

General Specifications

Model PR10
Contacting Conductivity
Retractable fitting

On-line measurements often present extra challenges, especially when routine maintenance is required. The PR10 is ideally suitable for applications where the sensors must be removed without interrupting or shutting down the process. Without any special tools the PR10 can be retracted safely from the process at pressures up to 5 bar 72 psi.

For ease of use optional flush ports are available. In the retracted position the sensor can be kept moist, cleaned or even calibrated. This can all be done without process interruption or disassembly of the armature.

Features

- One model used for pH, conductivity and inductive conductivity sensors
- Build in scraper to avoid contamination of the fitting
- Usable for wide range of sensors
- A safe “through the valve” insertion and retraction design
- Simplified installation by optional ball valves with flanged or threaded connections
- Optional flush port for keeping sensor moist, cleaning and calibration



General Specifications

A. Wetted materials

- Stainless steel AISI 316L
- O-ring seals: Viton 70° shore

B. Non-wetted materials

- For sensor check Instruction Manual
- Stainless steel AISI 316, 304
- Polypropylene glass filled

C. Insertion length

- Ref. mechanical drawings Fig. 2-6 and Table 3

D. Pressure/temperature ratings

- Static conditions: max pressure 10 bar (142 psi); max temperature 150°C (302°F), see Fig. 1
- Operating conditions during extraction and insertion max. 500 kPa, max. 100°C

E. Flange ratings:

- DIN flange DN32 PN10
- ANSI flange 1¼" 150 lbs
- DIN flange DN50 PN10*
- ANSI flange 2" 150 lbs*

Note: 2" (DN50) is available with longer lead times

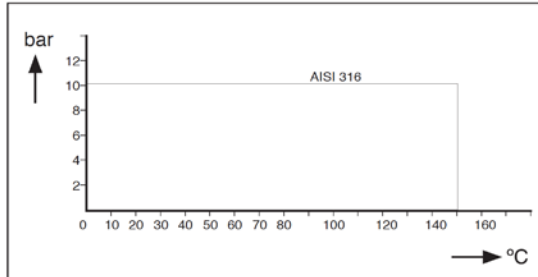


Fig. 1 Pressure / Temperature graphic

F. Specifications of the sensor used

- Please check sensor specifications

G. Weight

- Approx 2.5 kg (5.5lbs) excl. ball valve

H. Specifications of the SC4A-PR

Wetted Parts

- Body & electrodes : SS AISI 316 or Titanium grade 2 or 3
- O-ring : Viton
- Mounting adapter : PR10
- Insulations : PEEK (Poly Ether Ether Ketone)

I. Operating Specifications of the SC4A-PR

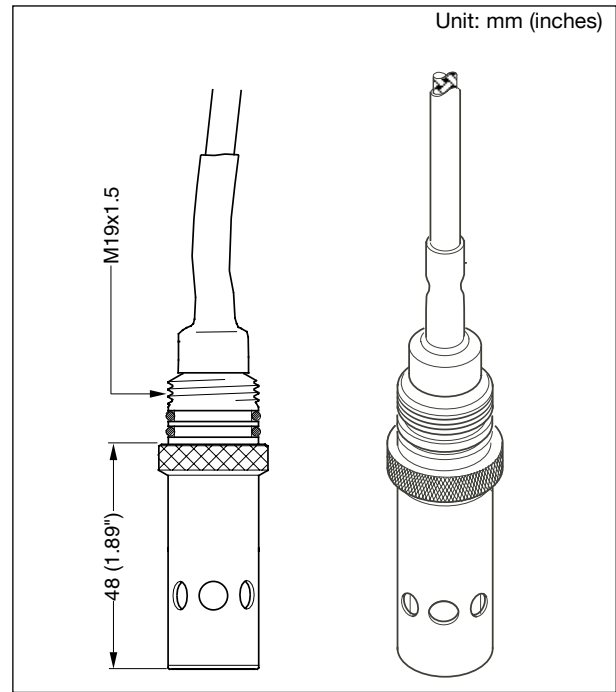
- Measuring system : 2-electrode
- Maximum pressure : 10 bar (142 PSig)
- Maximum temp. : 110°C (230°F)
- Temp. response : < 1 minute for 90% of a step change
- Sterilize : At 135°C (275°F)

Table 1 Sensor Model & Suffix

Model Code	Suffix code	Option	Description
SC4A*			19 mm conductivity sensor
	-S		Stainless steel
Fitting-type	-PR		For retractable mounting
Always	-NN		fixed length
Cellconstant	-002		0.02/cm
	-010		0.1/cm
Cable length	-03		3 meter
	-05		5 meter
	-10		10 meter
	-15		15 meter
	-20		20 meter
	-T1		Pt1000

Note: option Q is now delivered standard

Note: option M is now delivered standard

**Fig. 2 SC4A -PR****Table 2 Model- and suffix codes**

Model	Suffix	Option	Description
PR10			Retractable Conductivity Fitting 19 mm
Fitting	-S		SS Type AISI 316
O-ring	-V		Viton O-ring sealing
Tube length	-L5		0.5 meter tube length
Connection	-D32		DN32 / 1¼" mounting
	-D50		DN50 / 2" mounting**
Sensor adapter for	-SC4A		SC4A
Screw-in adapters (SS AISI 316)		/SA125	ISO 228/1 G1¼ to 1¼" M-NPT
		/SA200	ISO 228/1 G2 to 2" M-NPT
Flange adapters (SS AISI 316)		/FA125	Flange adapter drain 1¼" 150 lbs
		/FN125	Flange adapter no drain 1¼" 150 lbs
		/FA200	Flange adapter drain 2" 150 lbs
		/FN200	Flange adapter no drain 2" 150 lbs
		/FAD32	Flange adapter drain DN32 PN10
		/FND32	Flange adapter no drain DN32 PN10
		/FAD50	Flange adapter drain DN50 PN10
		/FND50	Flange adapter no drain DN50 PN10
Weld-in adapter (SS AISI 316)		/WA125	Straight weld-in adapter ISO 228/1 G1¼
		/WA200	Straight weld-in adapter ISO 228/1 G2
Ball valves (SSI AISI 316)		/BF125	Flanged ball valve 1¼" 150 lbs
*		/BF200	Flanged ball valve 2" 150 lbs
		/BFD32	Flanged ball valve DN32 PN10
		/BFD50	Flanged ball valve DN50 PN10
		/BS125	Screw-in ball valve 1¼" F-NPT
		/BS200	Screw-in ball valve 2" F-NPT
Certificate		/M	3.1 according EN 10024 for wetted metal parts

***Note:** With a ball valve, either a screw-in or flanged adapter is required

Note: for maintenance please order O-ring pick-up tool

****Note:** 2" (DN50) is available with longer lead times

Dimensions

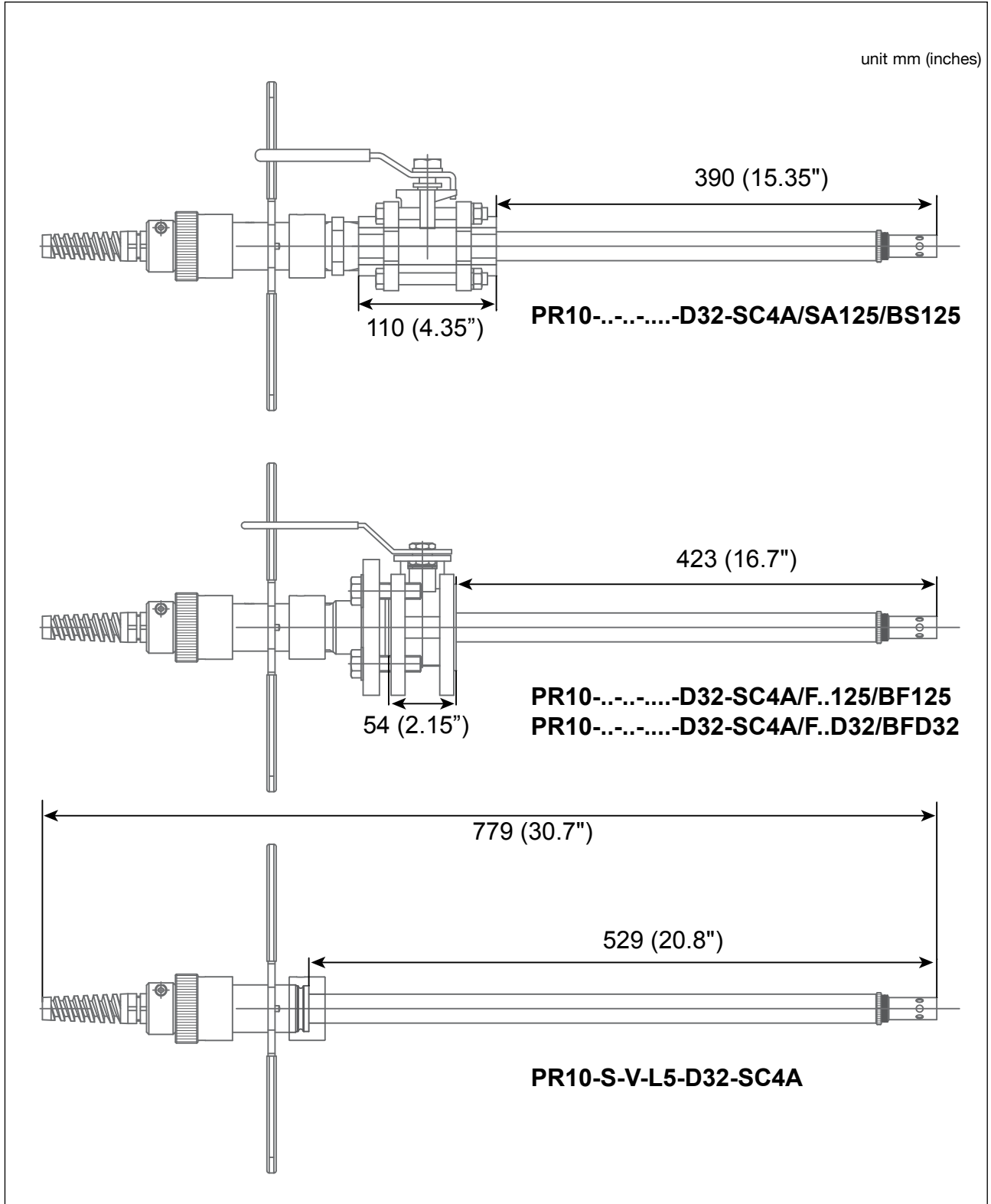


Fig. 3 Dimensional drawing PR10...-D32 with mounted SC4A sensor

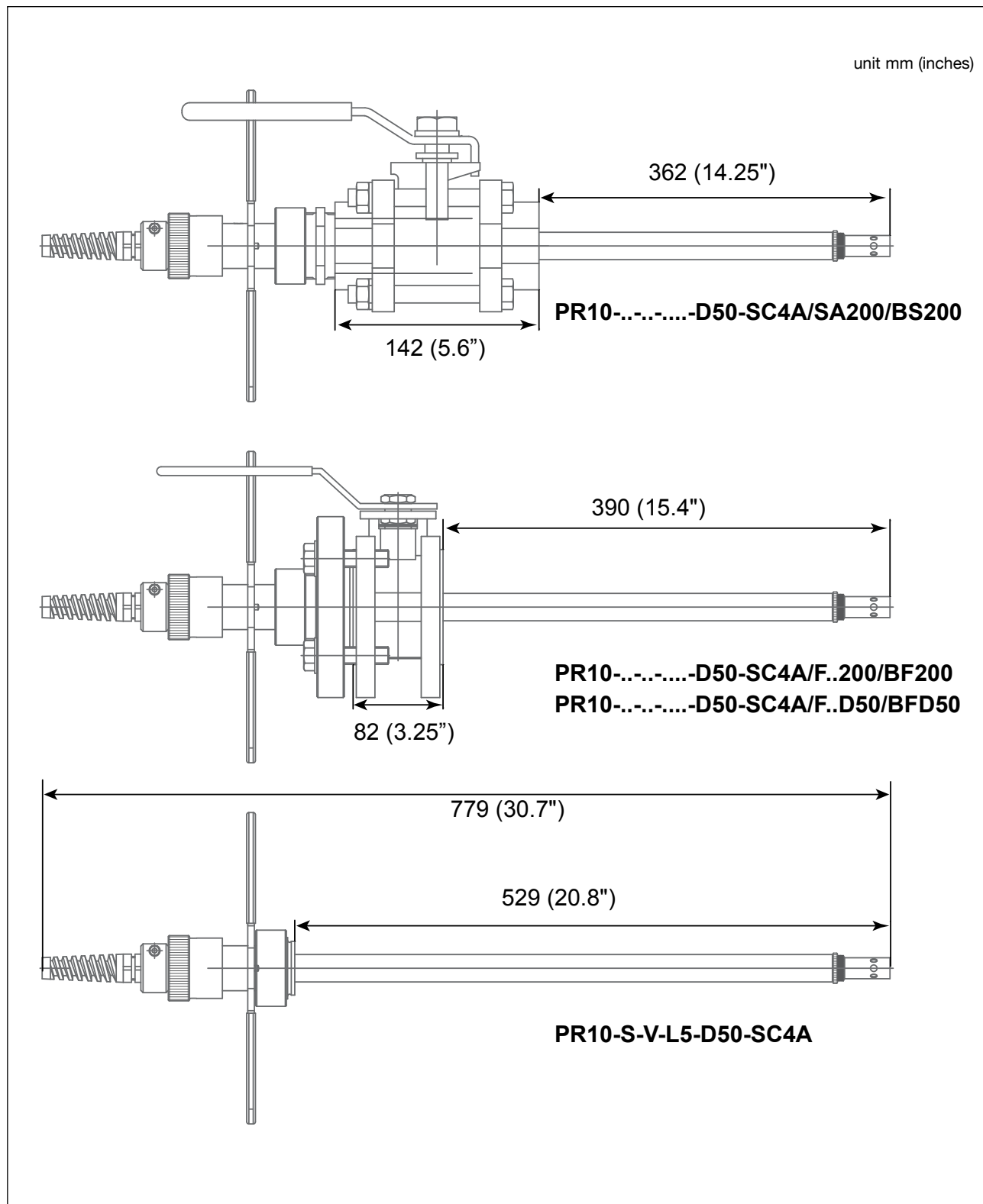


Fig. 4 Dimensional drawing PR10...-D50 with mounted SC4A sensor

Note: with ball valve Bolts and gasket are included

Options PR10

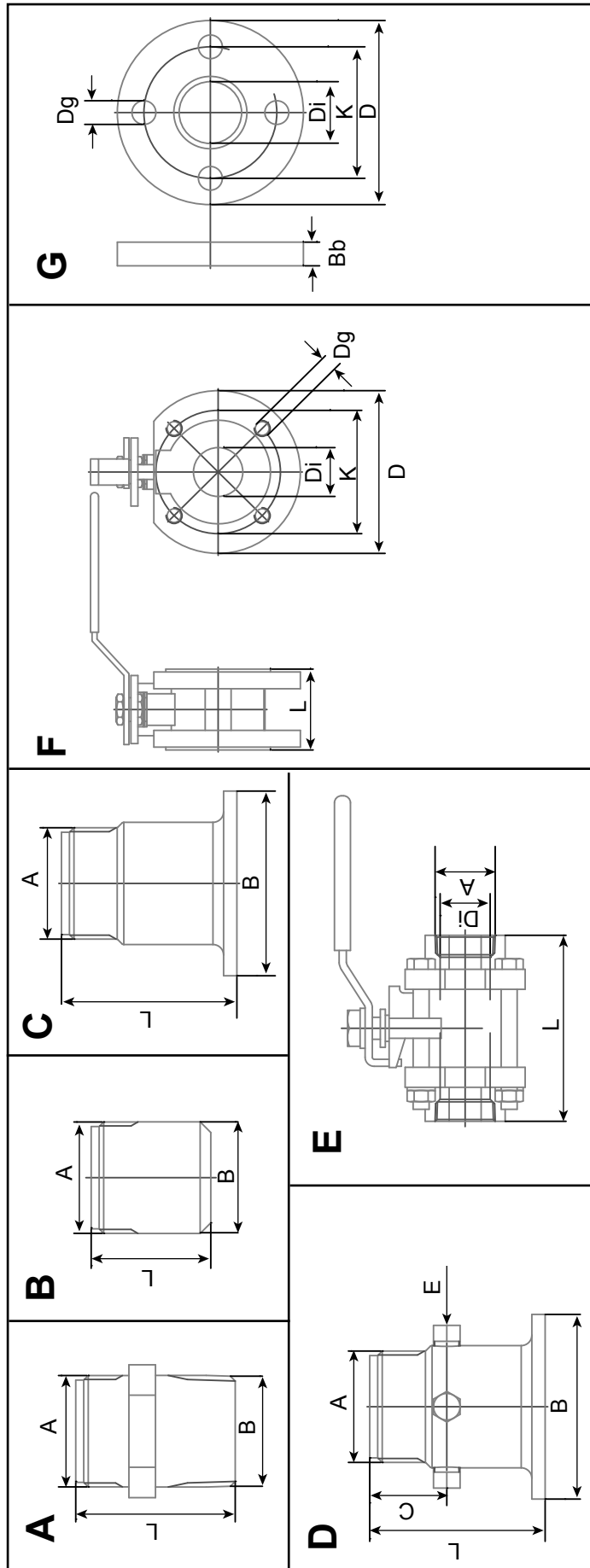


Fig. 5 Dimensions of the PR10 options

Table 3 Dimensions options in mm (inches)

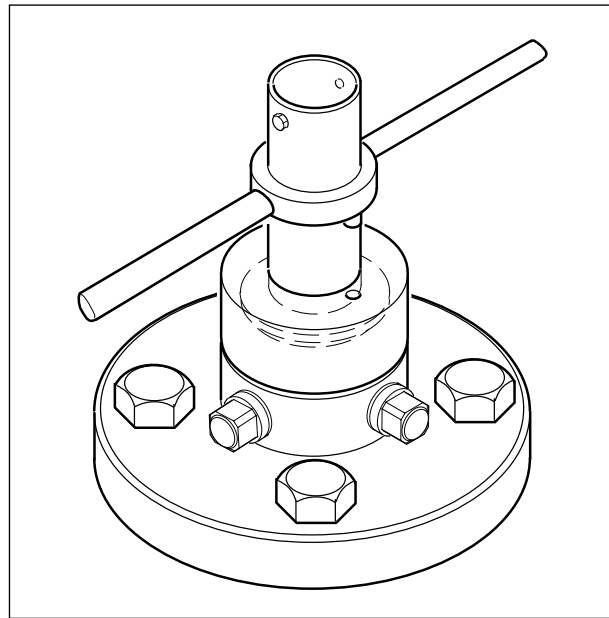
Option	Description	Fig.	A	B	L	C	Bb	D	E	Di	Dg	K
/SA125	ISO 228/1 G1¼ to 1¼" M-NPT	A	ISO 228/1 - G1¼	1¼" NPT	60 (2.4)							
/SA200	ISO 228/1 G2 to 2" M-NPT	A	ISO 228/1 - G2	2" NPT	58 (2.3)							
/FA125	Flange adapter drain 1¼" 150 Lbs	D, G	ISO 228/1 - G1¼	69.5 (2.7)	66 (2.6)	29 (1.1)	15.7 (0.6)	117.3 (4.6)	1/8" NPT	47 (1.9)	15.7 (0.6)	88.9 (3.5)
/FN125	Flange adapter no drain 1¼" 150 Lbs	C, G	ISO 228/1 - G1¼	69.5 (2.7)	66 (2.6)	29 (1.1)	15.7 (0.6)	117.3 (4.6)	1/8" NPT	47 (1.9)	15.7 (0.6)	88.9 (3.5)
/FA200	Flange adapter drain 2" 150 Lbs	D, G	ISO 228/1 - G2	101 (4)	77 (3)	32 (1.3)	25 (1)	165 (6.5)	1/8" NPT	73 (2.9)	19 (0.7)	120-125 (4.7)-(4.9)
/FN200	Flange adapter no drain 2" 150 Lbs	C, G	ISO 228/1 - G2	101 (4)	66 (2.6)	29 (1.1)	16 (0.6)	140 (5.5)	1/8" NPT	73 (2.9)	19 (0.7)	120-125 (4.7)-(4.9)
/FAD32	Flange adapter drain DN32 PN10	D, G	ISO 228/1 - G1¼	69.5 (2.7)	66 (2.6)	29 (1.1)	16 (0.6)	140 (5.5)	1/8" NPT	47 (1.9)	18 (0.7)	100 (3.9)
/FND32	Flange adapter no drain DN32 PN10	C, G	ISO 228/1 - G1¼	69.5 (2.7)	66 (2.6)	29 (1.1)	16 (0.6)	140 (5.5)	1/8" NPT	47 (1.9)	18 (0.7)	100 (3.9)
/FAD50	Flange adapter drain DN50 PN10	D, G	ISO 228/1 - G2	101 (4)	77 (3)	32 (1.3)	25 (1)	165 (6.5)	1/8" NPT	73 (2.9)	19 (0.7)	120-125 (4.7)-(4.9)
/FND50	Flange adapter no drain DN50 PN10	C, G	ISO 228/1 - G2	101 (4)	66 (2.6)	29 (1.1)	25 (1)	165 (6.5)	1/8" NPT	73 (2.9)	19 (0.7)	120-125 (4.7)-(4.9)
/WA125	Straight weld-in adapter ISO 228/1 G1¼	B	ISO 228/1 - G1¼	42 (1.7)	45 (1.8)	32 (1.3)	25 (1)	165 (6.5)		73 (2.9)	19 (0.7)	
/WA200	Straight weld-in adapter ISO 228/1 G2	B	ISO 228/1 - G2	49 (1.9)	45 (1.8)							
/BF125	Ball-valve flanged 1¼" 150 Lbs	F	ISO 228/1 - G2		54 (2.1)			118 (4.6)		32 (1.3)	M14	89 (3.5)
/BF200	Ball-valve flanged 2" 150 Lbs	F			82 (3.2)			150 (5.9)		50 (2)	M16	121 (4.8)
/BFD32	Ball-valve flanged DN32 PN10	F			54 (2.1)			140 (5.5)		32 (1.3)	M16	100 (3.9)
/BFD50	Ball-valve flanged DN50 PN10	F			82 (3.2)			165 (6.5)		50 (2)	M16	125 (4.9)
/BS125	Ball-valve screw-in 1¼" F-NPT	E	1¼" NPT		110 (4.3)					32 (1.3)		
/BS200	Ball-valve screw-in 2" F-NPT	E	2" NPT		142 (5.6)					50 (2)		

Table 4 Spare parts

K1525AP	Adapter SC4A - ISC40
K1525AA	Outer tube
K1525AF	O-ring pick up tool
K1525BA	O-ring set PR10-S-V-L5-D32
K1525BB	O-ring set PR10-S-V-L5-D50
K1525BC	Key set
K1525BD	Squeezing set
K1525BE	Set M16 bolt & washer (8 pcs)
K1525BF	Set M14 bolt & washer (8 pcs)
K1525BG	Gaskets ball valves - D50 + 2"
K1525BH	Gaskets ball valves - D32 + 1¼"
K1525YA	PR10/SA125
K1525YB	PR10/FA125
K1525YC	PR10/FN125
K1525YD	PR10/FA200 - FAD50
K1525YE	PR10/FN200 - FND50
K1525YF	PR10/FAD32
K1525YG	PR10/FND32
K1525YH	PR10/WA125
K1525YJ	PR10/WA200
K1525YK	PR10/BF125
K1525YL	PR10/BF200
K1525YM	PR10/BFD32
K1525YN	PR10/BFD50
M1263ME	PR10/BS125
M1263MD	PR10/BS200
K1541EM	Adapter 2" NPT-G2 SS (ISC40PR/B)

Drain port connection

The PR10 retractable fitting can be equipped with optional drain (or flush) ports on the flanged adapter. The drain ports are tapered 1/8" NPT female for small diameter connectors.

**Fig. 6 Drain Port Connection**

Yokogawa Corporation of America

North America

2 Dart Road, Newnan, GA 30265-1094, USA
Phone: 800-258-2552 Fax: 770-254-0928

12530 West Airport Blvd., Sugar Land, TX 77478
Phone: 281-340-3800 Fax: 281-340-3838

Mexico

Melchor Ocampo 193, Torre C, Oficina 3"B"
Veronica Anzures D.F., C.P. 11300
Phone: (55) 5260-0019, (55) 5260-0042

Yokogawa Canada, Inc.

Bay 4, 11133 40th Street SE, Calgary, AB Canada T2C2Z4
Phone: 403-258-2681 Fax: 403-258-0182

Yokogawa has an extensive sales and distribution network. Please refer to the website (www.yokogawa.com/us) to contact your nearest representative.



YOKOGAWA ◆

GS 12D7J4-02E-A

Subject to change without notice

Copyright © 2010

Printed in The USA, 01-705 (A) I