

DETECTOR LOOPS STANDARD CONFIGURATIONS

LOOP CONFIGURATION	1		2		3		4		S (SPECIAL)	
	1 LOOP		2 LOOPS		3 LOOPS		4 LOOPS		1 LOOP	
	SINGLE 5-TURN LOOP		TWO 3-TURN LOOPS IN SERIES		THREE 4-TURN LOOPS IN SERIES PARALLEL		FOUR 5-TURN LOOPS IN SERIES PARALLEL		SINGLE 3-TURN LOOP	
	LOOP SIZE (mm)	INDUCTANCE (μH)	LOOP SIZE (mm)	TOTAL INDUCTANCE (μH)	LOOP SIZE (mm)	TOTAL INDUCTANCE (μH)	LOOP SIZE (mm)	TOTAL INDUCTANCE (μH)	LOOP SIZE (mm)	
A B C D E F	1800 x 1200 1800 x 1500 1800 x 1800 1800 x 2100 1800 x 2400 1800 x 2700	Refer Note 4	1800 x 1800 1800 x 2300 1800 x 2700 1800 x 3100	Refer Note 4	1800 x 1200 1800 x 1500 1800 x 1800 1800 x 2100	Refer Note 4	1800 x 1200 1800 x 1500 1800 x 1800 1800 x 2100	Refer Note 4	700 x W (Refer Note 3)	
	1 LOOP		2 LOOPS		3 LOOPS				LARGE DOUBLE LOOP 2 LOOPS	
	SINGLE 4-TURN LOOP		TWO 4-TURN LOOPS IN SERIES		THREE 3-TURN LOOPS IN SERIES				TWO 3-TURN LOOPS IN SERIES	
	LOOP SIZE (mm)	INDUCTANCE (μH)	LOOP SIZE (mm)	TOTAL INDUCTANCE (μH)	LOOP SIZE (mm)	TOTAL INDUCTANCE (μH)			LOOP SIZE (mm)	TOTAL INDUCTANCE (μH)
G H I J K	1800 x 5700 1800 x 6300 1800 x 6800 1800 x 7400 2000 x 2000	Refer Note 4	1800 x 2000 1800 x 2200 1800 x 2500 1800 x 2700	Refer Note 4	1800 x 2400 1800 x 2700 1800 x 3000 1800 x 3300	Refer Note 4			1800 x 4500 1800 x 4900 1800 x 5400 1800 x 5800	Refer Note 4

TO SELECT APPROPRIATE LOOP SIZES AT AN INTERSECTION

- (a) Determine the number of loops to be covered by a single detector unit.
This gives the appropriate column e.g. 2.
- (b) Select from rows A to J a loop configuration not used elsewhere in the intersection e.g. D.
- (c) Therefore 2D is the appropriate loop configuration.

NOTES:

1. If loop configurations from the same row (A to J) are used at the same intersection, interference problems are most likely to occur.
2. A "P" in the detector configuration denotes pedestrian detector.
3. W = Lane width - 1000mm.
4. Loop(s) inductance connected across input terminals lies within the range 50μH to 700μH and a Q-factor in the range of:
 - a. 5 to 50 below 60kHz; and
 - b. 3 to 50 above 60kHz.
 For the specified range of loop inductance, the operating frequency of the sensor unit shall be within the range approximately 20kHz to 150kHz.

ASSOCIATED DEPARTMENTAL DOCUMENTS:

Standard Drawings
Specifications

REFERENCED DOCUMENTS:

Departmental Standard Drawings:
1424 Traffic Signals - Detector Loops Installation Details Asphalt Pavements
1425 Traffic Signals - Detector Loops Placement Details

Departmental Specifications:

MRTS204 Vehicle Detectors

Australian Standard:

AS 2703 Vehicle loop detector sensors

Department of Transport and Main Roads			
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DETECTOR LOOPS STANDARD CONFIGURATION		A3 Not to Scale	Standard Drawing No 1426 Date 10/17
A	B	C	D