



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



# BEYOND RELIABILITY



# 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.



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REIICO proximity systems fully complies with **API 670** Standard (4th Edition) for mechanical configuration, linear range, accuracy, and temperature stability.

- ISO 9001
- ISO 14001
- ISO/TS 29001
- ISO 45001
- ATEX: (II 1G Ex ia IIC T1/T2/T3/T4/T5 Ga)
- EMC: IEC6100/6/2  
IEC6100/6/4



Our recent  
costumers

# 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 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.



# Conditioner

## Part number series:

### VBX-C0-TXX-A1-BXX-HXX-IX

VBX	Equivalent brand
VBR	REEICO
VB1	BENTLY
VB2	MEGGITT
VB3	B&K
VB4	SHINKAWA
VB5	CEMB

TXX	VB1	VB2	VB3	VB4	VB5	VBR
T01	330180	IQS450 8 mm	105X	FK-202F	T-NC	105X
T02	330780	IQS900	05X	-	-	18745
T03	330980	IQS452	08X	-	-	FK-202F
T04	18745	IQS450 5 mm	151	-	-	330180
T05	19049	-	16X	-	-	ds82x
T06	330100	-	ds82x	-	-	-

AX	ENVIROMENT STANDARD
A1	II 1G Ex ia IIC T4/T5 Ga

BXX	Sensitivity
B01	8 mV/μm
B02	2.5μA/μm
B03	4 mV/μm
B04	1.25 μA/μm
B05	1.33mV/μm
B06	0.417 μA/μm
B07	7.87 V/mm
B08	3.94 V/mm

HXX	TOTAL SYSTEM LENGTH
H01	1M
H03	3M
H05	5M
H07	7M
H09	9M
H10	10M

IX	INSTALLATION
I0	Signal conditioner only
I1	Panel mount
I2	DIN mount

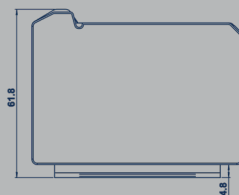
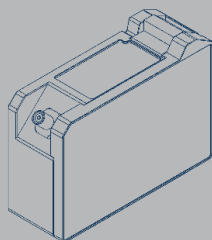
HXX	TOTAL SYSTEM LENGTH
H01	1M
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H05	5M
H07	7M
H09	9M
H10	10M

IX	INSTALLATION
I0	Signal conditioner only
I1	Panel mount
I2	DIN mount

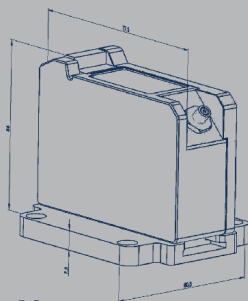
BXX	Sensitivity
B01	8 mV/ $\mu$ m
B02	2.5 $\mu$ A/ $\mu$ m
B03	4 mV/ $\mu$ m
B04	1.25 $\mu$ A/ $\mu$ m
B05	1.33mV/ $\mu$ m
B06	0.417 $\mu$ A/ $\mu$ m
B07	7.87 V/mm
B08	3.94 V/mm



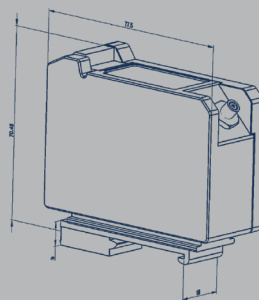
## Conditioner Types



## Conditioner VB1

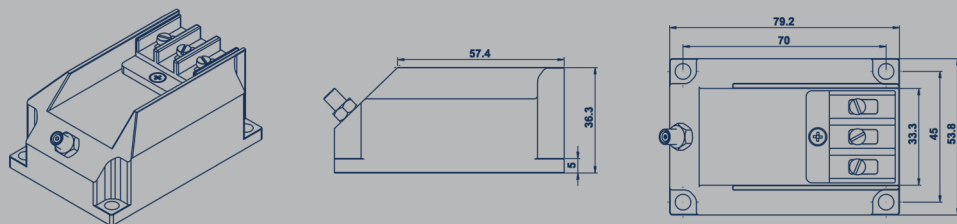


I1

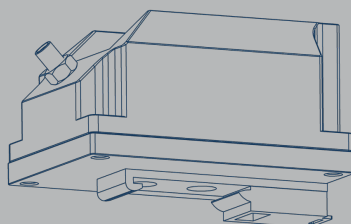
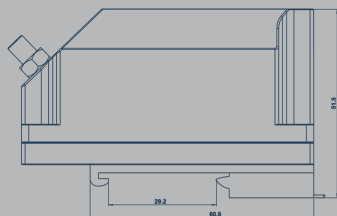


I2

## Installation



## Conditioner VB2

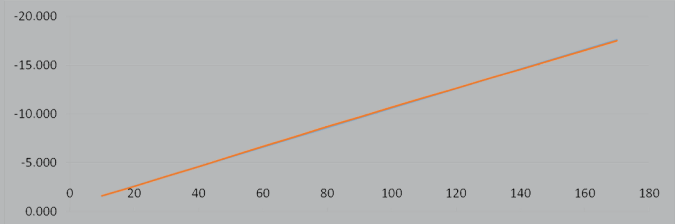


## Installation

# Graphs

## Signal Conditioner Output

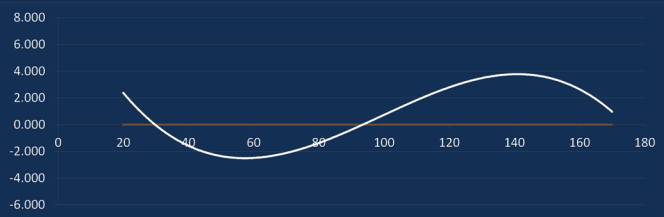
Voltage (V)



## Typical Sensitivity Error

(Percentage)

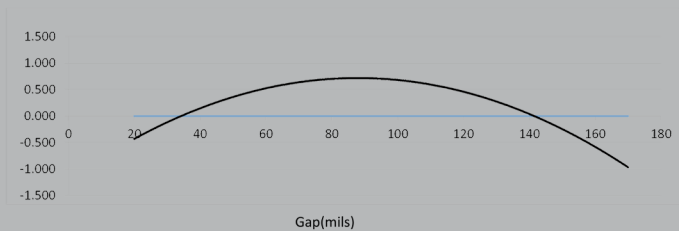
Referenced to  
100 mV/mils



## Typical Gap Error

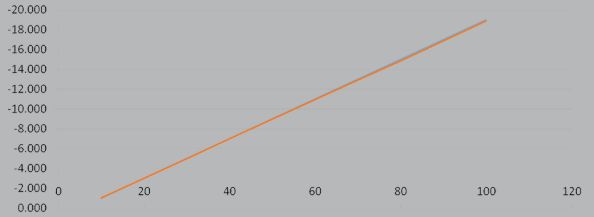
(Mils)

Referenced to  
100 mV/mils



# Signal Conditioner Output

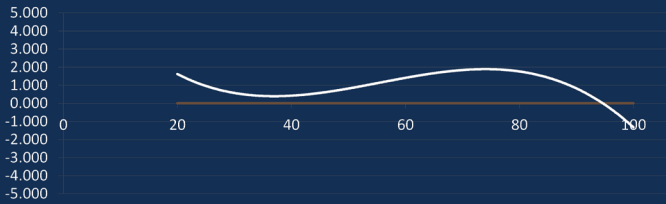
Voltage (V)



# Typical Sensitivity Error

(Percentage)

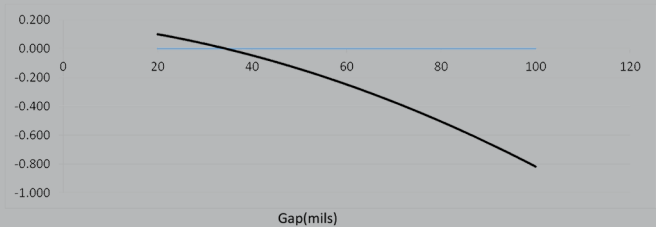
Referenced to  
200 mV/mils



# Typical Gap Error

(Mils)

Referenced to  
200 mV/mils



# Extension cable

Part number series:

**VBX-B0-TXX-A1-EXXX-FXX-GXXX**

VBX	Equivalent brand
VBR	REEICO
VB1	BENTLY
VB2	MEGGITT
VB3	B&K
VB4	SHINKAWA
VB5	CEMB

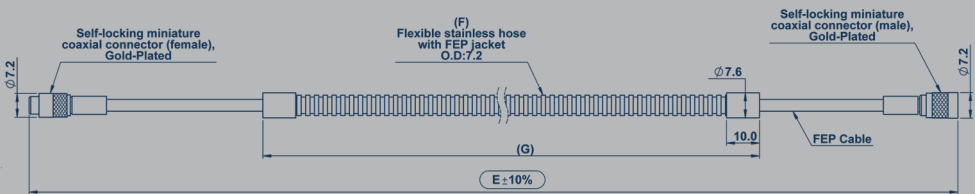
TXX	VB1	VB2	VB3	VB4	VB5	VBR
T01	330130	401	EC	FW	CPT	EC
T02	330190	402	ds82x	WW-142K	-	21747
T03	330730	403	-	-	-	FW
T04	330930	902	-	-	-	330130
T05	21747	-	-	-	-	CPT
T06	24710	-	-	-	-	ds82x
T07	81305	-	-	-	-	-

AX	ENVIROMENT STANDARD
A1	II 1G Ex ia IIC T4/T5 Ga

EXXX	INTEGRAL CABLE LENGTH
E005	0.5M
E010	1.0M
E035	3.5M
E090	9.0M
E095	9.5M
INCREMENT IN 0.1 m Length Tolerance=E±10%	

FXX		OPTIONAL PROTECTOR	
No.	Cable Protection	Connector Protection	
F01	Without Armor	Without Connector Protector	
F02	With Armor		
F03	With Armor & Sleeve		
F04	Without Armor	With Connector Protector	
F05	With Armor		
F06	With Armor & Sleeve		

GXXX		ARMOR LENGTH	
G000	NONE		
G001	0.1M (MIN.)		
G098	9.8M (MAX.)		
INCREMENT IN 0.1 m			



**Extension Figure**

# Sensors

Part number series:

**VBX-A0-TXX-A1-BXX-CXXX-DXXX-EXXX-FXX-GXXX-HXX**

VBX	Equivalent brand
VBR	REEICO
VB1	BENTLY
VB2	MEGGITT
VB3	B&K
VB4	SHINKAWA
VB5	CEMB

TXX						
No.	VB1	VB2	VB3	VB4	VB5	VBR
T01	330171	TQ401	IN-081	FL-202F05	ST-NC-8	DS-1051
T02	330172	TQ402	IN-083	FL-202F08	-	21504
T03	330173	TQ412	IN-084	FL-202F08R	-	21508
T04	330174	TQ403	INA-081	-	-	FL-202F05
T05	330101	TQ422	INA-083	-	-	DS-1053
T06	330191	TQ432	INA-085	-	-	86691
T07	330102	TQ423	DS-1051	-	-	168209
T08	330192	TQ902	DS-1052	-	-	ST-NC-8
T09	330103	TQ912	DS-1053	-	-	ds82x
T10	330193	-	DS-1054	-	-	-
T11	330104	-	SD-051	-	-	-
T12	330194	-	SD-052	-	-	-
T13	330105	-	SD-053	-	-	-

TXX

No.	VB1	VB2	VB3	VB4	VB5	VBR
T14	330195	-	SD-054	-	-	-
T15	330106	-	SD-081	-	-	-
T16	330196	-	SD-083	-	-	-
T17	330140	-	SD-084	-	-	-
T18	330197	-	SD-087	-	-	-
T19	330141	-	SD-088	-	-	-
T20	330198	-	SD-089	-	-	-
T21	330701	-	SDH-151	-	-	-
T22	330702	-	SDH-154	-	-	-
T23	330703	-	SD-161	-	-	-
T24	330704	-	SD-164	-	-	-
T25	330707	-	SD-052	-	-	-
T26	330708	-	SD-053	-	-	-
T27	330709	-	-	-	-	-
T28	330710	-	-	-	-	-
T29	330705	-	-	-	-	-
T30	330706	-	-	-	-	-
T31	330901	-	-	-	-	-
T32	330902	-	-	-	-	-
T33	330903	-	-	-	-	-
T34	330904	-	-	-	-	-
T35	330905	-	-	-	-	-
T36	330908	-	-	-	-	-
T37	330909	-	-	-	-	-

# Sensors

TXX						
No.	VB1	VB2	VB3	VB4	VB5	VBR
T38	330910	-	-	-	-	-
T39	330906	-	-	-	-	-
T40	330907	-	-	-	-	-
T41	21500	-	-	-	-	-
T42	21501	-	-	-	-	-
T43	21504	-	-	-	-	-
T44	21505	-	-	-	-	-
T45	21508	-	-	-	-	-
T46	22810	-	-	-	-	-
T47	22811	-	-	-	-	-
T48	22812	-	-	-	-	-
T49	22813	-	-	-	-	-
T50	24798	-	-	-	-	-
T51	19048	-	-	-	-	-
T52	26179	-	-	-	-	-
T53	26180	-	-	-	-	-
T54	29776	-	-	-	-	-
T55	81723	-	-	-	-	-
T56	83936	-	-	-	-	-
T57	81724	-	-	-	-	-
T58	86691 *	-	-	-	-	-
T59	168209 *	-	-	-	-	-

AX	ENVIROMENT STANDARD
A1	II 1G Ex ia IIC T1/T2/T3/T4/T5 Ga

BXX	THREAD TYPE	BXX	THREAD TYPE
B00	NONE(SMOOTH)	B08	M30X1.5
B01	M10X1	B09	3/8-16UNC
B02	M16X1	B10	3/8-24UNF
B03	M14X1.5	B11	1/2-20UNF
B04	M16X1.5	B12	1/4-28UNF
B05	M6X0.75	B13	5/8-16UNF
B06	M8X1	B14	5/8-18UNF
B07	M20X1.5		

CXXX	OVERAL CASE LENGTH
C020	20mm
C054	54mm
C250	250mm
EACH 1 mm, FROM 20 TO 250 mm *Code: Each 1cm	

DXXX	UNTHREADED LENGTH
D000	0mm
D250	250mm
EACH 0.1 mm, FROM 0 TO 250 mm	

# Sensor

EXXX		FXX	OPTIONAL PROTECTOR	
No.		No.	Cable Protection	Connector Protection
E005	0.5M	F01	Without Armor	Without Connector Protector
E010	1.0M	F02	With Armor	
E015	1.5M	F03	With Movable Armor	
E020	2.0M	F04	With Armor & Sleeve	
E050	5.0M	F05	With Movable Armor & Sleeve	
E090	9.0M	F06	Without Armor	With Connector Protector
E100	10.0M	F07	With Armor	
INCREMENT IN 0.1 m Length Tolerance= $E\pm 10\%$		F08	With Movable Armor	
		F09	With Armor & Sleeve	
		F10	With Movable Armor & Sleeve	
		F11	PTFE protective conduit	

GXXX	FLEXIBLE HOSE LENGTH
G000	NONE
G001	0.1M (MIN.)
G098	9.8M (MAX.)
INCREMENT IN 0.1 m / *Code: Each 1cm	

HXX	TOTAL SYSTEM LENGTH
H01	1M
H03	3M
H05	5M
H07	7M
H09	9M
H10	10M

# Sensor types

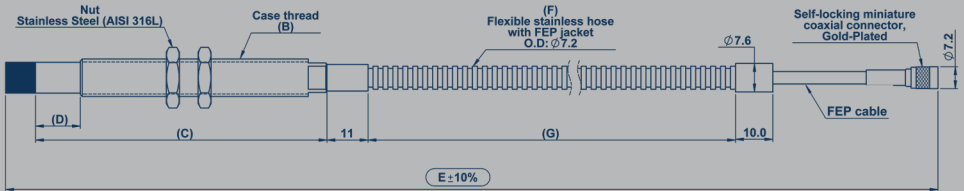


Figure 01: Standard Mount Sensor with Armor

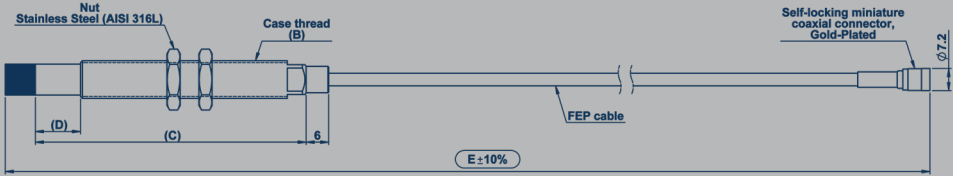


Figure 02: Standard Mount Sensor without Armor

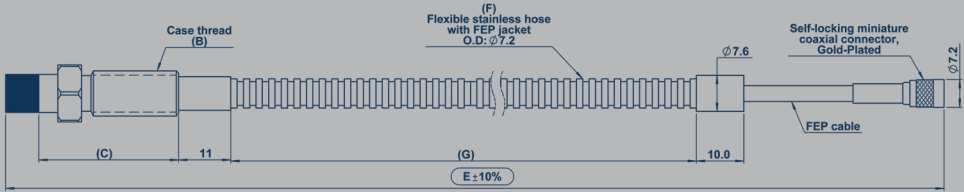


Figure 03: Reverse Mount Sensor with Armor

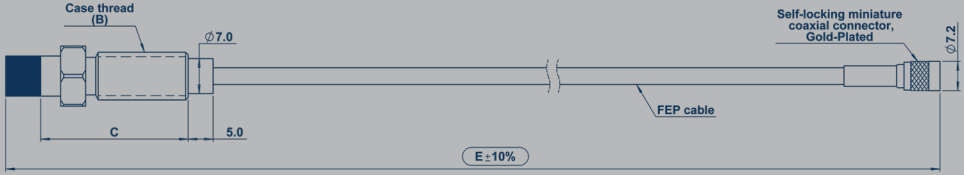


Figure 04: Reverse Mount Sensor without Armor

**REFICO**



# BEYOND RELIABILITY



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