

THE GAS ENGINE CONTROL SPECIALISTS



# SENSOR - DETONATION CONTROL



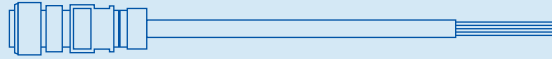
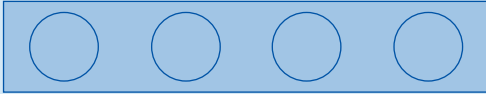
**AlphaRail**   
SENSOR RAIL SYSTEM

# AlphaRail - Configuration Help

SENSOR RAIL SYSTEM

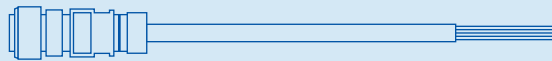
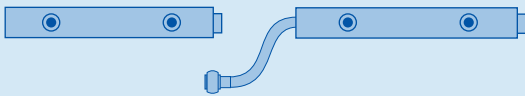
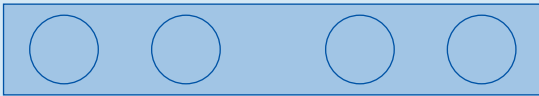
## In-Line Engine - One Rail

AlphaRail - Configuration Help



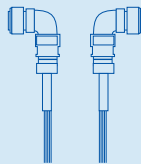
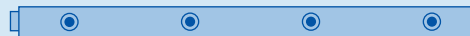
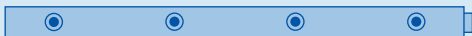
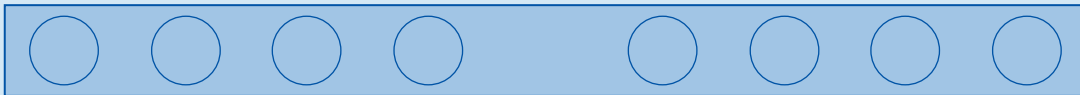
## In-Line Engine - One Double Rail

AlphaRail - Configuration Help



## In-Line Engine - Two Rails

AlphaRail - Configuration Help

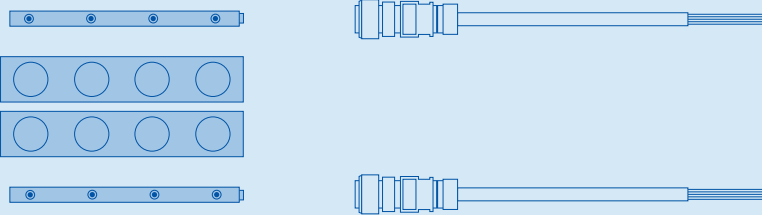


# AlphaRail - Configuration Help

SENSOR RAIL SYSTEM

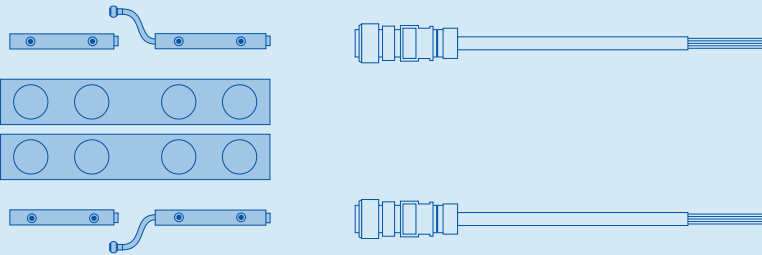
## V-Engine - Two Rails

AlphaRail - Configuration Help



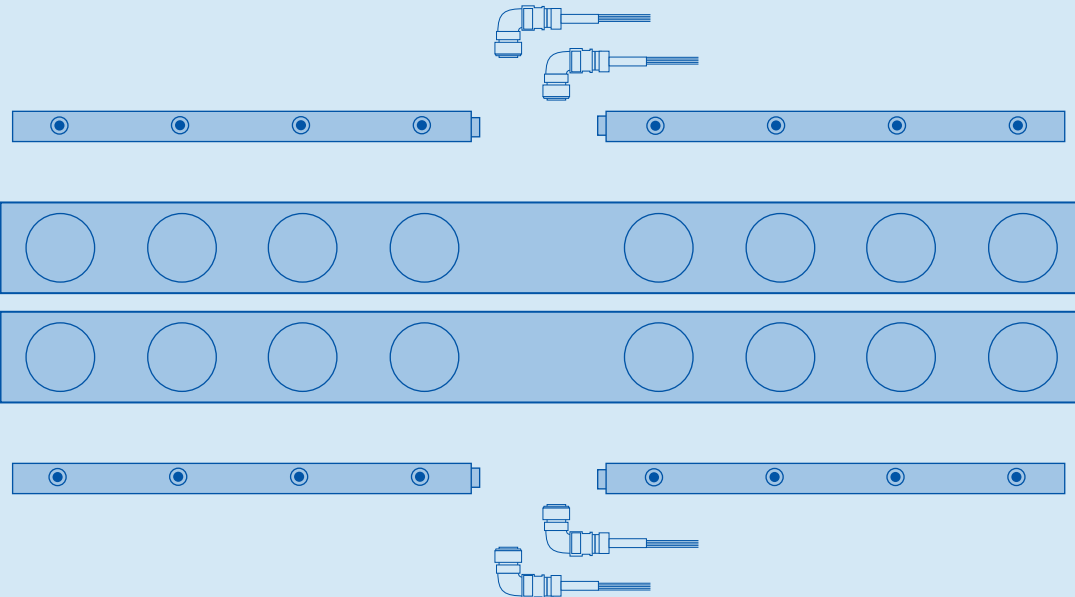
## V-Engine - Two Double Rails

AlphaRail - Configuration Help



## V-Engine - Four Rails

AlphaRail - Configuration Help



P/N 77.8**A**. **B** **CD**-**E** **F**

**A** = Sensor-System

**1** = Detonation Sensor

**B** = Specify Number of Sensors per Bank

**1** = Special Version

**2** = 2 Sensors

**3** = 3 Sensors

**4** = 4 Sensors

**5** = 5 Sensors

**6** = 6 Sensors

**8** = 8 Sensors

**CD** = Distance between the Sensors

**04** = 4" (102 mm)

**06** = 6" (152 mm)

**07** = 7" (178 mm)

**08** = 8" (203 mm)

**10** = 10" (254 mm)

**11** = 11" (279 mm)

**12** = 12" (305 mm)

**13** = 13" (330 mm)

**14** = 14" (356 mm)

**16** = 16" (406 mm)

**27** = 27" (686 mm)

**33** = 33" (838 mm)

NOTE: Other code digits given by factory.

P/N 77.8 **A**. **B** **CD**-**E** **F**

# AlphaRail - Specification Help

SENSOR RAIL SYSTEM

Engine Make / Model

No. of Cylinders

## A) Sensor System

*AlphaRail - Specification Help*

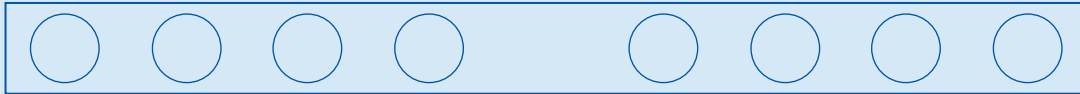
Detonation Sensor

## B) Specify Number of Sensors per Bank

If the distance between the first and last cylinder exceeds 114" (2,9 m) or more than 8 sensors per bank are needed, two separate sensor rails have to be specified. For example see Configuration I.

*AlphaRail - Specification Help*

### Configuration I



Specify Sensor Rail A

Specify Sensor Rail B

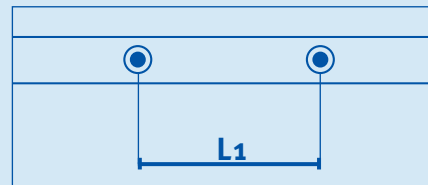
- |  |                                    |
|--|------------------------------------|
| <input type="checkbox"/> Special Version | <input type="checkbox"/> 5 Sensors |
| <input type="checkbox"/> 2 Sensors       | <input type="checkbox"/> 6 Sensors |
| <input type="checkbox"/> 3 Sensors       | <input type="checkbox"/> 8 Sensors |
| <input type="checkbox"/> 4 Sensors       |                                    |

## CD) Distance between the Sensors

*AlphaRail - Specification Help*

### L1

- |                                       |                                       |
|---------------------------------------|---------------------------------------|
| <input type="checkbox"/> 4" (102 mm)  | <input type="checkbox"/> 12" (305 mm) |
| <input type="checkbox"/> 6" (152 mm)  | <input type="checkbox"/> 13" (330 mm) |
| <input type="checkbox"/> 7" (178 mm)  | <input type="checkbox"/> 14" (356 mm) |
| <input type="checkbox"/> 8" (203 mm)  | <input type="checkbox"/> 16" (406 mm) |
| <input type="checkbox"/> 10" (254 mm) | <input type="checkbox"/> 27" (686 mm) |
| <input type="checkbox"/> 11" (279 mm) | <input type="checkbox"/> 33" (838 mm) |



Other Length: \_\_\_\_\_

# AlphaRail - Specification Table

SENSOR RAIL SYSTEM

P/N 77.8A. B CD-**E F**

**E** = Output Design

**A** = 3-pole Connector

**F** = Double Rail - Length of Connecting Flex Conduit

**A** = NO

**B** = 12" (305 mm)

**C** = 16" (406 mm)

**D** = 20" (508 mm)

**E** = 24" (610 mm)

**F** = 32" (813 mm)

**G** = 40" (1016 mm)

**H** = 52" (1321 mm)

P/N 77.8 **A**. **B** **CD**-**E** **F**

# AlphaRail - Specification Help

SENSOR RAIL SYSTEM

## E) Output Design

AlphaRail - Specification Help

3-pole Connector

## F) Double Rail - Length of Connecting Flex Conduit

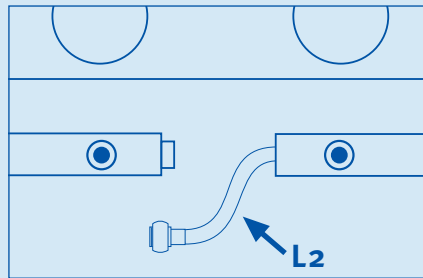
Two sensor rails connected by flex conduit (8 sensors in total max.).

AlphaRail - Specification Help

L2

- NO
- 12" (305 mm)
- 16" (406 mm)
- 20" (508 mm)
- 24" (610 mm)
- 32" (813 mm)
- 40" (1016 mm)
- 52" (1321 mm)

Other Length: \_\_\_\_\_



# AlphaRail - Harness & Sensor

SENSOR RAIL SYSTEM

## Detonation Control - Harness to connect Sensor Rail and DetConzo

AlphaRail - Harness

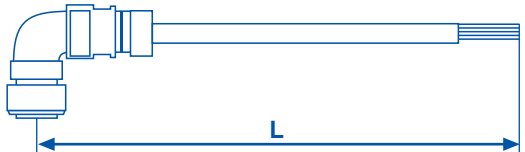
P/N	Length	Connector
77-41.117-5	5' (1,5 m)	180°
77-41.117-15	15' (4,5 m)	180°
77-41.117-25	25' (7,5 m)	180°
77-41.117-50	50' (15 m)	180°



## Detonation Control - Harness to connect Sensor Rail and DetConzo

AlphaRail - Harness

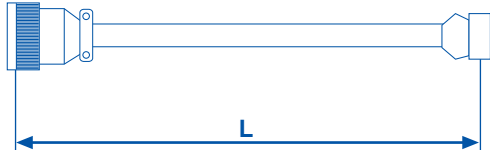
P/N	Length	Connector
77-41.317-5	5' (1,5 m)	90°
77-41.317-15	15' (4,5 m)	90°
77-41.317-25	25' (7,5 m)	90°
77-41.317-50	50' (15 m)	90°



## Detonation Control - Lead to connect Detonation Sensor and Sensor Rail

AlphaRail - Sensor-Lead

P/N	Length	Sensor	Sensor Rail
43-30.016-10	10" (254 mm)	180°/2-polig	180°/3-polig
43-30.016-20	20" (508 mm)	180°/2-polig	180°/3-polig
43-30.016-30	30" (762 mm)	180°/2-polig	180°/3-polig
43-30.016-40	40" (1016 mm)	180°/2-polig	180°/3-polig
43-30.016-60	60" (1524 mm)	180°/2-polig	180°/3-polig



## Detonation Sensor

AlphaRail - Sensor

P/N	Description
43-20.001	Detonation Sensor w/o lead - 180°/2-pole





# AlphaRail SENSOR RAIL SYSTEM - Specification Help

## Detonation Control - Specify distance between Sensor Rail and DetConzo

AlphaRail - Specification Help

Distance	Connector Design
<input type="checkbox"/> 5' (1,5 m)	<input type="checkbox"/> 90°
<input type="checkbox"/> 15' (4,5 m)	<input type="checkbox"/> 180°
<input type="checkbox"/> 25' (7,5 m)	
<input type="checkbox"/> 50' (15 m)	

## Detonation Control - Specify distance between Sensor Rail and Sensor

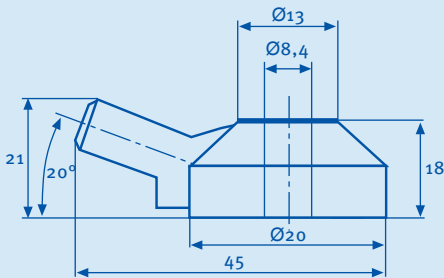
AlphaRail - Specification Help

Distance
<input type="checkbox"/> 10" (254 mm)
<input type="checkbox"/> 20" (508 mm)
<input type="checkbox"/> 30" (762 mm)
<input type="checkbox"/> 40" (1016 mm)
<input type="checkbox"/> 60" (1524 mm)

## Detonation Control - Detonation Sensor

AlphaRail - Specification Help

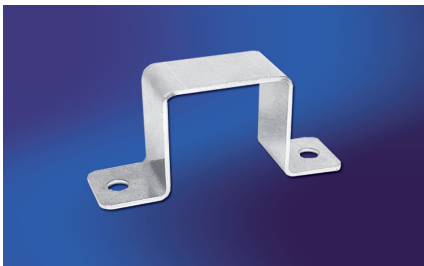
- Detonation Sensor w/o lead - 180°/2-pole



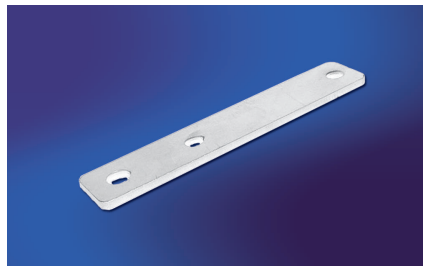
# - Bracket Configuration & Accessories

## Bracket Configuration - Please order separately!

AlphaRail - Bracket Configuration



P/N: 75.10.096  
Bracket, 40x49 mm (Standard)



P/N: 75.10.097  
Flat Bar, 180° (Standard)



P/N: 75.10.120  
Flat Bar, 120°  
(alternative for 75.10.097)

**NOTE:** For packs of ten please add suffix -10 to part number.

## Accessories - Please order separately!

AlphaRail - Accessories



P/N: 15.07.134-1  
3/4"-Flex Conduit



P/N: 15.07.231-1  
3/4" -Adaptor, Junction Box to Flex  
Conduit, 180°



THE GAS ENGINE CONTROL SPECIALISTS



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