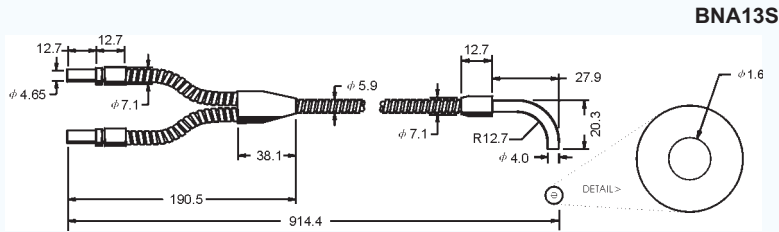


Dimensions (mm)



Model number	Length	Bundle	Sheath
BNA13P	910	ϕ 1.6	PVC
BNA13S	910	ϕ 1.6	SS
Range (mm)			

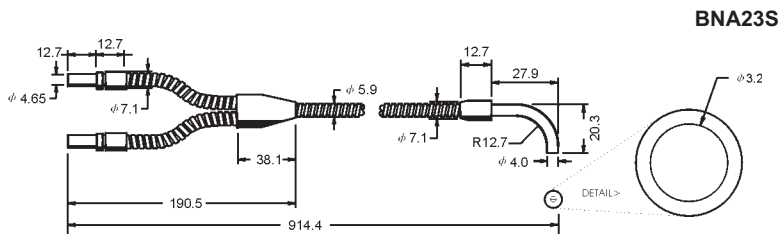
35

45

18

18

Dimensions (mm)



Model number	Length	Bundle	Sheath
BNA23P	910	ϕ 3.2	PVC
BNA23S	910	ϕ 3.2	SS
Range (mm)			

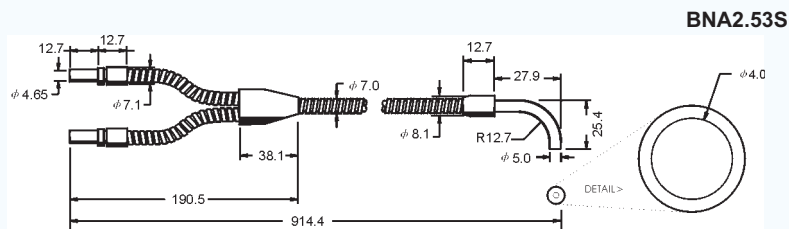
80

101

29

30

Dimensions (mm)



Model number	Length	Bundle	Sheath
BNA2.53P	910	ϕ 4.0	PVC
BNA2.53S	910	ϕ 4.0	SS
Range (mm)			

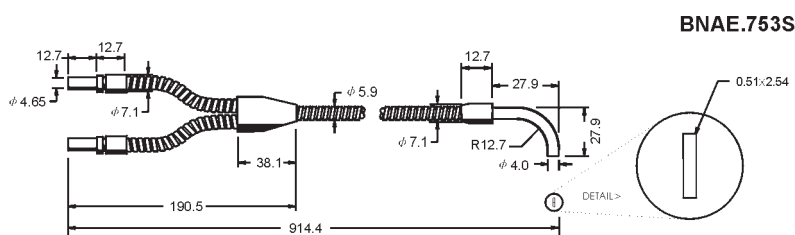
135

150

40

42

Dimensions (mm)



Model number	Length	Bundle	Sheath
BNAE.753P	910	0.51x2.54	PVC
BNAE.753S	910	0.51x2.54	SS
Range (mm)			

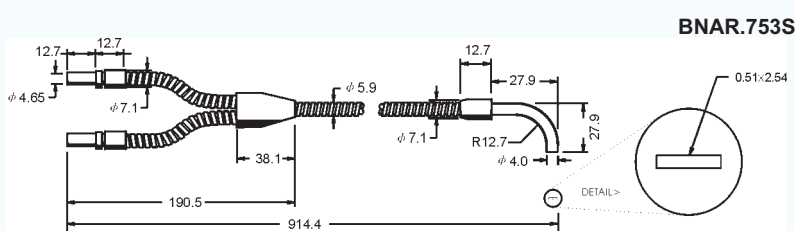
20

32

5

8

Dimensions (mm)



Model number	Length	Bundle	Sheath
BNAR.753P	910	0.51x2.54	PVC
BNAR.753S	910	0.51x2.54	SS
Range (mm)			

20

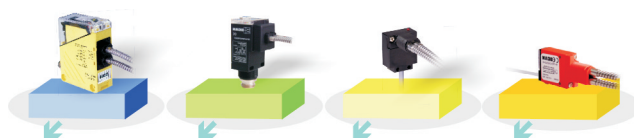
40

7

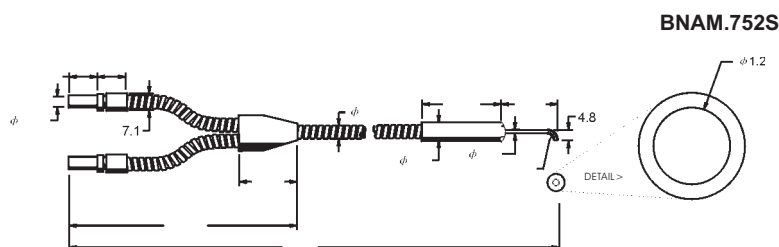
8

Diffuse Mode Bifurcated Cables

Glass Fibers



Dimensions (mm)

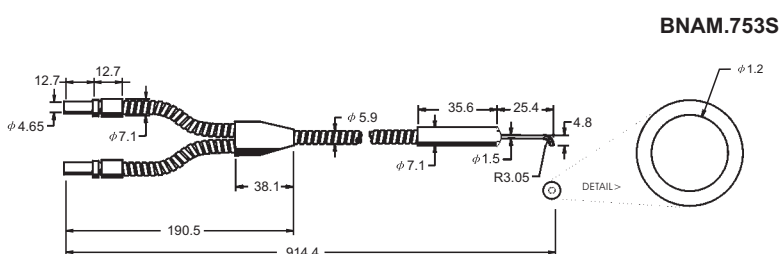


Model number	Length	Bundle	Sheath
BNAM.752P	610	ϕ 1.2	PVC
BNAM.752S	610	ϕ 1.2	SS

Range (mm)

15	34	12	12
----	----	----	----

Dimensions (mm)

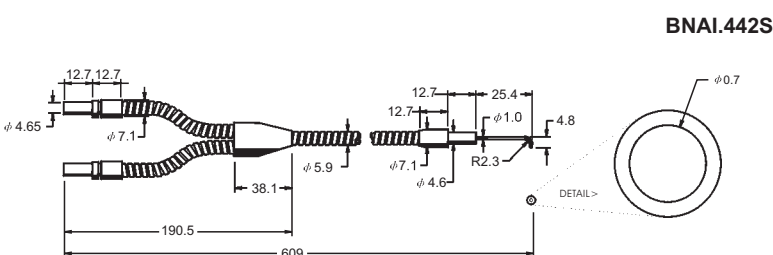


Model number	Length	Bundle	Sheath
BNAM.753S	910	ϕ 1.2	SS

Range (mm)

15	34	12	12
----	----	----	----

Dimensions (mm)

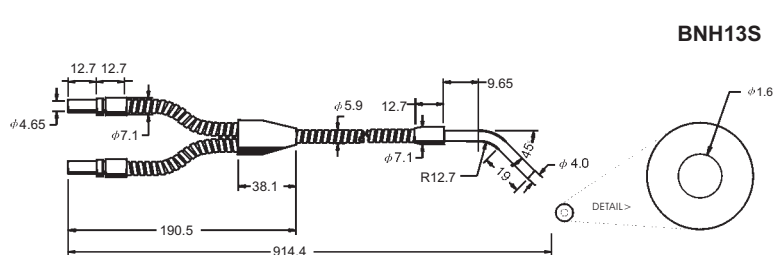


Model number	Length	Bundle	Sheath
BNAI.442P	610	ϕ 0.7	PVC
BNAI.442S	610	ϕ 0.7	SS

Range (mm)

8	6	4	4
---	---	---	---

Dimensions (mm)

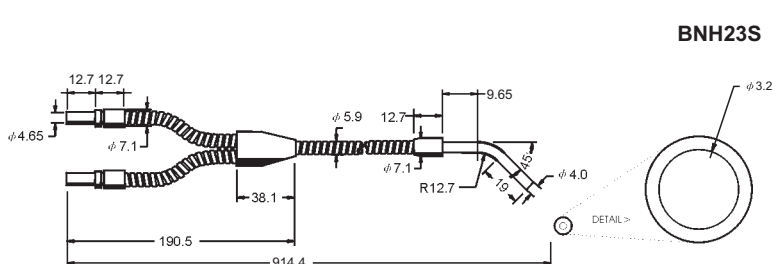


Model number	Length	Bundle	Sheath
BNH13P	910	ϕ 1.6	PVC
BNH13S	910	ϕ 1.6	SS

Range (mm)

35	50	18	18
----	----	----	----

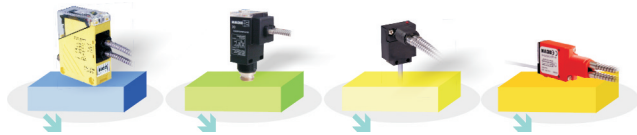
Dimensions (mm)



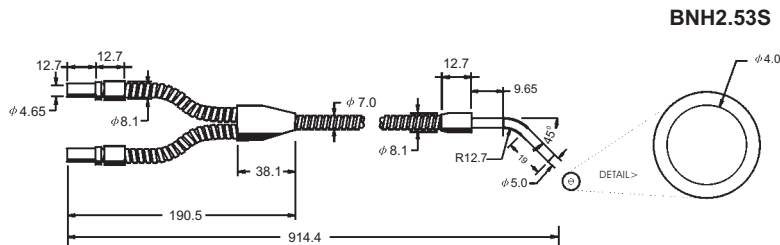
Model number	Length	Bundle	Sheath
BNH23P	910	ϕ 3.2	PVC
BNH23S	910	ϕ 3.2	SS

Range (mm)

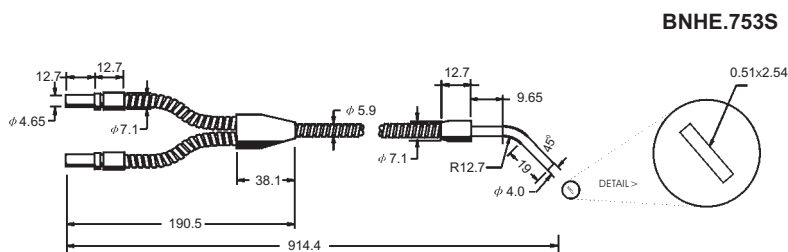
80	101	29	30
----	-----	----	----



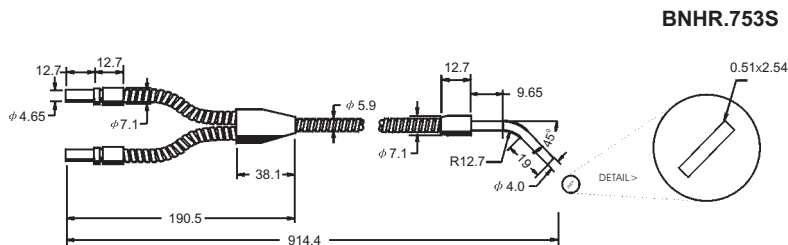
Dimensions (mm)



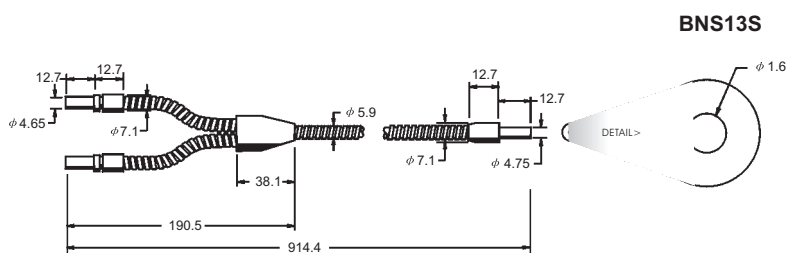
Dimensions (mm)



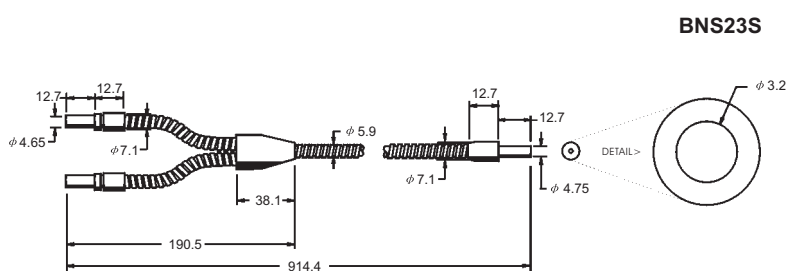
Dimensions (mm)



Dimensions (mm)

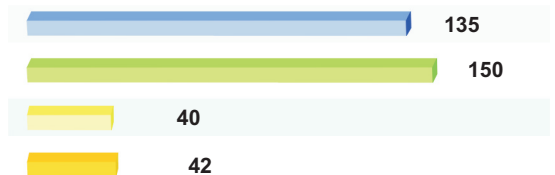


Dimensions (mm)



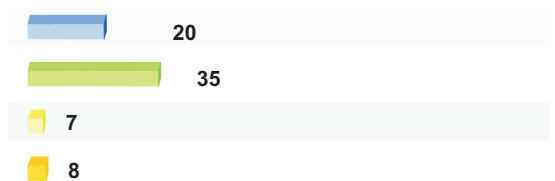
Model number	Length	Bundle	Sheath
BNH2.53P	910	ϕ 4.0	PVC
BNH2.53S	910	ϕ 4.0	SS

Range (mm)



Model number	Length	Bundle	Sheath
BNHE.753P	910	0.51x2.54	PVC
BNHE.753S	910	0.51x2.54	SS

Range (mm)



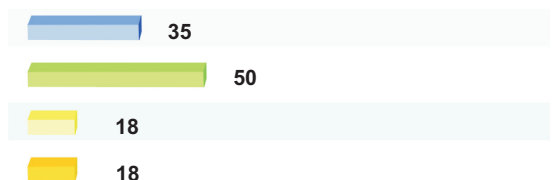
Model number	Length	Bundle	Sheath
BNHR.753P	910	0.51x2.54	PVC
BNHR.753S	910	0.51x2.54	SS

Range (mm)



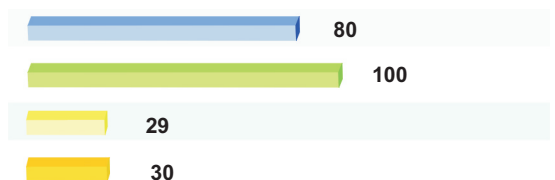
Model number	Length	Bundle	Sheath
BNS13P	910	ϕ 1.6	PVC
BNS13S	910	ϕ 1.6	SS

Range (mm)

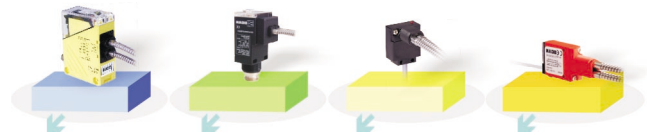


Model number	Length	Bundle	Sheath
BNS23P	910	ϕ 3.2	PVC
BNS23S	910	ϕ 3.2	SS

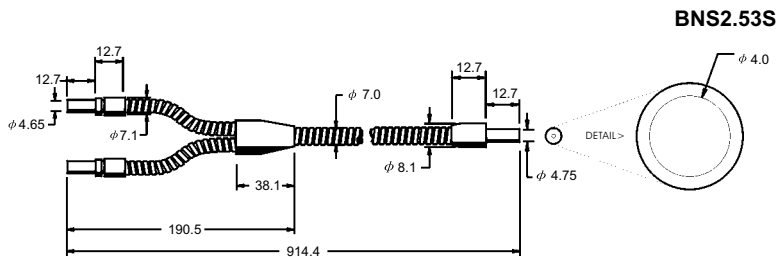
Range (mm)



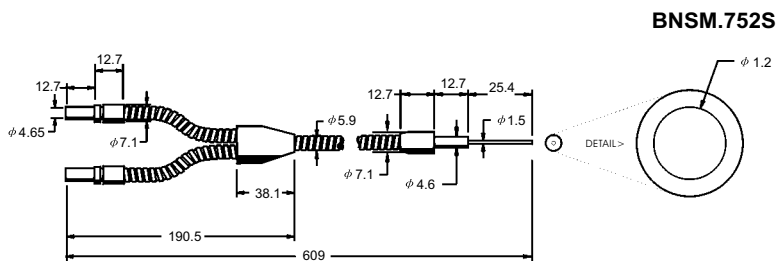
Glass Fibers



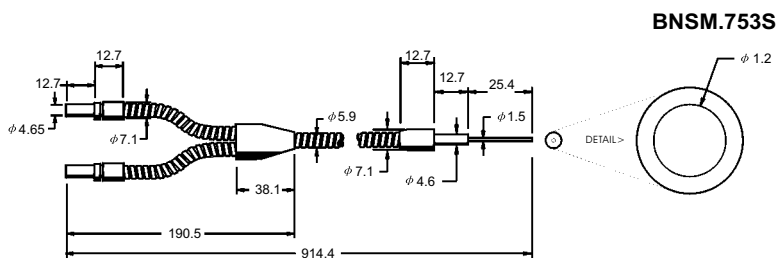
Dimensions (mm)



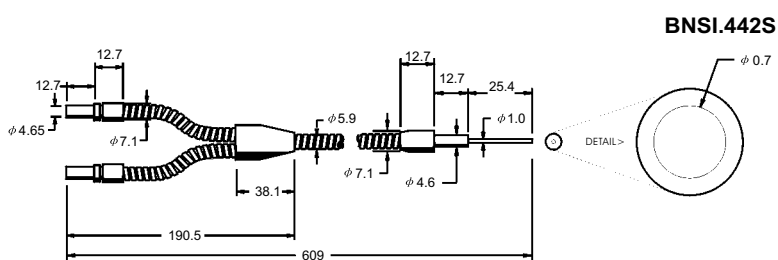
Dimensions (mm)



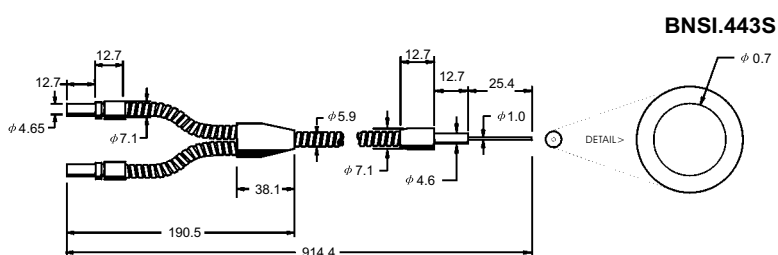
Dimensions (mm)



Dimensions (mm)

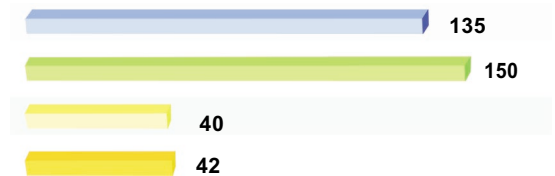


Dimensions (mm)



Model number	Length	Bundle	Sheath
BNS2.53P	910	φ 4.0	PVC
BNS2.53S	910	φ 4.0	SS
Range (mm)			

Range (mm)



Model number	Length	Bundle	Sheath
BNSM.752S	610	ϕ 1.2	SS
Range (mm)			

Range (mm)



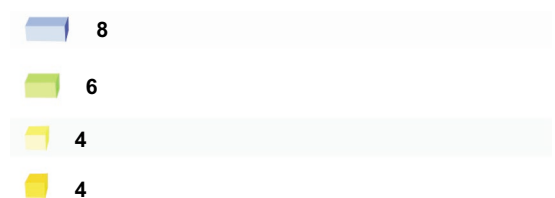
Model number	Length	Bundle	Sheath
BNSM.753S	910	ϕ 1.2	SS
Range (mm)			

Range (mm)



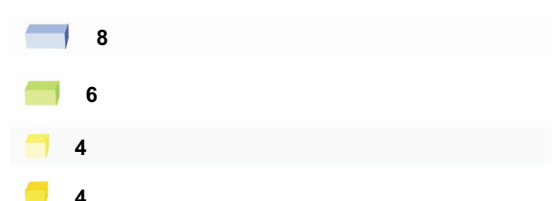
Model number	Length	Bundle	Sheath
BNSI.442S	610	ϕ 0.7	SS
Range (mm)			

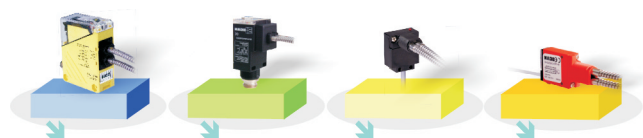
Range (mm)



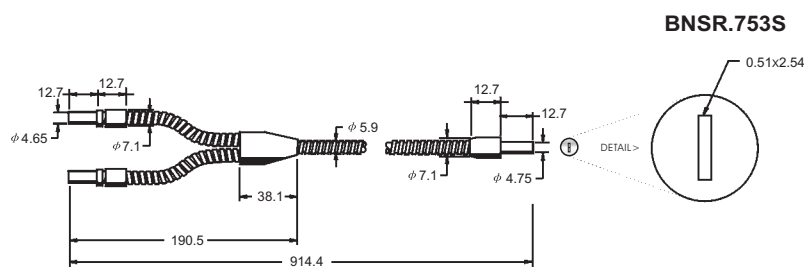
Model number	Length	Bundle	Sheath
BNSI.443S	910	ϕ 0.7	SS
Range (mm)			

Range (mm)

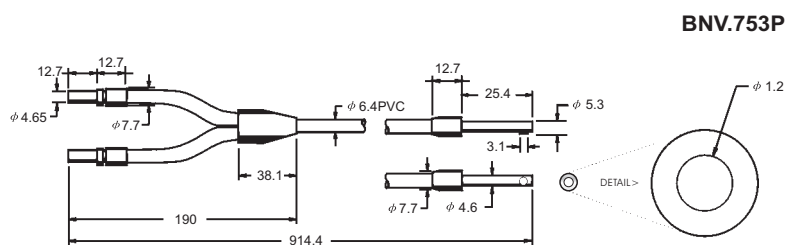




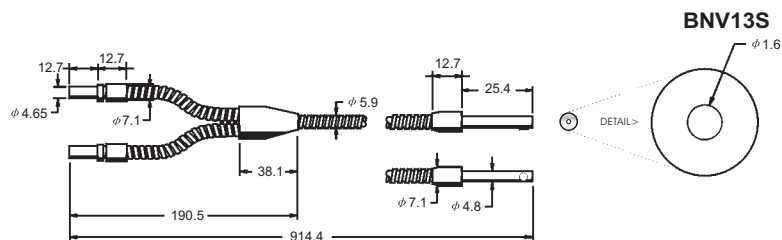
Dimensions (mm)



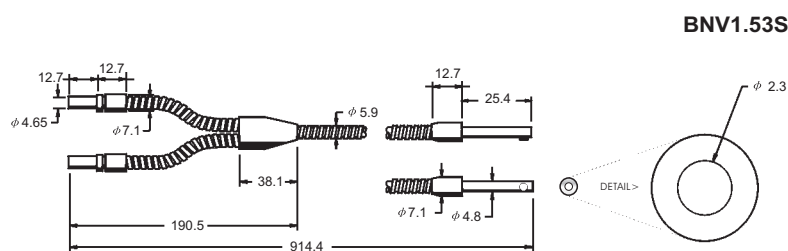
Dimensions (mm)



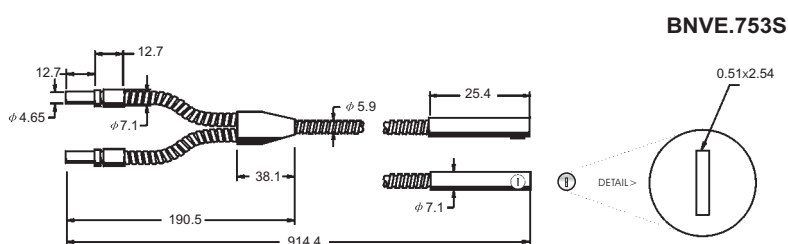
Dimensions (mm)



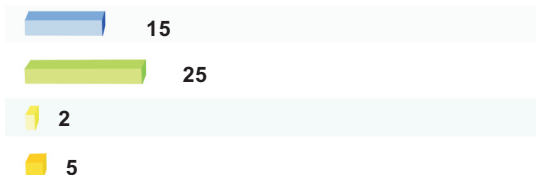
Dimensions (mm)



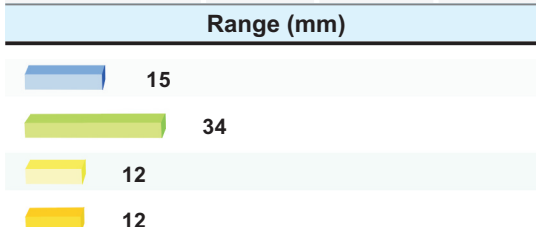
Dimensions (mm)



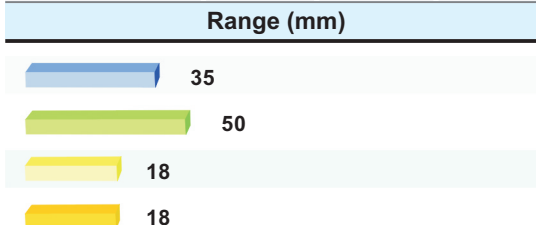
Model number	Length	Bundle	Sheath
BNSR.753P	910	0.51x2.54	PVC
BNSR.753S	910	0.51x2.54	SS
Range (mm)			



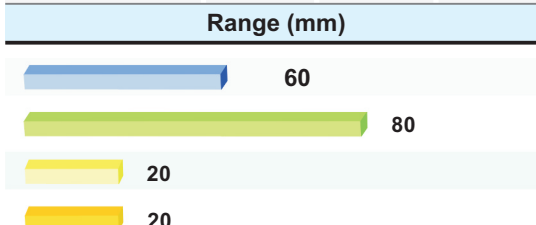
Model number	Length	Bundle	Sheath
BNV.753P	910	ϕ 1.2	PVC
BNV.753S	910	ϕ 1.2	SS



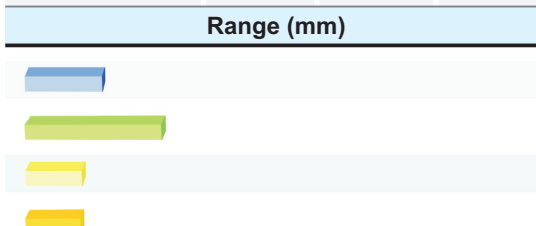
Model number	Length	Bundle	Sheath
BNV13P	910	ϕ 1.6	PVC
BNV13S	910	ϕ 1.6	SS



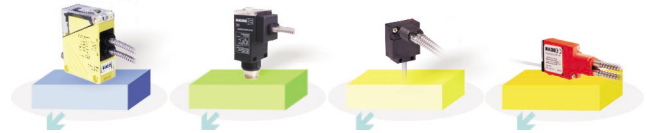
Model number	Length	Bundle	Sheath
BNV1.53P	910	ϕ 2.3	PVC
BNV1.53S	910	ϕ 2.3	SS



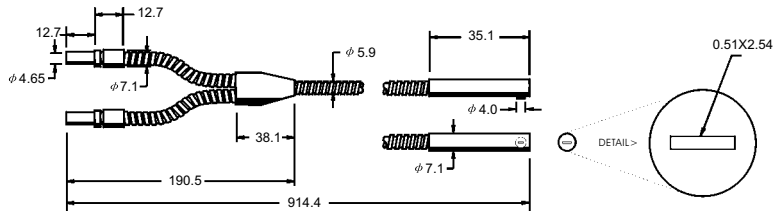
Model number	Length	Bundle	Sheath
BNVE.753P	910	0.51x2.54	PVC
BNVE.753S	910	0.51x2.54	SS



Bifurcated Cables

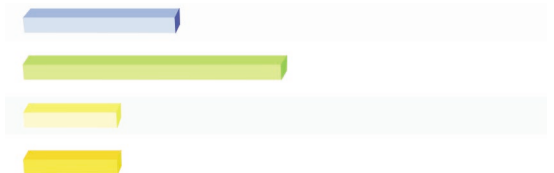


Dimensions (mm)

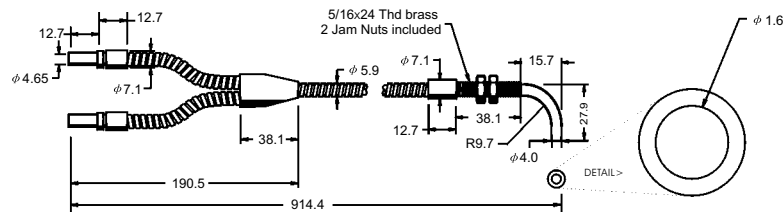


BNVR.753S

Model number	Length	Bundle	Sheath
BNVR.753P	910	0.51x2.54	PVC
BNVR.753S	910	0.51x2.54	SS
Range (mm)			



Dimensions (mm)

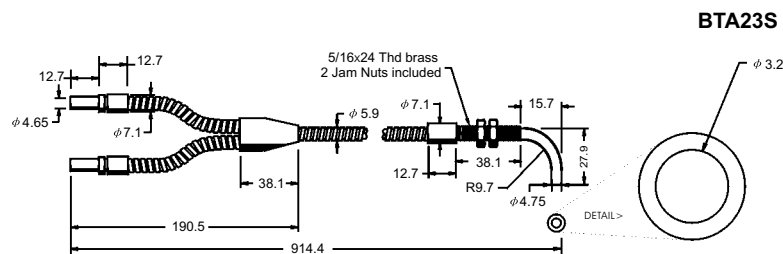


BTA13S

Model number	Length	Bundle	Sheath
BTA13P	910	ϕ 1.6	PVC
BTA13S	910	ϕ 1.6	SS
Range (mm)			

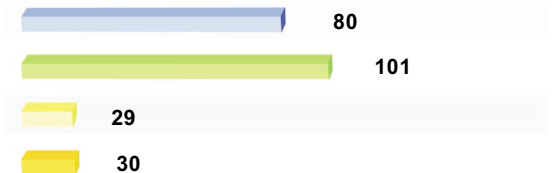


Dimensions (mm)

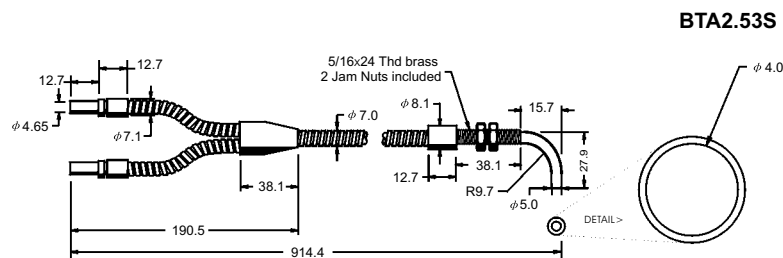


BTA23S

Model number	Length	Bundle	Sheath
BTA23P	910	ϕ 3.2	PVC
BTA23S	910	ϕ 3.2	SS
Range (mm)			

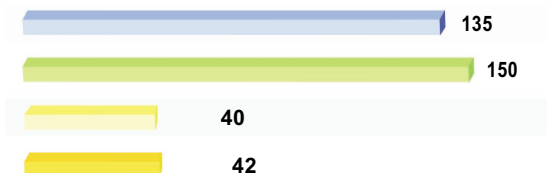


Dimensions (mm)

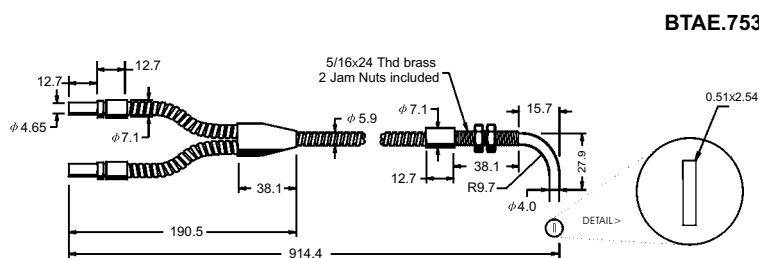


BTA2.53S

Model number	Length	Bundle	Sheath
BTA2.53P	910	ϕ 4.0	PVC
BTA2.53S	910	ϕ 4.0	SS
Range (mm)			

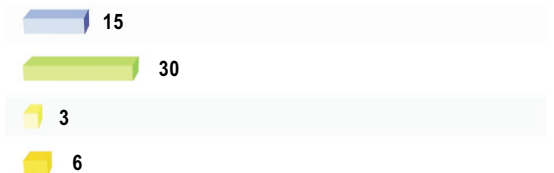


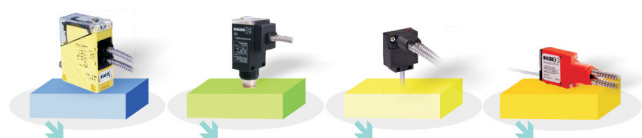
Dimensions (mm)



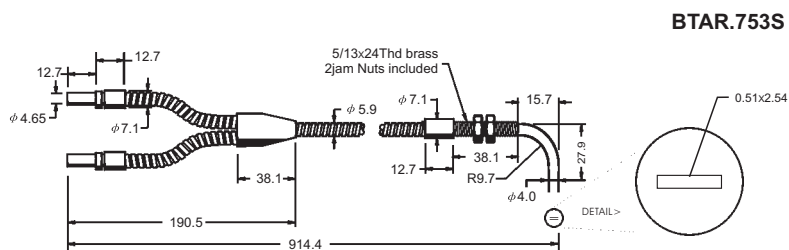
BTAE.753S

Model number	Length	Bundle	Sheath
BTAE.753P	910	0.51x2.54	PVC
BTAE.753S	910	0.51x2.54	SS
Range (mm)			

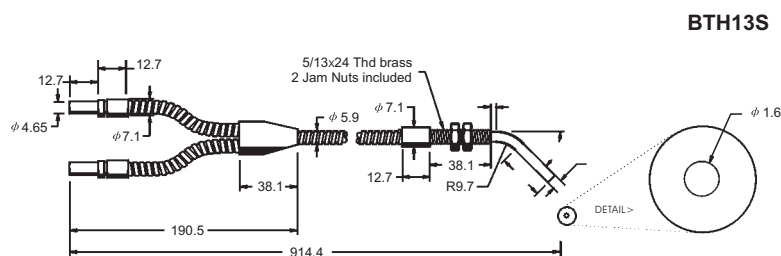




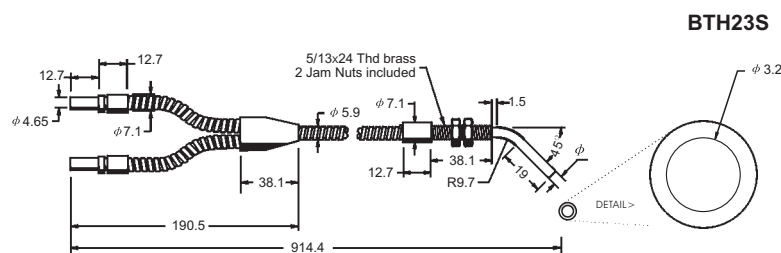
Dimensions (mm)



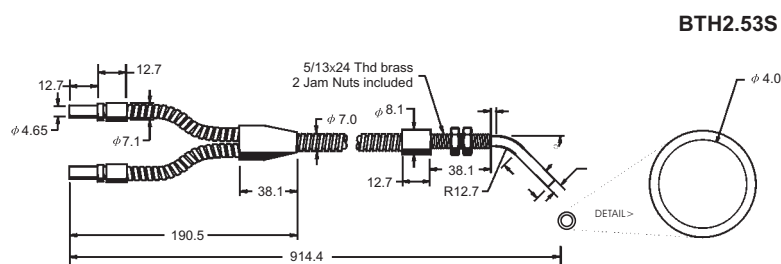
Dimensions (mm)



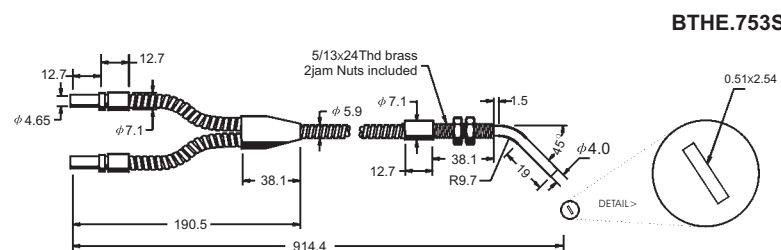
Dimensions (mm)





Dimensions (mm)



Dimensions (mm)



Model number	Length	Bundle	Sheath
BTAR.753P	910	0.51x2.54	PVC
BTAR.753S	910	0.51x2.54	SS
Range (mm)			

	8
	15
	1
	2

Model number	Length	Bundle	Sheath
BTH13P	910	ϕ 1.6	PVC
BTH13S	910	ϕ 1.6	SS
Range (mm)			

Category	Percentage
Yes	35
No	50
Don't know	18
Refuse to answer	18




Model number	Length	Bundle	Sheath
BTH23P	910	ϕ 3.2	PVC
BTH23S	910	ϕ 3.2	SS
Range (mm)			

Category	Value
Blue	80
Green	101
Yellow	29
Orange	30

Model number	Length	Bundle	Sheath
BTH2.53P	910	ϕ 4.0	PVC
BTH2.53S	910	ϕ 4.0	SS
Range (mm)			

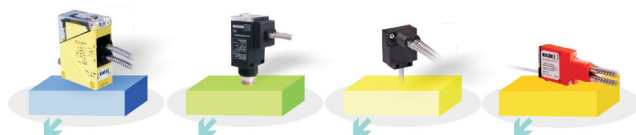
Category	Count
Yes	135
No	150
Don't know	40
Refused	42

Model number	Length	Bundle	Sheath
BTHE.753P	910	0.51x2.54	PVC
BTHE.753S	910	0.51x2.54	SS
Range (mm)			

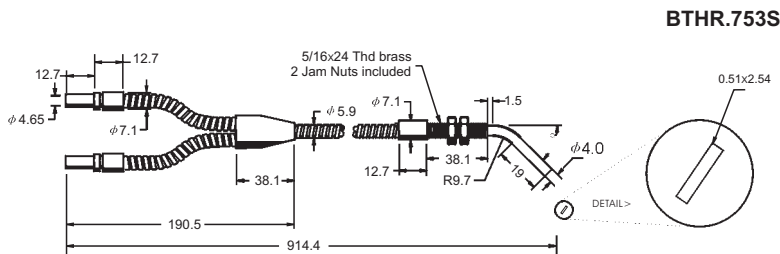
	15
	25
	5
	5

Diffuse Mode Bifurcated Cables

Glass Fibers



Dimensions (mm)



Model number	Length	Bundle	Sheath
BTHR.753P	910	0.51x2.54	PVC
BTHR.753S	910	0.51x2.54	SS

Range (mm)

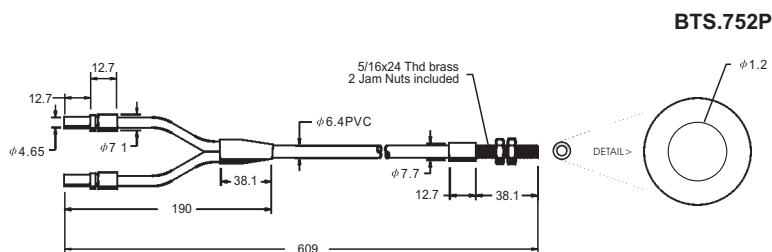
25

45

10

10

Dimensions (mm)



Model number	Length	Bundle	Sheath
BTS.752P	610	1.2	PVC
BTS.752S	610	1.2	SS

Range (mm)

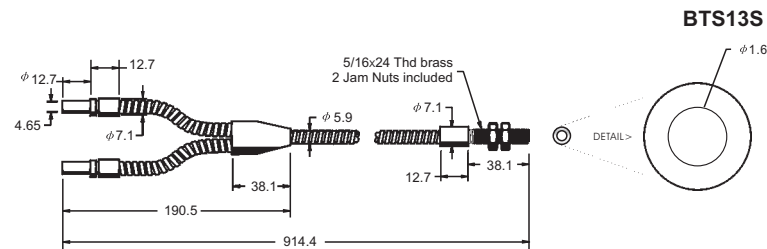
15

34

12

12

Dimensions (mm)



Model number	Length	Bundle	Sheath
BTS13P	910	1.6	PVC
BTS13S	910	1.6	SS

Range (mm)

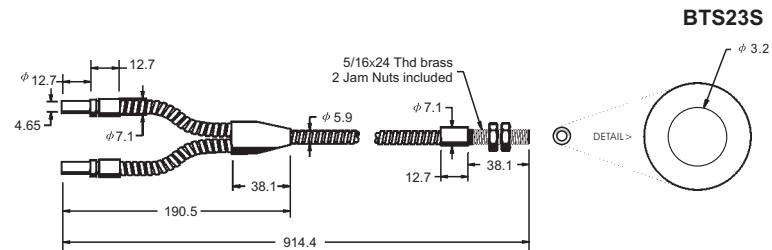
35

50

18

18

Dimensions (mm)



Model number	Length	Bundle	Sheath
BTS23P	910	3.2	PVC
BTS23S	910	3.2	SS
BTS26S	1820	3.2	SS

Range (mm)

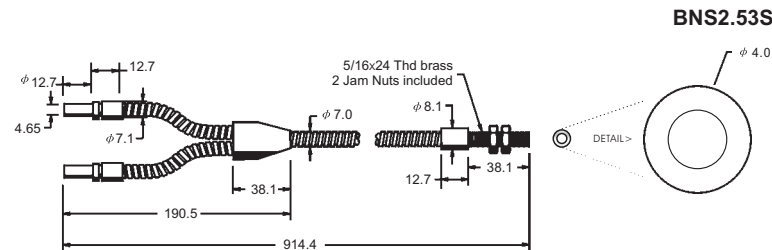
80

101

29

30

Dimensions (mm)



Model number	Length	Bundle	Sheath
BNS2.53P	910	4.0	PVC
BNS2.53S	910	4.0	SS

Range (mm)

135

150

40

42

Diffuse Mode

Bifurcated Cables



Category	Percentage
Other	15
Other	34
Other	12
Other	12

Response	Percentage
Yes	40
No	80
Don't know	20
No answer	20

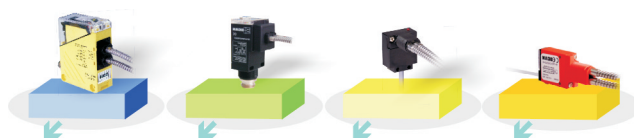
Category	Percentage
Very good	35
Good	50
Not good	18
Very bad	18

Country	Share of GDP
China	80
USA	101
Germany	29
France	30

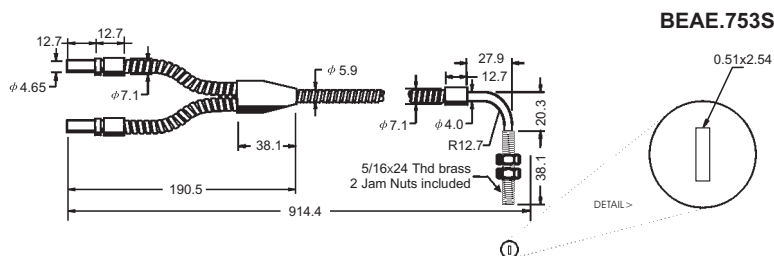
Number of religions (names not known)	Number of people
All four	135
Three	150
Two	40
One	42

Diffuse Mode Bifurcated Cables

Glass Fibers



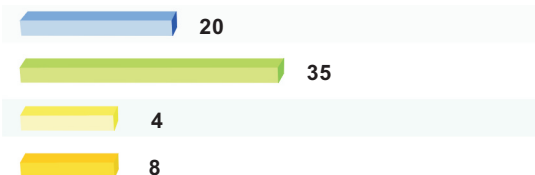
Dimensions (mm)



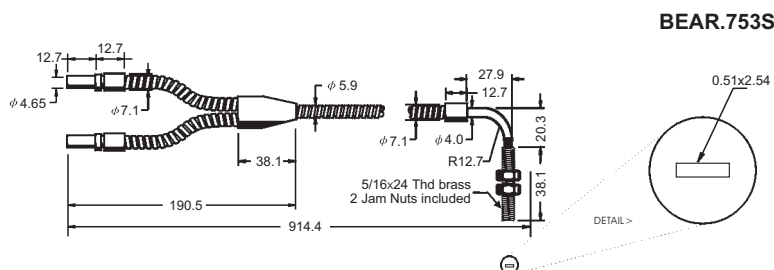
BEAE.753S

Model number	Length	Bundle	Sheath
BEAE.753P	910	0.51x2.54	PVC
BEAE.753S	910	0.51x2.54	SS

Range (mm)



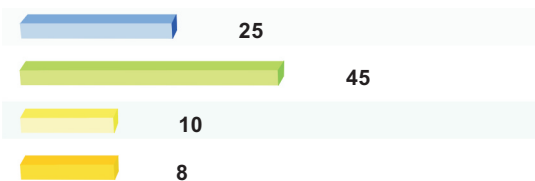
Dimensions (mm)



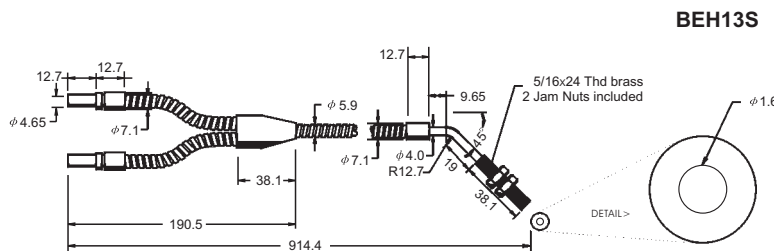
BEAR.753S

Model number	Length	Bundle	Sheath
BEAR.753P	910	0.51x2.54	PVC
BEAR.753S	910	0.51x2.54	SS

Range (mm)



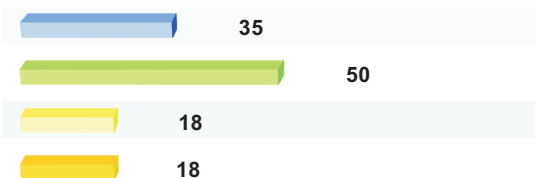
Dimensions (mm)



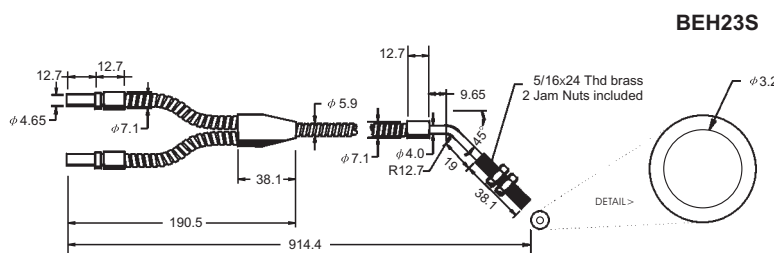
BEH13S

Model number	Length	Bundle	Sheath
BEH13P	910	φ 1.6	PVC
BEH13S	910	φ 1.6	SS

Range (mm)



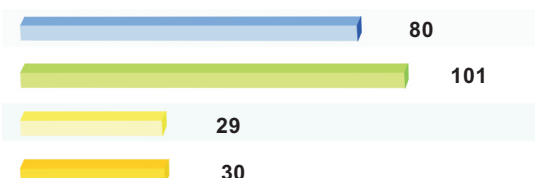
Dimensions (mm)



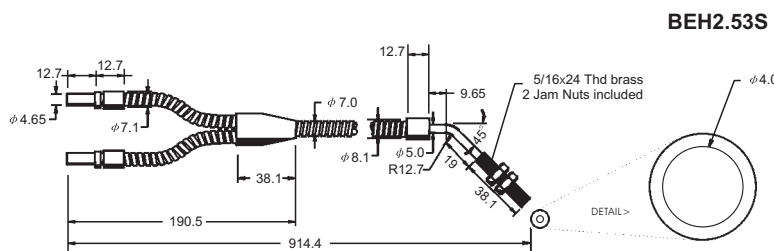
BEH23S

Model number	Length	Bundle	Sheath
BEH23P	910	φ 3.2	PVC
BEH23S	910	φ 3.2	SS

Range (mm)



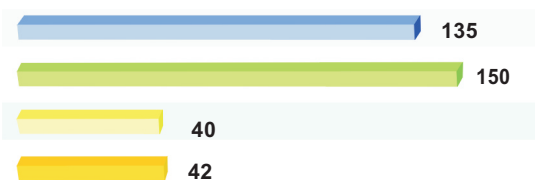
Dimensions (mm)

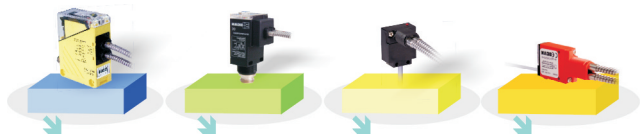


BEH2.53S

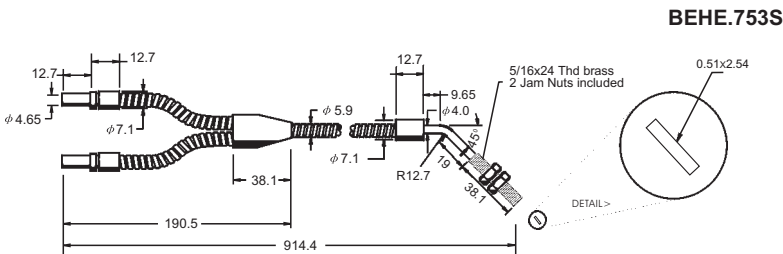
Model number	Length	Bundle	Sheath
BEH2.53P	910	φ 4.0	PVC
BEH2.53S	910	φ 4.0	SS

Range (mm)

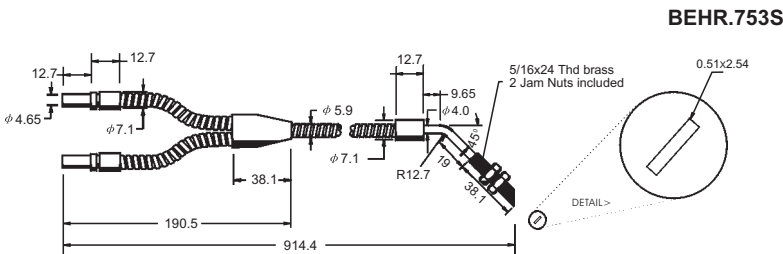




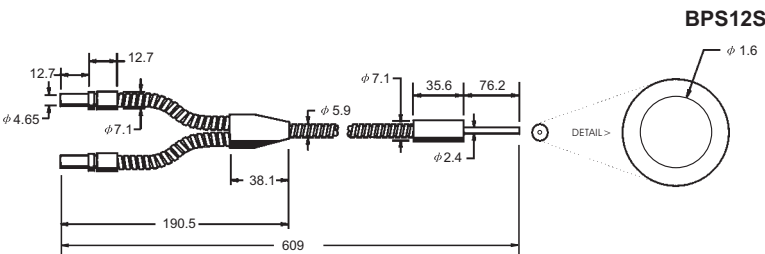
Dimensions (mm)



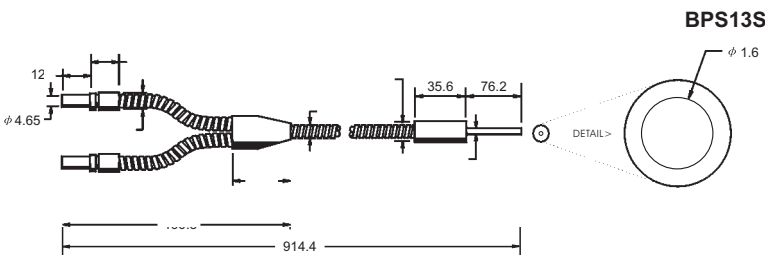
Dimensions (mm)



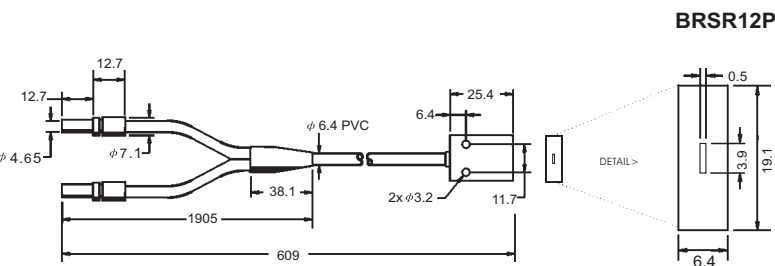
Dimensions (mm)



Dimensions (mm)



Dimensions (mm)



Model number	Length	Bundle	Sheath
BEHE.753P	910	0.51x2.54	PVC
BEHE.753S	910	0.51x2.54	SS
Range (mm)			

25	40	4	8
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Model number	Length	Bundle	Sheath
BEHR.753P	910	0.51x2.54	PVC
BEHR.753S	910	0.51x2.54	SS
Range (mm)			

30	45	10	10
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Model number	Length	Bundle	Sheath
BPS12P	610	φ 1.6	PVC
BPS12S	610	φ 1.6	SS
Range (mm)			

35	50	18	18
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Model number	Length	Bundle	Sheath
BPS13P	910	φ 1.6	PVC
BPS13S	910	φ 1.6	SS
Range (mm)			

35	50	18	18
----	----	----	----

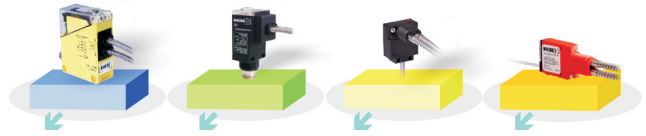
Model number	Length	Bundle	Sheath
BRSR12P	610	0.51x3.91	PVC
BRSR12S	610	0.51x3.91	SS
Range (mm)			

45	70	18	16
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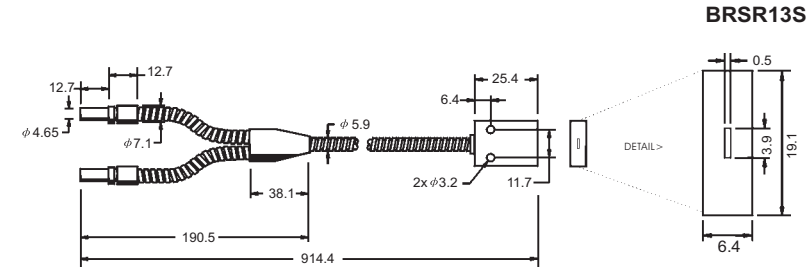
Diffuse Mode

Bifurcated Cables

Glass Fibers

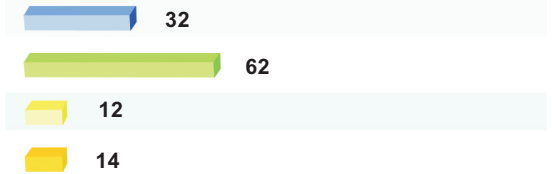


Dimensions (mm)

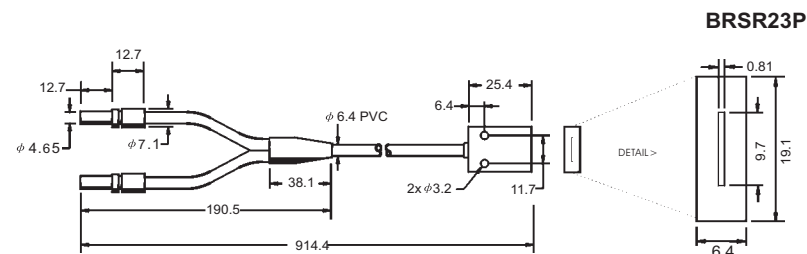


Model number	Length	Bundle	Sheath
BRSR13P	910	0.51x3.91	PVC
BRSR13S	910	0.51x3.91	SS

Range (mm)

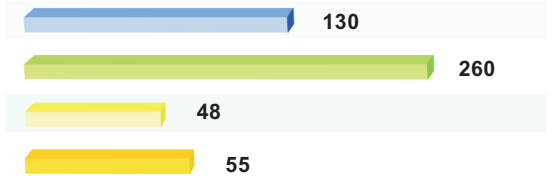


Dimensions (mm)

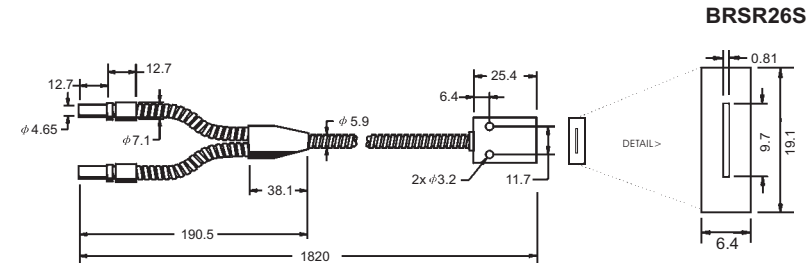


Model number	Length	Bundle	Sheath
BRSR23P	910	0.81x9.70	PVC
BRSR23S	910	0.81x9.70	SS

Range (mm)

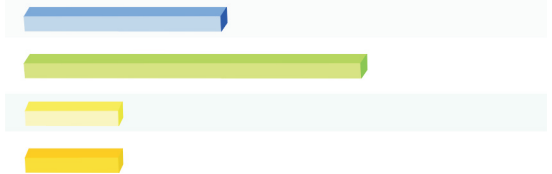


Dimensions (mm)

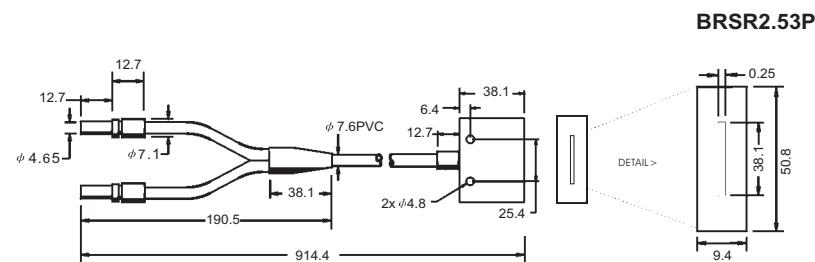


Model number	Length	Bundle	Sheath
BRSR26P	1820	0.81x9.70	PVC
BRSR26S	1820	0.81x9.70	SS

Range (mm)

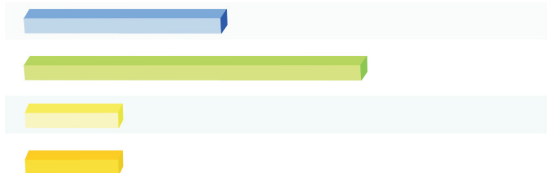


Dimensions (mm)

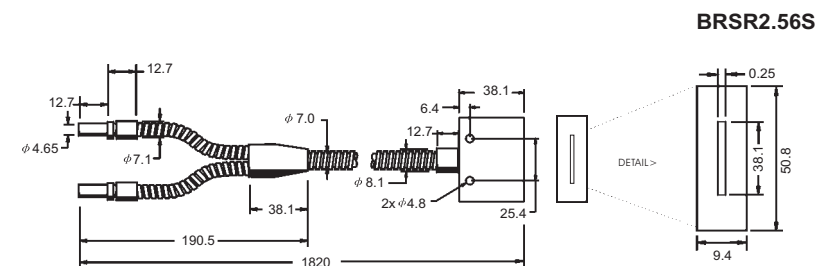


Model number	Length	Bundle	Sheath
BRSR2.53S	910	2.5x38.1	SS
BRSR2.53P	910	2.5x38.1	PVC

Range (mm)

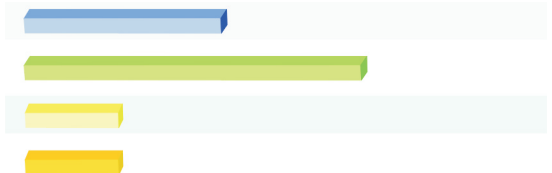


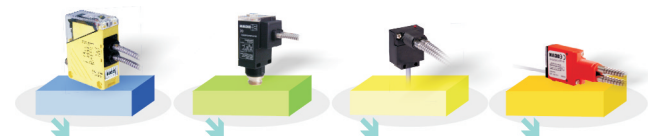
Dimensions (mm)



Model number	Length	Bundle	Sheath
BRSR2.56P	1820	0.25x38.1	PVC
BRSR2.56S	1820	0.25x38.1	SS

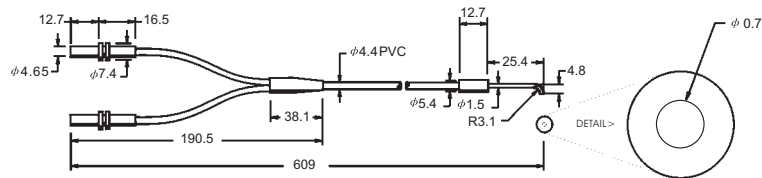
Range (mm)





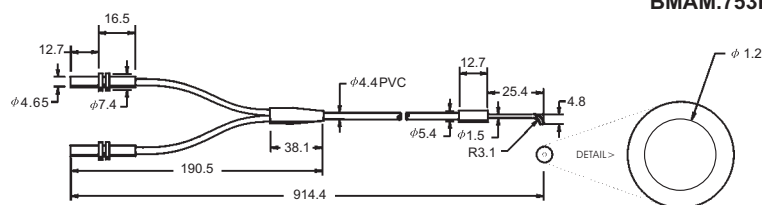
Dimensions (mm)

BMAM.442P



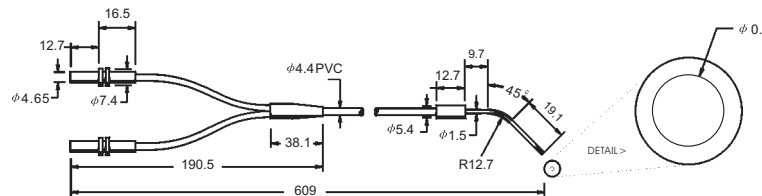
Dimensions (mm)

BMAM.753P



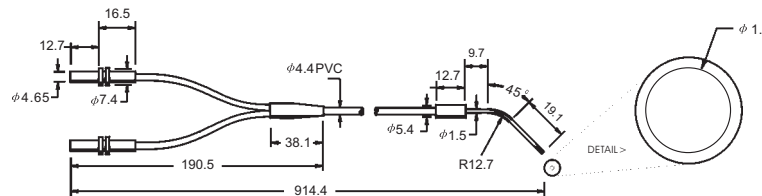
Dimensions (mm)

BMHM.442P



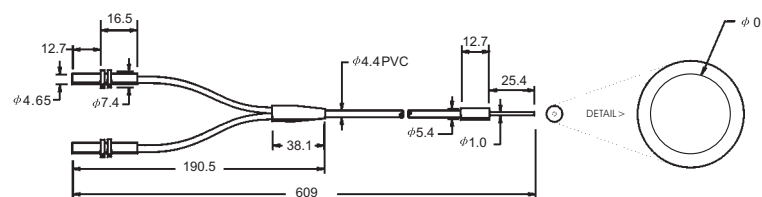
Dimensions (mm)

BMHM.753P



Dimensions (mm)

BMSI.442P



Model number	Length	Bundle	Sheath
BMAM.442P	610	φ 0.7	PVC
Range (mm)			

8	6	4	4
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Model number	Length	Bundle	Sheath
BMAM.753P	910	φ 1.2	PVC
Range (mm)			

15	34	12	12
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Model number	Length	Bundle	Sheath
BMHM.442P	610	φ 0.7	PVC
Range (mm)			

8	6	4	4
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Model number	Length	Bundle	Sheath
BMHM.753P	910	φ 1.2	PVC
Range (mm)			

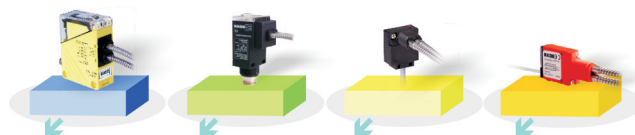
15	34	12	12
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Model number	Length	Bundle	Sheath
BMSI.442P	610	φ 0.7	PVC
Range (mm)			

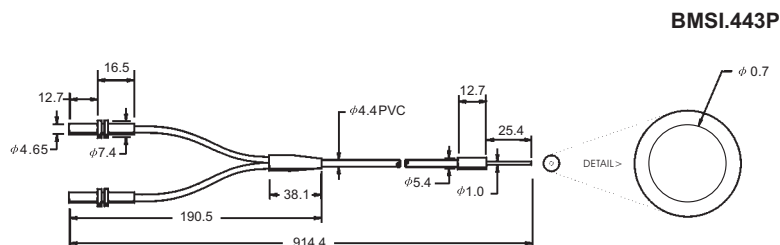
8	6	4	4
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Diffuse Mode

Bifurcated Cables



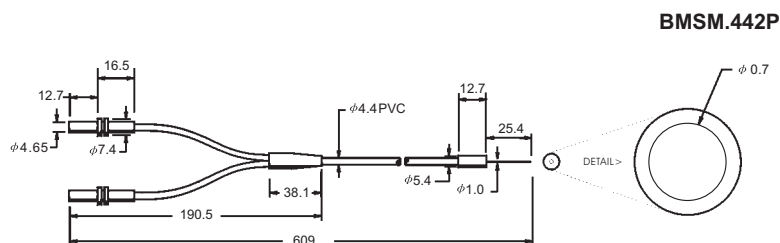
Dimensions (mm)



Model number	Length	Bundle	Sheath
BMSI.443P	910	ϕ 0.7	PVC
Range (mm)			

	8
	6
	4
	4

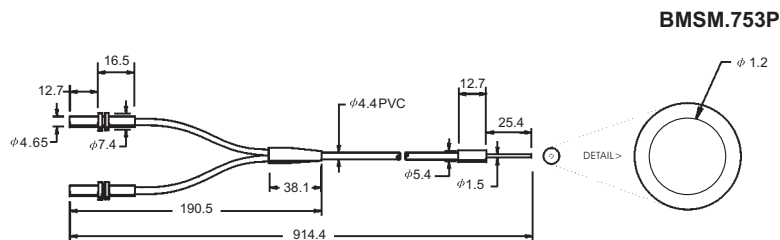
Dimensions (mm)



Model number	Length	Bundle	Sheath
BMSM.442P	610	ϕ 0.7	PVC
Range (mm)			

	8
	6
	4
	4

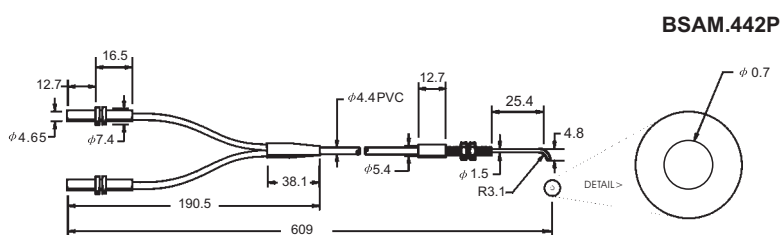
Dimensions (mm)



Model number	Length	Bundle	Sheath
BMSM.753P	910	ϕ 1.2	PVC
Range (mm)			

	15
	34
	12
	12

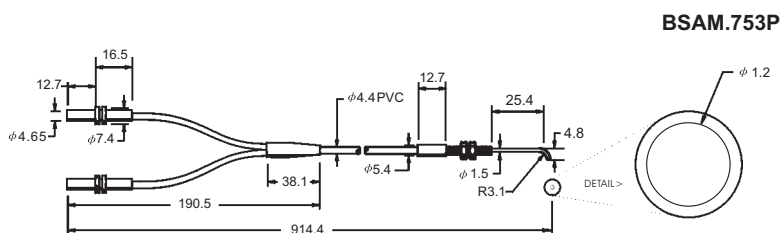
Dimensions (mm)



Model number	Length	Bundle	Sheath
BSAM.442P	610	ϕ 0.7	PVC
Range (mm)			

	8
	6
	4
	4

Dimensions (mm)

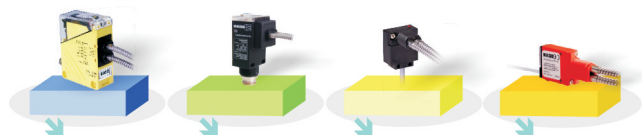


Model number	Length	Bundle	Sheath
BSAM.753P	910	ϕ 1.2	PVC
Range (mm)			

	15
	34
	12
	12

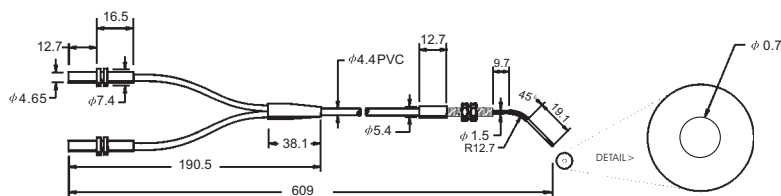
Glass Fibers

Diffuse Mode Bifurcated Cables



Dimensions (mm)

BSHM.442P

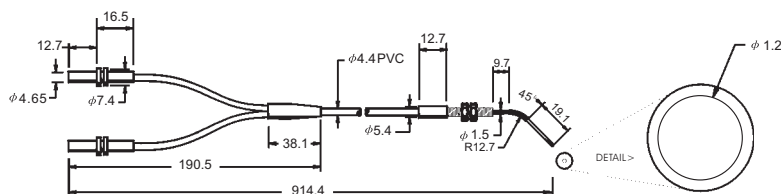


Model number	Length	Bundle	Sheath
BSHM.442P	610	φ 0.7	PVC
Range (mm)			

8	6	4	4
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Dimensions (mm)

BSHM.753P

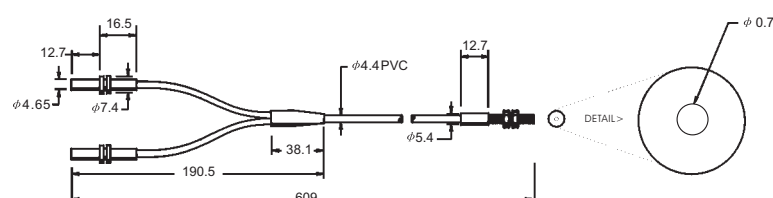


Model number	Length	Bundle	Sheath
BSHM.753P	910	φ 1.2	PVC
Range (mm)			

15	34	12	12
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Dimensions (mm)

BSS.442P

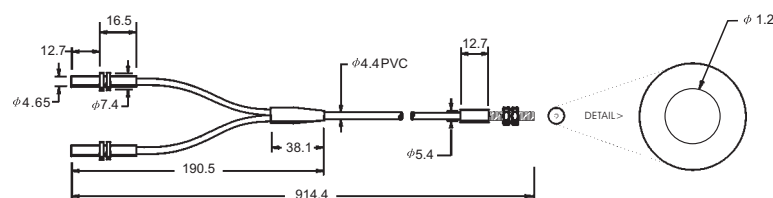


Model number	Length	Bundle	Sheath
BSS.442P	610	φ 0.7	PVC
Range (mm)			

8	6	4	4
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Dimensions (mm)

BSS.753P

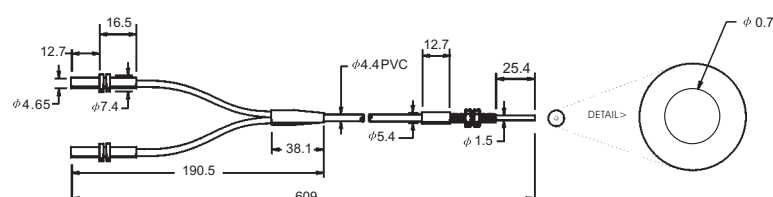


Model number	Length	Bundle	Sheath
BSS.753P	910	φ 1.2	PVC
Range (mm)			

15	34	12	12
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Dimensions (mm)

BSSM.442P

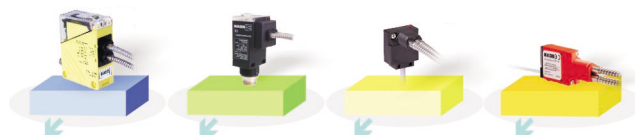


Model number	Length	Bundle	Sheath
BSSM.442P	610	φ 0.7	PVC
Range (mm)			

8	6	4	4
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Bifurcated Cables

Glass Fibers



Dimensions (mm)

Technical drawing of the BSSM.753P cable assembly. The side view shows a cable with a total length of 914.4 mm. It features a 16.5 mm long connector at one end, a 12.7 mm long section, and a 25.4 mm long section. The cable has a diameter of $\phi 4.65$ and a core diameter of $\phi 7.4$. The main body has a diameter of $\phi 4.4$ PVC and a length of 190.5 mm. The end section has a diameter of $\phi 5.4$ and a length of 38.1 mm. A detail view shows the outer sheath with a diameter of $\phi 1.2$.

Model number	Length	Bundle	Sheath
BSSM.753P	910	$\phi 1.2$	PVC

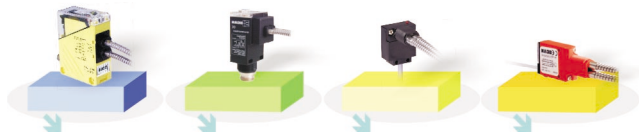
Range (mm)

15	34	12
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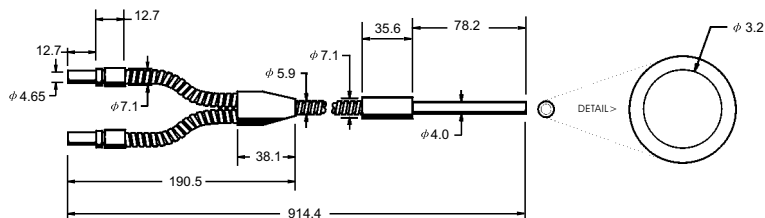
[illegible][illegible]

Dimensions (mm)	Model number	Length	Bundle	Sheath
	Range (mm)			

Dimensions (mm)	Model number	Length	Bundle	Sheath
	Range (mm)			



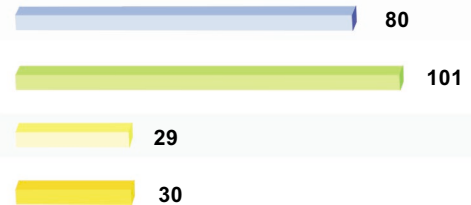
Dimensions (mm)



BNS23SM3

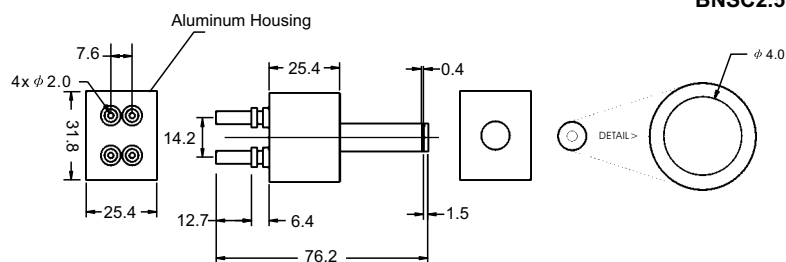
Model number	Length	Bundle	Sheath
BNS23SM3	910	ϕ 3.2	SS

Range (mm)



This BF23S with three inch ferrule also has a mounting "bullet" found on probe style fibers, This allows use of the FMB-1 mounting bracket.

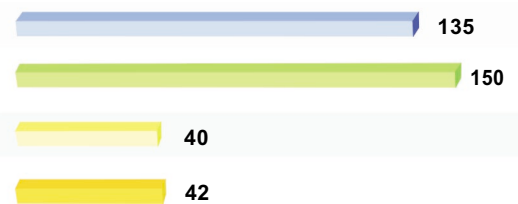
Dimensions (mm)



BNSC2.5

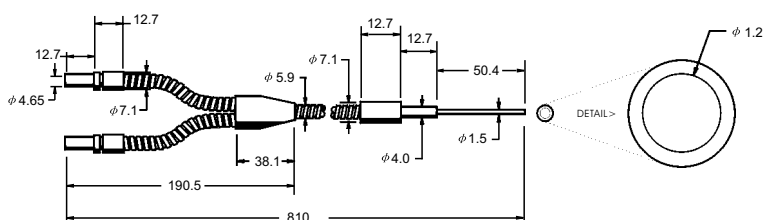
Model number	Length	Bundle	Sheath
BNSC2.5	760	ϕ 4.0	Aluminum

Range (mm)



This Double Bifurcated Radial Circle fiber assembly is used to inspect the inside of a cylinder wall to detect the absence of A black coating. The M300 suffix indicates that the assembly is designed for use with SM312 Series sensors. The circular bundle is split between two model SM312FV sensors, which (in instance) provide a visible light source that yields a higher contrast ratio than would an infrared source in color sensing applications.

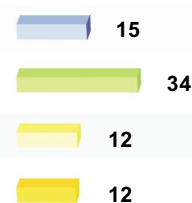
Dimensions (mm)



BNSM.753SM2

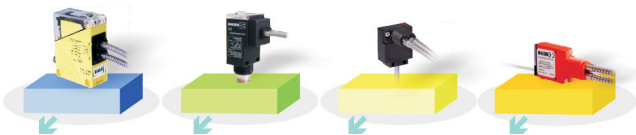
Model number	Length	Bundle	Sheath
BNSM.753SM2	810	ϕ 1.2	SS

Range (mm)



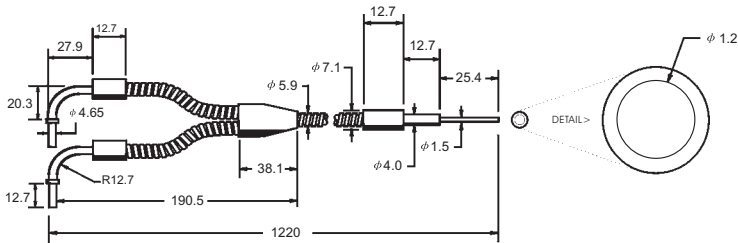
Standard model BM.752S is modified to create this special assembly. The overall length is extended to 36 inches and the miniature Sensing end is two inches long. Miniature ends are made of stainless steel and are not bendable. We can pre-bend the tubing before assembling the fiber in order to create a particular design. Multiple bends in the Sensing end can also be made.

Bifurcated Cables



Dimensions (mm)

BNSM.754SASEN



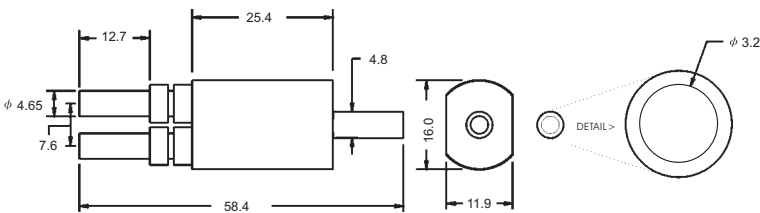
Model number	Length	Bundle	Sheath
BNSM.754SASEN	1220	φ 1.2	SS
Range (mm)			

15	34	12	12
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Fiber optic assemblies may be designed to exactly fit a space-restricted area. This angle. The minimum bend radius of the sheathing of a standard fiber assembly would have been exceeded in this application. This modification can be made to virtually any standard fiber optic assembly.

Dimensions (mm)

BNSM300



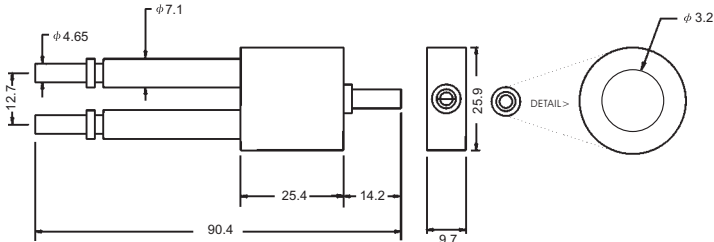
Model number	Length	Bundle	Sheath
BNSM300	58	φ 3.2	Aluminum
Range (mm)			

80	101	29	30
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Most fiber optic assemblies use flexible sheathing to allow the sensing end to reach areas which are inaccessible to a larger self-contained photoelectric sensor. This assembly is a block which is used with MINI-BEAM fiber optic sensors. This fiber was designed for systems which require the sensor to be mounted on a movable arm. When a part is in place, the sensor moves to the inspection point. This type of assembly eliminates breakage caused by flexing of the sheathing of a standard fiber.

Dimensions (mm)

BNSMVB



Model number	Length	Bundle	Sheath
BNSMVB	90	φ 3.2	Aluminum
Range (mm)			

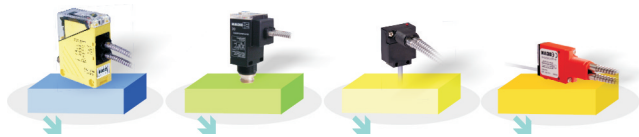
80	101	29	30
----	-----	----	----

This modification is similar to model BNSM300, shown above. This fiber assembly was designed for the VALU-BEAM family of self-contained sensors. As always, modifications are possible to the ferrule length, ferrule diameter and fiber bundle diameter of this assembly.

Glass Fibers

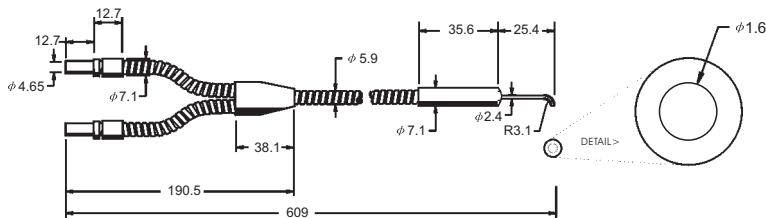
Diffuse Mode

Bifurcated Cables







Dimensions (mm)

BPA12SM1x.25



Model number	Length	Bundle	Sheath
BPA12SM1x.25	610	ϕ 1.6	SS

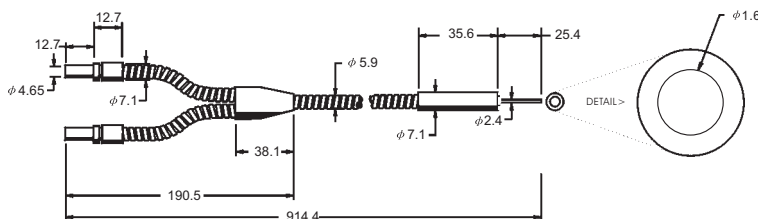
Range (mm)

	35
	
	18
	18

This modification of standard model BPA12S shows the minimum bend radius of the 0.09 inch diameter tubing used on standard probe fibers. The 1/4 inch distance after the angle is the minimum allowable for true 90%D angle. Standard probe length is three inches, with the middle two inches bendable. One half inch on each end of the probe is not bendable due to the optical epoxy used. The one inch probe on model BP12SMA1x.25 is not bendable.

Dimensions (mm)

BPS13SM1



Model number	Length	Bundle	Sheath
BPS13SM1	910	ϕ 1.6	SS

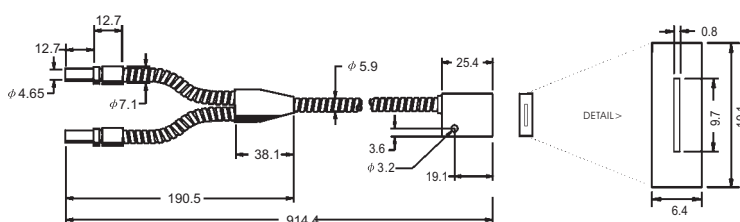
Range (mm)

Blue	35
Green	50
Yellow	18
Orange	18

This model is similar to the assembly shown above. The standard three inch probe length is reduced to one inch. The 0.09 inch diameter stainless steel probe can be made as made long as desired, allowing custom bending of the probe in the field. The probe on model is not bend able, due to its short length.

Dimensions (mm)

BRSR23SM1



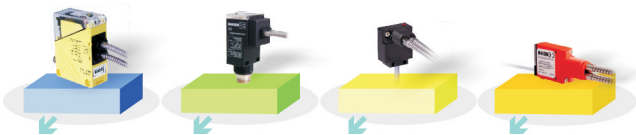
Model number	Length	Bundle	Sheath
BRSR23SM1	910	0.8x9.7	SS

Range (mm)

Response	Count
Don't know	101
Other	29
Refuse to answer	30

Model BRSR23SM1 is a cable exit modification to BRSR23S and has a Corner Cable Exit. This modification is also available on individual fiber optic assemblies, and fibers with a smaller rectangular bundle size. This model loses one of the two available mounting holes due to its modification.

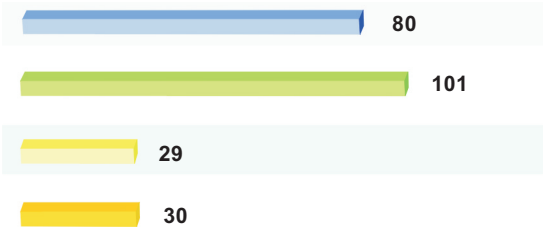
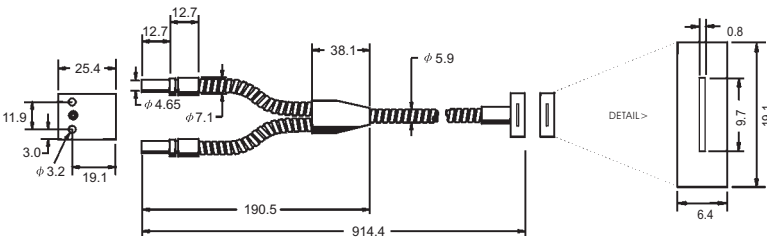
Bifurcated Cables



Dimensions (mm)

Model number	Length	Bundle	Sheath
BRVE23S	910	0.8x9.7	SS
Range (mm)			

BRVE23S

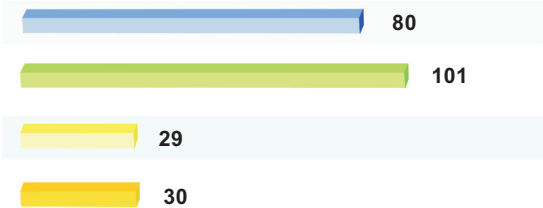
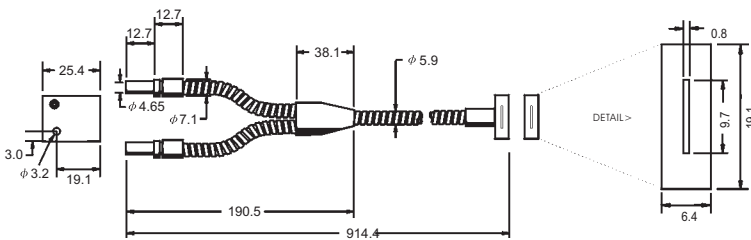


Model BREV23S is a cable exit modification to BRSR23S and has a Cable Side Center. This Modification is also available on individual fiber optic assemblies, and fibers with a smaller rectangular bundle size.

Dimensions (mm)

Model number	Length	Bundle	Sheath
BRVE23SMCSE	910	0.8x9.7	SS
Range (mm)			

BRVE23SMCSE

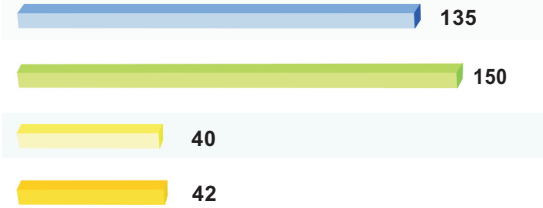
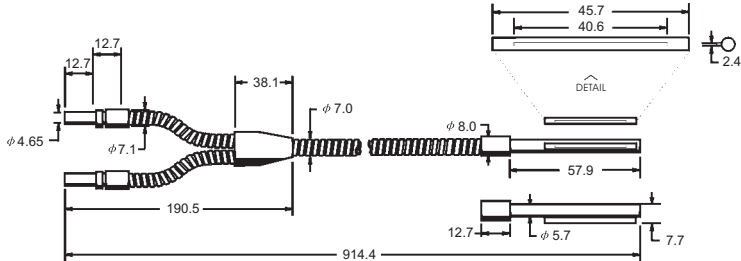


Model BRVE23SMCSE is a cable exit modification to BRSR23S and a Cable Side Exit. This modification is also available on individual fiber optic assemblies, and fibers with a smaller rectangular bundle size. This model loses one two available mounting holes due to its modification.

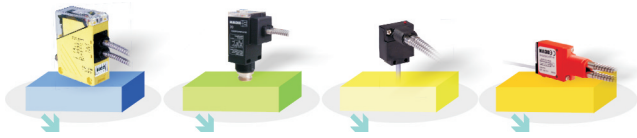
Dimensions (mm)

Model number	Length	Bundle	Sheath
BRVR2.53S	910	0.2x40.6	SS
Range (mm)			

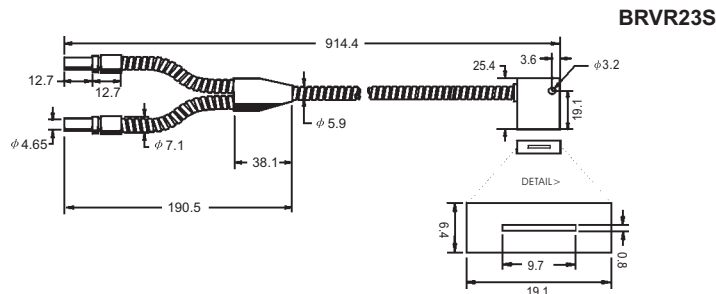
BRVR2.53S



The model BRVR2.53S Bifurcated Rectangular Side Exit assembly is used in applications where space is limited. This assembly can be built as a bifurcated fiber assembly (shown above) or as an individual fiber assembly (Model IRVR2.53S).



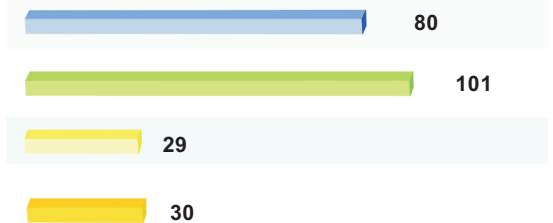
Dimensions (mm)



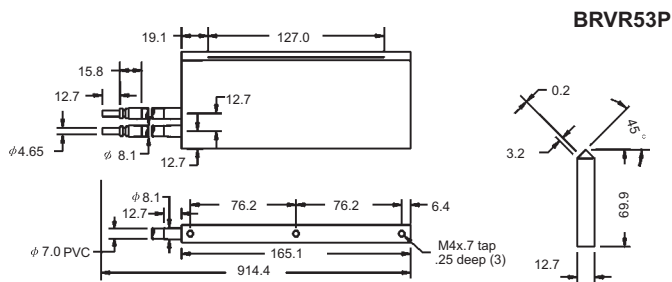
Model BRVR23S is a cable exit modification of standard model BRSR23S. This assembly was designed for a register mark sensing application where there was very limited space for the sensor. The fiber optic sensing end could not be close to the surface of the web. Therefore a large rectangular fiber bundle was required. The fiber optic cable exits from the side of the plastic housing. Note that one of the two mounting holes is lost due to this modification.

Model number	Length	Bundle	Sheath
BRVR23S	910	0.8x9.7	SS

Range (mm)



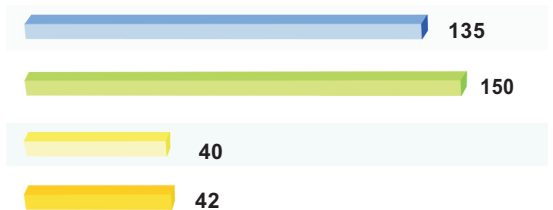
Dimensions (mm)



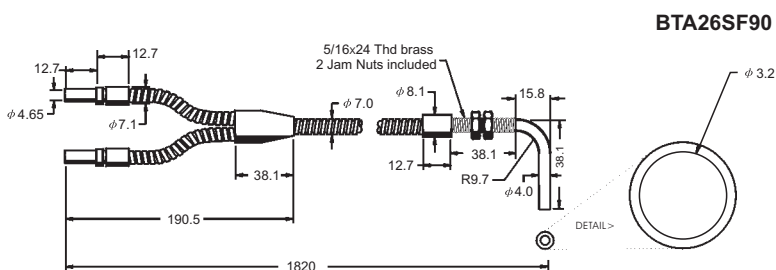
This special rectangular fiber assembly uses the maximum bundle size (0.156 inch diameter) in each ferrule to obtain this large sensing area. The assembly requires the use of one photoelectric sensor to cover the five inch wide window. The fiber optic block is beveled on the end where the fiber slot is located. The object in this application is folded paper which is placed on top of this fiber assembly. This configuration is used to allow the fibers to "look" at the object being sensed at a perpendicular angle.

Model number	Length	Bundle	Sheath
BRVR53P	910	0.2x12.7	PVC

Range (mm)



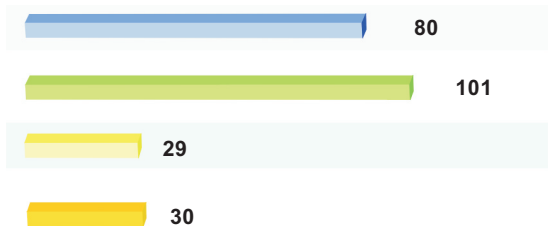
Dimensions (mm)

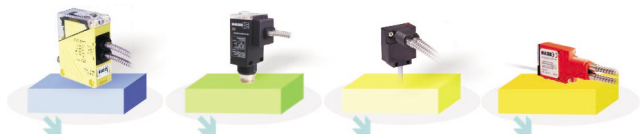


This modification of standard model BTA23S is used for high temperature applications. The maximum temperature limit of this special fiber assembly is 900%DF (+480%DC). The threaded portion of the fiber is changed from brass (on the standard model) to stainless steel (on this special). Stainless steel tubing has brass insert. The overall length has also been changed from 36 to 72 inches.

Model number	Length	Bundle	Sheath
BTA26SF90	1820	ϕ 3.2	SS

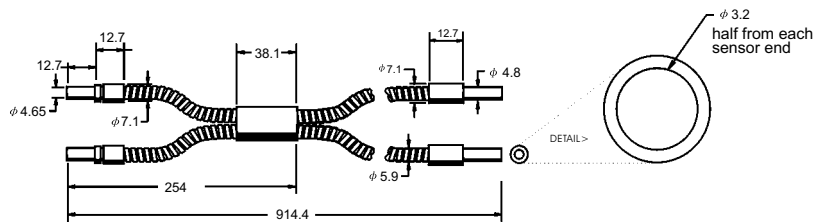
Range (mm)





Dimensions (mm)

B2NS23S



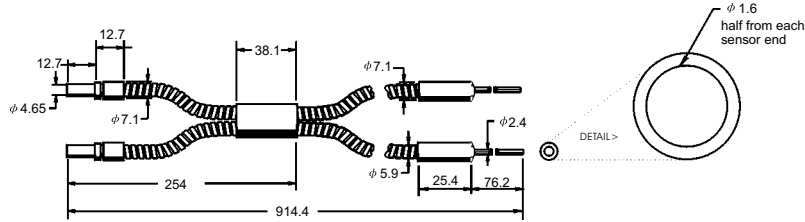
Model number	Length	Bundle	Sheath
B2NS23S	910	φ 3.2	SS
Range (mm)			

	80
	101
29	
30	

This Double Bifurcated fiber optic assembly has straight Ferrules on the sensing ends. This modification of standard model BNS23S has 1/8 inch diameter fiber bundles on both sensing ends. To determine the sensing range of this fiber use the excess gain curves for fiber model BTS23S, shown with each fiber optic sensor.

Dimensions (mm)

B2PS13S



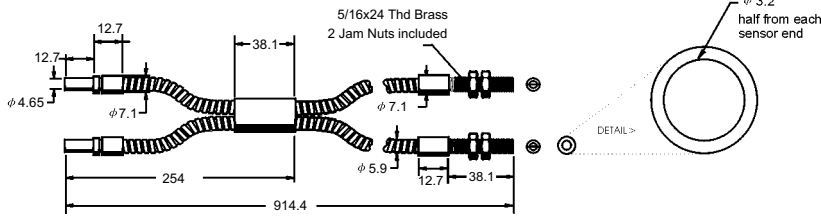
Model number	Length	Bundle	Sheath
B2PS13S	910	φ 1.6	SS
Range (mm)			

	35
	50
18	
18	

This special Double Bifurcated Probe style fiber was designed for a particular application requirement. The object being sensed was a small metallic object with a smooth shiny surface. The positioning of the part was not consistent (not always perpendicular to the sensing end). Therefore, the light from the sensing end was sometimes reflected away from the fiber. The solution was to use two sensing ends mounted at slightly different angles. The middle two inches of the three inch probe is bendable. The sensing ends were bent slightly to insure that if one end did not receive reflected light from the part, the other end would.

Dimensions (mm)

B2TS23S



Model number	Length	Bundle	Sheath
B2TS23S	910	φ 3.2	SS
Range (mm)			

	80
	101
29	
30	

This Double Bifurcated Threaded fiber optic cable is a popular special assembly. Mounting the sensing ends is easy using the jam nuts. Each sensing end has a 1/8 inch diameter fiber bundle and performance equal to a single bifurcated assembly, like model BT23S. If the photoelectric sensor is programmed for light operate, a "light-OR" logic function results.

Glass Fibers

Range (mm)

Dimensions (mm)

Range (mm)

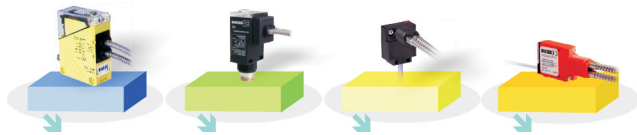
Dimensions (mm)

Range (mm)

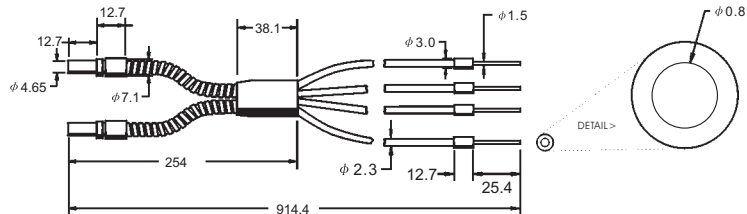
55 —

Glass Fibers

Diffuse Mode Bifurcated Cables



Dimensions (mm)



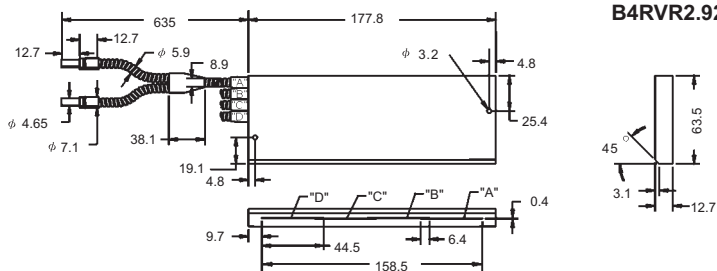
B4MSM.53P

Model number	Length	Bundle	Sheath
B4MSM.53P	910	φ 0.8	SS/PVC
Range (mm)			

-  8
-  6
-  4
-  4

This Quad-Bifurcated Miniature fiber optic assembly with PVC sheathing allows a sensor to inspect four positions at one time. It was designed to detect when a hole is not centered in a metal washer. The four sensing ends are positioned 90° apart around the inside diameter of the washer. As the washer falls, guided through the inspection area, an interrogate ("gate") signal tells the photoelectric sensor when to "look". If the hole is off-center, one or more of the sensing ends will sense light reflected from the washer. The PVC sheathing on the sensing end legs of this assembly does not have a monocoil reinforcing wire.

Dimensions (mm)



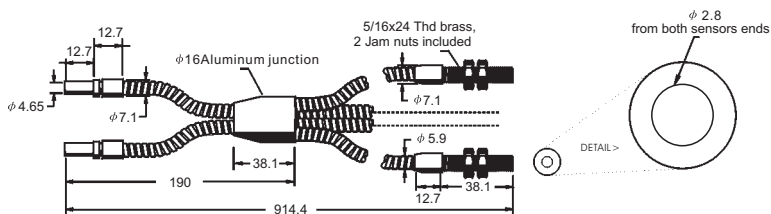
B4RVR2.92S

Model number	Length	Bundle	Sheath
B4RVR2.92S	910	44.5x0.38	SS
Range (mm)			

- 
- 
- 
- 





This special fiber assembly is a Quad-Bifurcated array. It is used in the diffuse sensing mode to "scan" a wide area. The four fiber optic slots are slightly offset from each other for the purpose of reducing the chance of direct optical crosstalk from one slot to the next. When used with four OMNI-BEAM model OSBFAC sensors, a web 6 - 1/4 inches wide can be inspected for surface defects. The fiber line can be made longer or shorter depending upon the application requirements. This design can be built as an individual fiber optic assembly.

Dimensions (mm)



B4TS23S

Model number	Length	Bundle	Sheath
B4TS23S	910	φ 2.8	SS
Range (mm)			

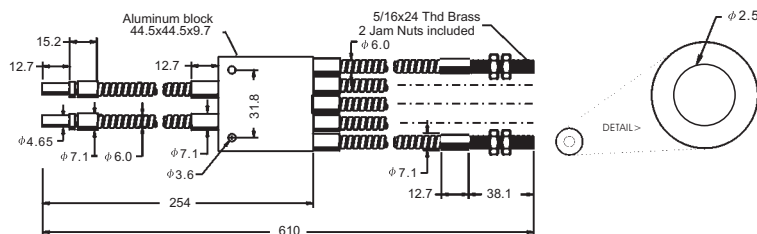
-  60
-  80
-  20
-  22

This fiber is similar to model DBT23S except it has four sensing ends. It is used in the diffuse sensing mode to set up a "light-OR" logic scheme. Both of the ferrule sensor ends contain the maximum bundle (0.156 inch diameter), and each sensing end has a fiber bundle diameter of 0.110 inches. The fiber strands are fully randomized from each ferrule, so that each sensing end contains 1/4 of the bundle from each ferrule. An aluminum the is used instead of a flat block at the bifurcation junction.

Bifurcated Cables

The image displays four different types of actuators, each mounted on a colored rectangular block. From left to right: 1. A yellow solenoid with a black plunger, mounted on a blue block. 2. A black solenoid with a black plunger, mounted on a green block. 3. A black solenoid with a black plunger, mounted on a yellow block. 4. A red solenoid with a black plunger, mounted on a yellow block. Each actuator has a green arrow pointing upwards from its base, indicating the direction of movement.

Model number	Length	Bundle	Sheath
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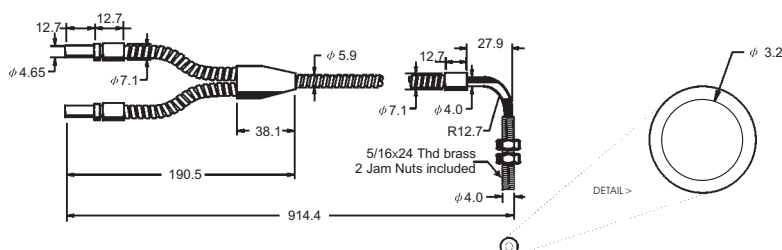


B5NS2.52S

Model number	Length	Bundle	Sheath
B5NS2.52S	610	ϕ 2.5	SS
Range (mm)			

Response	Percentage
Yes	60
No	80
Don't know	20
No answer	22

Dimensions (mm)

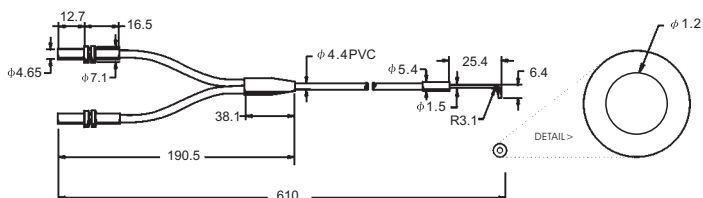


BEA23SF90

Model number	Length	Bundle	Sheath
BEA23SF90	910	ϕ 3.2	SS
Range (mm)			

Age Group	Number of People
18-24	80
25-34	101
35-44	29
45-54	30

Dimensions (mm)



BMAM.752P

Model number	Length	Bundle	Sheath
BMAM.752P	610	$\phi 1.2$	PVC
Range (mm)			

Category	Percentage
Other	15
Other	34
Other	12
Other	12

57 —

Diffuse Mode

Bifurcated Cables

Range (mm)

Dimensions (mm)

Range (mm)

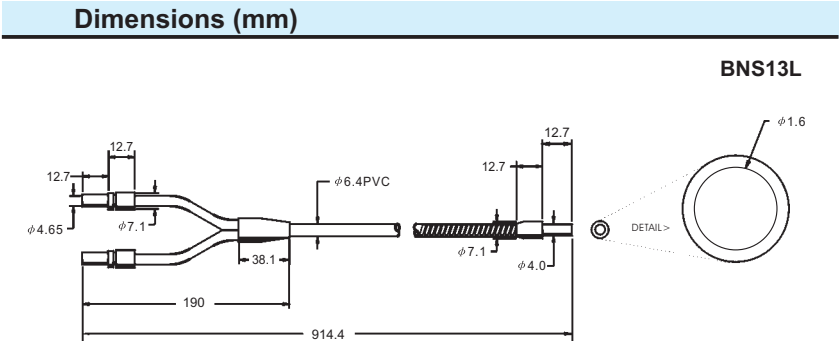
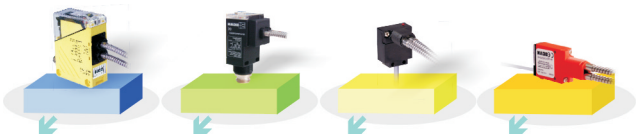
Dimensions (mm)

Range (mm)58

Diffuse Mode

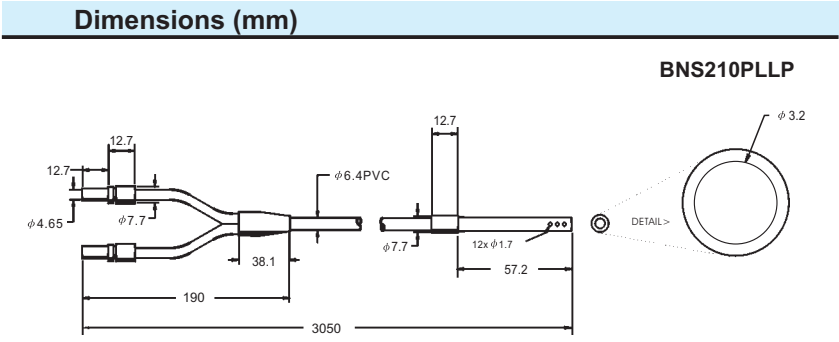
Bifurcated Cables

Glass Fibers



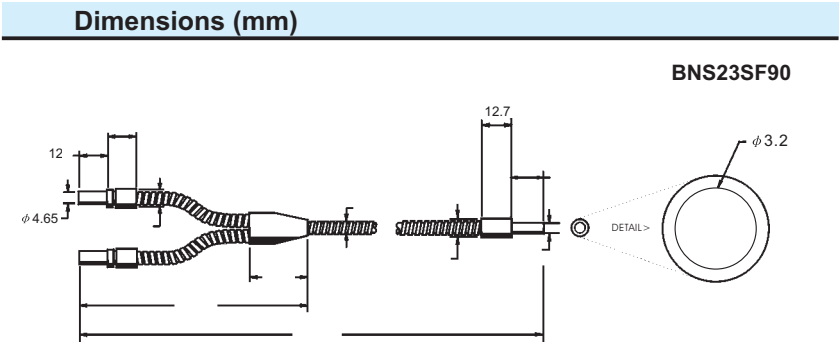
Model number	Length	Bundle	Sheath
BNS13L	910	φ 1.6	Silicone
Range (mm)			
	35		
	50		
	18		
	18		

Silicon rubber sheathing is used for this modification of standard model BF13S. The non-conductive rubber is very soft and flexible. A short length (3 inches) of interlocking stainless steel is used inside the silicone sheathing on all three ends to protect the glass bundle. Silicone sheathing is used for its electrical insulating properties.



Model number	Length	Bundle	Sheath
BNS210PLLP	3050	φ 3.2	PVC
Range (mm)			
	80		
	101		
	29		
	30		

This liquid-level probe fiber has a 1/8 inch diameter glass rod sensing tip, protected by a stainless steel sleeve which has holes around the perimeter to allow liquid to enter and escape. When a liquid is present at the probe tip, the light from the sensor exits from the probe into the liquid, preventing light return to the receiver. The overall length of this assembly is 10 feet, and can be made in any length up to 60 feet.



Model number	Length	Bundle	Sheath
BNS23SF90	910	φ 3.2	SS
Range (mm)			
	80		
	101		
	29		
	30		

This modification of standard model BNS23S is for high temperature environments. The maximum allowable temperature for the standard fiber is 480%DF (249%DC). This modification allows the sensing end tip to survive in temperatures up to 900%DF (480%DC). The fiber bundle is randomly mixed at the sensing end tip. Specify a longer cable length if necessary.

Diffuse Mode

Bifurcated Cables



This special assembly is an example of a modification to the sensing end ferrule of standard model BNS23S. Here, the ferrule length is 1.06 inches. A ferrule end tip can be ordered in nearly any length. the ferrule diameter can also be modified. This style of end tip is hard stainless steel, and is not bendable.

This modification of the ferrule end tip extends for a total length of two inches. A ferrule-style fiber is typically mounted through a 3/16 inch diameter hole, using a set screw to secure it. By using a long ferrule tip, easy adjustment of sensing distance is possible by sliding the ferrule in and out through the mounting hole.

Model number	Length	Bundle	Sheath
Range (mm)			