Esmi Intellia detectors

Processing times

All Intellia detectors have five different operating modes. These modes are sent and stored to the detector. All modes include different sensitivity, processing and response settings, generally called "internal algorithms".

On the list below there is a character "Minimum time to alarm". This time is not a delay time! It is the time the detector intelligence uses to process the signals and determine what is going on.

Intellia optical detector, EDI-20

Mode	Alarm threshold %/m	Minimum time to alarm (sec)
1	1.4	5
2	1.4	30
3	2.1	5
4	2.1	30
5	2.8	5
Compensation rate complies with EN54-7:2000		

Intellia multisensor detector, EDI-30

Mode	Smoke Sensitivity (grey smoke)		Temperature Sensitivity (relative)	Response Type	Minimum Time to Alarm (seconds)
	%/m	%/ft			
1	1.1	0.35	High	Multisensor	20
2	2.1	0.7	No response to heat	Optical	30
3	2.8	0.9	Low	Multisensor	20
4	4.2	1.4	High	Multisensor	20
5	No response to smoke		Static	Heat A1: 57ºC ±	30

Intellia heat detector, EDI-50

Mode	Class (EN54-5:2000)	Application Temperature ˚C		Static Response Temperature ˚C		
		Typ	Max	Min	Typ	Max
1	A1R	25	50	54	57	65
2	A2	25	50	54	61	70
3	A2S	25	50	54	61	70
4	CR	55	80	84	90	100
5	CS	55	80	84	90	100
For air temperatures in the range 15 ˚C to 55 ˚C, the analogue value for a detector in mode 1 will correspond approximately to the air temperature.						

Intellia CO- detector, EDI-60

Mode	Alarm Threshold (ppm)	Minimum Time to Alarm (sec)	Typical application
1	30	60	Sleeping with no ambient CO
2	45	30	General use fast response such as supplementary protection in atria
3	45	60	General use and sleeping risk with some low-level CO (such as from light smoking or an unventilated gas fire)
4	60	30	General smoking are and supplementary detection of deep seated fires such as laundry rooms
5	75	30	Supplementary use in kitchen or boiler room

Intellia ION- detector, EDI-10

Mode	Alarm Threshold y value	Minimum Time to Alarm (sec)
1	0.45	5
2	0.45	30
3	0.70	5
4	0.70	30
5	1.0	5
Compensation rate complies with EN54-7:2000		

How to select the right detector type

	Ionisation	Optical	Multisensor	Heat	CO
Overheating/thermal decomposition	Poor	Very good	Very good	Very poor	Very poor
Smouldering/glowing combustion	Moderate/good	Good	Good	Very poor	Excellent
Flaming combustion	Very good	Good	Good	Poor	Poor
Flaming with high heat output	Very good	Good	Very good	Moderate/good	Moderate
Flaming – clean burning	Poor	Very poor	Moderate/good	Moderate/good	Very poor

	Clean room, EDP suite					Hotel room, Studio apartment, Small flat (<50 m^2)					Office, Long corridor, Hospital wards, Light industrial factory					Warehouse Bar					Loading bay, Car park (enclosed & ventilation)					Kitchen, Laundry					Boiler room				
Mode	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
MULTI	R							R	S				S	S			S	R	S	S		S	S	R	S			S	S			S				
OPTICAL	S							S	S	S			S	S	S				S					S									S	S	
ION	S							S	S	S			S	S	S			S	S					S	S										
CO						S		S				A						A	A										S	S					S
HEAT																S	S				S	S						R	S	S			S		R

Key:

R = Recommended
S = Suitable
A = Suitable as supplement