



Southwire™

SMARTLB™



**[BUILT FOR DURABILITY.
BUILT FOR RELIABILITY.
BUILT FOR WORK.™]**

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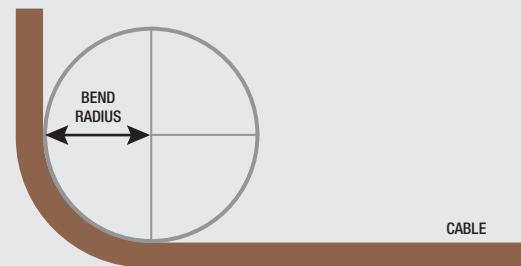
WHY NOT A STANDARD CONDUIT BODY?

Telecommunication cable is not only expensive but it is also temperamental and fragile. Once a cable has been installed exceeding its bend radius it will not perform to its maximum potential. Bending a cable past its recommended bend radius causes macro bending, a fatal condition that can cause a significant loss in performance. SmartLB™ Conduit Bodies are the ONLY conduit bodies specifically recommended by the BICSI TDMM 13th for use with telecommunication cable. Conduit bodies designed for use with electrical wiring systems are not recommended for use with telecommunication cabling because they do not guarantee a correct bend radius.

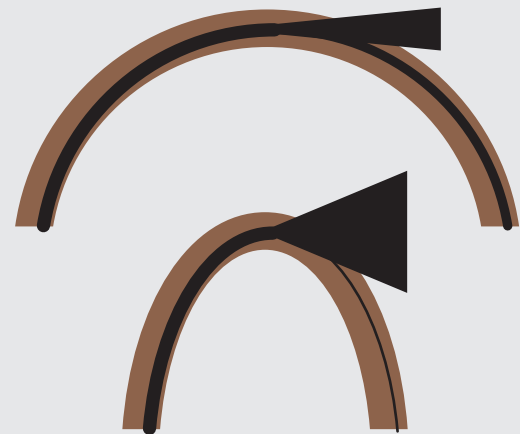
WHY IS THE BEND RADIUS OF TELECOMMUNICATION CABLE SO IMPORTANT?

Think of telecommunication cable like a garden hose, the cable is the hose and the data is the water. The more you bend the hose (or shrink the bend radius) the less water will travel through the hose. This is the same in telecommunication cable, the smaller the bend radius the more likely the cable will have macro bending. This is not limited to fiber optic only. With twisted pair cable excessive bending can disturb the critical geometry of the twists, reducing performance through increased sensitivity to external noise and increased near-end crosstalk within the cable. In addition, long-term damage to the cable jacketing and insulating material can result from excess bending stress.

EVERYTHING YOU DIDN'T KNOW YOU NEEDED TO KNOW ABOUT BENDING



BEND RADIUS IS THE MEASUREMENT OF THE INSIDE CURVATURE OF A CABLE.



IN FIBER OPTIC TRANSMISSIONS, **MACRO BEND** IS A LARGE VISIBLE BEND IN THE FIBER THAT CAN CAUSE EXTRINSIC ATTENUATION (A REDUCTION OF THE OPTICAL POWER IN THE GLASS). THIS MEANS THAT LIGHT ACTUALLY LEAKS OUT OF THE FIBER WHEN IT IS BENT; AS THE BEND BECOMES MORE ACUTE, MORE LIGHT LEAKS OUT.

WHEN PLACING AN ORDER, PLEASE INCLUDE THE FOLLOWING:

- Product stock number
- Quantity desired of each unit



SMARTLB™ CONDUIT BODIES ARE CODE COMPLIANT, MEETING THE MINIMUM BEND RADIUS FOR THE FOLLOWING CODES:

NECA/FOA 301-2016

5.4.2.2: Bend Radius

- a) Do not exceed the cable bend radius. Fiber Optic cable can be broken when kinked or bent too tightly, especially during pulling.
- c) After completion of the pull, the cable should not have any bend radius smaller than ten (10) times the cable diameter.

ANSI/TIA/EIA 568

Balanced 100-Ohm Twisted Pair Cabling (UTP and ScTP)

MINIMUM BEND RADIUS

CABLE TYPE	BEND RADIUS
4 Pair UTP	4 X cable diameter
4 Pair ScTP	8 X cable diameter
Backbone	10 X cable diameter

Optical Fiber Cable

MINIMUM BEND RADIUS AND MAXIMUM PULLING TENSION

	NO LOAD CONDITION	MAXIMUM LOAD
Intrabuilding 2 or 4 Fiber	25mm	50mm
Intrabuilding Backbone	10 X OD	15 X OD
Interbuilding Backbone	10 X OD	20 X OD

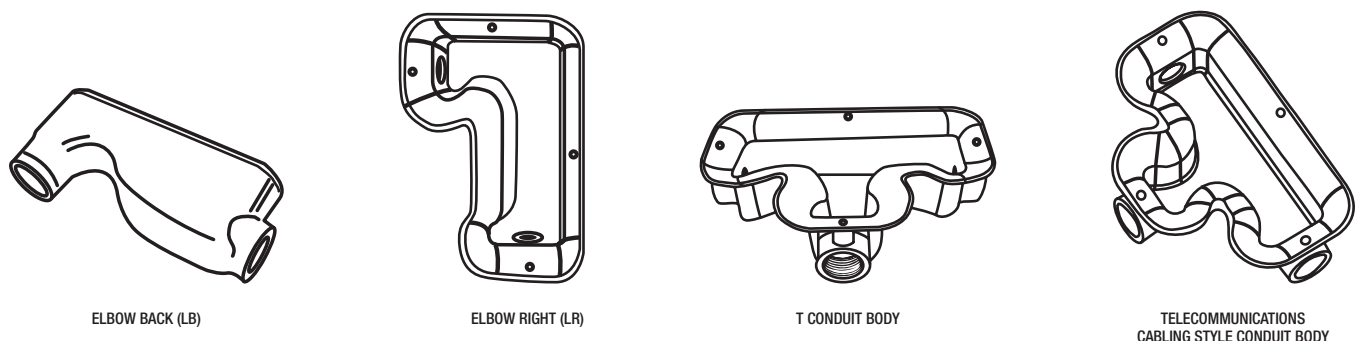
Note: The maximums are noted here in the absence of any manufacturers specifications.

BICSI TDMM, 13TH EDITION

5.2: Conduit Distribution Systems - Conduit Body

A conduit body features an internal radius that accommodates a standards-based cable bend radius once cable is installed in the lay position of the conduit body device. Only the telecommunications cabling style conduit bodies should be used in a telecommunications cabling installation.

Figure 5.23: Conduit Bodies Recommended for Telecommunications Cables





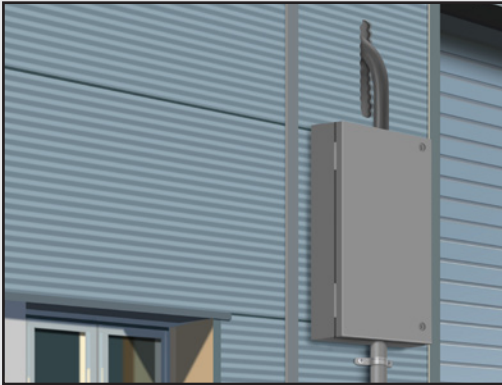
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THE **OLD** WAY

VS

THE **SMART** WAY

Here is a typical space requirement for pull boxes having 3" conduit enter at opposite ends of the box.



Typical space requirements for pull boxes having conduit enter at opposite ends of the box (per BICSI TDMM 13).

CONDUIT TRADE SIZE (IN)	BOX WIDTH (IN)	BOX LENGTH (IN)	BOX DEPTH (IN)
1	4	16	3
1-1/4	6	20	3
1-1/2	8	27	4
2	8	36	4
2-1/2	10	42	5
3	12	48	5
3-1/2	12	54	6
4	15	60	8

SmartLB™ Conduit Bodies use space more efficiently and saves on labor costs.



SmartLB™ Conduit Bodies requires considerably less space and less labor than traditional pull boxes.

CONDUIT TRADE SIZE (IN)	BOX WIDTH (IN)	BOX LENGTH (IN)	BOX DEPTH (IN)
3/4 to 1-1/4	4	16	3
1-1/2 to 2-1/2	6	20	3
3 to 4	8	27	4

WHEN PLACING AN ORDER, PLEASE INCLUDE THE FOLLOWING:

- Product stock number
- Quantity desired of each unit



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SMARTLB™

Ahead of the Curve! Unlike traditional LBs that have a sharp 90-degree corner, SmartLB™ Conduit Bodies have a built-in radius that helps prevent cables from getting caught or damaged when pulled around corners. With no sharp edges to damage cable, the gentle bend radius meets ANSI/TIA/EIA 568 & NECA/FOA requirements for pulling **Optical Fiber Cable**. SmartLB™ Conduit Bodies are the only conduit bodies that are recommended by the BICSI TDMM 13th for telecommunication cable. Includes a gasketed cover for wet locations.

PRODUCT FEATURES - DIE CAST ALUMINUM

GRAY POWDER COAT PAINT FINISH
SUITABLE FOR INDOOR, OUTDOOR (OSP) & PLENUM USE
FOR USE WITH EMT, IMC, RIGID OR LIQUID-TIGHT CONDUIT AND FITTINGS

PRODUCT FEATURES - PVC

SUITABLE FOR INDOOR / OUTDOOR (OSP) USE
FOR USE WITH SCHEDULE 40 PVC & SCHEDULE 80 PVC
WORKS WITH STANDARD PVC CLEANER AND CEMENT

PRODUCT SPECIFICATIONS

MODEL #	DESCRIPTION
KBLB120	1-1/4" Conduit Body - Die Cast Aluminum
KBLB250	2-1/2" Conduit Body - Die Cast Aluminum
KBLB400	4" Conduit Body - Die Cast Aluminum
KBLB121	1-1/4" Conduit Body - PVC
KBLB251	2-1/2" Conduit Body - PVC
KBLB401	4" Conduit Body - PVC



IDEAS WELCOME

WHO KNOWS? MAYBE
THE NEXT GREAT INVENTION
WILL BE YOURS!

At Southwire, innovation is what we do. But we couldn't do it without you. You're out in the field every day.

You know what works and what doesn't. And we're sure that at some point or another you've said to yourself,

**"I HAVE A GREAT IDEA. I COULD
DO THIS BETTER."**



**SCAN TO LEARN HOW
TO BRING YOUR IDEA
TO LIFE THROUGH THE
SPARKS INNOVATION CENTER**



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