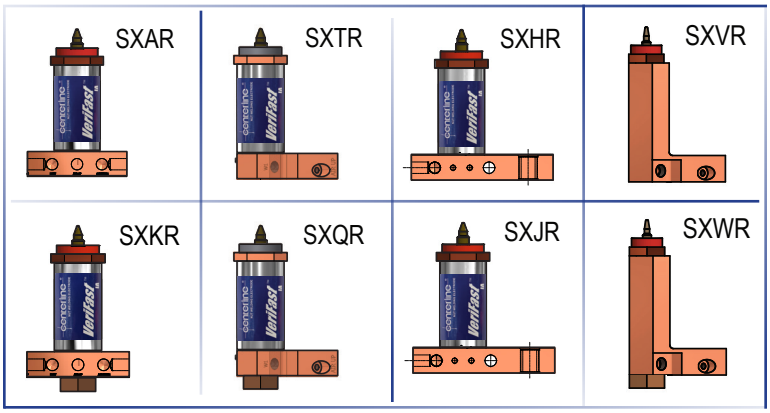
VeriFast™ IA System Configuration

Base Mount Styles



Establish the part number of each component in sequence from 1 to 3 as indicated below.

3

Weld Head
(page 7)

2

VeriFast™ IA Nut Weld Pin (DB Style Pin)
(page 5)

OR

VeriFast™ IA Stud Weld Pin (DB Style Pin)
(page 6)

1

VeriFast™ IA Base Mount Weld Body (various configurations)
(pages 2, 3, and 4)

VeriFast™ IA
Base Mount Weld Body

VeriFast™ | Pin Sensing System | Body Style | Series* | Cable Exit Position** | Port Thread

VF	IA	SXAR	3	TR	S	***

VeriFast™

IA

Base Mount
(See next pages for illustrations, dimensions)

- SXAR
- SXKR
- SXTR
- SXQR
- SXHR
- SXJR
- (Series 2 Only) SXVR
- (Series 2 Only) SXWR

***Series**

- Series 2 = 2
- Series 3* = 3
- Series 4 = 4

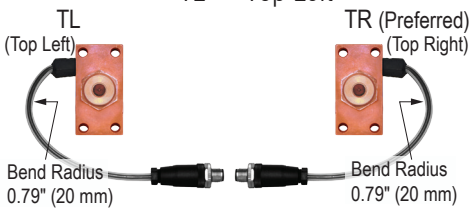
Port Thread

- G = 1/8" BSPP
- S = 1/8" NPT

Cable Exit Position**

For Body Style SXAR, SXHR, SXJR

- TR = Top Right (Preferred)
- TL = Top Left



For Body Style SXKR, SXTR, SXQR, SXVR, SXWR

- TM = Top Middle

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* Series 3 is preferred for all applications, unless clearance or welding issues exist. Exceptions are SXVR and SXWR weld bodies, which are Series 2 only. The Series number must be consistent between all components (Body, Pin, and Head).

** To connect to the PLC, the VeriFast™ IA requires a micro (12 mm), 4-pin, shielded, female tool cord, max. 50 ft. (15 m) long.

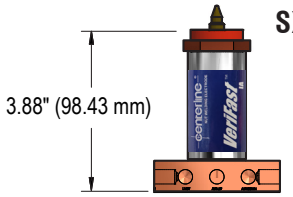
*** Example of VeriFast™ IA Base Mount weld body part number: **VF-IA-SXAR3-TR-S**

VeriFast | Pin Sensing System | Body Style | Series* | Cable Exit Position** | Port Thread

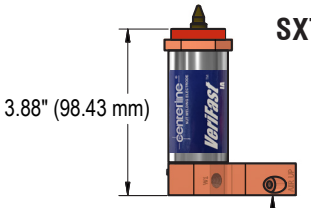
VF	IA	SX_R	3	TR	S

***

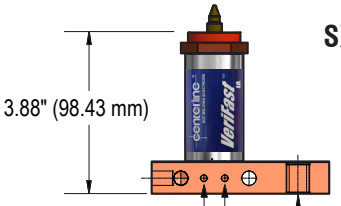
SXAR



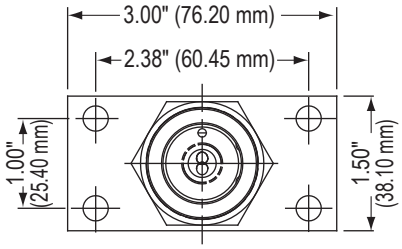
SXTR



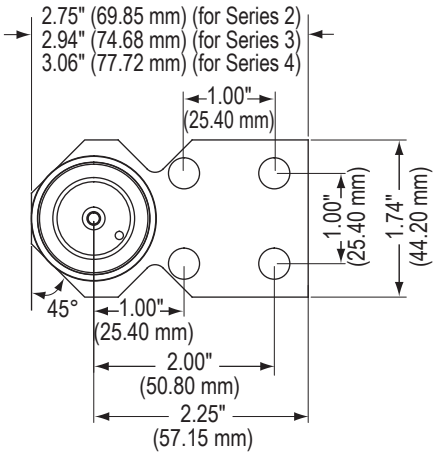
SXHR



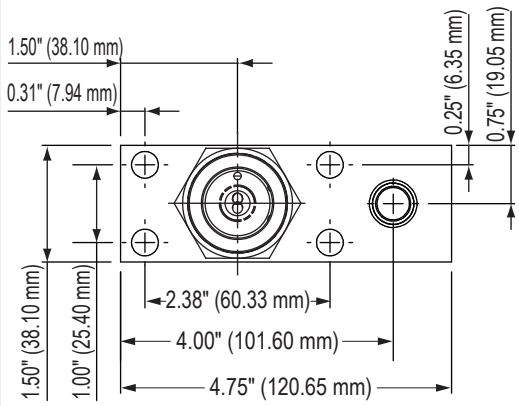
SXAR and SXKR



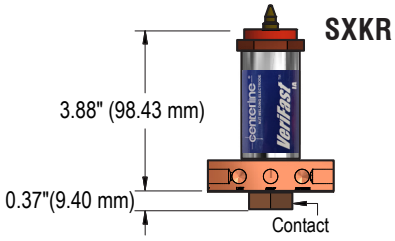
SXTR and SXQR



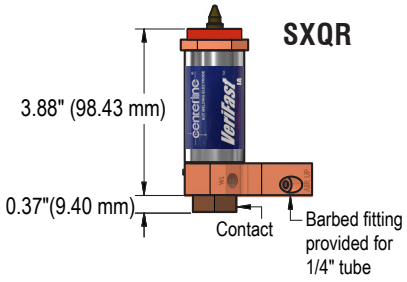
SXHR and SXJR



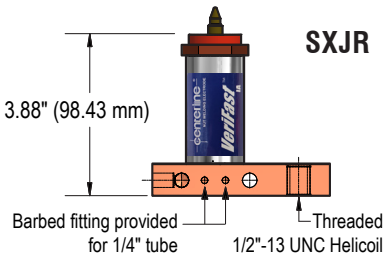
SXKR



SXQR



SXJR



(Continued on the next page)...

* Series 3 is preferred for all applications, unless clearance or welding issues exist. Exceptions are SXVR and SXWR weld bodies, which are Series 2 only. The Series number must be consistent between all components (Body, Pin, and Head).

** To connect to the PLC, the VeriFast IA requires a micro (12 mm), 4-pin, shielded, female tool cord, max. 50 ft. (15 m) long.

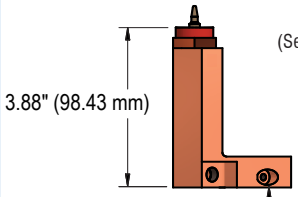
*** Example of VeriFast™ IA Base Mount weld body part number: **VF-IA-SXAR3-TR-S**

VeriFast | Pin Sensing System | Body Style | Series* | Cable Exit Position** | Port Thread

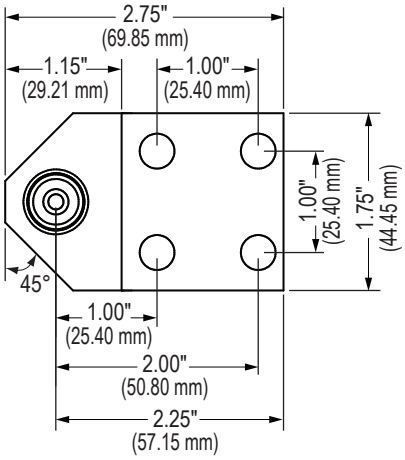
VF	LVDT	SX_R	3	TR	S	***

...(Continued from the previous page)

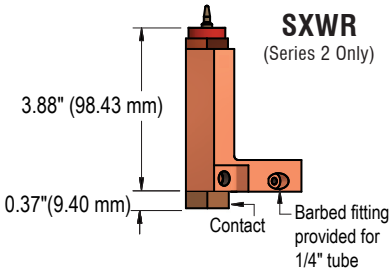
SXVR
(Series 2 Only)



SXVR and SXWR



SXWR
(Series 2 Only)



* Series 3 is preferred for all applications, unless clearance or welding issues exist. Exceptions are SXVR and SXWR weld bodies, which are Series 2 only. The Series number must be consistent between all components (Body, Pin, and Head).

** To connect to the PLC, the VeriFast IA requires a micro (12 mm), 4-pin, shielded, female tool cord, max. 50 ft. (15 m) long.

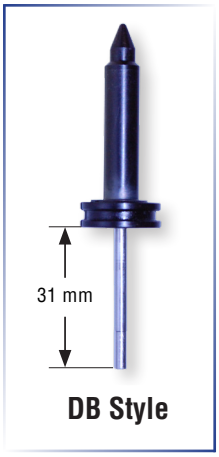
*** Example of VeriFast™ IA Base Mount weld body part number: **VF-IA-SXAR3-TR-S**

centerline®

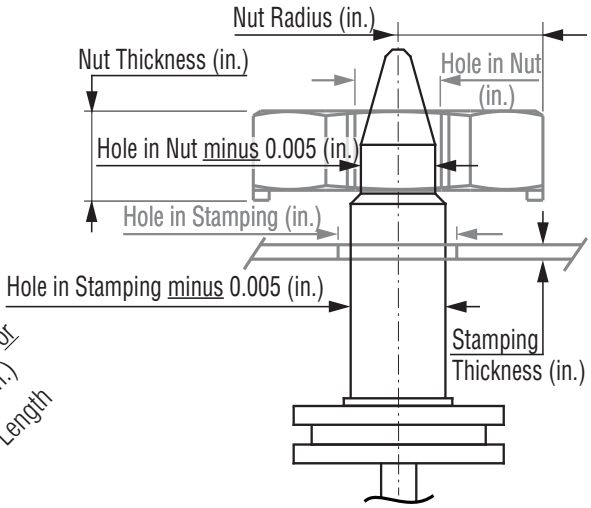
VeriFast™ IA
DB Style Nut Weld Pin

For use with VeriFast™ IA **Base Mount** Weld Bodies (see pages 2, 3, and 4)

Part Numbering System



DB Style



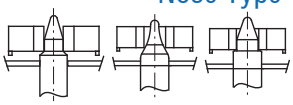
Pin Finish / Material	Pin Sensing System	Series*	Nose Type	Hole in Stamping minus 0.005 (in.)	Hole in Nut minus 0.005 (in.)	Stamping Thickness (in.) or Nut Thickness (in.)	Nut Radius (in.)	Core Length
S	B	3	N	348	270	25	25	DB

Pin Finish / Material
Stainless = R
Coated = K
DuraPin™ = S

Pin Sensing System
VeriFast™ IA = B

*Series
Series 2 = 2
Series 3* = 3
Series 4 = 4

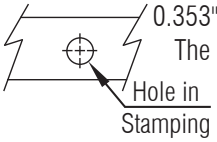
Nose Type



N W Z

Hole in Stamping minus 0.005
(3 decimals, measured in inches)

Example: If Hole in Stamping is 0.353":
0.353" - 0.005" = 0.348"
The number in this field will be: 348



Hole in Nut minus 0.005
(3 decimals, measured in inches)

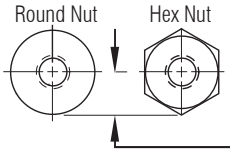
Example: If Hole in Nut is 0.275":
0.275" - 0.005" = 0.270"
The number in this field will be: 270

Core Length
DB = 31 mm. Works with VeriFast™ IA Base Mount Weld Bodies: SXAR, SXKR, SXTR, SXQR, SXHR, SXJR, SXVR, SXWR
(See pages 2, 3, and 4).

Nut Thickness (2 decimals, measured in inches)
Measured when Nut Feeding is done **Manually**

Example : If Nut Thickness is 0.25", the number in this field will be 25.

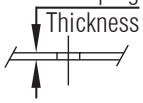
Nut Radius (2 decimals, measured in inches)
Measured when Nut Feeding is done **Automatically**



Nut Radius (Measured from the center to the outermost edge of the nut)

Example : If Nut Radius is 0.47", the number in this field will be 47.

Stamping Thickness (2 decimals, measured in inches)



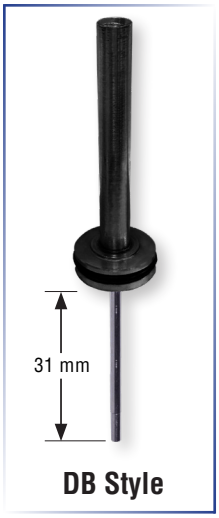
If Stamping Thickness is:
- less than 0.25", the number in this field will be 25.
- greater than 0.25", contact CenterLine.

* Series 3 is preferred for all applications, unless clearance or welding issues exist. Exceptions are SXVR and SXWR weld bodies, which are Series 2 only. The Series number must be consistent between all components (Body, Pin, and Head).

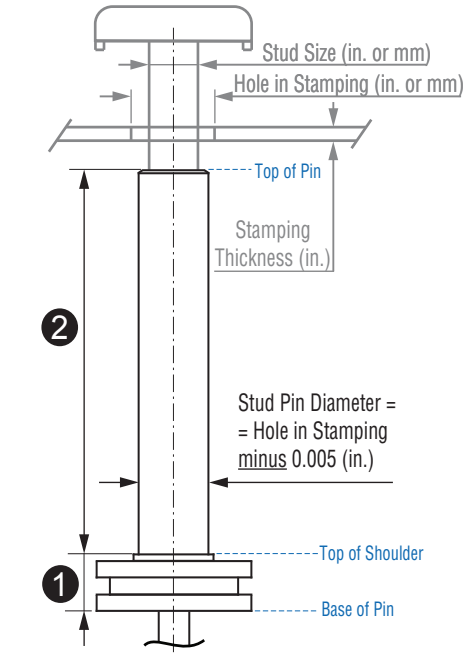
VeriFast™ IA
DB Style Stud Weld Pin

For use with VeriFast™ IA **Base Mount** Weld Bodies (see pages 2, 3, and 4)

Part Numbering System



DB Style



Pin Finish / Material	Pin Sensing System	Stud Feeding Mode	Series*	Stud Diameter (in. or mm)	Length from Top of Shoulder to Top of Pin (in. or mm)	Length from Base of Pin to Top of Shoulder (in. or mm)	Core Length
S	B	P	3	M08	047	07	DB

Pin Finish / Material
Stainless = R
Coated = K
DuraPin™ = S

Pin Sensing System
VeriFast™ IA = B

Automatic Feed

Manual Feed

Stud Feeding Mode
Auto Load = A
Manual Load = P

*Series
Series 2 = 2
Series 3* = 3
Series 4 = 4

Stud Diameter
Measured in inches, 3 decimals. Becomes 3 digits.
Example: If Stud is 0.315", the number in this field will be: 315

or

Measured in millimeters, 0 decimals. Becomes prefix "M" followed by 2 digits.
Example: If diameter of stud is 8 mm, the number in this field will be: M08

Core Length
DB = 31 mm. Works with VeriFast™ IA Base Mount Weld Bodies: SXAR, SXKR, SXTR, SXQR, SXHR, SXJR, SXVR, SXWR
(See pages 2, 3, and 4)

Length from Base of Pin to Top of Shoulder
(See 1 in drawing above)
Measured in inches, 2 decimals. Becomes 2 digits.
Example: If length is 0.27", the number in this field will be: 27

or

Measured in millimeters, 0 decimals. Becomes 2 digits.
Example: If length is 7 mm, the number in this field will be: 07

Length from Top of Shoulder to Top of Pin
(See 2 in drawing above)
Measured in inches, 2 decimals. Becomes 3 digits.
Example: If length is 1.85", the number in this field will be: 185

or

Measured in millimeters, 0 decimals. Becomes 3 digits.
Example: If length is 47 mm, the number in this field will be: 047

* Series 3 is preferred for all applications, unless clearance or welding issues exist. Exceptions are SXVR and SXWR weld bodies, which are Series 2 only. The Series number must be consistent between all components (Body, Pin, and Head).

Weld Head

Part Numbering System

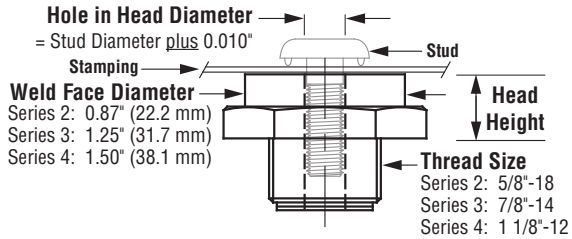
GH Style

- For **nut** or **stud** welding

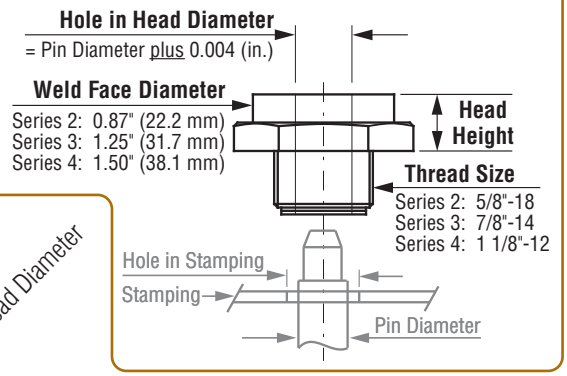
PH Style

- For **nut** welding; not recommended for stud welding
- Lower Cost
- Quick delivery

For Stud Applications (GH Weld Head Style)



For Nut Applications (GH or PH Weld Head Style)



Weld Head Prefix	Series*	Head Height**	Material	Weld Face Diameter**	Hole in Head Diameter
GH	3	050	T	125	352

Weld Head Prefix

For **nut** or **stud** applications = GH

For **nut** applications only = PH
(not recommended for stud applications)

Series (must be consistent with 'Weld Face Diameter' below and 'Hole in Head Diameter' on the right)

Series 2 = 2

Series 3* = 3

Series 4 = 4

Head Height**

Series 2 and 3 = 050

Series 4 = 062

Material

RWMA Class 3 Copper = C

RWMA Class 11 Tungsten = T

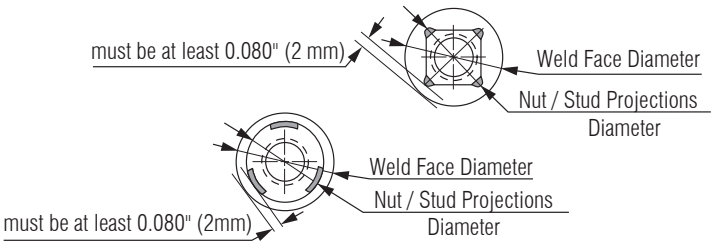
Weld Face Diameter**

0.87" Weld Face (for Series 2) = 087

1.25" Weld Face (for Series 3)* = 125

1.50" Weld Face (for Series 4) = 150

Important: The Weld Face Diameter must be at least 0.160" (4 mm) larger than the Nut / Stud Projections Diameter (or 0.080" (2 mm) radius difference). If it is not, the next larger weld head series should be used for the application.



Hole in Head Diameter

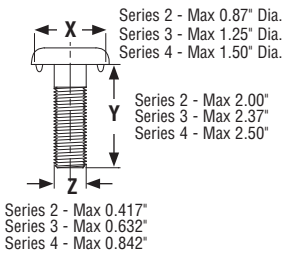
Series	Hole in Head Diameter	
	For GH Heads	For PH Heads
Series 2:	Max. 0.427" (10.85 mm)	Max. 0.377" (9.57 mm)
Series 3:	Max. 0.642" (16.31 mm)	Max. 0.638" (16.20 mm)
Series 4:	Max. 0.852" (21.64 mm)	Max. 0.825" (20.95 mm)

- Important for **Nut** applications only (using **GH** or **PH** heads): We recommend the Hole in Head Diameter be 0.004" larger than the Pin Diameter.

  Example: If Pin Diameter = 0.348", the Hole in Head Diameter will become: 0.348" + 0.004" = 0.352". The value in this field will be 352. (Ensure that this value does not exceed the value for the desired Series and Weld Head Style in the table above).

- Important for **Stud** applications only (using **GH** head only): We recommend the Hole in Head Diameter be 0.010" larger than the Stud Diameter (Z).

  Example: If Stud Diameter Z = 0.430", the Hole in Head Diameter will become: 0.430" + 0.010" = 0.440". The value in this field will be 440. (Ensure that this value does not exceed the value for the desired Series and Weld Head Style in the table above).



Note: X, Y, and Z dimensions of the Stud must coordinate with the chosen Weld Head Series.

* Series 3 is preferred for all applications, unless clearance or welding issues exist. Exceptions are SXVR and SXWR weld bodies, which are Series 2 only. The Series number must be consistent between all components (Body, Pin, and Head).

** Special sizes are available for larger dimension requirements or areas with clearance restrictions. Contact CenterLine for information.