

# CompactRIO™ EnDat Module



**EnDat**

**S.E.A. cRIO EnDat modules offer three independent EnDat 2.2 ports to interface CompactRIO™ motion or positioning applications with high speed position encoders.**



**S·E·A** Science & Engineering  
Applications Datentechnik  
GmbH

 **NATIONAL  
INSTRUMENTS™**  
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<b>Module</b>	cRIO ENDat
Order no.	60000006
<b>Functions</b>	
# EnDat ports	3
EnDat version	2.2
Sensor Connector	M 12
<b>Technical data</b>	
External front panel power supply [V / mA]*	7 - 30 / 1.1
Operating temperature range [° C]	-40 to 70
Provided sensor supply per port [V / mA]	5.25 / 350
Size [mm]	80 x 23 x 88
Weight [g]	180
<b>Software</b>	
Supported LabVIEW versions	8.x, 9.x



### About EnDat

The EnDat interface from the Dr. JOHANNES HEIDENHAIN GmbH is a digital, bidirectional interface for encoders. It is capable to transmit position values from absolute digital encoders as well as transmitting or updating sensor information stored in the encoder.

Because of the serial transmission method only four wires are required. The data are transmitted in synchronism with the clock signal from the subsequent electronics. The type of transmitted data (position values, parameters, diagnostics, etc.) can be selected by mode commands within the software.

Further information: [www.heidenhain.de](http://www.heidenhain.de)

### CompactRIO Platform

The National Instruments CompactRIO™ platform for measurement and control applications bases on FPGA technology. It is a reliable, robust and compact system for reliable real time data acquisition and control solutions. Various digital and analog sensor signals and bus systems are supported.

Combined with the new SEA cRIO EnDat module this offers an attractive solution for motion applications.

### Service

S.E.A. Datentechnik GmbH develops soft- and hardware for the CompactRIO platform and supplies customized control and measurement systems. Also we offer OEM solutions and integration support with CompactRIO products.

\* dependent on required sensor current.  
Subject to technical changes.

### cRIO EnDat Module

Digital drive systems and feedback loops with position encoders require fast and reliable transfer of digital encoder positions. The SEA cRIO EnDat module offers three parallel EnDat 2.2 master interfaces for the National Instruments™ CompactRIO™ system.

The built in FPGA allows the three Endat Masters to communicate with three axes in parallel. The module supports linear and radial encoders. Communication is done via M12 connectors with direct connection to the encoder.

The module offers:

- galvanic isolation
- precise timing information by FPGA technology
- EnDat clock speeds of up to 8 MHz
- synchronization of up to three independent axes within one module
- sensor supply of 5.25 V / 350 mA per axis
- operating temperatur range: -40° C to +70° C

For further information about solutions, accessories, and prices please contact us or visit our homepage:

[www.sea-gmbh.com/crio](http://www.sea-gmbh.com/crio)



CompactRIO system with National Instruments IO and CAN module, S.E.A. LIN and EnDat module with HEIDENHAIN Drehgeber



**S.E.A.** Science & Engineering  
Applications Datentechnik  
GmbH

Linder Höhe  
51147 Köln

Phone: +49 - 22 03 - 9 80 07 - 0  
Fax: +49 - 22 03 - 9 80 07 - 14

[www.sea-gmbh.com](http://www.sea-gmbh.com)  
[crio@sea-gmbh.com](mailto:crio@sea-gmbh.com)