

BEYOND RELIABILITY

REEICO

RAYA ENERGY ENGINEERING AND INSTRUMENTATION  
C O M P A N Y

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C O M P A N Y

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# About US

**REEICO** has been known as a highly reliable High-Tech instrumentation manufacturing company in the MENA region by Oil and Gas experts.

**REEICO** started by manufacturing upstream products and services like MWD/LWD (Measurement While Drilling and Logging While Drilling) tools and Directional Drilling full package services, but now we have achieved delivering numerous mid-downstream instrumentations and sensors like a wide variety of Turbine-Compressor vibration monitoring sensors in world-class quality and standards.

We deliver reliability and confidence to our customers in both upstream and downstream industries. Sure we are not the first, but our goal is to keep continuity on the way to become the best in terms of reliability.

## Standards:

- ISO 9001:2015
- ISO 14001:2015
- ISO/TS 29001:2010
- ISO 45001:2018
- Ex ia IIC T4/T5 Ga



Our recent costumers

# REEICO

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# Conditioner

The REEICO conditioner contains a high frequency modulator / demodulator that supplies a driving signal to the transducer. This generates the necessary electromagnetic field used to measure the gap. The conditioner circuitry is made of high-quality components and also available in Exapproved version for use in hazardous location.

The type of protection is: II 1G, Ex ia IIC T1/T2/T3/T4/T5 Ga

# Extension cable

The REEICO transducers can be matched with a single extension cable to effectively lengthen the front-end. Optional housings, junction boxes and interconnection protectors are available for the mechanical and environmental protection of the connection between the integral and extension cables.

# Sensors

The REEICO probes detect the motion and vibration of industrial machinery. High-performance proximity sensors based on eddy currents deliver vital information of the displacements from critical elements. The Proximity Transducer System provides an output voltage that is directly proportional to the distance between the probe tip and the observed conductive surface.



# Conditioner

## Part number series

VB□ -C0-T□□-A□-B□□-H□□-I□


## VB:PRODUCT

1	B
2	M
3	K
4	S
5	C
6	R

## B:SENSITIVITY

Measuring range		NO	Measuring range		NO
2mm	8 mV/μm(200mV/μm)	01	4mm	4 mV/μm(100mV/μm)	03
	2.5 μA/μm	02		1.25 μA/μm	04

## A:ENVIROMENT STANDARD

NO	VB1	NO	VB2
0	Not required	1	Standard
1	CSA,ATEX,IECEX Approvals	2	Explosive Exi
		3	Explosive Exi nA
2	Agency Approval Option	NO	VB5
3	Multiple Approval	0	Not required
NO	VB3	1	Standard
0	No special requirements	2	 II 1G, Ex ia IIC T6/ T5Ga(ATEX)
1	special requirements	3	Ex ia IIC T6/ T5Ga(IECEX)

## I:INSTALLATION

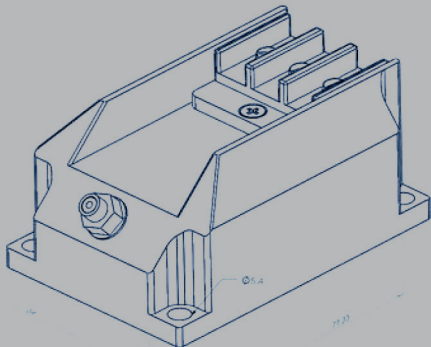
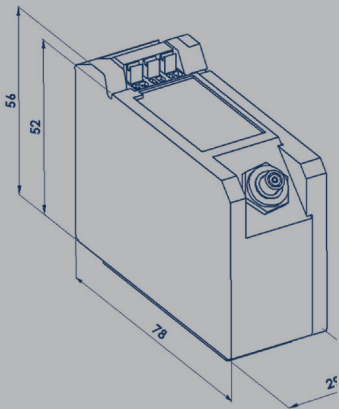
NO	VB1
0	Panel mount
1	DIN mount
2	No mounting hardware
NO	VB2
0	Signal conditioner only
1	Signal conditioner assembled on MA 130 mounting adaptor
NO	VB3
1	Mounting hardware
NO	VB4
1	3DIN Rail(35 mm)Mount
2	Screw Mounts(50.8×50.8 mm)
3	Screw Mounts(92×31 mm: For VK Replacement)
4	Screw Mounts Multi-pitch(50.8×50.8 mm and 92×31 mm)
NO	VB5
0	Panel mount
1	DIN-Din rail mount

## T:CONDITIONER TYPE

VB1			VB2		
NO	I	FIG NO	NO	I	FIG NO
01	0	FIG05	01	0	FIG01
	1	FIG06		1	FIG02
	2	FIG07		0	FIG03
02	0	FIG08	02	1	FIG04
	1	FIG09		VB3	
03	0	FIG10	NO	I	FIG NO
	1	FIG11	01	1	FIG14
04	2	FIG19	VB4		
05	2	FIG12	NO	I	FIG NO
06	2	FIG20	01	1	FIG15
				2	FIG16
				3	FIG17
				4	FIG18
07	2	FIG21	VB5		
08	2	FIG22	NO	I	FIG NO
09	2	FIG23	01	0	FIG24
10	2	FIG13		1	FIG25

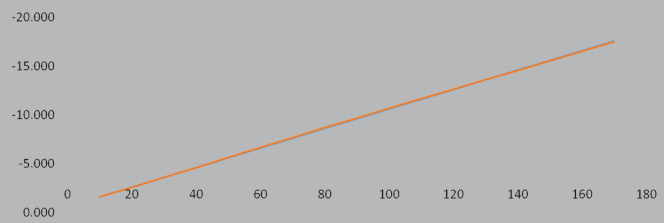
## H:TOTAL SYSTEM LENGTH

NO	VB1	NO	VB3	NO	VB5
01	1m	04	4m	01	1m
05	5m	05	5m	03	3m
07	7m	09	9m	05	5m
09	9m	NO	VB2	07	7m
NO	VB4	01	1m	09	9m
05	5m	05	5m	S	Special
09	9m	10	10m		

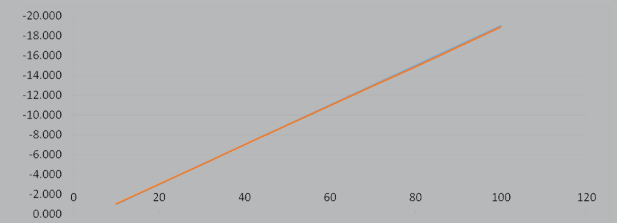


# Graphs

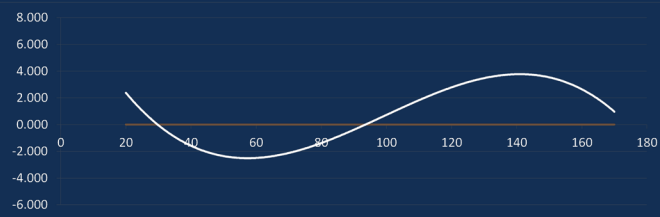
**Signal  
Conditioner  
Output**  
Voltage (V)



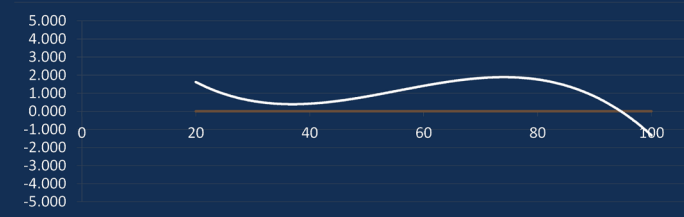
**Signal  
Conditioner  
Output**  
Voltage (V)



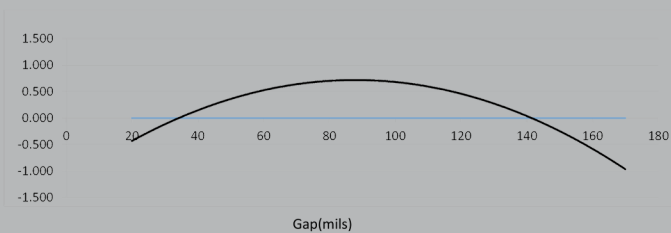
**Typical  
Sensitivity  
Error**  
(Percentage)  
Referenced to  
100 mV/mils



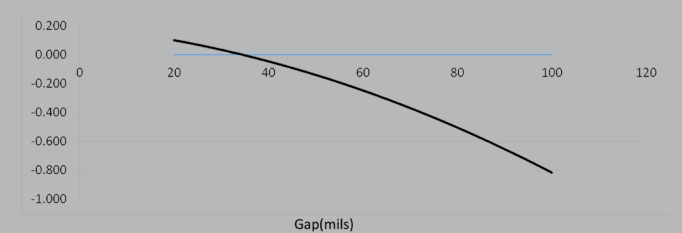
**Typical  
Sensitivity  
Error**  
(Percentage)  
Referenced to  
200 mV/mils



**Typical  
Gap  
Error**  
(Miles)  
Referenced to  
100 mV/mils



**Typical  
Gap  
Error**  
(Miles)  
Referenced to  
200 mV/mils



# Extension cable

## Part number series

VB□ -B0-T□□ -A□ -E□□□ -F□□ -G□□□

### VB:PRODUCT

NO	Type
1	B
2	M
3	K
4	S
5	C
6	R

### E:EXTENSION CABLE LENGTH

NO	Length
005	0.5m
010	1.0m
035	3.5m
090	9.0m
095	9.5m
Length Tolerance= $E \pm 10\%$	
INCREMENT IN 0.1 m	
Cable specification according to sensor type	

### T:EXTENSION CABLE TYPE

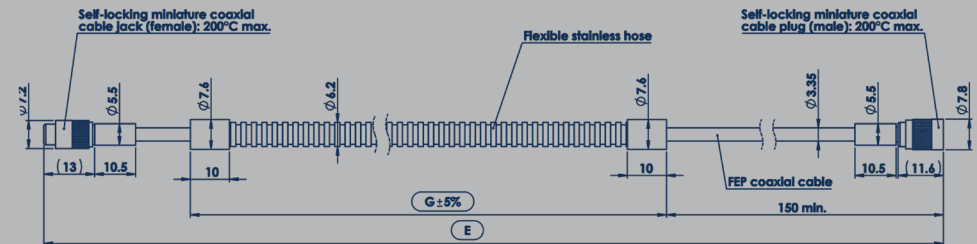
NO	VB1	NO	VB2
03	FIG3	01	FIG1
04	FIG4	02	FIG2
05	FIG5	NO	VB3
06	FIG6	08	FIG8
07	FIG7	09	FIG9
NO	VB4	10	FIG10
14	FIG14	11	FIG11
NO	VB5	12	FIG12
15	FIG15	13	FIG13

### G:FLEXIBLE HOSE LENGTH

NO	Length
000	None
001	0.1m
098	9.8m
INCREMENT IN 0.1 m	

### A:ENVIROMENT STANDARD

NO	VB1	NO	VB2
0	Not required	1	Standard
1	CSA, ATEX, IECEx Approvals	2	Explosive Exi
2	Agency Approval Option	3	Explosive Exi nA
3	Multiple Approval	NO	VB5
NO	VB3	0	Not required
0	No special requirements	1	Standard
1	special requirements	2	 II 1G, Ex ia IIC T6/ T5Ga (ATEX)
		3	Ex ia IIC T6/ T5Ga (IECEx)



# Extension cable

## F:OPTIONAL PROTECTION

T:SENSOR TYPE	NO	VB1
(03/04)	00	Standard cable
	01	Armored cable
	02	Standard cable with connector protector
	03	Armored cable with connector protector
	10	FluidLoc cable
	11	Armored FluidLoc cable
	12	FluidLoc cable with connector protector
	13	Armored FluidLoc cable with connector protector
(05)	00	Without stainless steel armor
	01	With stainless steel armor, with FEP jacket
	02	With stainless steel armor, without FEP jacket
	03	Without stainless steel armor, with connector protector
	04	With stainless steel armor, with FEP jacket, with connector protector
	05	With stainless steel armor, without FEP jacket, with connector protector
	06	FluidLoc cable Without stainless steel armor
	07	FluidLoc cable Without stainless steel armor, with FEP jacket
	08	FluidLoc cable With stainless steel armor, with FEP jacket
	09	FluidLoc cable Without stainless steel armor, with connector protector
	10	FluidLoc cable With stainless steel armor, with FEP jacket, with connector protector
(06/07)	00	Without armor
	01	With armor

VB2			
T:SENSOR TYPE	NO	Cable	Connector
(01)	00	None	None
	01	Flexible hose	None
	02	Flexible hose with sleeve	None
	05	None	IP 172
	06	Flexible hose	IP 172
	07	Flexible hose with sleeve	IP 172
	(02)	00	None
01		Flexible hose	None
02		Flexible hose with FEP sheeth	None
05		None	IP 172
06		Flexible hose	IP 172
07		Flexible hose with FEP sheeth	IP 172

NO	VB3
00	No cable protection
01	Steel protective conduit
02	PTFE protective conduit
03	Corrugated tube, version A
04	Corrugated tube, version B
05	St.steel corrugated tube,L3=700mm

NO	VB4
00	Without armor
01	With armor (Without fluoro resin coating)
02	With armor (With fluoro resin coating)

NO	VB5
00	Not armoured
01	armoured

# Sensors


## Part number series

VB□ -A0-T□□-A□ -B□□-C□□□-D□□□-E□□□  
-F□□ -G□□□-H□□

### VB:PRODUCT

NO	Type
1	B
2	M
3	K
4	S
5	C
6	R

### A:ENVIROMENT STANDARD

NO	VB1	NO	VB2
0	Not required	1	Standard
1	CSA,ATEX,IECEx Approvals	2	Explosive Exi
2	Agency Approval Option	3	Explosive Exi nA
3	Multiple Approval		
NO	VB3	NO	VB5
0	No special requirements	0	Not required
1	special requirements	1	Standard
		2	 II 1G, Ex ia IICT6/ T5Ga(ATEX)
		3	Ex ia IICT6/ T5Ga(IECEx)

### T:SENSOR TYPE

NO	VB1	NO	VB3
04	FIG4	14	FIG14
05	FIG5	15	FIG15
06	FIG6	16	FIG16
07	FIG7	17	FIG17
08	FIG8	23	FIG23
09	FIG9	24	FIG24
10	FIG10	25	FIG25
11	FIG11	26	FIG26
12	FIG12	27	FIG27
13	FIG13	28	FIG28
18	FIG18	29	FIG29
19	FIG19	30	FIG30
20	FIG20	31	FIG31
21	FIG21	32	FIG32
22	FIG22	33	FIG33
NO	VB2	NO	VB3
01	FIG1	35	FIG35
02	FIG2	36	FIG36
03	FIG3	37	FIG37
NO	VB4	NO	VB3
44	FIG44	39	FIG39
45	FIG45	40	FIG40
46	FIG46	41	FIG41
NO	VB5	NO	VB3
47	FIG47	43	FIG43
		42	FIG42

### B:BODY THREAD

NO	Thread
00	None
01	M10x1
02	M16x1
03	M14x1.5
04	M16x1.5
05	M6x0.75
06	M8x1
07	M20x1.5
08	M30x1.5
09	3/8"-16UNC
10	3/8"-24UNF
11	1/2"-20UNF
12	1/4"-28UNF
13	5/8"-16UNF
14	5/8"-18UNF

### C:BODY LENGTH/OVERAL CASE LENGTH

NO	Length
020	20mm
054	54mm
250	250mm
INCREMENT IN 1 mm	
*For 86691 , 168209C= <input type="text"/>	

### D:UNTHREADED LENGTH

NO	Length
000	0mm
250	250mm
INCREMENT IN 1 mm	

### G:FLEXIBLE HOSE LENGTH

NO	Length
000	None
001	0.1m
098	9.8m
INCREMENT IN 0.1 m	

### H:TOTAL SYSTEM LENGTH

NO	Length
01	1m
05	5m
10	10m

### E:INTEGRAL CABLE LENGTH

NO	Length
005	0.5m
010	1.0m
015	1.5m
090	9.0m
100	10m
Length Tolerance=E±10%	
INCREMENT IN 0.1 m	



# Sensors

## F:OPTIONAL PROTECTOR

VB1		
Cable	Connector	NO
With Armor	Miniature coaxial ClickLoc connector with connector protector ,standard cable	10
	Miniature coaxial ClickLoc connector, standard cable	11
	Miniature coaxial ClickLoc connector with connector protector ,FluidLoc cable	12
	Miniature coaxial ClickLoc connector, FluidLoc cable	13
	Without connector	14
	With moniature male coaxial connector	15
Without Armor	Miniature coaxial ClickLoc connector with connector protector ,standard cable	00
	Miniature coaxial ClickLoc connector, standard cable	01
	Miniature ClickLoc coaxial connector	02
	Miniature coaxial ClickLoc connector with connector protector, FluidLoc cable	03
	Miniature coaxial ClickLoc connector, FluidLoc cable	04
	Without connector	05
	With miniature male coaxial connector	06

NO	VB3	NO	VB4
00	No cable protection	00	Without Armor
01	Steel protective conduit	01	With armor(Without fluoro resin coating)
02	PTFE protective conduit	02	With armor(With fluoro resin coating)
03	Corrugated tube, version A	NO	VB5
04	Corrugated tube, version B	00	Not armoured
05	St.steel corrugated tube, L3=700mm	01	armoured

VB2			
T:SENSR TYPE	NO	Cable	Connector
(01)	00	None	None
	01	Flexible hose	None
	02	Flexible hose with sleeve	None
	03	Movable flexible hose	None
	04	Movable flexible hose with sleeve	None
	05	None	IP 172
	06	Flexible hose	IP 172
	07	Flexible hose with sleeve	IP 172
	08	Movable flexible hose	IP 172
(02/03)	09	Movable flexible hose with sleeve	IP 172
	00	None	None
	01	Flexible hose	None
	02	Flexible hose with FEP sheath	None
	03	Movable flexible hose	None
	04	Movable hose with FEP sheath	None
	05	None	IP 172
	06	Flexible hose	IP 172
	07	Flexible hose with FEP sheath	IP 172
	08	Movable flexible hose	IP 172
	09	Movable hose with FEP sheath	IP 172

# Sensor Types

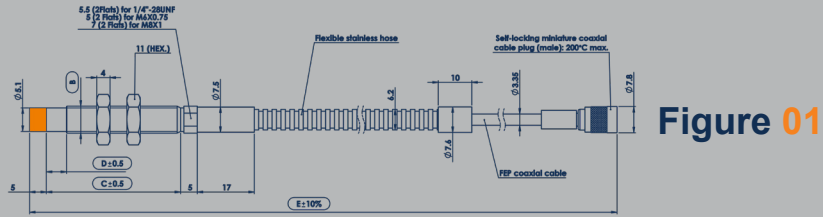


Figure 01

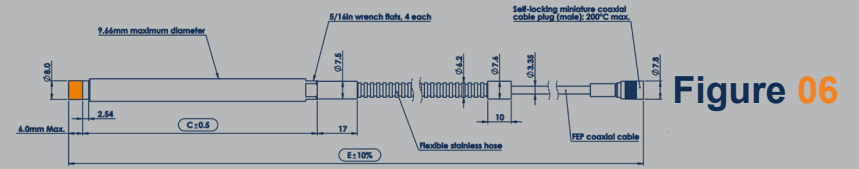


Figure 06

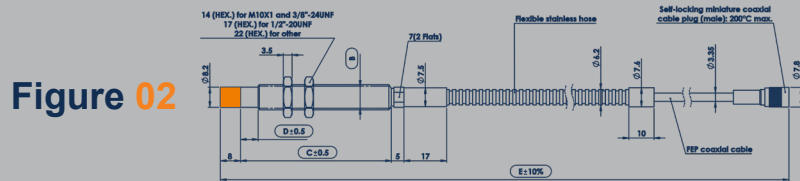


Figure 02

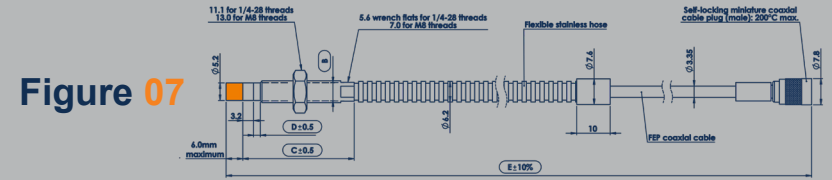


Figure 07

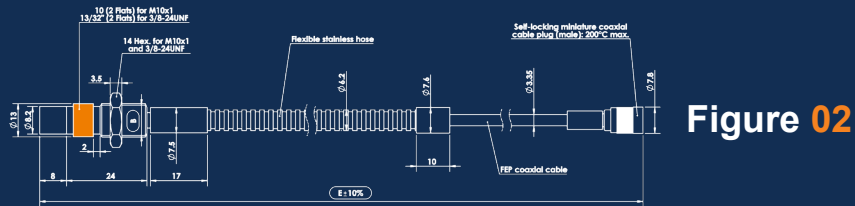


Figure 02

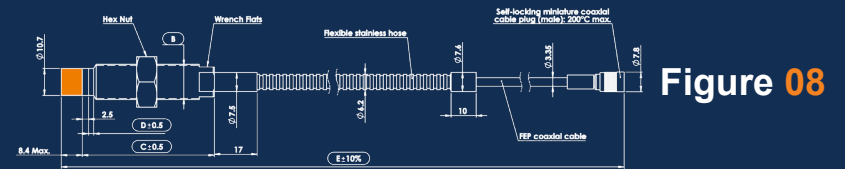


Figure 08

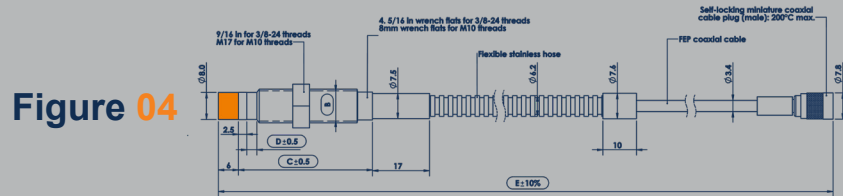


Figure 04

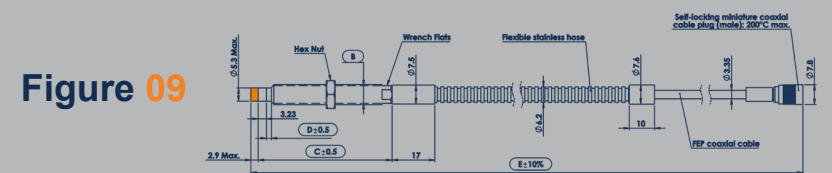


Figure 09

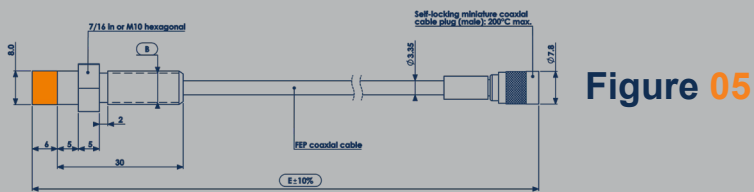


Figure 05

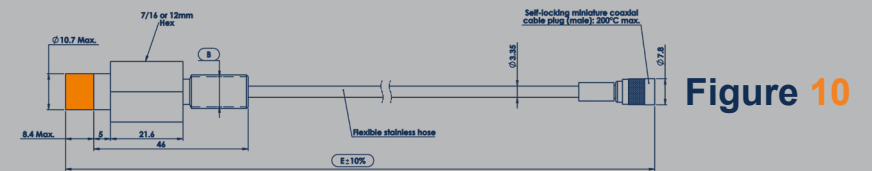


Figure 10



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