"
ED09AR-BK	.07 - .24	PG9	.600"	1.79"	3.34"	.91"	.31"	.75"
ED09NA-BK	.15 - .32	3/8" NPT	.680"	1.79"	3.34"	.91"	.56"	.75" / .88"
ED09NR-BK	.07 - .24	3/8" NPT	.680"	1.79"	3.34"	.91"	.56"	.75" / .88"
ED11AA-BK	.19 - .39	PG11	.730"	1.99"	3.86"	1.06"	.31"	.88"
ED11AR-BK	.11 - .28	PG11	.730"	1.99"	3.86"	1.06"	.31"	.88"
ED13AA-BK	.23 - .47	PG13	.800"	2.24"	4.41"	1.20"	.35"	.94"
ED13AR-BK	.19 - .35	PG13	.800"	2.24"	4.41"	1.20"	.35"	.94"
ED13NA-BK	.23 - .47	1/2" NPT	.830"	2.24"	4.41"	1.20"	.56"	.94"
ED13NR-BK	.19 - .35	1/2" NPT	.830"	2.24"	4.41"	1.20"	.56"	.94"
ED16AA-BK	.39 - .56	PG16	.890"	2.34"	4.92"	1.28"	.39"	1.06"
ED16AR-BK	.27 - .47	PG16	.890"	2.34"	4.92"	1.28"	.39"	1.06"
ED21AA-BK	.51 - .71	PG21	1.120"	2.87"	6.10"	1.57"	.43"	1.30"
ED21AR-BK	.35 - .63	PG21	1.120"	2.87"	6.10"	1.57"	.43"	1.30"
ED21NA-BK	.51 - .71	3/4" NPT	1.050"	2.87"	6.10"	1.57"	.56"	1.30"
ED21NR-BK	.35 - .63	3/4" NPT	1.050"	2.87"	6.10"	1.57"	.56"	1.30"
ED29AA-BK	.70 - .98	PG29	1.470"	3.58"	--	2.01"	.43"	1.65"
ED29AR-BK	.51 - .79	PG29	1.470"	3.58"	--	2.01"	.43"	1.65"

*FOR GREY COLOUR, REPLACE '-BK' WITH '-GY'

Bushings

Liquid
Tight

LIQUID TIGHT STRAIN RELIEF CONNECTOR FOR CABLE, WIRE & TUBING

H14

Liquid Tight Strain Relief Connectors - Flex Elbow Style



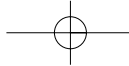
Flex Elbow Liquidtight: Installs in either clearance or threaded holes.

FPO

ITEM NUMBER	CABLE DIAMETER	THREAD TYPE	DIMENSIONS					
			CLEARANCE HOLE	MAX OA DOME LENGTH	MAX OA FLEX LENGTH	THREAD LENGTH	WRENCHING NUT THICKNESS	WRENCHING FLATS
EF09AA-BK	.15 - .32	PG9	.600"	1.79"	3.34"	.91"	.31"	.75"
EF09AR-BK	.07 - .24	PG9	.600"	1.79"	3.34"	.91"	.31"	.75"
EF09NA-BK	.15 - .32	3/8" NPT	.680"	1.79"	3.34"	.91"	.56"	.75" / .88"
EF09NR-BK	.07 - .24	3/8" NPT	.680"	1.79"	3.34"	.91"	.56"	.75" / .88"
EF11AA-BK	.19 - .39	PG11	.730"	1.99"	3.86"	1.06"	.31"	.88"
EF11AR-BK	.11 - .28	PG11	.730"	1.99"	3.86"	1.06"	.31"	.88"
EF13AA-BK	.23 - .47	PG13	.800"	2.24"	4.41"	1.20"	.35"	.94"
EF13AR-BK	.19 - .35	PG13	.800"	2.24"	4.41"	1.20"	.35"	.94"
EF13NA-BK	.23 - .47	1/2" NPT	.830"	2.24"	4.41"	1.20"	.56"	.94"
EF13NR-BK	.19 - .35	1/2" NPT	.830"	2.24"	4.41"	1.20"	.56"	.94"
EF16AA-BK	.39 - .56	PG16	.890"	2.34"	4.92"	1.28"	.39"	1.06"
EF16AR-BK	.27 - .47	PG16	.890"	2.34"	4.92"	1.28"	.39"	1.06"
EF21AA-BK	.51 - .71	PG21	1.120"	2.87"	6.10"	1.57"	.43"	1.30"
EF21AR-BK	.35 - .63	PG21	1.120"	2.87"	6.10"	1.57"	.43"	1.30"
EF21NA-BK	.51 - .71	3/4" NPT	1.050"	2.87"	6.10"	1.57"	.56"	1.30"
EF21NR-BK	.35 - .63	3/4" NPT	1.050"	2.87"	6.10"	1.57"	.56"	1.30"

*FOR GREY COLOUR, REPLACE '-BK' WITH '-GY'

Bushings

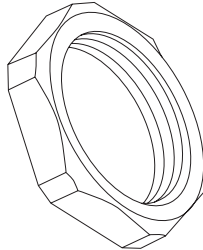


Liquid Tight

LIQUID TIGHT STRAIN RELIEF CONNECTOR FOR CABLE, WIRE & TUBING

Locking Nuts For Liquid Tight Connectors

H15



Locking Nuts: To specify fitting with nut, add "-N" to product number, eg: CD13AA-BK-N, or order separately.

General Information:

Liquid Tight: Exceeds NEMA 6 specifications.

Specifications (Based on Hummel Laboratory Tests):

- Pressure Rating: 150 PSIG (10 BAR)
- Materials: Nylon 6/6, flame resistant, self-extinguishing, BUNA-N seal
- Operating Temperature:
 - Static: -40°F to 250°F (-40°C to 120°C)
 - Short Term Exposure: 300°F (150°C)
 - Dynamic: -4°F to 212°F (-20°C to 100°C)
 - Short Term Exposure: 250°F (150°C)
- Top Quality
- Inexpensive
- Saves Installation Time

ITEM NUMBER	DIMENSIONS		
	THREAD TYPE	THICKNESS (G)	WRENCHING FLATS (F)
NP-07-BK	PG7	.22"	.75"
NP-07-GY	PG7	.22"	.75"
NP-09-BK	PG9	.22"	.86"
NP-09-GY	PG9	.22"	.86"
NN-09-BK	3/8" NPT	.26"	1.08"
NP-11-BK	PG11	.22"	.94"
NP-11-GY	PG11	.22"	.94"
NP-13-BK	PG13	.25"	1.06"
NP-13-GY	PG13	.25"	1.06"
NN-13-BK	1/2" NPT	.26"	1.08"
NP-16-BK	PG16	.25"	1.17"
NP-16-GY	PG16	.25"	1.17"
NP-21-BK	PG21	.28"	1.41"
NP-21-GY	PG21	.28"	1.41"
NN-21-BK	3/4" NPT	.26"	1.31"
NP-29-BK	PG29	.31"	1.81"
NP-29-GY	PG29	.31"	1.81"
NN-29-BK	1" NPT	.26"	1.63"
NP-36-BK	PG36	.31"	2.38"
NP-36-GY	PG36	.31"	2.38"
NP-42-BK	PG42	.31"	2.56"
NP-42-GY	PG42	.31"	2.56"
NP-48-BK	PG48	.31"	2.75"
NP-48-GY	PG48	.31"	2.75"

Thread Specifications For Locking Nuts For Liquid Tight Connectors

Thread Specifications: These are steel conduit thread per DIN 40430 (European Standard)

THREAD SIZE	PG7	PG9	PG11	PG13	PG16	PG21	PG29	PG36	PG42	PG48
MAJOR DIAMETER (mm)	12.5	15.2	18.6	20.4	22.5	28.3	37.0	47.0	54.0	59.3
PITCH (mm)	1.27	1.41	1.41	1.41	1.41	1.59	1.59	1.59	1.59	1.59

Bushings

