

Parameter	Symbol	Value min
Daily Traffic Volume	DTV	1 000
Lanes	n_lanes	2
Exposed People	n/km	40
Observer Position	MIC_pos	7,5 m

		LDV	
		Value min	Value max
Reference Speed	v	30 km/h	125 km/h
Fluidity	%load	0%	70%
Split LDV/HDV	%HDV	0%	80%

Scenario	DTV veh/day	Lanes (both directions)	Flow Speed LDV
			[km/h]
Residential Area 25 km/h	1 500	2	25
Main Street 30 km/h	15 000	2	30
Main Street 50 km/h	25 000	2	50
City Arterial 50 km/h	40 000	4	50
City Arterial 70 km/h	80 000	6	70
City Motorway 100 km/h	110 000	6	100
Motorway 120 km/h	45 000	4	120
Motorway 120 km/h	180 000	8	120

Explanation: the left part with the yellow field are

Each scenario is defined by the following param

DTV → Traffic volume on a street segment in ve

Number of lanes for both direction → 2 lanes me

Flow speed LDV and HDV → is likely different o

Fluidity → defines how interrupted the traffic is. I
vehicles force standstill or lower speed

Spatial factor → parameter which enables extra

Share of HDV → percentage of HDV from the C

Value max
100 000
10
500
50 m

Vehicle Major G
LDV
HDV

HDV	
Value min	Value max
20 km/h	85 km/h
50%	100%
100%	20%

Flow Speed HDV	Fluidity (determines road load)	Spatial Factor (see remarks)	p% HDV	Exposed People
[km/h]			M > 3.5 to	people/km
20	90%	2,0	0,5%	50
25	80%	3,0	1,0%	500
35	50%	4,0	1,0%	300
35	40%	2,0	2,0%	100
65	40%	2,5	5,0%	50
80	50%	2,5	10,0%	30
85	50%	2,0	15,0%	5
85	85%	2,0	15,0%	5

data entry field to define a reference condition.

eters:

For estimation c
affected people,
parameter are s

vehicle per day

means one lane per driving direction)

on all streets

Interruption could come from too many vehicles, too many

space/time for crossings, traffic lights, space for lane changes

LDV (means LDV is calculated by $100\% - p\%HDV$)

Exposed people
are assigned to
(likely less than
living along the
CROSSOS)

Observer position
from the street
people (Microph

Overall Share	Veh Category	%Share per Sub
(100%-p%HDV)	M1	
	N1	
	M2 M<3.5 to	
p% HDV	M2 M>3.5 to	
	M3	
	N2	
	N3	

Fluidity
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

Observer Pos	Length Stream	Available Space	Road Utilization	Acceleration
[m]	[m]	[m]	[%]	
7,5	52 658	1 200 000	4%	5%
7,5	904 725	1 440 000	63%	10%
7,5	3 005 500	2 400 000	125%	25%
20	2 408 800	4 800 000	50%	30%
20	8 105 000	10 080 000	80%	30%
50	15 207 500	14 400 000	106%	25%
50	5 789 250	11 520 000	50%	25%
50	23 157 000	23 040 000	101%	8%

of noise on
, two additional
suggested

The right part contains calculation formula, so do not touch these ce

Length stream → lining up all vehicles in a chain and determine the HDV 18 m long, each vehicle is supposed to have double speed dis

→ people that
that street
to population
street → see

Available Space → Determines how much road length is available for
of lanes

on → How far
do we assume
(one location)

Road Utility → ratio between needed space (length stream) and average
mean road fully occupied but might be fluent, >100% road capacity
The Cycle split provides percentage per driving condition and can be
What is missing is a load definition for the acceleration condition, with

Congestion	Stoptime (%cycle)
90%	45%
80%	40%
70%	35%
60%	30%
50%	25%
40%	20%
30%	15%
20%	10%
10%	5%
0%	0%

Cycle Split		
Deceleration	Stand	Cruise
5%	5%	85%
10%	10%	70%
25%	25%	25%
30%	30%	10%
30%	30%	10%
25%	25%	25%
25%	25%	25%
8%	10%	75%

alls.

length of that chain (a LDV is estimated 5 m long a
tance)

or the speed within 24 hours multiplied with the number

available space → 0% mean free flow, no traffic, 100%
exceeded system with go to congestion
used in simulation models

which I have made, but not yet included.