R130C 8-Port IO-Link Hub with Analog Input Product Manual

Original Instructions
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Chapter 1 Features



- Compact analog to IO-Link hub that connects to a current or voltage analog source and outputs the value to an IO-Link master
- Ability to represent one of the eight analog inputs as a PFM output
- R130C IO-Link hubs are a quick, easy, and economical way to integrate non-IO-Link devices into an IO-Link system
- Rugged overmolded design meets IP65, IP67, and IP68

Models

Model	Function	Type	Control	Connector
R130C-8UI-KQ	Converter	8-port, voltage / current analog input	IO-Link	Integral 4-pin M12 quick-disconnect connectors

Overview

When an analog input value is received by the R130C-8UI-KQ hub, the numerical representational value is sent to an IO-Link Master via Process Data In (PDI).

PDI Analog Ranges

Voltage = 0 mV to 10,000 mV

Current = 4,000 µA to 20,000 µA

PFM Out

Enables a PFM representation of an analog input as an output

PFM Input Source Channel

Selects the analog input value from Port 1..8 as the PFM output source

Pulse Frequency Configuration

Sets the near and far frequency values

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Chapter 2 Specifications

Supply Voltage
18 V DC to 30 V DC at 400 mA maximum

Power Pass-Through Current
4 amps maximum total for up to 24 V DC
3.3 amps maximum total for up to 30 V DC

Analog Input Impedance
Current version: Approximately 250 ohms
Voltage version: Approximately 14.3K ohms

Supply Protection Circuitry
Protected against reverse polarity and transient voltages

Leakage Current Immunity
400 µA

Indicators
Green: Power
Amber: IO-Link communications
Amber: Analog In status

Connections
(8) Integral 4-pin M12 female quick-disconnect connectors
(1) Integral 4-pin M12 male quick-disconnect connector

Construction
Coupling Material: Nickel-plated brass
Connector Body: PVC translucent black

Vibration and Mechanical Shock
Meets IEC 60068-2-6 requirements (Vibration: 10 Hz to 55 Hz, 0.5 mm amplitude, 5 minutes sweep, 30 minutes dwell)
Meets IEC 60068-2-27 requirements (Shock: 15G 11 ms duration, half sine wave)

Certifications

Banner Engineering BV
Park Lane, Culliganlaan 2F bus 3
1831 Diegem, BELGIUM

Turck Banner LTD Blenheim House
Blenheim Court
Wickford, Essex SS11 8YT
GREAT BRITAIN

Product Identification

SNAP SIGNAL®

Environmental Rating
IP65, IP67, IP68
UL Type 1

Operating Conditions
Temperature: –40 °C to +60 °C (–40 °F to +140 °F)
90% at +60 °C maximum relative humidity (non-condensing)
Storage Temperature: –40 °C to +80 °C (–40 °F to +176 °F)

Required Overcurrent Protection

WARNING: Electrical connections must be made by qualified personnel in accordance with local and national electrical codes and regulations.

Overcurrent protection is required to be provided by end product application per the supplied table.

Overcurrent protection may be provided with external fusing or via Current Limiting, Class 2 Power Supply.

Supply wiring leads < 24 AWG shall not be spliced.

For additional product support, go to www.bannerengineering.com.

Supply Wiring (AWG)	Required Overcurrent Protection (A)	Supply Wiring (AWG)	Required Overcurrent Protection (A)
20	5.0	26	1.0
22	3.0	28	0.8
24	2.0	30	0.5

FCC Part 15 Class B for Unintentional Radiators

(Part 15.105(b)) This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

(Part 15.21) Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Industry Canada ICES-003(B)

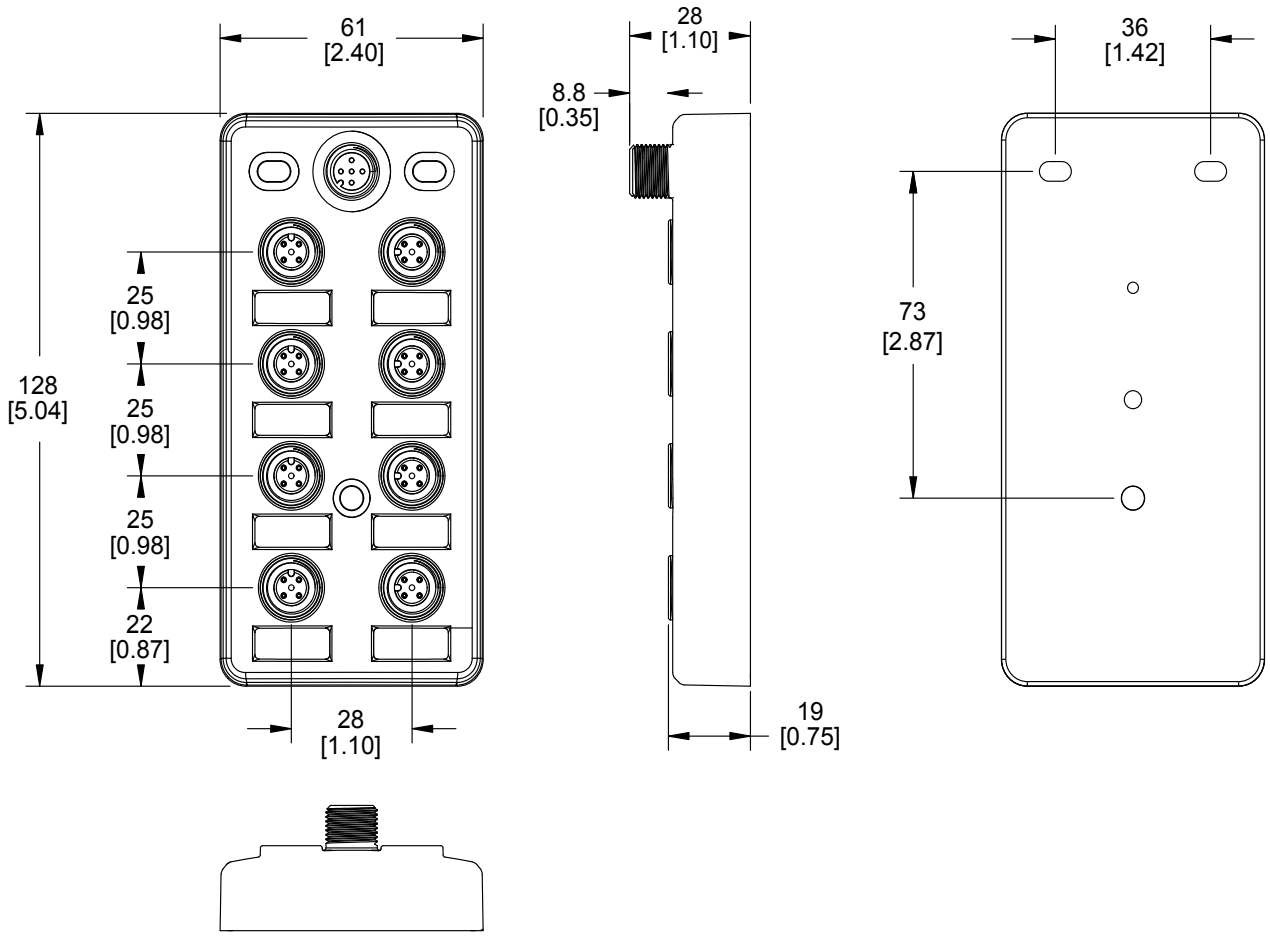
This device complies with CAN ICES-3 (B)/NMB-3(B). Operation is subject to the following two conditions: 1) This device may not cause harmful interference; and 2) This device must accept any interference received, including interference that may cause undesired operation.

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Cet appareil est conforme à la norme NMB-3(B). Le fonctionnement est soumis aux deux conditions suivantes : (1) ce dispositif ne peut pas occasionner d'interférences, et (2) il doit tolérer toute interférence, y compris celles susceptibles de provoquer un fonctionnement non souhaité du dispositif.

Dimensions

All measurements are listed in millimeters [inches], unless noted otherwise. The measurements provided are subject to change.



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Chapter 3 IO-Link Overview

IO-Link®[1] is an open standard serial communication protocol that allows for the bi-directional exchange of data from IO-Link-supported devices, such as sensors, that are connected through IO-Link. For the latest IO-Link protocol and specifications, please visit http://www.io-link.com.

Advantages to an IO-Link system include standardized wiring, remote configuration, simple device replacement, advanced diagnostics, and increased data availability. Because IO-Link is an open standard, the devices can be integrated in almost any fieldbus or automation system.

An IO-Link system consists of an IO-Link master and an IO-Link device such as a sensor, lighting product, IO-Link hub, or actuator.

The functions and parameters of the IO-Link devices are represented in a device description file (IODD). IODD files contain information about identification, device parameters, process and diagnostic data, communication properties, and other details. The IODD files for Banner IO-link devices can be downloaded for free on www.bannerengineering.com. For a list of supporting files, please refer to "Supporting Files" on page 24.

IO-Link Data Map

This document refers to the following IODD file: Banner_Engineering-R130C-8UI-20260810-IODD1.1.xml.

The IODD file and support files can be found on www.bannerengineering.com under the download section of the product family page.

Communication Parameters

The following communication parameters are used.

Parameter	Value
IO-Link revision	V1.1
Process Data In length	256-bits
Process Data Out length	None
Bit Rate	38400 bps
Minimum cycle time	13.6 ms
Device ID	659487 (0x0a101f)
Port class	A
SIO mode	No
Smart Sensor Profile	No
Block parameterization	Yes
Data Storage	Yes

IO-Link Process Data In (Device to Master)

Two analog modes are supported. The voltage mode is presented in mV and the current mode is presented in µA.

If the mode of Analog In = Voltage, then the Process Data Input = Value × 0.001 V.

If the mode of Analog In = Current, then the Process Data Input = Value × 0.000001 A.

[1] IO-Link® is a registered trademark of PROFIBUS Nutzerorganisation e.V.

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Process Data Input Configuration = Analog Data

Subindex	Name	Number of Bits	Data Values
1	Measurement Value - Analog In 1	32	The measurement device value
5	Measurement Value - Analog In 2	32	The measurement device value
9	Measurement Value - Analog In 3	32	The measurement device value
13	Measurement Value - Analog In 4	32	The measurement device value
17	Measurement Value - Analog In 5	32	The measurement device value
21	Measurement Value - Analog In 6	32	The measurement device value
25	Measurement Value - Analog In 7	32	The measurement device value
29	Measurement Value - Analog In 8	32	The measurement device value

Octet 0								
Subindex	1	1	1	1	1	1	1	1
Bit offset	255	254	253	252	251	250	249	248
Value	0	0	0	0	0	0	0	0

Octet 1								
Subindex	1	1	1	1	1	1	1	1
Bit offset	247	246	245	244	243	242	241	240
Value	0	0	0	0	0	0	0	0

Octet 2								
Subindex	1	1	1	1	1	1	1	1
Bit offset	239	238	237	236	235	234	233	232
Value	0	0	0	0	0	0	0	1

Octet 3								
Subindex	1	1	1	1	1	1	1	1
Bit offset	231	230	229	228	227	226	225	224
Value	1	1	1	1	1	1	0	1

Octet 4								
Subindex	5	5	5	5	5	5	5	5
Bit offset	223	222	221	220	219	218	217	216
Value	0	0	0	0	0	0	0	0

Octet 5								
Subindex	5	5	5	5	5	5	5	5
Bit offset	215	214	213	212	211	210	209	208
Value	0	0	0	0	0	0	0	0

Octet 6								
Subindex	5	5	5	5	5	5	5	5
Bit offset	207	206	205	204	203	202	201	200

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Octet 6								
Value	0	0	0	0	0	0	0	1

Octet 7								
Subindex	5	5	5	5	5	5	5	5
Bit offset	199	198	197	196	195	194	193	192
Value	1	1	1	1	1	1	0	1

Octet 8								
Subindex	9	9	9	9	9	9	9	9
Bit offset	191	190	189	188	187	186	185	184
Value	0	0	0	0	0	0	0	0

Octet 9								
Subindex	9	9	9	9	9	9	9	9
Bit offset	183	182	181	180	179	178	177	176
Value	0	0	0	0	0	0	0	0

Octet 10								
Subindex	9	9	9	9	9	9	9	9
Bit offset	175	174	173	172	171	170	169	168
Value	0	0	0	0	0	0	0	1

Octet 11								
Subindex	9	9	9	9	9	9	9	9
Bit offset	167	166	165	164	163	162	161	160
Value	1	1	1	1	1	1	0	1

Octet 12								
Subindex	13	13	13	13	13	13	13	13
Bit offset	159	158	157	156	155	154	153	152
Value	0	0	0	0	0	0	0	0

Octet 13								
Subindex	13	13	13	13	13	13	13	13
Bit offset	151	150	149	148	147	146	145	144
Value	0	0	0	0	0	0	0	0

Octet 14								
Subindex	13	13	13	13	13	13	13	13
Bit offset	143	142	141	140	139	138	137	136
Value	0	0	0	0	0	0	0	1

Octet 15								
Subindex	13	13	13	13	13	13	13	13

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Octet 15								
Bit offset	135	134	133	132	131	130	129	128
Value	1	1	1	1	1	1	0	1

Octet 16								
Subindex	17	17	17	17	17	17	17	17
Bit offset	127	126	125	124	123	122	121	120
Value	0	0	0	0	0	0	0	0

Octet 17								
Subindex	17	17	17	17	17	17	17	17
Bit offset	119	118	117	116	115	114	113	112
Value	0	0	0	0	0	0	0	0

Octet 18								
Subindex	17	17	17	17	17	17	17	17
Bit offset	111	110	109	108	107	106	105	104
Value	0	0	0	0	0	0	0	1

Octet 19								
Subindex	17	17	17	17	17	17	17	17
Bit offset	103	102	101	100	99	98	97	96
Value	1	1	1	1	1	1	0	1

Octet 20								
Subindex	21	21	21	21	21	21	21	21
Bit offset	95	94	93	92	91	90	89	88
Value	0	0	0	0	0	0	0	0

Octet 21								
Subindex	21	21	21	21	21	21	21	21
Bit offset	87	86	85	84	83	82	81	80
Value	0	0	0	0	0	0	0	0

Octet 22								
Subindex	21	21	21	21	21	21	21	21
Bit offset	79	78	77	76	75	74	73	72
Value	0	0	0	0	0	0	0	1

Octet 23								
Subindex	21	21	21	21	21	21	21	21
Bit offset	71	70	69	68	67	66	65	64
Value	1	1	1	1	1	1	0	1

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Octet 24								
Subindex	25	25	25	25	25	25	25	25
Bit offset	63	62	61	60	59	58	57	56
Value	0	0	0	0	0	0	0	0

Octet 25								
Subindex	25	25	25	25	25	25	25	25
Bit offset	55	54	53	52	51	50	49	48
Value	0	0	0	0	0	0	0	0

Octet 26								
Subindex	25	25	25	25	25	25	25	25
Bit offset	47	46	45	44	43	42	41	40
Value	0	0	0	0	0	0	0	1

Octet 27								
Subindex	25	25	25	25	25	25	25	25
Bit offset	39	38	37	36	35	34	33	32
Value	1	1	1	1	1	1	0	1

Octet 28								
Subindex	29	29	29	29	29	29	29	29
Bit offset	31	30	29	28	27	26	25	24
Value	0	0	0	0	0	0	0	0

Octet 29								
Subindex	29	29	29	29	29	29	29	29
Bit offset	23	22	21	20	19	18	17	16
Value	0	0	0	0	0	0	0	0

Octet 30								
Subindex	29	29	29	29	29	29	29	29
Bit offset	15	14	13	12	11	10	9	8
Value	0	0	0	0	0	0	0	1

Octet 31								
Subindex	29	29	29	29	29	29	29	29
Bit offset	7	6	5	4	3	2	1	0
Value	1	1	1	1	1	1	0	1

Example Based Upon the Value Above

Measurement Value = 509 (0x01FD)

Scaled Measurement Value = 0.509 V

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Process Data Input Configuration = Digital Measuring Sensor

Subindex	Name	Number of Bits	Data Values
1	Measurement Value - Analog In 1	16	The measurement device value
2	Measurement Scale - Analog In 1	8	The measurement device scale: -3 for voltage and -6 for current
4	SSC1.1 - Switching Signal	1	Indicates the detection status of an object/measurement value within a window
5	Measurement Value - Analog In 2	16	The measurement device value
6	Measurement Scale - Analog In 2	8	The measurement device scale: -3 for voltage and -6 for current
8	SSC2.1 - Switching Signal	1	Indicates the detection status of an object/measurement value within a window
9	Measurement Value - Analog In 3	16	The measurement device value
10	Measurement Scale - Analog In 3	8	The measurement device scale: -3 for voltage and -6 for current
12	SSC3.1 - Switching Signal	1	Indicates the detection status of an object/measurement value within a window
13	Measurement Value - Analog In 4	16	The measurement device value
14	Measurement Scale - Analog In 4	8	The measurement device scale: -3 for voltage and -6 for current
16	SSC4.1 - Switching Signal	1	Indicates the detection status of an object/measurement value within a window
17	Measurement Value - Analog In 5	16	The measurement device value
18	Measurement Scale - Analog In 5	8	The measurement device scale: -3 for voltage and -6 for current
20	SSC5.1 - Switching Signal	1	Indicates the detection status of an object/measurement value within a window
21	Measurement Value - Analog In 6	16	The measurement device value
22	Measurement Scale - Analog In 6	8	The measurement device scale: -3 for voltage and -6 for current
24	SSC6.1 - Switching Signal	1	Indicates the detection status of an object/measurement value within a window
25	Measurement Value - Analog In 7	16	The measurement device value
26	Measurement Scale - Analog In 7	8	The measurement device scale: -3 for voltage and -6 for current
28	SSC7.1 - Switching Signal	1	Indicates the detection status of an object/measurement value within a window
29	Measurement Value - Analog In 8	16	The measurement device value
30	Measurement Scale - Analog In 8	8	The measurement device scale: -3 for voltage and -6 for current
32	SSC8.1 - Switching Signal	1	Indicates the detection status of an object/measurement value within a window

Octet 0								
Subindex	1	1	1	1	1	1	1	1
Bit offset	255	254	253	252	251	250	249	248
Value	0	0	0	0	0	0	0	1

Octet 1								
Subindex	1	1	1	1	1	1	1	1
Bit offset	247	246	245	244	243	242	241	240

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Octet 1								
Value	1	1	1	1	1	1	0	1

Octet 2								
Subindex	2	2	2	2	2	2	2	2
Bit offset	239	238	237	236	235	234	233	232
Value	1	1	1	1	1	1	0	1

Octet 3								
Subindex	3	3	3	3	3	3	3	4
Bit offset	231	230	229	228	227	226	225	224
Value	-	-	-	-	-	-	-	1

Octet 4								
Subindex	5	5	5	5	5	5	5	5
Bit offset	223	222	221	220	219	218	217	216
Value	0	0	0	0	0	0	0	1

Octet 5								
Subindex	5	5	5	5	5	5	5	5
Bit offset	215	214	213	212	211	210	209	208
Value	1	1	1	1	1	1	0	1

Octet 6								
Subindex	6	6	6	6	6	6	6	6
Bit offset	207	206	205	204	203	202	201	200
Value	1	1	1	1	1	1	0	1

Octet 7								
Subindex	7	7	7	7	7	7	7	8
Bit offset	199	198	197	196	195	194	193	192
Value	-	-	-	-	-	-	-	1

Octet 8								
Subindex	9	9	9	9	9	9	9	9
Bit offset	191	190	189	188	187	186	185	184
Value	0	0	0	0	0	0	0	1

Octet 9								
Subindex	9	9	9	9	9	9	9	9
Bit offset	183	182	181	180	179	178	177	176
Value	1	1	1	1	1	1	0	1

Octet 10								
Subindex	10	10	10	10	10	10	10	10

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Octet 10								
Bit offset	175	174	173	172	171	170	169	168
Value	1	1	1	1	1	1	0	1

Octet 11								
Subindex	11	11	11	11	11	11	11	12
Bit offset	167	166	165	164	163	162	161	160
Value	-	-	-	-	-	-	-	1

Octet 12								
Subindex	13	13	13	13	13	13	13	13
Bit offset	159	158	157	156	155	154	153	152
Value	0	0	0	0	0	0	0	1

Octet 13								
Subindex	13	13	13	13	13	13	13	13
Bit offset	151	150	149	148	147	146	145	144
Value	1	1	1	1	1	1	0	1

Octet 14								
Subindex	14	14	14	14	14	14	14	14
Bit offset	143	142	141	140	139	138	137	136
Value	1	1	1	1	1	1	0	1

Octet 15								
Subindex	15	15	15	15	15	15	15	16
Bit offset	135	134	133	132	131	130	129	128
Value	-	-	-	-	-	-	-	1

Octet 16								
Subindex	17	17	17	17	17	17	17	17
Bit offset	127	126	125	124	123	122	121	120
Value	0	0	0	0	0	0	0	1

Octet 17								
Subindex	17	17	17	17	17	17	17	17
Bit offset	119	118	117	116	115	114	113	112
Value	1	1	1	1	1	1	0	1

Octet 18								
Subindex	18	18	18	18	18	18	18	18
Bit offset	111	110	109	108	107	106	105	104
Value	1	1	1	1	1	1	0	1

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Octet 19								
Subindex	19	19	19	19	19	19	19	20
Bit offset	103	102	101	100	99	98	97	96
Value	-	-	-	-	-	-	-	1

Octet 20								
Subindex	21	21	21	21	21	21	21	21
Bit offset	95	94	93	92	91	90	89	88
Value	0	0	0	0	0	0	0	1

Octet 21								
Subindex	21	21	21	21	21	21	21	21
Bit offset	87	86	85	84	83	82	81	80
Value	1	1	1	1	1	1	0	1

Octet 22								
Subindex	22	22	22	22	22	22	22	22
Bit offset	79	78	77	76	75	74	73	72
Value	1	1	1	1	1	1	0	1

Octet 23								
Subindex	23	23	23	23	23	23	23	24
Bit offset	71	70	69	68	67	66	65	64
Value	-	-	-	-	-	-	-	1

Octet 24								
Subindex	25	25	25	25	25	25	25	25
Bit offset	63	62	61	60	59	58	57	56
Value	0	0	0	0	0	0	0	1

Octet 25								
Subindex	25	25	25	25	25	25	25	25
Bit offset	55	54	53	52	51	50	49	48
Value	1	1	1	1	1	1	0	1

Octet 26								
Subindex	26	26	26	26	26	26	26	26
Bit offset	47	46	45	44	43	42	41	40
Value	1	1	1	1	1	1	0	1

Octet 27								
Subindex	27	27	27	27	27	27	27	28
Bit offset	39	38	37	36	35	34	33	32
Value	-	-	-	-	-	-	-	1

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Octet 28								
Subindex	29	29	29	29	29	29	29	29
Bit offset	31	30	29	28	27	26	25	24
Value	0	0	0	0	0	0	0	1

Octet 29								
Subindex	29	29	29	29	29	29	29	29
Bit offset	23	22	21	20	19	18	17	16
Value	1	1	1	1	1	1	0	1

Octet 30								
Subindex	30	30	30	30	30	30	30	30
Bit offset	15	14	13	12	11	10	9	8
Value	1	1	1	1	1	1	0	1

Octet 31								
Subindex	31	31	31	31	31	31	31	32
Bit offset	7	6	5	4	3	2	1	0
Value	-	-	-	-	-	-	-	1

Example Based Upon the Value Above

Measurement Value = 509 (0x01FD)

Measurement Scale = -3 (0xFD)

Scaled Measurement Value = 0.509 V

Analog Input Validity = True

Parameters Set Using IO-Link

These parameters can be read from and/or written to the R130C 8-Port IO-Link Hub with Analog Input. Also included is information about whether the variable in question is saved during Data Storage.

Unlike Process Data In, which is transmitted from the IO-Link device to the IO-Link master cyclically, these parameters are read or written acyclically as needed.

Index	Subindex	Name	Length	Value Range	Default	Access Rights	Data Storage?
0	1-16	Direct Parameter Page 1 (incl. Vendor ID & Device ID)				RO	
1	1-16	Direct Parameters Page 2				RW	
2		Standard Command		126 = Locator Start 127 = Locator Stop 129 = Application Reset 131 = Back-to-box		WO	
3		Data Storage Index (device-specific list of parameters to be stored)				RW	
4-11		*Reserved by IO-Link Specification*					
12		**Device Access Locks**					
12	1	Parameter Write Access Lock		0 = Off, 1 = On	0	RW	Y
12	2	Data Storage Lock		0 = Off, 1 = On	0	RW	Y

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Index	Subindex	Name	Length	Value Range	Default	Access Rights	Data Storage?
12	3	Local Parameterization Lock		0 = Off, 1 = On	0	RW	Y
12	4	Local User Interface Lock		0 = Off, 1 = On	0	RW	Y
16		Vendor Name String		Banner Engineering Corporation		RO	
17		Vendor Text String		More Sensors. More Solutions.		RO	
18		Product Name String		R130C		RO	
19		Product ID String		R130C-8UI-KQ		RO	
20		Product Text String				RO	
21		Serial Number				RO	
23		Firmware Version				RO	
24		App Specific Tag (user defined)				RW	Y
36		Device Status	8-bit integer	0 = Device is OK 1 = Maintenance required 2 = Out of specification 3 = Functional check 4 = Failure 5..255 Reserved		RO	
37		Detailed Device Status	Array [6] of 3-octet			RO	
38-39		*reserved*					
40		Process Data Input		*See Process Data In*		RO	
41-57		*unused/reserved*					
69		**All-Time Run**					
69	1	Run Counter	32-bit Uinteger	0..2147483647		RO	Y
70		**Resettable Run Time**					
70	1	Run Counter	32-bit Uinteger	0..2147483647	0	RO	
71		**Pulse Frequency Configuration**					
71	1	Near Frequency (Hz)	32-bit Uinteger	100..45000	100	RW	Y
71	2	Far Frequency (Hz)	32-bit Uinteger	100..45000	600	RW	Y
72		**Pulse Frequency LOS Frequency (Hz)**					
72	1	Pulse Frequency LOS Frequency = Frequency used to indicate Loss-of-Signal	32-bit Uinteger	50..45000	50	RW	Y
76		**Vendor Specific Configuration**					
76	1	Process Data Input Configuration	8-bit Uinteger	0 = Analog Value, 1 = Digital Measuring Sensor	0	RW	Y
76	2	IOL Filter Time (ms)	16-bit Uinteger		200	RW	Y
76	3	Secondary Output Function = Pin 2 (White) host side output	8-bit Uinteger	0 = Disabled, 1 = Pulse Frequency Modulation	0	RW	Y
76	4	PFM Input Selection	8-bit Uinteger	0 = Analog In 1 1 = Analog In 2 2 = Analog In 3 3 = Analog In 4 4 = Analog In 5 5 = Analog In 6 6 = Analog In 7 7 = Analog In 8	0	RW	Y
76	5	Port 1 - The Mode of Analog In	8-bit Uinteger	0 = Voltage, 1 = Current	1	RW	Y
76	6	Port 2 - The Mode of Analog In	8-bit Uinteger	0 = Voltage, 1 = Current	1	RW	Y

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Index	Subindex	Name	Length	Value Range	Default	Access Rights	Data Storage?
76	7	Port 3 - The Mode of Analog In	8-bit Uinteger	0 = Voltage, 1 = Current	1	RW	Y
76	8	Port 4 - The Mode of Analog In	8-bit Uinteger	0 = Voltage, 1 = Current	1	RW	Y
76	9	Port 5 - The Mode of Analog In	8-bit Uinteger	0 = Voltage, 1 = Current	1	RW	Y
76	10	Port 6 - The Mode of Analog In	8-bit Uinteger	0 = Voltage, 1 = Current	1	RW	Y
76	11	Port 7 - The Mode of Analog In	8-bit Uinteger	0 = Voltage, 1 = Current	1	RW	Y
76	12	Port 8 - The Mode of Analog In	8-bit Uinteger	0 = Voltage, 1 = Current	1	RW	Y
78		**All-Time Run Time Event Time**					
78	1	Event Time	32-bit Uinteger	0..2147483647	0	RW	Y
79		**Resettable Run Time Event Time**					
79	1	Event Time	32-bit Uinteger	0..2147483647	0	RW	Y
12544		**MDC Descriptor - Port 1**					
12544	1	Lower Limit	32-bit Integer			RO	
12544	2	Upper Limit	32-bit Integer			RO	
12544	3	Unit	16-bit Uinteger	1209 = A, 1240 = V		RO	
12544	4	Scale	8-bit Integer	-6 (µA), -3 (mV)		RO	
12545		**MDC Descriptor - Port 2**					
12545	1	Lower Limit	32-bit Integer			RO	
12545	2	Upper Limit	32-bit Integer			RO	
12545	3	Unit	16-bit Uinteger	1209 = A, 1240 = V		RO	
12545	4	Scale	8-bit Integer	-6 (µA), -3 (mV)		RO	
12546		**MDC Descriptor - Port 3**					
12546	1	Lower Limit	32-bit Integer			RO	
12546	2	Upper Limit	32-bit Integer			RO	
12546	3	Unit	16-bit Uinteger	1209 = A, 1240 = V		RO	
12546	4	Scale	8-bit Integer	-6 (µA), -3 (mV)		RO	
12547		**MDC Descriptor - Port 4**					
12547	1	Lower Limit	32-bit Integer			RO	
12547	2	Upper Limit	32-bit Integer			RO	
12547	3	Unit	16-bit Uinteger	1209 = A, 1240 = V		RO	
12547	4	Scale	8-bit Integer	-6 (µA), -3 (mV)		RO	
12548		**MDC Descriptor - Port 5**					
12548	1	Lower Limit	32-bit Integer			RO	
12548	2	Upper Limit	32-bit Integer			RO	
12548	3	Unit	16-bit Uinteger	1209 = A, 1240 = V		RO	
12548	4	Scale	8-bit Integer	-6 (µA), -3 (mV)		RO	
12549		**MDC Descriptor - Port 6**					
12549	1	Lower Limit	32-bit Integer			RO	
12549	2	Upper Limit	32-bit Integer			RO	
12549	3	Unit	16-bit Uinteger	1209 = A, 1240 = V		RO	
12549	4	Scale	8-bit Integer	-6 (µA), -3 (mV)		RO	
12550		**MDC Descriptor - Port 7**					
12550	1	Lower Limit	32-bit Integer			RO	
12550	2	Upper Limit	32-bit Integer			RO	
12550	3	Unit	16-bit Uinteger	1209 = A, 1240 = V		RO	
12550	4	Scale	8-bit Integer	-6 (µA), -3 (mV)		RO	

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Index	Subindex	Name	Length	Value Range	Default	Access Rights	Data Storage?
12551		**MDC Descriptor - Port 8**					
12551	1	Lower Limit	32-bit Integer			RO	
12551	2	Upper Limit	32-bit Integer			RO	
12551	3	Unit	16-bit Uinteger	1209 = A, 1240 = V		RO	
12551	4	Scale	8-bit Integer	-6 (µA), -3 (mV)		RO	
12560		**SSC1.BDC1 Setpoints**					
12560	1	Port 1 - Voltage - Setpoint SP1	32-bit Integer	Port 1 - SP1 Switchpoint = Voltage In LED lower switchpoint	0 V	RW	Y
12560	2	Port 1 - Voltage - Setpoint SP2	32-bit Integer	Port 1 - SP2 Switchpoint = Voltage In LED upper switchpoint	10 V	RW	Y
12560	3	Voltage - Hysteresis	32-bit Integer	Hysteresis value for the Voltage In Port 1 switchpoint	0.05 V	RW	Y
12560	4	Port 1 - Current - Setpoint SP1	32-bit Integer	Port 1 - SP1 Switchpoint = Current In LED lower switchpoint	0.004 A	RW	Y
12560	5	Port 1 - Current - Setpoint SP2	32-bit Integer	Port 1 - SP2 Switchpoint = Current In LED upper switchpoint	0.02 A	RW	Y
12560	6	Current - Hysteresis	32-bit Integer	Hysteresis value for the Current In Port 1 switchpoint	0.0001 A	RW	Y
12561		**SSC2.BDC1 Setpoints**					
12561	1	Port 2 - Voltage - Setpoint SP1	32-bit Integer	Port 2 - SP1 Switchpoint = Voltage In LED lower switchpoint	0 V	RW	Y
12561	2	Port 2 - Voltage - Setpoint SP2	32-bit Integer	Port 2 - SP2 Switchpoint = Voltage In LED upper switchpoint	10 V	RW	Y
12561	3	Voltage - Hysteresis	32-bit Integer	Hysteresis value for the Voltage In Port 2 switchpoint	0.05 V	RW	Y
12561	4	Port 2 - Current - Setpoint SP1	32-bit Integer	Port 2 - SP1 Switchpoint = Current In LED lower switchpoint	0.004 A	RW	Y
12561	5	Port 2 - Current - Setpoint SP2	32-bit Integer	Port 2 - SP2 Switchpoint = Current In LED upper switchpoint	0.02 A	RW	Y
12561	6	Current - Hysteresis	32-bit Integer	Hysteresis value for the Current In Port 2 switchpoint	0.0001 A	RW	Y
12562		**SSC3.BDC1 Setpoints**					
12562	1	Port 3 - Voltage - Setpoint SP1	32-bit Integer	Port 3 - SP1 Switchpoint = Voltage In LED lower switchpoint	0 V	RW	Y
12562	2	Port 3 - Voltage - Setpoint SP2	32-bit Integer	Port 3 - SP2 Switchpoint = Voltage In LED upper switchpoint	10 V	RW	Y
12562	3	Voltage - Hysteresis	32-bit Integer	Hysteresis value for the Voltage In Port 3 switchpoint	0.05 V	RW	Y
12562	4	Port 3 - Current - Setpoint SP1	32-bit Integer	Port 3 - SP1 Switchpoint = Current In LED lower switchpoint	0.004 A	RW	Y
12562	5	Port 3 - Current - Setpoint SP2	32-bit Integer	Port 3 - SP2 Switchpoint = Current In LED upper switchpoint	0.02 A	RW	Y
12562	6	Current - Hysteresis	32-bit Integer	Hysteresis value for the Current In Port 3 switchpoint	0.0001 A	RW	Y
12563		**SSC4.BDC1 Setpoints**					
12563	1	Port 4 - Voltage - Setpoint SP1	32-bit Integer	Port 4 - SP1 Switchpoint = Voltage In LED lower switchpoint	0 V	RW	Y
12563	2	Port 4 - Voltage - Setpoint SP2	32-bit Integer	Port 4 - SP2 Switchpoint = Voltage In LED upper switchpoint	10 V	RW	Y
12563	3	Voltage - Hysteresis	32-bit Integer	Hysteresis value for the Voltage In Port 4 switchpoint	0.05 V	RW	Y
12563	4	Port 4 - Current - Setpoint SP1	32-bit Integer	Port 4 - SP1 Switchpoint = Current In LED lower switchpoint	0.004 A	RW	Y
12563	5	Port 4 - Current - Setpoint SP2	32-bit Integer	Port 4 - SP2 Switchpoint = Current In LED upper switchpoint	0.02 A	RW	Y
12563	6	Current - Hysteresis	32-bit Integer	Hysteresis value for the Current In Port 4 switchpoint	0.0001 A	RW	Y

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Index	Subindex	Name	Length	Value Range	Default	Access Rights	Data Storage?
12564		**SSC5.BDC1 Setpoints**					
12564	1	Port 5 - Voltage - Setpoint SP1	32-bit Integer	Port 5 - SP1 Switchpoint = Voltage In LED lower switchpoint	0 V	RW	Y
12564	2	Port 5 - Voltage - Setpoint SP2	32-bit Integer	Port 5 - SP2 Switchpoint = Voltage In LED upper switchpoint	10 V	RW	Y
12564	3	Voltage - Hysteresis	32-bit Integer	Hysteresis value for the Voltage In Port 5 switchpoint	0.05 V	RW	Y
12564	4	Port 5 - Current - Setpoint SP1	32-bit Integer	Port 5 - SP1 Switchpoint = Current In LED lower switchpoint	0.004 A	RW	Y
12564	5	Port 5 - Current - Setpoint SP2	32-bit Integer	Port 5 - SP2 Switchpoint = Current In LED upper switchpoint	0.02 A	RW	Y
12564	6	Current - Hysteresis	32-bit Integer	Hysteresis value for the Current In Port 5 switchpoint	0.0001 A	RW	Y
12565		**SSC6.BDC1 Setpoints**					
12565	1	Port 6 - Voltage - Setpoint SP1	32-bit Integer	Port 6 - SP1 Switchpoint = Voltage In LED lower switchpoint	0 V	RW	Y
12565	2	Port 6 - Voltage - Setpoint SP2	32-bit Integer	Port 6 - SP2 Switchpoint = Voltage In LED upper switchpoint	10 V	RW	Y
12565	3	Voltage - Hysteresis	32-bit Integer	Hysteresis value for the Voltage In Port 6 switchpoint	0.05 V	RW	Y
12565	4	Port 6 - Current - Setpoint SP1	32-bit Integer	Port 6 - SP1 Switchpoint = Current In LED lower switchpoint	0.004 A	RW	Y
12565	5	Port 6 - Current - Setpoint SP2	32-bit Integer	Port 6 - SP2 Switchpoint = Current In LED upper switchpoint	0.02 A	RW	Y
12565	6	Current - Hysteresis	32-bit Integer	Hysteresis value for the Current In Port 6 switchpoint	0.0001 A	RW	Y
12566		**SSC7.BDC1 Setpoints**					
12566	1	Port 7 - Voltage - Setpoint SP1	32-bit Integer	Port 7 - SP1 Switchpoint = Voltage In LED lower switchpoint	0 V	RW	Y
12566	2	Port 7 - Voltage - Setpoint SP2	32-bit Integer	Port 7 - SP2 Switchpoint = Voltage In LED upper switchpoint	10 V	RW	Y
12566	3	Voltage - Hysteresis	32-bit Integer	Hysteresis value for the Voltage In Port 7 switchpoint	0.05 V	RW	Y
12566	4	Port 7 - Current - Setpoint SP1	32-bit Integer	Port 7 - SP1 Switchpoint = Current In LED lower switchpoint	0.004 A	RW	Y
12566	5	Port 7 - Current - Setpoint SP2	32-bit Integer	Port 7 - SP2 Switchpoint = Current In LED upper switchpoint	0.02 A	RW	Y
12566	6	Current - Hysteresis	32-bit Integer	Hysteresis value for the Current In Port 7 switchpoint	0.0001 A	RW	Y
12567		**SSC8.BDC1 Setpoints**					
12567	1	Port 8 - Voltage - Setpoint SP1	32-bit Integer	Port 8 - SP1 Switchpoint = Voltage In LED lower switchpoint	0 V	RW	Y
12567	2	Port 8 - Voltage - Setpoint SP2	32-bit Integer	Port 8 - SP2 Switchpoint = Voltage In LED upper switchpoint	10 V	RW	Y
12567	3	Voltage - Hysteresis	32-bit Integer	Hysteresis value for the Voltage In Port 8 switchpoint	0.05 V	RW	Y
12567	4	Port 8 - Current - Setpoint SP1	32-bit Integer	Port 8 - SP1 Switchpoint = Current In LED lower switchpoint	0.004 A	RW	Y
12567	5	Port 8 - Current - Setpoint SP2	32-bit Integer	Port 8 - SP2 Switchpoint = Current In LED upper switchpoint	0.02 A	RW	Y
12567	6	Current - Hysteresis	32-bit Integer	Hysteresis value for the Current In Port 8 switchpoint	0.0001 A	RW	Y

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IO-Link Events

Events are acyclic transmissions from the IO-Link device to the IO-Link master. Events can be error messages and/or warning or maintenance data.

Code	Type	Name	Description
25376 (0x6320)	Error	Parameter error	Check data sheet and values
36000 (0x8CA0)	Warning	All-time Run Time Event	Event indicating the corresponding configured running time has elapsed.
36001 (0x8CA1)	Warning	Resettable Run Time Event	Event indicating the corresponding configured running time has elapsed.

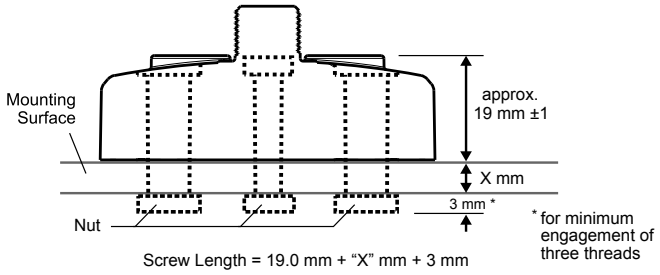
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Chapter 4 Mechanical Installation

Install the R130C to allow access for functional checks, maintenance, and service or replacement. Do not install the R130C in such a way to allow for intentional defeat.

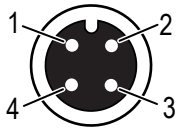
Fasteners must be of sufficient strength to guard against breakage. The use of permanent fasteners or locking hardware is recommended to prevent the loosening or displacement of the device. The mounting hole (4.5 mm) in the R130C accepts M4 (#8) hardware.

See the figure below to help in determining the minimum screw length.



CAUTION: Do not overtighten the R130C's mounting screw during installation. Overtightening can affect the performance of the R130C.

Wiring

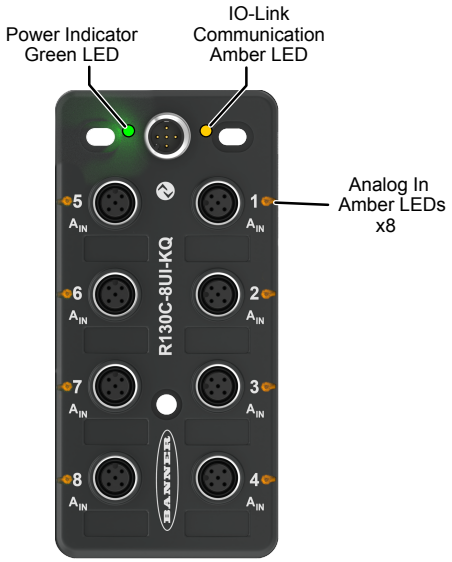
Port 1-Port 8 — Female	Pin	Signal Description
	1	18 V DC to 30 V DC
	2	Analog In
	3	Ground
	4	Not Used

Male	Pin	Signal Description
	1	18 V DC to 30 V DC
	2	Banner-specific/PFM out
	3	Ground
	4	IO-Link

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Chapter 5 Status Indicators

The R130C 8-Port IO-Link Hub with Analog Input has two matching amber LED indicators. There is also an additional amber LED specific to the IO-Link communications and a green power indication LED.



Power Indicator Green LED

Indication	Status
Off	Power off
Solid Green	Power on

IO-Link Amber LED

Indication	Status
Off	IO-Link communications are not present
Flashing Amber (900 ms On, 100 ms Off)	IO-Link communications are active

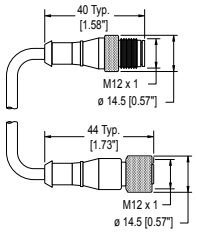
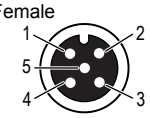
Analog In Amber LED

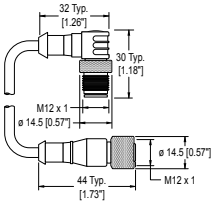
Indication	Status
Off	Analog current value is less than setpoint SP1 OR analog value is greater than setpoint SP2
Solid Amber	Analog current value is between setpoint SP1 AND setpoint SP2
Default Current Values: • SP1 = 0.004 A • SP2 = 0.02 A	Default Voltage Values: • SP1 = 0 V • SP2 = 10 V

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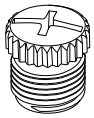
Chapter 6 Accessories

Cordsets

4-Pin A-Code Double-Ended M12 Female to M12 Male Cordsets (datasheet p/n 236186)				
Model	**Length**	**Dimensions (mm)**	**Pinouts**	
BC-M12F4-M12M4-22-1	1 m (3.28 ft)		Female  Male 	1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused cULus LISTED
BC-M12F4-M12M4-22-2	2 m (6.56 ft)			
BC-M12F4-M12M4-22-3	3 m (9.84 ft)			
BC-M12F4-M12M4-22-4	4 m (13.12 ft)			
BC-M12F4-M12M4-22-5	5 m (16.4 ft)			
BC-M12F4-M12M4-22-10	10 m (30.81 ft)			
BC-M12F4-M12M4-22-15	15 m (49.2 ft)			

4-Pin A-Code Double-Ended M12 Female to M12 Male Right-Angle Cordsets (datasheet p/n 236186)				
Model	**Length**	**Dimensions (mm)**	**Pinouts**	
BC-M12F4-M12M4A-22-1	1 m (3.28 ft)		Female  Male 	1 = Brown 2 = White 3 = Blue 4 = Black 5 = Unused cULus LISTED
BC-M12F4-M12M4A-22-2	2 m (6.56 ft)			
BC-M12F4-M12M4A-22-5	5 m (16.4 ft)			
BC-M12F4-M12M4A-22-8	8 m (26.25 ft)			
BC-M12F4-M12M4A-22-10	10 m (30.81 ft)			
BC-M12F4-M12M4A-22-15	15 m (49.2 ft)			

Quick-Disconnect Caps

ACC-CAP M12-10 • 10 caps • Polybutylene Terephthalate • Seal and protect exposed, unterminated M12 quick-disconnect connectors	

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Chapter 7 Product Support and Maintenance

Supporting Files

The following files are available at www.bannerengineering.com.

Part Number	Document Name
260286	R130C-8UI-KQ IODD File

Clean with Mild Detergent and Warm Water

Wipe down the device with a soft cloth dampened with a mild detergent and warm water solution. Do not use any other chemicals for cleaning.

Repairs and Translations (No Field-Replaceable Parts)

English

Contact Banner Engineering for troubleshooting of this device. **Do not attempt any repairs to this Banner device; it contains no field-replaceable parts or components.** If the device, device part, or device component is determined to be defective by a Banner Applications Engineer, they will advise you of Banner's RMA (Return Merchandise Authorization) procedure.

```
IMPORTANT: If instructed to return the device, pack it with care. Damage that occurs in return
shipping is not covered by warranty.
```

Obtain assistance with product repairs by contacting your local Banner Engineering Corp distributor or by calling Banner directly at (763) 544-3164. Access literature translated into your native language on the Banner website at www.bannerengineering.com or contact Banner directly at (763) 544-3164.

Deutsch

Wenden Sie sich zur Fehlerbehebung dieses Geräts an Banner Engineering. **Versuchen Sie nicht, Reparaturen an diesem Banner-Gerät vorzunehmen. Das Gerät enthält keine am Einsatzort auszuwechselnden Teile oder Komponenten.** Wenn ein Banner-Anwendungstechniker zu dem Schluss kommt, dass dieses Gerät, ein Teil oder eine Komponente davon defekt ist, erhalten Sie von dem Techniker Erläuterungen zu Banners RMA-Verfahren (Return Merchandise Authorization) für die Warenrückgabe.

```
WICHTIG: Wenn Sie der Techniker anweist, das Gerät zurückzusenden, verpacken Sie es bitte
sorgfältig. Transportschäden bei der Rücksendung werden von der Garantie nicht abgedeckt.
```

Unterstützung bei Produktreparaturen erhalten Sie von Ihrem örtlichen Banner Engineering Corp Händler oder direkt von Banner unter Tel. (763) 544-3164. Die in Ihre Muttersprache übersetzte Literatur finden Sie auf der Banner-Website unter www.bannerengineering.com oder kontaktieren Sie Banner direkt unter Tel. (763) 544-3164.

Français

Pour plus d'informations sur le dépannage du produit, contactez Banner Engineering. **Ne tentez pas de réparer ce dispositif Banner. Il ne contient aucun composant ou pièce qui puisse être remplacé sur place.** Si un ingénieur de Banner conclut que le dispositif ou l'une de ses pièces ou composants est défectueux, il vous informera de la procédure à suivre pour le retour des produits (RMA).

```
Important : Si vous devez retourner le dispositif, emballez-le avec soin. Les dégâts
occasionnés pendant le transport de retour ne sont pas couverts par la garantie.
```

Pour vous aider lors de la réparation de produits, contactez votre distributeur Banner local our appelez directement Banner au (763) 544-3164. La documentation traduite dans votre langue est disponible sur le site internet de Banner www.bannerengineering.com ou contactez directement Banner au (763) 544-3164.

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Italiano

Per le procedure di individuazione e riparazione dei guasti di questo dispositivo, contattare Banner Engineering. **Non tentare di riparare questo dispositivo Banner, in quanto non contiene parti o componenti sostituibili dall'utente.** Se il dispositivo, una parte del dispositivo o un componente del dispositivo viene riscontrato difettoso da un tecnico Banner, il nostro personale vi comunicherà la procedura da seguire per ottenere l'autorizzazione al reso.

Importante: Se si ricevono istruzioni di rispedire il dispositivo al produttore, imballarlo con cura. I danni dovuti al trasporto non sono coperti dalla garanzia.

Per assistenza nelle riparazioni dei prodotti, contattare il distributore locale Banner Engineering Corp o contattare direttamente Banner al numero (763) 544-3164. È possibile accedere alla documentazione tradotta nella propria lingua madre sul sito Web Banner all'indirizzo www.bannerengineering.com o contattare direttamente Banner al numero (763) 544-3164.

Español

Comuníquese con Banner Engineering para solucionar de problemas de este dispositivo. **No intente ninguna reparación a este dispositivo de Banner, contiene piezas o componente que no se pueden cambiar en terreno.** Si algún ingeniero de aplicaciones de Banner determina que el dispositivo, alguna de las piezas o alguno de los componentes del dispositivo está defectuoso, le informará el procedimiento de autorización de devolución de mercancía (RMA, por sus siglas en inglés) de Banner.

Importante: Si se le solicita devolver el dispositivo, empáquelo con cuidado. Puede haber daños durante el envío de devolución que no estén cubiertos por la garantía.

Para reparaciones de productos, por favor contacte a su distribuidor local de Banner Engineering o llame a Banner directamente al 00 1 (763) 544-3164. Vea la literatura traducida en su idioma en el sitio web Banner en www.bannerengineering.com o comuníquese con Banner directamente al 00 1 (763) 544-3164.

中国人

如需对本装置进行故障排查，请联系邦纳。**请勿尝试自行维修该邦纳装置；本装置不包含任何可在现场更换的部件或组件。** 若经邦纳应用工程师确认设备、设备部件或组件存在缺陷，他们将告知您邦纳退货授权 (RMA) 流程。

重要注意事项： 如被要求退回装置，请妥善包装后寄回。退货运输过程中发生的损坏不在保修范围内。

请联系当地的 Banner Engineering Corp 经销商或直接致电 Banner +1 (763) 544-3164，以获得产品维修帮助。请访问邦纳网站 www.bannerengineering.com 或直接拨打 +1 (763) 544-3164 联系邦纳，获取翻译成您母语的资料。

한국인

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중요: 제품을 반송하도록 안내 받으셨다면 잘 포장해주십시오. 반송 도중에 발생한 손상은 보증 서비스가 적용되지 않습니다.

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日本語

この装置のトラブルシューティングについては、バナーエンジニアリングにお問い合わせください。**このバナー装置には、現場では交換できない部品またはコンポーネントが含まれているため、修理を試みてはいけません。** バナーのアプリケーションエンジニアが装置、装置の部品、または装置のコンポーネントに欠陥があると判断した場合、バナーのRMA（返品承認）手続きについてお知らせします。

重要 ： 返品を指示された場合は、装置を丁寧に梱包してください。返品時に発生した破損は保証の対象外となります。

製品の修理については、最寄りのBanner Engineering Corp代理店にお問い合わせいただくか、米国+1 (763) 544-3164まで直接お電話でお問い合わせください。バナーのウェブサイト（www.bannerengineering.com）でお客様の言語に翻訳された資料にアクセスするか、米国+1 (763) 544-3164まで直接お電話でお問い合わせください。

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čeština

Pro řešení problémů se zařízením kontaktujte společnost Banner Engineering. **Neprovádějte žádné opravy zařízení Banner. Neobsahují žádné komponenty nebo části, které by byly vyměnitelné.** Pokud je zařízení, jeho část nebo díl označen technikem společnosti Banner jako poškozený, bude Vám doporučeno vyplnit reklamační RMA protokol.

Důležité: Pokud byl vydán požadavek na vrácení zařízení, pečlivě ho zabalte. Poškození vzniklé při dopravě není považováno za záruční opravu.

Pokud produkt potřebuje opravu, vyžádejte si pomoc od místního distributora společnosti Banner Engineering Corp nebo přímo na telefonním čísle (763) 544-3164. Dokumentaci přeloženou do vašeho jazyka si vyhledejte na webových stránkách společnosti Banner na adrese www.bannerengineering.com nebo se obraťte přímo na společnost Banner na telefonním čísle (763) 544-3164.

Polski

W celu rozwiązania problemów z urządzeniem należy skontaktować się z działem technicznym firmy Banner Engineering. **Pod żadnym pozorem nie próbuj naprawiać tego urządzenia firmy Banner; nie zawiera ono części ani elementów, które można wymieniać samodzielnie.** Jeśli urządzenie, jego część lub element zostaną uznane za wadliwe przez inżyniera technicznego Banner, poinformuje on użytkownika o firmowej procedurze zwrotu towaru (RMA) firmy Banner.

Ważne: Jeśli urządzenie ma zostać zwrócone, należy je starannie zapakować. Uszkodzenia powstałe podczas odsyłki nie są objęte gwarancją.

Aby uzyskać pomoc w zakresie naprawy produktu, należy skontaktować się z lokalnym dystrybutorem Banner Engineering Corp lub zadzwonić bezpośrednio do firmy Banner pod numer (763) 544-3164. Dostęp do literatury przetłumaczonej na swój język ojczysty można uzyskać na stronie internetowej firmy Banner pod adresem www.bannerengineering.com lub kontaktując się bezpośrednio z firmą Banner pod numerem (763) 544-3164.

Português

Entre em contato com a Engenharia da Banner para a solução de problemas deste dispositivo. **Não tente fazer nenhum reparo neste dispositivo Banner; ele não contém peças ou componentes substituíveis em campo.** Se um técnico de aplicações da Banner determinar que o dispositivo, peça ou componente do dispositivo está com defeito, ele o informará sobre o procedimento de RMA (Autorização de Devolução de Mercadoria) da Banner.

Importante: Se for instruído a devolver o dispositivo, embale-o com cuidado. Os danos ocorridos no transporte de devolução não são cobertos pela garantia.

Obtenha assistência para reparos do produto entrando em contato com o distribuidor local da Banner Engineering Corp ou ligando diretamente para a Banner no telefone (763) 544-3164. Acesse a literatura traduzida para seu idioma nativo no site da Banner em www.bannerengineering.com ou entre em contato diretamente com a Banner pelo telefone (763) 544-3164.

Türkçe

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ÖNEMLİ: İade etmeniz istenirse, cihazı dikkatli bir şekilde paketleyin. İade nakliyesinde meydana gelecek hasarlar garanti kapsamında değildir.

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Contact Us

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For worldwide locations and local representatives, visit www.bannerengineering.com.

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