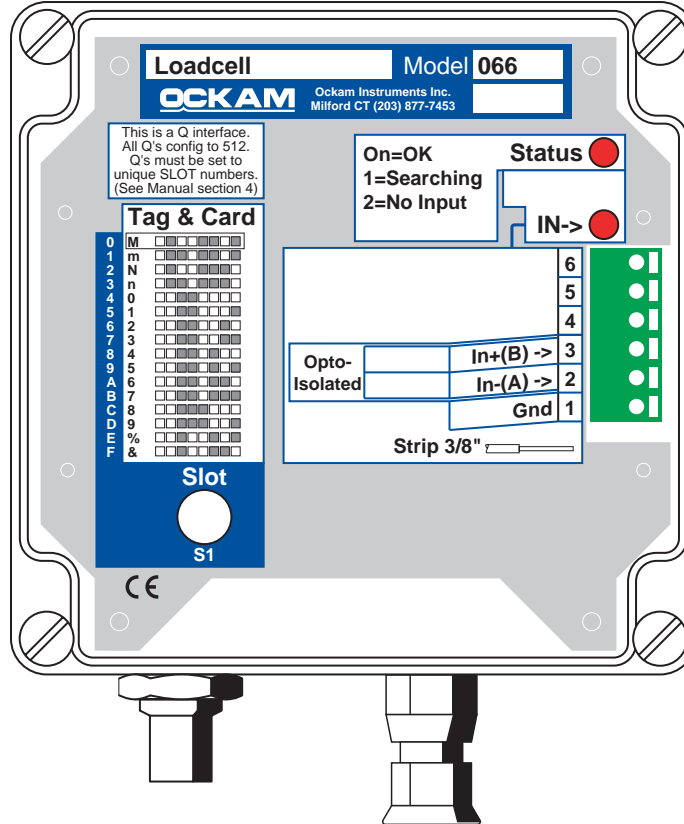


066 Loadcell Interface



The Model 066 Load Cell interface provides the OCKAM system with the ability to display the output from a compatible load cell system, thereby eliminating the need for specialized indicators, and allowing the values to be logged.

Specifications

- Dimensions: 4-3/4" W x 3-1/2" H x 1-1/2" D
- Mounting: VELCRO pads (or 4 #10-24 x 5/8" screws)
- Weight: 1 Lb.
- Orientation: Any
- Accessories: "Load" Display Card
- Power Requirements: 85 ma
- Fuse: 250ma Picofuse
- "Q" interface: Variable tag, any slot (default is slot 0, Tag "M"), 9 bytes buffer space
- Mating Connectors: Ockam Bus: BNC Male (UG-88/U)
Loadcell: NMEA-0183 2-wire terminal strip
- Compatibility: NAVTEC 1700 Load Cell System
DIVERSE LoadSense with RS-232 amplifier



The 066 Loadcell Interface complies with relevant sections of EU EN60945:1997 and EMC Directive 89/336/EEC.

Installation

1. A compatible load cell system must be installed in addition to the 066 Load Cell interface. The load cell system senses the force, and converts the strain-gauge signal into a digital output for use by the Load Cell interface. There are two such systems available.
 - The NAVTEC 1720 series load cell and 1730 converter. The 1735 digital display may be included as part of the load meter system but is not necessary for use of the 066 Load Cell interface.
 - The DIVERSE load cell and RS-232 amplifier.
2. The **Slot/Tag** switch on the interface is normally supplied set to "0". This tells the Interface, to send its data on tag "M", the display card normally supplied with the interface. You should leave this switch alone unless you are installing multiple Load Cells or other Q interfaces (see Multiple Q Interfaces section).
3. Check that your Ockam CPU has the correct (Revision A14 or higher) of software. Put the TEST CONFIGURATION card into a display and turn the Ockam system on. The display will show "HI", then "P14.x" and finally the system configuration. The "P" number must be 14 or larger in order to use the Load Cell interface. If the number is less, contact Ockam instruments and arrange for a CPU software update.
4. Install the load cell system in accordance with the instructions provided by the manufacturer.
5. Mount the Load Cell interface near the load cell system and connect the processor to the interface per manufacturer's instructions.
6. Connect the interface to the OCKAM system and turn the power on. Insert the TEST CONFIGURATION card into a display and verify that the number is correct. The configuration value for the Load Cell interface is 512. See [CONFIGURATION function](#) for details on use.
7. Insert the LOAD CELL card into a display and power up the load cell. The display should show "E" until the load cell begins working.

Troubleshooting

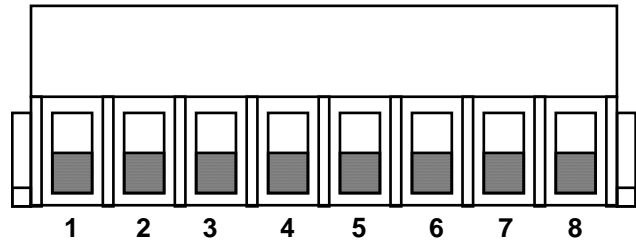
1. If the display does not change when you put the LOAD CELL card in, check the following;
 - Recheck the installation.
 - Be sure that the load cell system is powered up and operating correctly (See the load cell system instructions).
 - Check the CONFIGURATION (step 7 above).
 - Check that the LOAD card and **Slot/Tag** switch setting are compatible (See step 2 above, and the next section).
2. If the CONFIGURATION number from step 3 above is incorrect, check the following;
 - CPU revision A14 or higher (step 4 above).
 - The connection between the Ockam CPU and the interface.
 - The interface fuse (System Manual Section 4).

Installing Multiple Load Cell Or Other Q Interfaces

The Load Cell interface is a Q interface. The Ockam System can accommodate up to 16 (depending on how many resources they require) of these interfaces at the same time. The slot designation allows the CPU to differentiate amongst the Q interfaces by giving each a different "address". Each interface is required to occupy a different "slot"; it does not matter which (to the CPU at least), as long as they are all different.

Naturally enough, the slot designation **is** important. It determines which display card "tag" (i.e. magnet pattern) the data is to be sent on. The tag information is carried inside the Q interface itself, and in some interfaces, can be changed by selecting a different slot. Some interfaces have a fixed tag value, and some (like the Load Cell interface) have a choice of tags.

If you have multiple Q interfaces (including Load Cells), you need to select a Slot switch setting so that all are different, and also designate different tags. You also need to check that the tags you select are matched by the magnet patterns of the display cards you expect the readings to appear on.



MODEL 066 LOAD CELL

rdg	Slot	Tag	Normal Use	1	2	3	4	5	6	7	8
115	0	M	Load Cell #1 (Supplied)		•			•	•		•
155	1	m	Load Cell #2		•	•		•	•		•
116	2	N	Trim Q interface		•			•	•	•	
156	3	n	Load Cell #4		•	•		•	•	•	
060	4	0	User 0, Polar output			•	•				
061	5	1	User 1			•	•				•
062	6	2	User 2			•	•			•	
063	7	3	User 3			•	•			•	•
064	8	4	User 4			•	•		•		
065	9	5	User 5			•	•		•		•
066	A	6	User 6			•	•		•	•	
067	B	7	User 7			•	•		•	•	•
070	C	8	User 8			•	•	•			
071	D	9	User 9			•	•	•			•
044	E	\$	None			•			•		
043	F	#	None			•				•	•

Revision History

REV	DATE	CHANGE
A1	11/15/85	Software S066A1
A2	4/15/86	Software S066A2 Fix overrun error
B1	7/10/92	Software S066B1. Accept Navtec Conv II, Diverse 4800 baud.
B2	5/25/93	Change input resistors to accept Conv II RS-422 input.