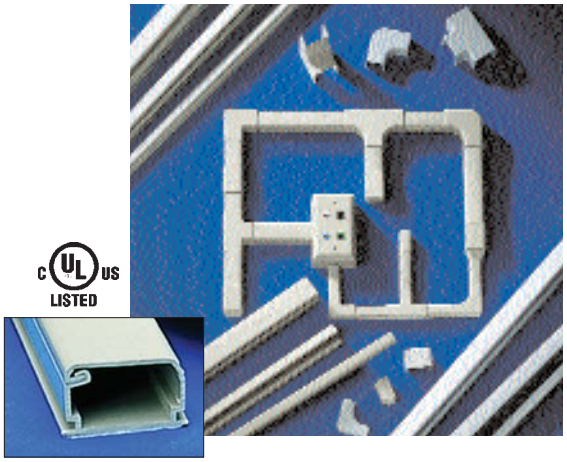
TSR — LOW VOLTAGE SURFACE RACEWAY

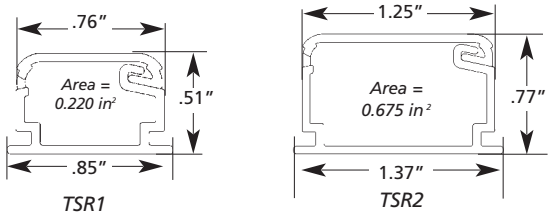
HellermannTyton's low voltage raceway (TSR) is a one piece, non-metallic, adhesive backed latching raceway designed to aesthetically organize and route communications wires including high speed UTP cable and fiber optic cable from the telecommunications area to the workstation.

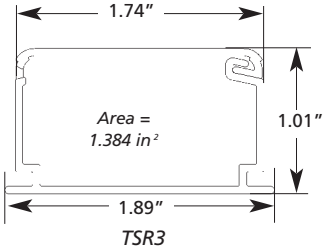


TSR Product Features

- Tamper resistant, the cover's self-locking, hidden positive latch permits quick re-entry as well as providing a secure installation of premise wire.
- Manufactured from UL 94V-0 rated PVC material
- Fittings incorporate a minimum 1" bend radius per TIA/EIA 568-B and 569-A standards.
- Rubber-based foam tape adhesive with high ultimate bond strength conforms to any surface.
- Flexible hinge allows the raceway to endure numerous openings without creating discoloration or stress cracking.
- Junction boxes can be used for electrical or data outlets
- Available in 6 and 8 ft. lengths in three widths – 3/4",1-1/4" and 1-3/4" for varying cabling requirements .

TSR Product Dimensions





TSR Product Selection

HellermannTyton Part No.	Description	Dimensions	Pkg. Qty.
TSR1 Raceway			
TSR1X-6A	3/4" One Piece Surface Raceway	3/4"(W) x 1/2"(H) x 6'(L)	120 feet of 6 foot lengths
TSR1X-8A	3/4" One Piece Surface Raceway	3/4"(W) x 1/2"(H) x 8'(L)	160 feet of 8 foot lengths
TSR2 Raceway			
TSR2X-6A	1-1/4" One Piece Surface Raceway	1-1/4"(W) x 3/4"(H) x 6'(L)	120 feet of 6 foot lengths
TSR2X-8A	1-1/4" One Piece Surface Raceway	1-1/4"(W) x 3/4"(H) x 8'(L)	160 feet of 8 foot lengths
TSR3 Raceway			
TSR3X-6A	1-3/4" One Piece Surface Raceway	1-3/4"(W) x 1"(H) x 6'(L)	120 feet of 6 foot lengths
TSR3X-8A	1-3/4" One Piece Surface Raceway	1-3/4"(W) x 1"(H) x 8'(L)	160 feet of 8 foot lengths

Replace "X" in the part number with the following letters for desired color: X = I (ivory), FW (office white), W (white)

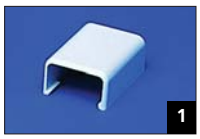
TSR and TSRP Wire Fill Chart

			Low Voltage - TSR						Power Rated - TSRP					
			TSR1 A = 0.220 in²		TSR2 A = 0.675 in²		TSR3 A = 1.384 in²		TSRP 1 A = 0.220 in²		TSRP 2 A = 0.651 in²		TSRP3 A = 1.361 in²	
Wire Type	Wire Size	O.D. of Wire	Spec	Max	Spec	Max	Spec	Max	Spec	Max	Spec	Max	Spec	Max
Twisted Pair	2 Pr.	0.140	5	8	17	26	35	53	5	8	16	25	35	53
24 AWG	3 Pr.	0.150	4	7	15	22	31	46	4	7	14	22	30	46
Unshielded	**4 Pr. Cat 5e**	**0.217**	**2**	**3**	**7**	**10**	**14**	**22**	**2**	**3**	**7**	**10**	**14**	**22**
	4 Pr. Cat 6	**0.240**	**1**	**2**	**5**	**8**	**12**	**18**	**1**	**2**	**5**	**8**	**12**	**18**
	25 Pr.	0.410	0	0	2	3	4	6	0	0	1	2	4	6
Coax	RG58/U	0.193	3	4	9	13	18	28	2	4	8	13	18	27
	RG59/U or RG62/U	0.242	1	2	5	8	12	18	1	2	4	6	9	14
	RG6/U	0.270	1	2	4	7	9	14	1	2	4	6	9	14
Fiber Optic	2 Strand	0.175	3	5	11	16	23	34	3	5	10	16	22	33
FA Jacket	4 Strand	0.185	3	4	10	15	20	30	3	4	9	14	20	30
OFNP	6 Strand	0.210	2	3	7	11	15	23	2	3	7	11	15	23
Electrical Wire	14 AWG THHN	0.105	-	-	-	-	-	-	-	8	-	11	-	15
	12 AWG THHN	0.122	-	-	-	-	-	-	-	6	-	9	-	12
	10 AWG THHN	0.153	-	-	-	-	-	-	-	4	-	6	-	7

Formula used to calculate communications wire fill capacity - Numbers of wires = duct / {1/4 x 3.14 x (wire o.d.)²} x 0.4 or 0.6. Per ANSI/TIA/EIA-569-A-:
SPEC = 40% fill which is recommended for planning perimeter pathways
MAX (for data) = 60% fill which is allowed to accommodate unplanned additions after initial installation
MAX (for power) = Maximum number determined by UL temperature testing

TSR — LOW VOLTAGE SURFACE RACEWAY ACCESSORIES

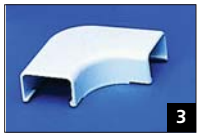
HellermannTyton provides a complete line of fittings to manage connectivity requirements from the telecommunications area to the workstation. Each size of raceway offers numerous fittings, offered in electrical ivory, white or office white, including TIA/EIA-568-B compliant 1" bend radius accessories which help ensure consistent data transmission performance of Category 5, 5e and 6 communications systems.



SPLICE COVER
TSRX-14



TEE COVER
TSRX-21-1



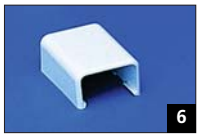
ELBOW
TSRX25-1



EXTERNAL CORNER
TSRX-29-1



INTERNAL CORNER
TSRX-33-1



END CAP
TSRX-36



CEILING DROP
TSRX-50



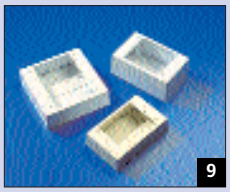
REDUCER
TSRX-12

TSR Product Selection

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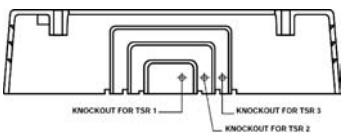
Photo No.	Hellermann-Tyton Part No.	Description	Pkg. Qty.
	TSR1 Fittings		
1	**TSR1X-14**	Splice Cover – 3/4"	10
2	**TSR1X-21-1**	Tee Cover - 3/4" – 1" Bend Radius	10
3	**TSR1X-25-1**	Elbow Cover – 3/4" - 1" Bend Radius	10
4	**TSR1X-29-1**	External Cover – 3/4" – 1" Bend Radius	10
5	**TSR1X-33-1**	Internal Cover – 3/4" – 1" Bend Radius	10
6	**TSR1X-36**	End Cap – 3/4"	10
7	**TSR1X-50**	Ceiling Drop – 3/4"	10
	TSR2 Fittings		
1	**TSR2X-14**	Splice Cover – 1-1/4"	10
2	**TSR2X-21-1**	Tee Cover – 1-1/4" – 1" Bend Radius	10
3	**TSR2X-25-1**	Elbow Cover – 1-1/4" – 1" Bend Radius	10
4	**TSR2X-29-1**	External Cover – 1-1/4" – 1" Bend Radius	10
5	**TSR2X-33-1**	Internal Cover – 1-1/4" – 1" Bend Radius	10
6	**TSR2X-36**	End Cap – 1-1/4"	10
7	**TSR2X-50**	Ceiling Drop – 1-1/4"	10
	TSR3 Fittings		
1	**TSR3X-14**	Splice Cover – 1-3/4"	10
2	**TSR3X-21-1**	Tee Cover – 1-3/4" – 1" Bend Radius	10
3	**TSR3X-25-1**	Elbow Cover – 1-3/4" – 1" Bend Radius	10
4	**TSR3X-29-1**	External Cover – 1-3/4" – 1" Bend Radius	10
5	**TSR3X-33-1**	Internal Cover – 1-3/4" – 1" Bend Radius	10
6	**TSR3X-36**	End Cap – 1-3/4"	10
7	**TSR3X-50**	Ceiling Drop – 1-3/4"	10
	Reducers		
8	**TSR1X-12**	Reducer – 1-3/4" to 1-1/4" (TSR3 to TSR2)	10
8	**TSR2X-12**	Reducer – 1-3/4" to 3/4" (TSR3 to TSR1)	10
8	**TSR3X-12**	Reducer – 1-1/4" to 3/4" (TSR2 to TSR1)	10
	Junction Boxes		
9	**TSRX-JB1**	Single Gang - 3"(W) x 4.75"(L) x 1.25"(H)	1
9	**TSRX-JB2**	Single Gang - 3"(W) x 4.75"(L) x 2"(H)	1
9	**TSRX-JBD**	Dual Gang - 4.91"(W) x 4.83"(L) x 1.25"(H)	1

Replace "X" in the part number with the following letters for desired color: X = I (ivory), FW (office white), W (white)

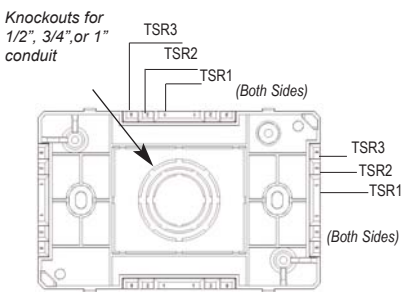


Junction Boxes

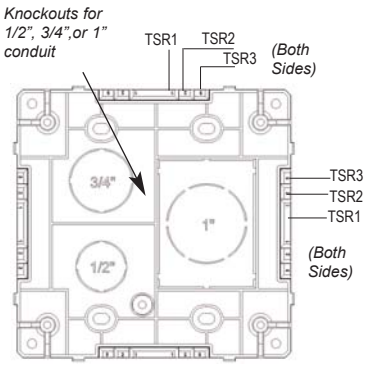
Offered in a dual or single gang format, HellermannTyton's low voltage junction boxes are versatile enough for any network cabling application. Available in varying depths, these boxes are all equipped with concentric knockouts on all four sides for every TSR size of raceway which eliminates routing and installation inconvenience. All three styles of junction boxes come with adhesive strips on the back of the base and also #6 screws to secure the box to the base.



TSR Junction Boxes Knockout Locations



JB1, JB2 -
Single Gang



JBD -
Dual Gang