

## Perception Development Kit – Wiring Instructions

### 1 Connectors

The PDK is delivered with a set of connectors with the following part numbers:

Name	Quantity	Description	Ordering number
ARS430 connector	1 per sensor	TE MQS Connector housing, 8 positions	1-1534229-1
Connector pins (0.25-0.35mm <sup>2</sup> )	2 per sensor	TE MQS contact	5-962885-1
Single wire seal for above pin, yellow	2 per sensor	TE single wire seal	967067-2
Connector pins (0.5-0.75mm <sup>2</sup> )	2 per sensor	TE MQS contact	5-965906-1
Single wire seal for above pin, green	2 per sensor	TE single wire seal	967067-1
Rubber plug for empty cavities	4 per sensor	For cavity diameter 3.45mm	967056-1
Gateway connector cap, black	1 per gateway	TE Cover 18 positions	1-1355350-1
Gateway connector cap, blue	2 per gateway	This cap is not publicly available. Use the black cap and remove the coding pins with a sharp knife	
Gateway, connector	3 per gateway	MQS housing 18 positions	1355348-1 or 962108-2
Gateway, pins	2 per sensor + 2 per gateway		(5-)928999-1

## 2 Connections

### ARS430 RADAR Connectors:

- 1: BRR Negative (BR- / White)
- 2: GND (Blue)
- 3: +12V (Brown)
- 5: BR Positive (BR+ / Green)

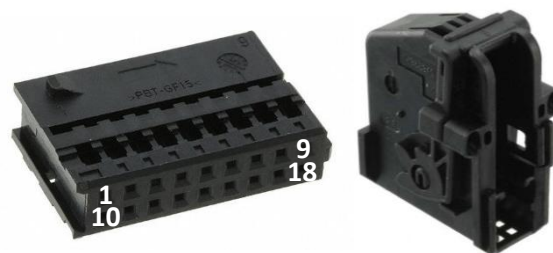
**注意：雷达采用单独供电**



### Gateway Connectors:

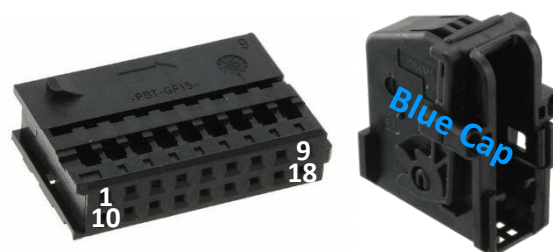
Black connector on Gateway (Black cap with black insert):

- 1: +12V
- 2: GND



Blue connector on Gateway (Blue cap with black insert):

- 3: BR Port 1 Negative (BR- / White)
- 4: BR Port 1 Positive (BR+ / Green)
- 6: BR Port 2 Positive (BR+ / Green)
- 7: BR Port 2 Negative (BR- / White)
- 10: BR Port 3 Positive (BR+ / Green)
- 11: BR Port 3 Negative (BR- / White)
- 17: BR Port 4 Negative (BR- / White)
- 18: BR Port 4 Positive (BR+ / Green)



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Each sensor needs to be connected to one port. The BR+/BR- wire length has to be equal or nearly equal and is limited to 10m. The BR+/BR- wire should be a twisted pair cable with at least 50 twists per m.

The Gateway is preconfigured to transmit the sensor data from

BR-S1-P0 – BR-S1-P3 (Switch 1) and BR-S2-P0 – BR-S2-P3 (Switch 2) to S2-P5 (Gigabit Ethernet connector)

BR-S3-P0 – BR-S3-P3 (Switch 3) to S3-P8 (Gigabit Ethernet connector)

It is therefore recommended to connect all sensors to Switch 1 and 2.

### 3 Power Requirements

The sensors as well as the gateway should be powered from a 13.6V source with an input range from 7 to 16V. The current draw is approx. 0.5A for the gateway and a maximum of 1A per each sensor.

The gateway does not have an internal protection against over-voltage or reverse polarity and will be damaged if used outside the specification.