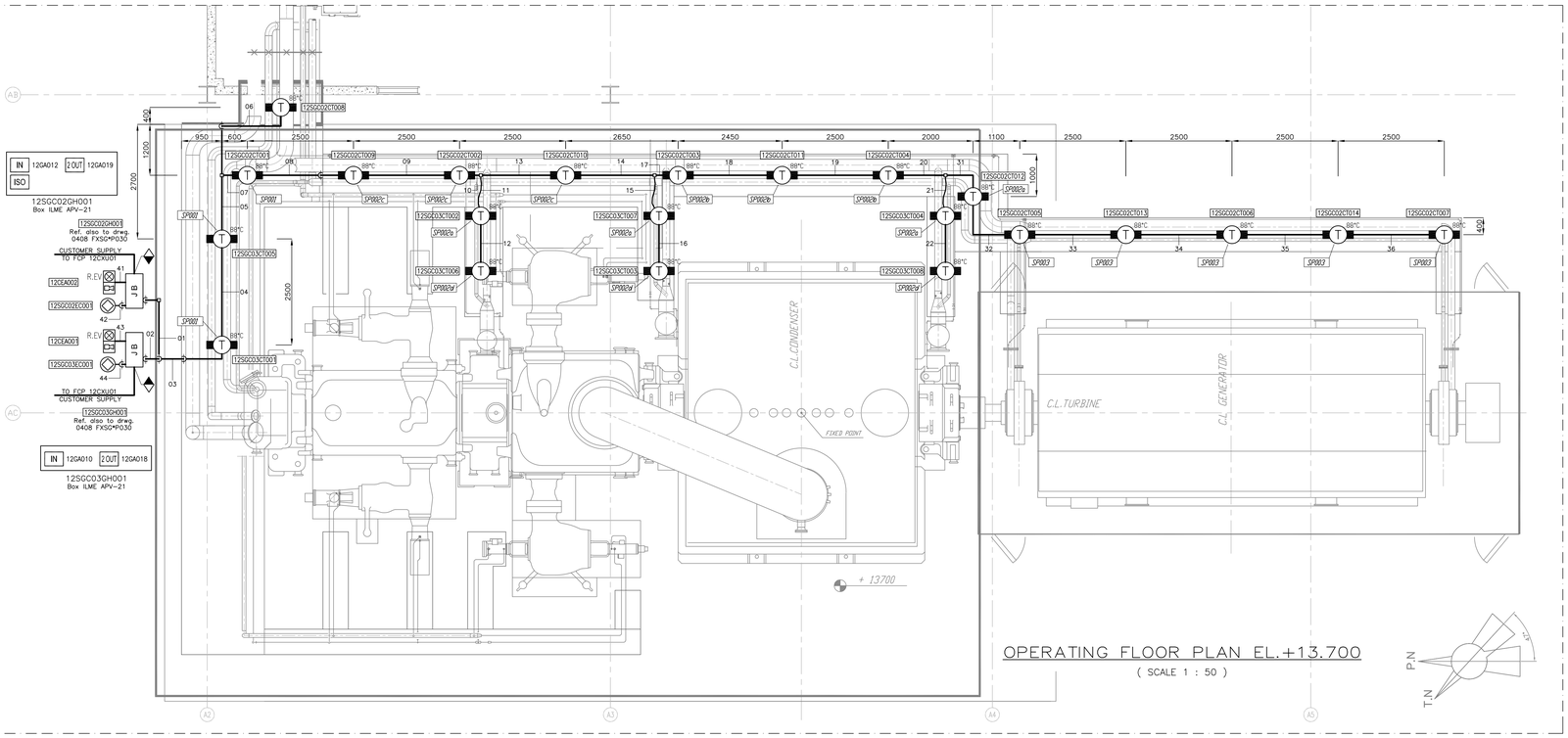
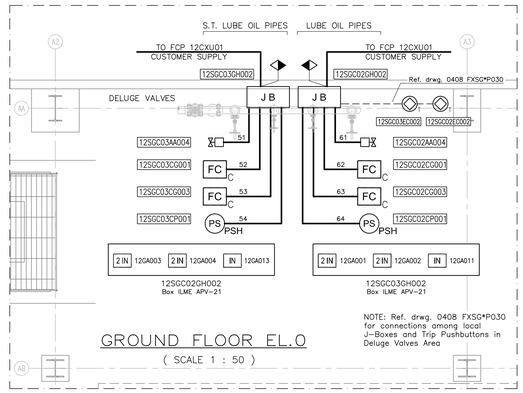




LEGEND

SYMBOL	DESCRIPTION
	CONVENTIONAL SMOKE DETECTOR
	HEAT DETECTOR RATE OF RAISE
	HEAT DETECTOR RATE OF RAISE
	ALARM PUSH BUTTON - IP65
	TRIP PUSH BUTTON - IP67
	OPTICAL / ACUSTIC INDICATOR EXECUTION: watertight MESSAGE: Y=Enclosure door open / R1=Not entry / R2=System activated
ELV.	OPTICAL / ACUSTIC INDICATOR EXECUTION: watertight MESSAGE: R.ELV=Fire Alarm Evacuate
F.A.	OPTICAL / ACUSTIC INDICATOR EXECUTION: watertight MESSAGE: R.FA=Fire alarm
	OPTICAL INDICATOR EXECUTION: watertight MESSAGE: Y=Enclosure doors open
IN	1-IN ADDRESSABLE MODULE
2 IN	2-INs ADDRESSABLE MODULE
2 OUT	2-OUTs ADDRESSABLE MODULE
ISO	LINE ISOLATOR MODULE
PS	ALARM PRESSURE SWITCH
	WEIGHING DEVICE
	SOLENOID VALVE
FC	LIMIT SWITCH GATE VALVE / DAMPER
	SELECTION & STATUS PANEL EXECUTION: watertight LIGHTS: Yellow = System Inserted / Green = System excluded Red = CO2 System activated SWITCHES: Discharge switch / System selector key: automatic/manual/esclusded
	STATUS PANEL EXECUTION: watertight LIGHTS: Yellow = System Inserted / Green = System excluded Red = CO2 System activated
FCP	FIRE-ALARM CONTROL PANEL
	METAL CONDUIT SUPPORTING ELECTRICAL CABLES

MATERIAL LIST

ITEM	DESCRIPTION	QUANT.
1	HEAVY METAL CONDUIT 1/2"	m 18
2	HEAVY METAL CONDUIT 1"	m 60
3	HEAVY METAL CONDUIT 1¼"	m 42
4	STEEL FLEXIBLE CONDUIT 1/2" mm 15,5x21	m 26
5	STEEL FLEXIBLE CONDUIT 1" mm 25x32	m 2
6	STEEL FLEXIBLE CONDUIT 1¼" mm 40x48	m 6
7	MALE REVOLVING FITTING Ø 1/2" FOR FLEXIBLE CONDUIT mm 15,5x21	n. 20
8	MALE REVOLVING FITTING Ø 1" FOR FLEXIBLE CONDUIT mm 25x32	n. 4
9	MALE REVOLVING FITTING Ø 1¼" FOR FLEXIBLE CONDUIT mm 40x48	n. 6
10	REVOLVING FITTING M/F ø1"	n. 10
11	REVOLVING FITTING M/F ø1¼"	n. 10
12	COUPLING F/F ø1/2"	n. 10
13	COUPLING F/F ø1"	n. 5
14	COUPLING F/F ø1¼"	n. 5
15	LOCK-NUT ø3/8"	n. 2
16	LOCK-NUT ø1/2"	n. 32
17	LOCK-NUT ø1"	n. 40
18	LOCK-NUT ø1¼"	n. 2
19	REDUCER M/F 3/8"-1/2"	n. 2
20	REDUCER M/F 1¼"-1"	n. 20
21	BOX ILME APV11	n. 2
22	BOX ILME APV14	n. 2
23	BOX ILME APV21 WITH MOUNTING PLATE	n. 4
24	BOX TEAFLEX C2D – 2 WAYS RIGHT 1"	n. 19
25	BOX TEAFLEX C3 – 3 WAYS 1"	n. 2
26	BOX TEAFLEX C2D – 2 WAYS RIGHT 1¼"	n. 8
27	BOX TEAFLEX C3 – 3 WAYS 1¼"	n. 17
28	GASKET ø3/8"	n. 2
29	GASKET ø1/2"	n. 20
30	GASKET ø1"	n. 10
31	GASKET ø1¼"	n. 2
32	GALVANIZED PIPE-RING MP-H ø1/2"	n. 16
33	GALVANIZED PIPE-RING MP-H ø1"	n. 22
34	GALVANIZED PIPE-RING MP-H ø1¼"	n. 15
35	GALVANIZED C-PROFILE mm 21x41 HILTI MQ21	n. 4
36	GALVANIZED C-PROFILE mm 41x41 HILTI MQ41	n. 3
37	GALVANIZED DOUBLE C-PROFILE mm 41x82 HILTI MQ41-D L=3 meters	n. 2
38	GALVANIZED BRACKET HILTI MQK-41 L=300 mm	n. 5
39	GALVANIZED BRACKET HILTI MQK-41 L=450 mm	n. 7
40	GALVANIZED BRACKET HILTI MQK-41 L=600 mm	n. 3
41	GALVANIZED BRACKET HILTI MQK-41 L=1000 mm	n. 3
42	GALVANIZED DOUBLE C-PROFILE BASE HILTI MQP-82	n. 3
43	GALVANIZED ANGLE-BRACKET HILTI MQW-P2	n. 16
44	PIPE-RING SADDLE MQA-M8	n. 22
45	BOLT HILTI MQN	n. 38
46	GALVANIZED U-BOLT ø1" LONG THREAD M8	n. 22
47	GALVANIZED U-BOLT ø1½" LONG THREAD M8	n. 18
48	GALVANIZED THREADED ROD M8	m 6
49	M8 GALVANIZED HEX NUT	n. 140
50	GALVANIZED WASHER – HOLE 7 mm	n. 120
51	GALVANIZED WASHER – HOLE 11mm	n. 80
52	HEX SELF-TAPPING SCREW mm 6,3x32	n. 50
53	HEX SELF-TAPPING SCREW mm 6,3x38	n. 40
54	HEX SELF-TAPPING SCREW mm 6,3x45	n. 10
55	INTERNALLY THREADED ANCHOR M8x40	n. 30
56	MALE METAL ANCHOR – M10x90	n. 42
57	NYLON EXPANSION ANCHOR mm 8x60 for screw 6 mm	n. 15
58	MALE THREADED END CAP 1"	n. 19
59	Cable CEI20-22II type FROH2R 2x1,5 shielded+twisted	m 360
60	Cable CEI20-22II type FROH2R 2x2,5 shielded	m 10

GENERAL NOTES

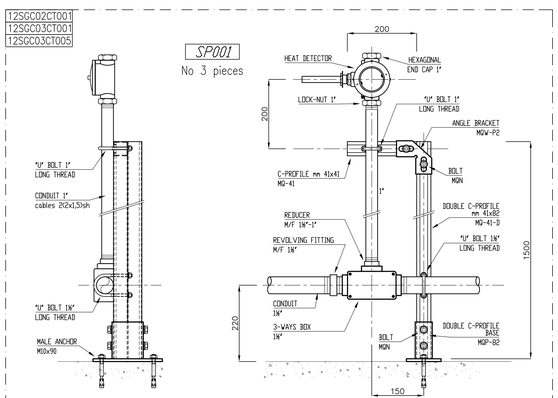
1. ALL CABLES ARE SHIELDED.
2. SHIELDS ARE CONTINUOUS AND GROUNDED ONLY AT FACP SIDE.
3. CABLE ROUTING MUST NOT BE NEAR POWER ELECTRIC LINES.
4. PROPER INSTALLATION OF ALL DEVICES MUST BE VERIFIED IN FIELD.
5. QUOTINGS IS INDICATIVE AND MUST BE VERIFIED DURING INSTALLATION.

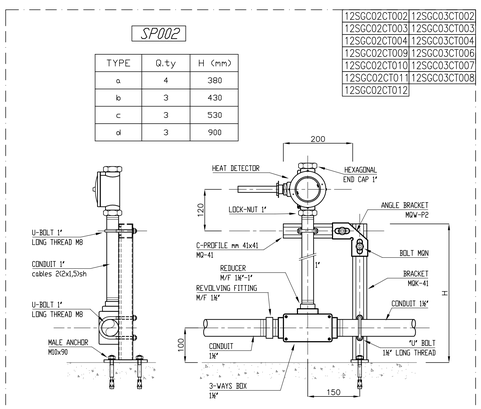
CABLES AND CONDUITS ROUTING LEGEND:

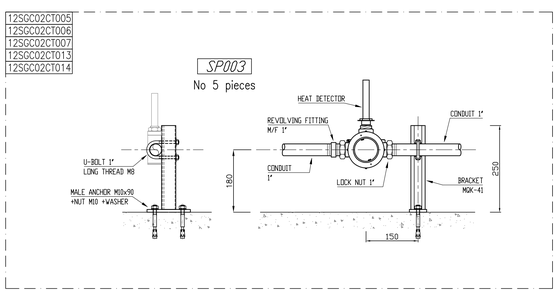
01	– # CONDUIT
2(2x1,5)sh	– CABLE QUANTITY, STRUCTURE AND GAUGE
1(2x2,5)sh	– CABLE QUANTITY, STRUCTURE AND GAUGE
ø 1"	– CONDUIT DIAMETER

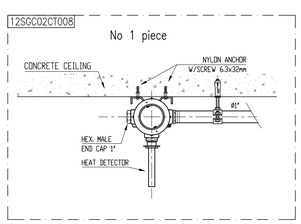
REFERENCE DOCUMENTS

DESCRIPTION	DOC. No.
FIRE FIGHTING SYSTEM BLOCK DIAGRAM	0408 FXSG*P004
FIRE DETECTION SYSTEM GENERAL ARRANGEMENT – UNI 1	0408 FXSG*P030
TYPICAL WIRING AND INSTALLATION	0408 FXSG*P040
ELECTRICAL INTERCONNECTIONS DRWG. – UNIT 1	0408 FXSG*P043



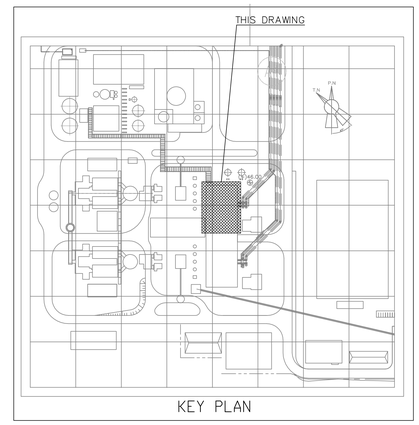






CONDUITS AND CABLES:

01	02	03	04	05	06	07	08	09	10
2(2x1,5)sh ø 1"	2(2x1,5)sh ø 1"	4(2x1,5)sh ø 1¼"	4(2x1,5)sh ø 1¼"	4(2x1,5)sh ø 1¼"	2(2x1,5)sh ø 1"	4(2x1,5)sh ø 1¼"	4(2x1,5)sh ø 1¼"	4(2x1,5)sh ø 1¼"	4(2x1,5)sh ø 1¼"
11	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
4(2x1,5)sh Flex. ø 1¼"	2(2x1,5)sh ø 1"	4(2x1,5)sh ø 1¼"	4(2x1,5)sh ø 1¼"	4(2x1,5)sh Flex. ø 1¼"	2(2x1,5)sh ø 1"	4(2x1,5)sh ø 1¼"	4(2x1,5)sh ø 1¼"	4(2x1,5)sh ø 1¼"	4(2x1,5)sh ø 1¼"
21	**22**								
2(2x1,5)sh Flex. ø 1¼"	1(2x1,5)sh ø 1"								
31	**32**	**33**	**34**	**35**	**36**				
2(2x1,5)sh ø 1"	2(2x1,5)sh ø 1"	2(2x1,5)sh ø 1"	2(2x1,5)sh ø 1"	2(2x1,5)sh ø 1"	1(2x1,5)sh ø 1"				
41	**42**	**43**	**44**						
Included in J-Box Wiring	1(2x1,5)sh ø 1/2"	Included in J-Box Wiring	1(2x1,5)sh ø 1/2"						
51	**52**	**53**	**54**						
1(2x2,5)sh ø 1/2"	1(2x1,5)sh ø 1/2"	1(2x1,5)sh ø 1/2"	1(2x1,5)sh ø 1/2"						
61	**62**	**63**	**64**						
1(2x2,5)sh ø 1/2"	1(2x1,5)sh ø 1/2"	1(2x1,5)sh ø 1/2"	1(2x1,5)sh ø 1/2"						



OUR CUSTOMER

Rev. rev.	Sc. sc.	Descrizione kind of revision	Preparato prepared	Controllato checked	Verificato verified	Verificato verified	Approvato approved	Data date
0		FIRST ISSUE	XXX	YYY	ZZZ	WWW	VVV	22/07/09

Progetto/project	NEW POWER PLANT		Cliente/client	OUR CUSTOMER		
Commessa/job no. 318	Emittente/issued by IMP	Classe riserv. Confid. class 2	Tipo doc./doc.type INT	Scala/scale 1:50	Derivato da/derived from	Rev./rev.

ElettroSistemi

ElettroSistemi si riserva tutti i diritti su questo documento che non puo' essere riprodotto neppure parzialmente senza la sua autorizzazione scritta.
ElettroSistemi reserves all rights on this document that cannot be reproduced in any part without its written authorization.

Titolo title: FIRE FIGHTING SYSTEM / LUBE OIL PIPES / FIRE DETECTION LAYOUT

REV./REL.	DATA/DATE	DESCRIZIONE/DESCRIPTION	DIS./DRWN	VISTO/CHD.	APPR./APPR.	F.A.O.
0	22/07/09	FIRST ISSUE	XX	YY	ZZ	WW

SAFETY INC.

TITOLO/TITLE: FIRE FIGHTING SYSTEM / LUBE OIL PIPES / FIRE DETECTION LAYOUT

FILE	COMMESSA/JOB NO.	SCALA/SCALE	FOGLIO/SHEET	R/P
920507.dwg	3875-09	1:50	1	1

Codice struttura product breakdown structure — Identificativo/document no. 212P103 — Rev./rev. 0 — Foglio sheet 1 — Segue fg. fall. sheet/ — Di of 1