

28 42 Gas Detection and Alarm

28 42 15 – Gas Detection Sensors

28 42 15.50 Tank Leak Detection Systems

		Crew	Daily Output	Labor-Hours	Unit	Material	2022 Bare Costs Labor	Equipment	Total	Total Incl O&P
0010	TANK LEAK DETECTION SYSTEMS Liquid and vapor									
0100	For hydrocarbons and hazardous liquids/vapors									
0120	Controller, data acquisition, incl. printer, modem, RS232 port									
0140	24 channel, for use with all probes				Ea.	4,725			4,725	5,200
0160	9 channel, for external monitoring				Ea.	1,675			1,675	1,850
0200	Probes									
0210	Well monitoring									
0220	Liquid phase detection				Ea.	765			765	840
0230	Hydrocarbon vapor, fixed position					770			770	850
0240	Hydrocarbon vapor, float mounted					705			705	775
0250	Both liquid and vapor hydrocarbon					770			770	850
0300	Secondary containment, liquid phase									
0310	Pipe trench/manway sump				Ea.	795			795	870
0320	Double wall pipe and manual sump					665			665	730
0330	Double wall fiberglass annular space					475			475	525
0340	Double wall steel tank annular space					287			287	315
0500	Accessories									
0510	Modem, non-dedicated phone line				Ea.	370			370	405
0600	Monitoring, internal									
0610	Automatic tank gauge, incl. overfill				Ea.	1,425			1,425	1,575
0620	Product line				"	1,500			1,500	1,625
0700	Monitoring, special									
0710	Cathodic protection				Ea.	810			810	890
0720	Annular space chemical monitor				"	1,100			1,100	1,200

28 46 Fire Detection and Alarm

28 46 11 – Fire Sensors and Detectors

28 46 11.21 Carbon-Monoxide Detection Sensors

0010 CARBON-MONOXIDE DETECTION SENSORS

8400	Smoke and carbon monoxide alarm battery operated photoelectric low profile	1 Elec	24	.333	Ea.	57.50	22		79.50	96.50
8410	low profile photoelectric battery powered		24	.333		45	22		67	82.50
8420	photoelectric low profile sealed lithium		24	.333		79	22		101	120
8430	Photoelectric low profile sealed lithium smoke and CO with voice combo		24	.333		55	22		77	93.50
8500	Carbon monoxide sensor, wall mount 1Mod 1 relay output smoke & heat		24	.333		460	22		482	545
8700	Carbon monoxide detector, battery operated, wall mounted		16	.500		45	33		78	98.50
8710	Hardwired, wall and ceiling mounted		8	1		77.50	66		143.50	184
8720	Duct mounted		8	1		340	66		406	475

28 46 11.27 Other Sensors

0010 OTHER SENSORS

5200	Smoke detector, ceiling type	1 Elec	6.20	1.290	Ea.	143	85.50		228.50	284
5240	Smoke detector, addressable type		6	1.333		226	88.50		314.50	380
5400	Duct type		3.20	2.500		310	166		476	590
5420	Duct addressable type		3.20	2.500		190	166		356	455
8300	Smoke alarm with integrated strobe light 120 V, 16DB 60 fpm flash rate	1 Elec	16	.500	Ea.	133	33		166	195
8310	Photoelectric smoke detector with strobe 120 V, 90 DB ceiling mount		12	.667		237	44		281	325
8320	120 V, 90 DB wall mount		12	.667		229	44		273	320
8440	Fire alarm beam detector, motorized reflective, infrared optical beam	2 Elec	1.60	10		725	660		1,385	1,775
8450	Fire alarm beam detector, motorized reflective, IR/UV optical beam	"	1.60	10		1,025	660		1,685	2,100