

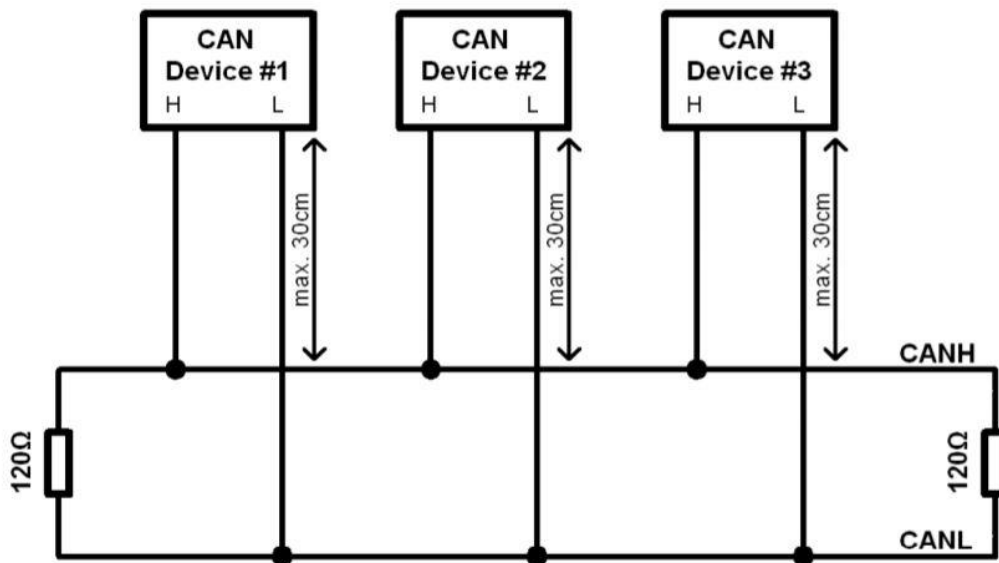
Technical datasheet-CAN and wiring

CAN protocol and wiring definitions

Standard conformance	CAN 2.0A, ISO-11898 11 bit identifier
Bit rate	Up to 1 Mbps (default)
Byte order	Big-Endian/Motorola (see below examples**)
CAN termination	None (see note below*)

*A 120 Ω termination resistor is required if the receiver is the last device in the CAN line wiring.

Spur length must be less than 300 mm. See wiring diagram below.



Brightwater Technologies

www.brightwater.co.uk

Tel: +44 (0) 1344 888828

Email: dcaffell@brightwater.co.uk

Unit 6, Curridge Farm Business Park, Long Lane, THATCHAM, RG18 9AA

Technical datasheet-CAN and wiring

Receiver wiring:

Wire	0.35mm/12/0.20
Cable length	300 mm
Connector	AMP Superseal 6 way socket
Mating connector	AMP Superseal 6 way plug (282108-1)
Supply Voltage, V_s c	PIN 1 Red
Screen	PIN 2 White
GND	PIN 3 Black
CAN -	PIN 4 Green
CAN +	PIN 5 Yellow
	PIN 6 N/C

Wiring Pinout

Connector to Receiver	Connectors to Car wiring
PIN 1 AMP Superseal 6 Way Plug	PIN 1 AMP Superseal 2 way socket (282104-1)
PIN 2 AMP Superseal 6 Way Plug	PIN 2 AMP Superseal 2 way socket (282104-1)
PIN 3 AMP Superseal 6 Way Plug	PIN 1 AMP Superseal 3 way socket (282087-1)
PIN 4 AMP Superseal 6 Way Plug	PIN 2 AMP Superseal 3 way socket (282087-1)
PIN 5 AMP Superseal 6 Way Plug	PIN 3 AMP Superseal 3 way socket (282087-1)
PIN 6 AMP Superseal 6 Way Plug	N/C

Brightwater Technologies

www.brightwater.co.uk

Tel: +44 (0) 1344 888828

Email: dcaffell@brightwater.co.uk

Unit 6, Curridge Farm Business Park, Long Lane, THATCHAM, RG18 9AA

Technical datasheet-CAN and wiring

Default CAN ID

Default IDs are defined below, however alternative CAN IDs can be requested at the time of order or reassigned using a Peak Systems or Vector CAN interface product. For further details on assignment see supporting documentation available to download from Brightwater Technologies website (www.brightwater.co.uk - *Technical datasheet-TPMS handset operation guide.pdf*).

CAN ID	Location (forward facing)
0x05A0	Front Right Sensor
0x05A1	Front Left Sensor
0x05A2	Rear Right Sensor
0x05A3	Rear Left Sensor

Brightwater Technologies

www.brightwater.co.uk

Tel: +44 (0) 1344 888828

Email: dcaffell@brightwater.co.uk

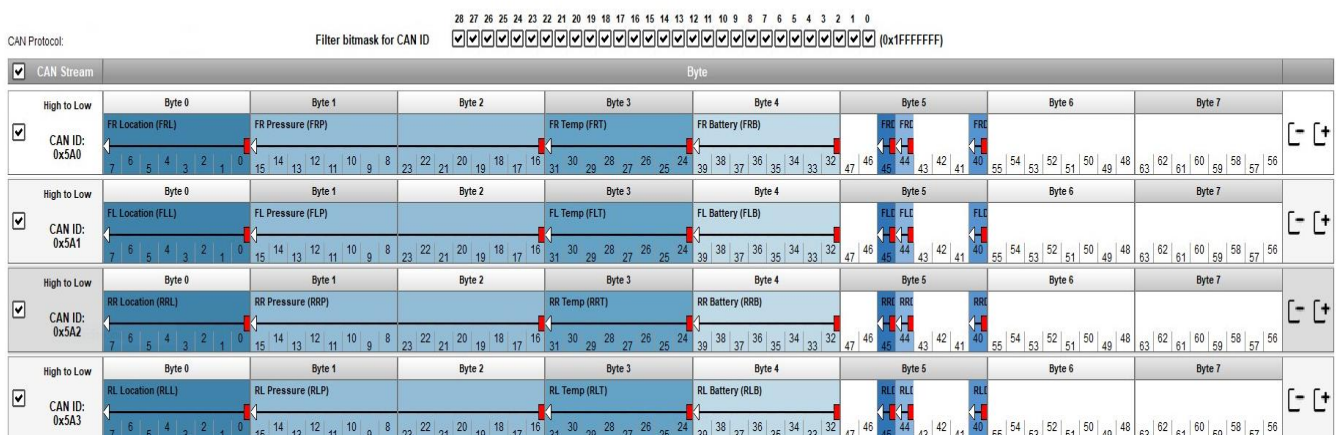
Unit 6, Curridge Farm Business Park, Long Lane, THATCHAM, RG18 9AA

Technical datasheet-CAN and wiring

Measurement parameters

MEASUREMENT PARAMETER	STARTING POSITION	LENGTH	UNIT	CYCLE	NOTES
Location	0...1	8	n/a ID only	200 ms	0x01-FL,0x02-FR,0x03-RL,0x04-RR
Pressure	1...1	16	kPa	200 ms	0x0100=256kpa
Temperature	3...1	8	° C	200 ms	0x20=32° C
Sensor Voltage	4...1	8	V	200 ms	0x21=3.3 Volts (1 decimal place)
Alarm: Air Leak	5...1	1	n/a	200 ms	0x01=Tyre deflating
Alarm: Sensor Failure	5...6	1	n/a	200 ms	0x20=Sensor failure or out of reception

** CAN protocol example for four sensors



Brightwater Technologies

www.brightwater.co.uk

Tel: +44 (0) 1344 888828

Email: dcaffell@brightwater.co.uk

Unit 6, Curridge Farm Business Park, Long Lane, THATCHAM, RG18 9AA

Technical datasheet-CAN and wiring

**CAN example of one pressure sensor

CAN Measure Settings

CAN ID: Byte Order:

Measure Stream Data

Start Bit: Number of Bits: Protected by Key:

Name: Short Name:

Function:

Max. Frequency: Stepped Values:

Signed Data:

Conversion: Gain: Offset: Encoding:

Unit After Conversion: Default Channel Unit:

Byte	bit	Value
Byte 0	7	FR Location (FRL)
	6	
	5	
	4	
	3	
	2	
	1	
	0	
Byte 1	15	FR Pressure (FRP)
	14	
	13	
	12	
	11	
	10	
	9	
	8	
Byte 2	23	FR Temp (FRT)
	22	
	21	
	20	
	19	
	18	
	17	
	16	
Byte 3	31	FR Battery (FRB)
	30	
	29	
	28	
	27	
	26	
	25	
	24	
Byte 4	39	FRDi
	38	
	37	
	36	
	35	
	34	
	33	
	32	
Byte 5	47	FRDi
	46	
	45	
	44	
	43	
	42	
	41	
	40	
Byte 6	55	FRDi
	54	
	53	
	52	
	51	
	50	
	49	
	48	
Byte 7	63	FRDi
	62	
	61	
	60	
	59	
	58	
	57	
	56	

Brightwater Technologies

www.brightwater.co.uk

Tel: +44 (0) 1344 888828

Email: dcaffell@brightwater.co.uk

Unit 6, Curridge Farm Business Park, Long Lane, THATCHAM, RG18 9AA