

```

1  /* ***** */
2  /** Descriptive File Name
3
4  @Company
5   Company Name
6
7  @File Name
8   filename.h
9
10 @Summary
11  Brief description of the file.
12
13 @Description
14  Describe the purpose of this file.
15 */
16 /* ***** */
17
18 #ifndef _PRESS_ADC_H   /* Guard against multiple inclusion */
19 #define _PRESS_ADC_H
20
21
22 /* ***** */
23 /* ***** */
24 /* Section: Included Files                                     */
25 /* ***** */
26 /* ***** */
27 #include "app.h"
28 /* This section lists the other files that are included in this file.
29 */
30
31 /* TODO: Include other files here if needed. */
32
33
34 /* Provide C++ Compatibility */
35 #ifdef __cplusplus
36 extern "C" {
37 #endif
38
39
40 /* ***** */
41 /* ***** */
42 /* Section: Constants                                         */
43 /* ***** */
44 /* ***** */
45 #define V_MIN      0.5
46 #define V_MAX      4
47 #define P_RANGE    10.0
48 #define OPAMP_GAIN  0.5913
49 #define ADC_RES     (3.3/1024)
50 #define ADC_AN_SCAN_ADDRES 0x0008
51 /* ***** */
52
53
54 // *****
55 // *****
56 // Section: Data Types
57 // *****
58 // *****
59 typedef struct{
60     uint16_t AN3;
61 }S_ADCResults;
62 // *****
63
64
65 // *****
66 // *****
67 // Section: Interface Functions
68 // *****
69 // *****
70
71 /* Convert voltage into pressure in [Bar] */
72 float Press_voltageToPressure(float voltage);

```

```
73
74  /* Convert raw adc value to voltage */
75  float Press_RawToVoltage(float raw);
76
77  void Press_InitADC (void);
78
79  S_ADCResults Press_ReadAllADC( void );
80
81  float Press_readPressure( void );
82  // *****
83
84
85
86  /* Provide C++ Compatibility */
87  #ifdef __cplusplus
88  }
89  #endif
90
91  #endif /* _EXAMPLE_FILE_NAME_H */
92
93  /* *****
94  End of File
95  */
96
```