UL/cUL SYSTEM NO. W-J-3198

CABLE BUNDLE THROUGH CONCRETE OR BLOCK WALL ASSEMBLY

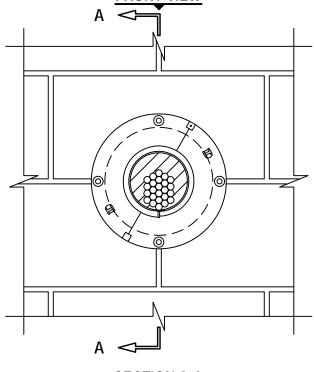
F-RATING = 2-HR.

T-RATING = 3/4-HR. OR 1-HR.

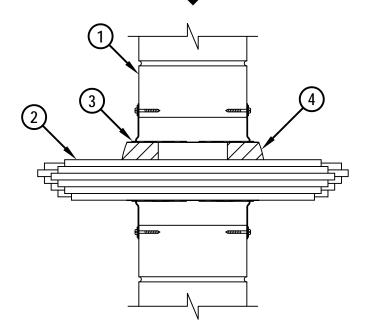
L-RATING AT AMBIENT = 1.3 OR 2.8 CFM (SEE TABLE BELOW)

L-RATING AT 400°F = 1.1 OR 1.2 CFM (SEE TABLE BELOW)





SECTION A-A





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Scale	9/64" = 1"
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UL/cUL SYSTEM NO. W-J-3198

CABLE BUNDLE THROUGH CONCRETE OR BLOCK WALL ASSEMBLY

F-RATING = 2-HR.
T-RATING = 3/4-HR. OR 1-HR.
L-RATING AT AMBIENT = 1.3 OR 2.8 CFM (SEE TABLE BELOW)
L-RATING AT 400°F = 1.1 OR 1.2 CFM (SEE TABLE BELOW)

- 1. CONCRETE WALL ASSEMBLY (2-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 6" THICK).
 - B. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.
- 2. [OPTIONAL] CABLE BUNDLE TO BE A COMBINATION OF ANY OF THE FOLLOWING:
 - A. MAXIMUM 100 PAIR NO. 24 AWG TELEPHONE CABLE WITH PVC JACKET.
 - B. MAXIMUM 7/C NO. 12 AWG COPPER CONDUCTOR CONTROL CABLE WITH PVC OR XLPE JACKET AND INSULATION.
 - C. MAXIMUM 4/0 AWG TYPE RHH GROUND CABLE.
 - D. MAXIMUM 4 PAIR NO. 22 AWG CAT 5 OR 6 COMPUTER CABLE.
 - E. MAXIMUM RG 6/U COAXIAL CABLE.
 - F. MAXIMUM 1/2" DIAMETER FIBER-OPTIC CABLE (24 FIBER) WITH PVC OR PE JACKET AND INSULATION.
 - G. MAXIMUM 3/C NO. 12 AWG MC CABLE.
- 3. HILTI CFS-SL RK FIRESTOP RETROFIT SLEEVE (2" OR 4") CENTERED WITHIN WALL. DEVICE FLANGES SPUN CLOCKWISE ONTO DEVICE THREADS, BUTTING TIGHTLY TO BOTH SIDES OF WALL. EACH FLANGE SECURED TO WALL ASSEMBLY WITH FOUR 1-1/2" LONG MASONRY SCREWS OR ANCHORS THROUGH PRE-PUNCHED HOLES IN FLANGE.
- 4. HILTI CFS-PL FIRESTOP PLUG (2" OR 4") CUT TO FIT AROUND THE CABLE BUNDLE AND INSTALLED TIGHTLY WITHIN SLEEVE, FLUSH WITH THE END OF THE SLEEVE ON BOTH SIDES OF THE WALL.

	CFM (PER DEVICE)		CFM / SQ FT	
	AMBIENT	400°F	AMBIENT	400°F
BLANK OPENING (NO CABLES)	1.3	1.1	3.8	3
CABLES (MAX 33% FILL)	2.8	1.2	8.1	3.3

- NOTES: 1. MAXIMUM DIAMETER OF OPENING = 6" (FOR 2" DEVICE) AND 8" (FOR 4" DEVICE).
 - 2. CABLES MAY REPRESENT 0% TO 60% OF CROSS-SECTIONAL AREA OF DEVICE.
 - 3. ANNULAR SPACE BETWEEN DEVICE AND PERIPHERY OF OPENING = MINIMUM 0", MAXIMUM 2".
 - 4. DEVICE IS DESIGNED TO ALLOW INSTALLATION BEFORE OR AFTER THE CABLE PENETRANTS ARE IN PLACE.



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Scale	-
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