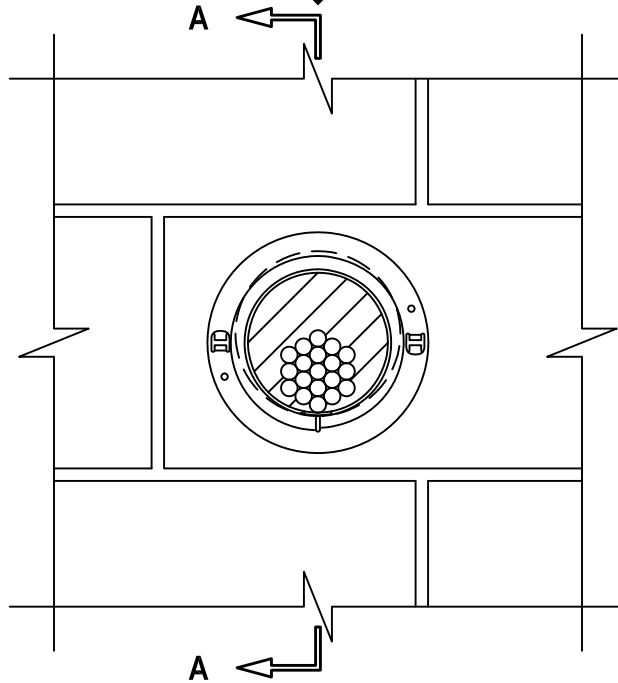


UL/cUL SYSTEM NO. W-J-3199

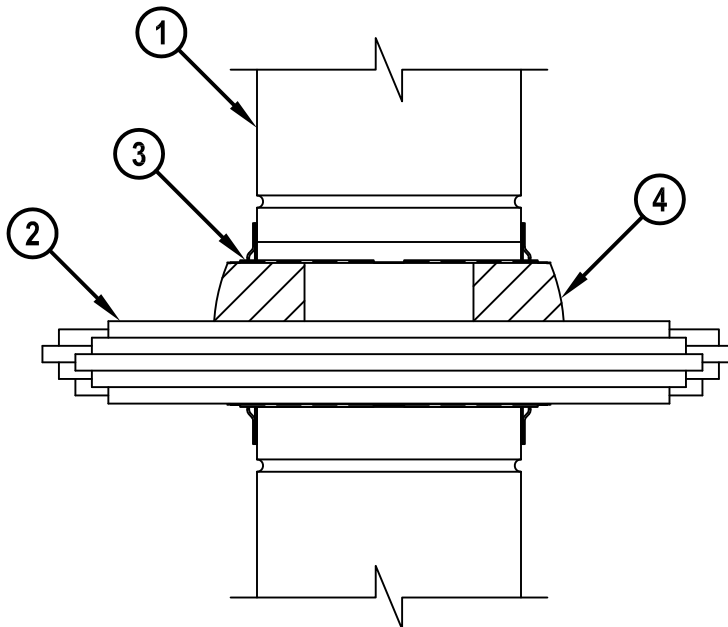
CABLE BUNDLE THROUGH CONCRETE OR BLOCK WALL ASSEMBLY

F-RATING = 1-HR. OR 2-HR.
T-RATING = 3/4-HR. OR 1-HR.

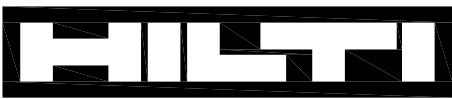
FRONT VIEW



SECTION A-A



WJ3199c.112415



Hilti Firestop Systems

HILTI, Inc.
Plano, Texas USA (800) 879-8000

Sheet	1 of 2
Scale	11/64" = 1"
Date	Nov. 24, 2015

Drawing No.

**WJ
3199c**

Saving Lives through Innovation and Education

CABLE BUNDLE THROUGH CONCRETE OR BLOCK WALL ASSEMBLY

F-RATING = 1-HR. OR 2-HR.
T-RATING = 3/4-HR. OR 1-HR.

WJ3199c.112415

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 SK FIRESTOP SLEEVE (2" OR 4") CENTERED WITHIN WALL. DEVICE FLANGES SPUN CLOCKWISE ONTO DEVICE THREADS OVER SMOKE GASKET, BUTTING TIGHTLY TO BOTH SIDES OF WALL (SEE NOTE NO. 4 BELOW).
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.

	L-RATING, CFM (PER DEVICE)				L-RATING, CFM/SQ FT			
	AMBIENT		400°F		AMBIENT		400°F	
	SEALANT	GASKET	SEALANT	GASKET	SEALANT	GASKET	SEALANT	GASKET
BLANK OPENING (NO CABLES)	1.3	1.3	1.1	1.4	9.6	9.6	8.1	6.7
CABLES (MAX 33% FILL)	1.9	1.9	LESS THAN 1	1.2	13.6	13.6	10.3	8.9

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 3" (FOR 2" DEVICE) AND 5" (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 1".
 4. AS AN ALTERNATE TO SMOKE GASKET, MINIMUM 5/8" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT FLUSH WITH BOTH SURFACES OF WALL PRIOR TO SPINNING ON DEVICE FLANGES.



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Sheet	2 of 2
Scale	-
Date	Nov. 24, 2015

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