

1 Easy to assemble and disassemble.

2 Intensified pull-out.

3 Diverse thread available such as G, M, Pg, NPT, UNEF.



CPSFIX Specification

PNC — IP68

NEW

For railroad cars,
Male thread,
Straight, One touch type



Black
Gray

PWC — IP68

NEW

For railroad cars,
Male thread,
90˚bent, One touch type



Black
Gray

PICC — IP68

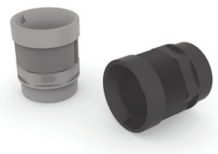
NEW

For railroad cars,
Female thread,
Straight, One touch type in which cable gland is inserted

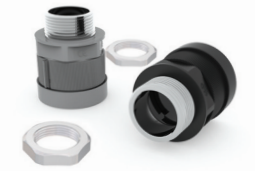


Black
Gray

Type	Material	Temperature range	Self-extinguishing	Thread	Tube Size											
					07	10	12	16	22	28	36	42	48	56	70	95
PNC	Polyamide 6	-40℃ ~ +105℃ / 150℃ Short Term	UL94-HB / Free of Halogen Phosphorous and cadmium	G 1/4"	●											
				G 1/2"		●	●	●								
				G 3/4"					●							
				G 1"						●						
				G 1 1/4"							●					
				G 1 1/2"									●			
				G 2"									●	●		
				G 2 1/2"											●	
				G 4"												●
				M 12×1.5	●	●	●									
				M 16×1.5	●	●	●	●								
				M 20×1.5	●	●	●	●								
				M 25×1.5				●	●							
				M 32×1.5					●	●						
				M 40×1.5						●	●					
				M 50×1.5							●		●			
				M 63×1.5									●			
				Pg 7	●	●										
				Pg 9	●	●	●									
				Pg 11	●	●	●									
				Pg 13.5	●	●	●	●								
				Pg 16		●	●	●	●							
				Pg 21				●	●							
				Pg 29						●						
				Pg 36							●					
				Pg 48									●			
				NPT 1/2"		●	●	●								
				NPT 3/4"					●							
				NPT 1"						●						
PWC	Polyamide 6	-40℃ ~ +105℃ / 150℃ Short Term	UL94-HB / Free of Halogen Phosphorous and cadmium	G 1/2"		●	●	●								
				G 3/4"					●							
				G 1"						●						
				G 1 1/4"						●	●					
				G 1 1/2"									●			
				G 2"									●			
				M 12×1.5	●	●										
				M 16×1.5			●									
				M 20×1.5			●	●								
				M 25×1.5					●							
				M 32×1.5						●						
				M 40×1.5							●					
				M 50×1.5									●			
				Pg 7	●											
				Pg 9	●	●										
				Pg 11		●	●									
				Pg 13.5		●	●	●								
				Pg 16			●	●	●							
				Pg 21					●							
				Pg 29						●						
				Pg 36							●					
				Pg 48									●			
PICC	Polyamide 6	-40℃ ~ +105℃ / 150℃ Short Term	UL94-HB / Free of Halogen Phosphorous and cadmium	1/2-28 UNEF		●										
				5/8-24 UNEF		●	●									
				3/4-20 UNEF		●	●									
				1-20 UNEF			●	●								
				7/8-20 UNEF				●								
				1 3/16-18 UNEF				●	●							
				1 7/16-18 UNEF				●	●	●						
				1 3/4-18 UNEF						●						
				2-18 UNS						●	●					

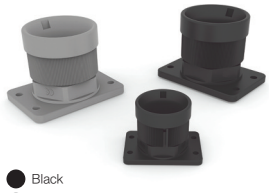
Type	Material	Temperature range	Self-extinguishing	Thread	Tube Size											
					07	10	12	16	22	28	36	42	48	56	70	95
NEW **PAC** IP68 For railroad cars, Male thread, 45° bent, One touch type  ● Black ● Gray	Polyamide 6	-40℃ ~ +105℃ 150℃ Short Term	UL94-HB Free of Halogen Phosphorous and cadmium	G 1/2"		●	●	●								
				G 3/4"					●							
				G 1"						●						
				G 1 1/4"							●					
				G 1 1/2"									●			
				G 2"									●			
				M 12×1.5		●										
				M 16×1.5			●									
				M 20×1.5				●								
				M 25×1.5					●							
				M 32×1.5						●						
				M 40×1.5							●					
				M 50×1.5									●			
				Pg 9		●										
				Pg 11		●	●									
				Pg 13.5		●		●								
				Pg 16				●								
				Pg 21					●							
				Pg 29						●						
				Pg 36							●					
				Pg 48									●			
NEW **PIC** IP68 For railroad cars, Female thread, Straight, One touch type  ● Black ● Gray	Polyamide 6	-40℃ ~ +105℃ 150℃ Short Term	UL94-HB Free of Halogen Phosphorous and cadmium	1/2-28 UNEF		●										
				5/8-24 UNEF		●	●									
				3/4-20 UNEF		●	●									
				1-20 UNEF			●	●								
				7/8-20 UNEF				●								
				1 3/16 -18 UNEF			●	●	●							
				1 3/8 -8 UNEF				●								
				1 7/16-18 UNEF				●	●	●						
				2-18UNS					●	●	●					
				1 3/4-18UNEF						●						
				M16×1.5			●									
				M25×1.5				●								
				Pg 11			●									
				Pg 13.5			●									
				Pg 16				●								
				Pg 21					●							
NEW **PNCC** IP68 For railroad cars, Male thread, Straight, One touch type in which cable gland is inserted  ● Black ● Gray	Polyamide 6	-40℃ ~ +105℃ 150℃ Short Term	UL94-HB Free of Halogen Phosphorous and cadmium	G 1/2"		●	●	●	●							
				G 3/4"					●	●						
				G 1"						●						
				G 1 1/4"							●					
				G 2"									●			
				M 12×1.5		●	●									
				M 16×1.5		●	●	●								
				M 20×1.5			●	●	●							
				M 25×1.5					●	●						
				M 32×1.5						●						
				M 40×1.5							●					
				M 50×1.5									●			
				Pg 7		●	●									
				Pg 9		●	●	●								
				Pg 11			●	●	●							
				Pg 13.5			●	●	●							
				Pg 16			●	●	●							
				Pg 21					●	●						
				Pg 29						●						
				Pg 36							●					
				Pg 48									●			
NEW **PNCCL** IP68 For railroad cars, Short male thread, Straight, One touch type in which cable gland is inserted  ● Black ● Gray	Polyamide 6	-40℃ ~ +105℃ 150℃ Short Term	UL94-HB Free of Halogen Phosphorous and cadmium	G 1/2"		●	●	●								
				Pg 9		●	●									
				Pg 11			●	●								
				Pg 13.5			●	●								
				Pg 16			●	●								
				M 12×1.5		●	●									
				M16×1.5		●	●	●								
				M 20×1.5			●	●								
				M 25×1.5		●										

Type	Material	Temperature range	Self-extinguishing	Thread	Tube Size											
					07	10	12	16	22	28	36	42	48	56	70	95
NEW **PNCL** IP68 For railroad cars, Short male thread, Straight, One touch type  Black Gray	Polyamide 6	-40℃ ~ +105℃ 150℃ Short Term	UL94-HB Free of Halogen Phosphorous and cadmium	G 1/2"		●	●	●								
				M 12×1.5		●	●									
				M 16×1.5		●	●	●								
				M 20×1.5		●	●	●								
				M 25×1.5				●								
				Pg 9		●	●									
				Pg 11			●									
				Pg 13.5				●								
				Pg 16		●		●								
NEW **PWCL** IP68 For railroad cars, Short male thread, 90°bent, One touch type  Black Gray	Polyamide 6	-40℃ ~ +105℃ 150℃ Short Term	UL94-HB Free of Halogen Phosphorous and cadmium	G 1/2"		●	●	●								
				M 12×1.5		●										
				M 16×1.5			●									
				M 20×1.5			●	●								
				Pg 9		●										
				Pg 11		●	●									
				Pg 13.5		●	●	●								
				Pg 16			●	●								
NEW **PACL** IP68 For railroad cars, Short male thread, 45°bent, One touch type  Black Gray	Polyamide 6	-40℃ ~ +105℃ 150℃ Short Term	UL94-HB Free of Halogen Phosphorous and cadmium	G 1/2"		●	●	●								
				M 12×1.5		●										
				M 16×1.5			●									
				M 20×1.5				●								
				Pg 9		●										
				Pg 11		●	●									
				Pg 13.5		●		●								
				Pg 16				●								
NEW **PIPC** IP68 For railroad cars, Female thread, Straight, One touch type  Black Gray	Polyamide 6	-40℃ ~ +105℃ 150℃ Short Term	UL94-HB Free of Halogen Phosphorous and cadmium	G 1/2"				●								
				G 3/4"					●							
				G 1"						●						
				G 1 1/4"							●					
				G 1 1/2"									●			
				G 2"									●			
TIS IP67 For detecting sensor, Female, Straight, Transparent one touch type 	Polyacrbonate	-40℃ ~ +105℃ 150℃ Short Term	UL94-HB Free of Halogen Phosphorous and cadmium	M 8×1		●										
				M 12×1		●										
				M 18×1		●										
				M 30×1.5		●										
TNRC IP66 Male thread, Straight, For rotating movement  Black Gray	Polyamide 6	-40℃ ~ +105℃ 150℃ Short Term	UL94-HB Free of Halogen Phosphorous and cadmium	G3/4"					●							
				G1"						●						
				G1 1/4"							●					
				G2"									●			
NEW **SPAC** IP68 For railroad cars, Steel and male thread, 45°bent, One touch type  Black Gray	Polyamide 6 + Brass Nickel plated	-40℃ ~ +105℃ 150℃ Short Term	UL94-HB Free of Halogen Phosphorous and cadmium	M 12×1.5		●										
				M 16×1.5			●									
				M 20×1.5				●								
				M 25×1.5					●							
				M 32×1.5						●						
				M 40×1.5							●					
				M 50×1.5									●			
				Pg 9		●										
				Pg 11			●									
				Pg 13.5				●								
				Pg 16				●								
				Pg 21					●							
				Pg 29						●						
				Pg 36							●					
				Pg 48									●			

유 형	재 질	온도 범위	자기소화성	나 사	튜브사이즈 07	10	12	16	22	28	36	42	48	56	70	95
NEW **SPWC** IP68 For railroad cars, Steel and male thread, 90° bent, One touch type  Black Gray	Polyamide 6 + Brass Nickel plated	-40℃ ~ +105℃ 150℃ Short Term	UL94-HB Free of Halogen Phosphorous and cadmium	M 12×1,5	●	●										
				M 16×1,5			●									
				M 20×1,5				●								
				M 25×1,5					●							
				M 32×1,5						●						
				M 40×1,5							●					
				M 50×1,5									●			
				Pg 7	●											
				Pg 9		●										
				Pg 11			●									
				Pg 13,5				●								
				Pg 16				●								
				Pg 21					●							
				Pg 29						●						
				Pg 36							●					
				Pg 48									●			
NEW **SPNC** IP68 For railroad cars, Steel and male thread, Straight, One touch type  Black Gray	Polyamide 6 + Brass Nickel plated	-40℃ ~ +105℃ 150℃ Short Term	UL94-HB Free of Halogen Phosphorous and cadmium	M 12×1,5		●										
				M 16×1,5			●									
				M 20×1,5				●								
				M 25×1,5					●							
				M 32×1,5						●						
				M 40×1,5							●					
				M 50×1,5									●			
				Pg 9		●										
				Pg 11			●									
				Pg 13,5			●	●								
				Pg 16				●								
				Pg 21					●							
				Pg 29						●						
				Pg 36							●					
				Pg 48									●			

NEW **PNOC** IP67

For railroad cars, Flange fixed, Straight, One touch type



Black
Gray

Material	Polyamide 6
Temperature range	-40℃ ~ +105℃
Short Term	150℃
Self-extinguishing	UL94-HB Free of Halogen Phosphorous and cadmium

NEW **PWOC** IP67

For railroad cars, Flange fixed, 90° bent, One touch type



Black
Gray

Material	Polyamide 6
Temperature range	-40℃ ~ +105℃
Short Term	150℃
Self-extinguishing	UL94-HB Free of Halogen Phosphorous and cadmium

NEW **PNSC** IP68

For railroad cars, Straight, Both sides connected to tubes

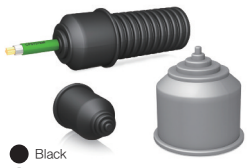


Black
Gray

Material	Polyamide 6
Temperature range	-40℃ ~ +105℃
Short Term	150℃
Self-extinguishing	UL94-HB Free of Halogen Phosphorous and cadmium

FEC IP66

End finishing connector



Black
Gray

Material	N.B.R (Nitrile-Butadiene Rubber)
Feature	Tube terminal, assembled by just putting on

TVC IP67

V shape tube separator



Black
Gray

Material	Polyamide 6
Feature	CPS distributors guarantee elegant layout and save on cost instead of using distribution boxes. Nominal width from 28, reduceable to 10.

TYC IP67

Y shape tube separator



Black
Gray

Material	Polyamide 6
Feature	CPS distributors guarantee elegant layout and save on cost instead of using distribution boxes. Nominal width from 28, reduceable to 10.

TTC IP67

T shape tube separator

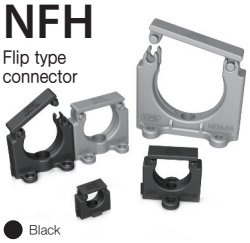


Black
Gray

Material	Polyamide 6
Feature	CPS distributors guarantee elegant layout and save on cost instead of using distribution boxes. Nominal width from 28, reduceable to 10.

NFH

Flip type connector



Black
Gray

Material	Polyamide 6
Temperature range	-40℃ ~ +105℃
Short Term	150℃
Self-extinguishing	UL94-HB Free of Halogen Phosphorous and cadmium

FCG IP68

Male thread, Rubber gland type connector

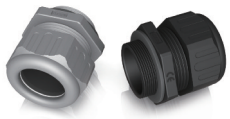


Black
Gray

Material	Polyamide 6
Temperature range	-40℃ ~ +105℃
Short Term	150℃
Self-extinguishing	UL94-HB Free of Halogen Phosphorous and cadmium

FCGL IP68

Short thread FCG connector

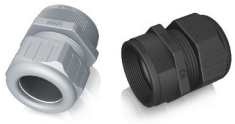


Black
Gray

Material	Polyamide 6
Temperature range	-40℃ ~ +105℃
Short Term	150℃
Self-extinguishing	UL94-HB Free of Halogen Phosphorous and cadmium

TICG IP68

Female thread, rubber gland type connector



Black
Gray

Material	Polyamide 6
Temperature range	-40℃ ~ +105℃
Short Term	150℃
Self-extinguishing	UL94-HB Free of Halogen Phosphorous and cadmium

BBS

Connector hole cover



White
Gray

Material	Polyamide 6
Temperature range	-30℃ ~ +80℃
Short Term	150℃

FWH

Rubber washer



Material	Rubber

FLN

Nut

Black
Gray



Material	Polyamide 6

SLN

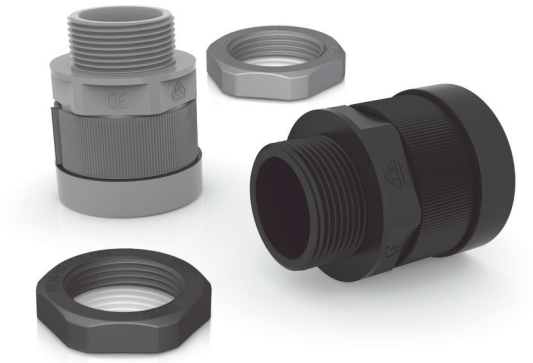
Steel nut



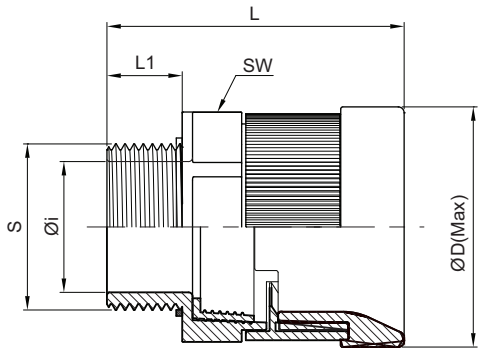
Material	Steel

PNC IP68

EN45545-2(HL3)



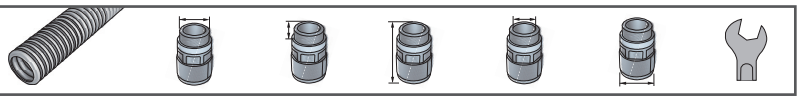
Black
Gray



● G(PF) ● M ● Pg ● NPT

- Material : High Quality Polyamide 6
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Machine tool, Shipbuilding, Tramway, Industrial / Automatic Machinery, Printing Machine etc. Joint box with connector
- Certification :

Product size

Ordering No.	

PF Thread (JIS B0202)

Black	Gray	Thread	Tube Size	S	L1	L	Øi	ØD	SW
PNC-G07B	PNC-G07G	G1/4"	07	13.1	11.0	34.0	8.5	25.0	14.0
PNC-G10B	PNC-G10G	G1/2"	10	20.9	13.0	44.2	12.0	25.0	19.7
PNC-G12B	PNC-G12G	G1/2"	12	20.9	13.0	43.1	15.0	27.6	22.8
PNC-G16B	PNC-G16G	G1/2"	16	20.9	13.0	45.0	15.2	33.0	28.0
PNC-G22B	PNC-G22G	G3/4"	22	26.4	15.0	54.7	22.0	43.0	37.5
PNC-G28B	PNC-G28G	G1"	28	33.2	15.0	62.4	27.0	48.8	43.0
PNC-G36B	PNC-G36G	G1 1/4"	36	41.9	19.0	76.6	34.0	60.6	52.2
PNC-G42B	PNC-G42G	G1 1/2"	48	47.8	21.0	81.4	40.8	71.8	64.0
PNC-G48B	PNC-G48G	G2"	48	59.6	21.0	81.4	50.0	71.8	64.0

※ Available in Light Gray production.

(Dimensions in mm)

Ordering No.	

Metric Thread (EN 60423)

(Dimensions in mm)

Black	Gray	Thread	Tube Size	S	L1	L	Øi	ØD	SW
PNC-M107B	PNC-M107G	M12 X 1.5	07	12.0	11.0	34.0	8.5	25.0	14.0
PNC-M127B	PNC-M127G	M16 X 1.5	07	16.0	11.0	34.0	8.5	25.0	14.0
PNC-M167B	PNC-M167G	M20 X 1.5	07	20.0	11.0	34.0	8.5	25.0	14.0
PNC-M10B	PNC-M10G	M12 X 1.5	10	12.0	13.0	43.5	7.5	25.0	19.7
PNC-M120B	PNC-M120G	M16 X 1.5	10	16.0	13.0	43.5	10.0	25.0	19.7
PNC-M20B	PNC-M20G	M20 X 1.5	10	20.0	13.0	43.5	12.0	25.0	19.7
PNC-M102B	PNC-M102G	M12 X 1.5	12	12.0	13.0	43.1	8.0	27.6	22.8
PNC-M12B	PNC-M12G	M16 X 1.5	12	16.0	13.0	43.1	12.0	27.6	22.8
PNC-M202B	PNC-M202G	M20 X 1.5	12	20.0	13.0	43.1	15.0	27.6	22.8
PNC-M126B	PNC-M126G	M16 X 1.5	16	16.0	13.0	45.0	12.0	33.0	28.0
PNC-M16B	PNC-M16G	M20 X 1.5	16	20.0	13.0	45.0	15.2	33.0	28.0
PNC-M226B	PNC-M226G	M25 X 1.5	16	25.0	13.0	45.0	17.5	33.0	28.0
PNC-M22B	PNC-M22G	M25 X 1.5	22	25.0	15.0	54.7	20.6	43.0	37.5
PNC-M3222B	PNC-M3222G	M32 X 1.5	22	32.0	15.0	54.7	22.0	43.0	37.5
PNC-M28B	PNC-M28G	M32 X 1.5	28	32.0	15.0	62.4	27.0	48.8	43.0
PNC-M4028B	PNC-M4028G	M40 X 1.5	28	40.0	15.0	62.4	30.5	48.8	43.0
PNC-M36B	PNC-M36G	M40 X 1.5	36	40.0	19.0	76.6	34.0	60.6	52.2
PNC-M5036B	PNC-M5036G	M50 X 1.5	36	50.0	19.0	76.6	36.0	60.6	52.2
PNC-M48B	PNC-M48G	M50 X 1.5	48	50.0	21.0	81.4	42.0	71.8	64.0
PNC-M6348B	PNC-M6348G	M63 X 1.5	48	63.0	21.0	81.4	50.0	71.8	64.0

Pg Thread (DIN 40430)

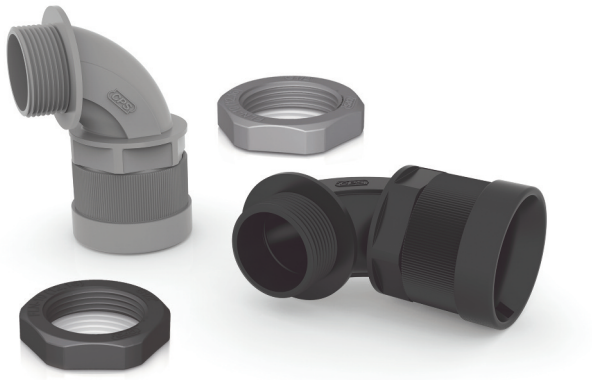
Black	Gray	Thread	Tube Size	S	L1	L	Øi	ØD	SW
PNC-P077B	PNC-P077G	Pg 07	07	12.5	11.0	34.0	8.5	16.8	14.0
PNC-P097B	PNC-P097G	Pg 09	07	15.2	11.0	34.0	8.5	25.0	14.0
PNC-P117B	PNC-P117G	Pg 11	07	18.6	11.0	34.0	8.5	25.0	14.0
PNC-P137B	PNC-P137G	Pg 13.5	07	20.4	11.0	34.0	8.5	25.0	14.0
PNC-P070B	PNC-P070G	Pg 07	10	12.5	13.0	43.5	8.0	25.0	19.7
PNC-P09B	PNC-P09G	Pg 09	10	15.2	13.0	43.5	10.0	25.0	19.7
PNC-P110B	PNC-P110G	Pg 11	10	18.6	13.0	43.5	12.0	25.0	19.7
PNC-P130B	PNC-P130G	Pg 13.5	10	20.4	13.0	43.5	12.0	25.0	19.7
PNC-P160B	PNC-P160G	Pg 16	10	22.5	13.0	43.5	12.0	25.0	19.7
PNC-P0912B	PNC-P0912G	Pg 09	12	15.2	13.0	43.1	12.0	27.6	22.8
PNC-P11B	PNC-P11G	Pg 11	12	18.6	13.0	43.1	12.0	27.6	22.8
PNC-P132B	PNC-P132G	Pg 13.5	12	20.4	13.0	43.1	15.0	27.6	22.8
PNC-P162B	PNC-P162G	Pg 16	12	22.5	13.0	43.1	15.0	27.6	22.8
PNC-P136B	PNC-P136G	Pg 13.5	16	20.4	13.0	45.0	15.2	33.0	28.0
PNC-P16B	PNC-P16G	Pg 16	16	22.5	13.0	45.0	15.2	33.0	28.0
PNC-P216B	PNC-P216G	Pg 21	16	28.3	13.0	45.0	17.5	33.0	28.0
PNC-P163B	PNC-P163G	Pg 16	22	22.5	13.0	54.7	18.0	43.0	37.5
PNC-P21B	PNC-P21G	Pg 21	22	28.3	15.0	54.7	22.0	43.0	37.5
PNC-P29B	PNC-P29G	Pg 29	28	37.0	15.0	62.4	30.5	48.8	43.0
PNC-P36B	PNC-P36G	Pg 36	36	47.0	19.0	76.6	36.0	60.6	52.2
PNC-P48B	PNC-P48G	Pg 48	48	59.3	21.0	81.4	50.0	71.8	64.0

NPT Thread (ANSI/ASME B1.20.1)

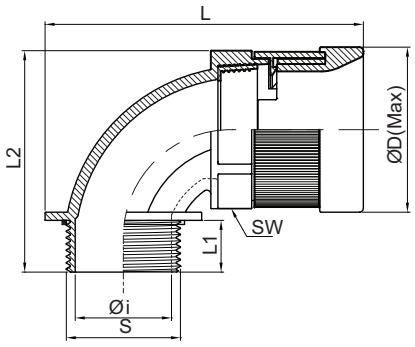
Black	Gray	Thread	Tube Size	S	L1	L	Øi	ØD	SW
PNC-N10B	PNC-N10G	NPT 1/2"	10	21.2	13.0	43.5	12.0	25.0	19.7
PNC-N12B	PNC-N12G	NPT 1/2"	12	21.2	13.0	43.1	15.0	27.6	22.8
PNC-N16B	PNC-N16G	NPT 1/2"	16	21.2	13.0	45.0	15.2	33.0	28.0
PNC-N22B	PNC-N22G	NPT 3/4"	22	26.5	15.0	54.7	22.0	43.0	37.5
PNC-N28B	PNC-N28G	NPT 1"	28	33.2	15.0	62.4	27.0	48.8	43.0

PWC IP68

EN45545-2(HL3)



Black
Gray

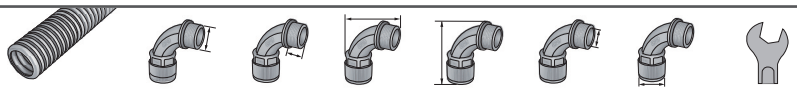


● G(PF) ● M ● Pg

- Material : High Quality Polyamide 6
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Machine tool, Shipbuilding, Tramway, Industrial / Automatic Machinery, Printing Machine etc. Joint box with connector
- Certification :

Product size

Ordering No.

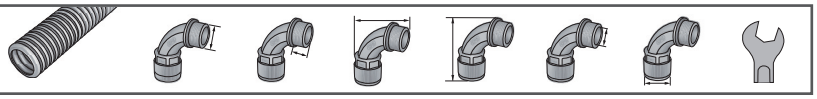


PF Thread (JIS B0202)

Black	Gray	Thread	Tube Size	S	L1	L2	L	Øi	ØD	SW
PWC-G10B	PWC-G10G	G1/2"	10	20.9	13.0	45.1	60.7	12.0	25.0	19.7
PWC-G12B	PWC-G12G	G1/2"	12	20.9	13.0	45.8	60.8	15.0	27.6	22.8
PWC-G16B	PWC-G16G	G1/2"	16	20.9	13.0	51.4	68.2	15.2	33.0	28.0
PWC-G22B	PWC-G22G	G3/4"	22	26.4	15.0	62.6	85.2	22.0	43.0	37.5
PWC-G28B	PWC-G28G	G1"	28	33.2	15.0	71.6	100.9	27.0	48.8	43.0
PWC-G368B	PWC-G368G	G1 1/4"	28	41.9	15.0	71.6	100.9	30.5	48.8	43.0
PWC-G36B	PWC-G36G	G1 1/4"	36	41.9	19.0	81.3	116.9	33.0	60.6	52.2
PWC-G42B	PWC-G42G	G1 1/2"	48	47.8	19.0	97.0	135.4	40.8	71.8	64.0
PWC-G48B	PWC-G48G	G2"	48	59.6	19.0	97.0	135.4	50.0	71.8	64.0

※ Available in Light Gray production.

(Dimensions in mm)

Ordering No.	

Metric Thread (EN 60423)

(Dimensions in mm)

Black	Gray	Thread	Tube Size	S	L1	L2	L	Øi	ØD	SW
PWC-M107B	PWC-M107G	M12 X 1.5	07	12.0	11.0	35.6	47.0	7.5	17.9	14.0
PWC-M10B	PWC-M10G	M12 X 1.5	10	12.0	13.0	45.1	60.7	8.0	25.0	19.7
PWC-M12B	PWC-M12G	M16 X 1.5	12	16.0	13.0	45.8	60.8	12.0	27.6	22.8
PWC-M202B	PWC-M202G	M20 X 1.5	12	20.0	13.0	45.8	60.8	15.0	27.6	22.8
PWC-M16B	PWC-M16G	M20 X 1.5	16	20.0	13.0	51.4	68.2	15.2	33.0	28.0
PWC-M22B	PWC-M22G	M25 X 1.5	22	25.0	15.0	62.6	85.2	20.6	43.0	37.5
PWC-M28B	PWC-M28G	M32 X 1.5	28	32.0	15.0	71.6	100.9	27.0	48.8	43.0
PWC-M36B	PWC-M36G	M40 X 1.5	36	40.0	19.0	81.3	116.9	33.0	60.6	52.2
PWC-M48B	PWC-M48G	M50 X 1.5	48	50.0	19.0	97.0	135.4	42.0	71.8	64.0

Pg Thread (DIN 40430)

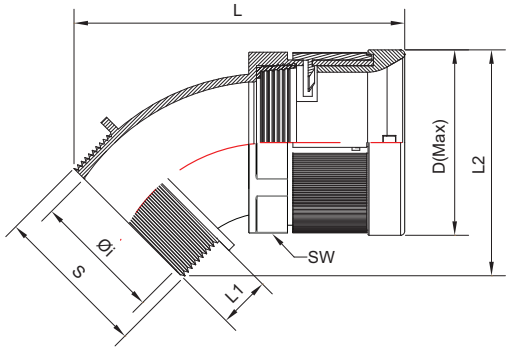
Black	Gray	Thread	Tube Size	S	L1	L2	L	Øi	ØD	SW
PWC-P077B	PWC-P077G	Pg07	07	12.5	11.0	35.6	47.0	8.5	17.9	14.0
PWC-P097B	PWC-P097G	Pg09	07	15.2	11.0	35.6	47.0	8.5	17.9	14.0
PWC-P09B	PWC-P09G	Pg09	10	15.2	13.0	45.1	60.7	11.0	25.0	19.7
PWC-P110B	PWC-P110G	Pg11	10	18.6	13.0	45.1	60.7	12.0	25.0	19.7
PWC-P130B	PWC-P130G	Pg13.5	10	20.4	13.0	45.1	60.7	12.0	25.0	19.7
PWC-P11B	PWC-P11G	Pg11	12	18.6	13.0	45.8	60.8	13.0	27.6	22.8
PWC-P132B	PWC-P132G	Pg13.5	12	20.4	13.0	45.8	60.8	15.0	27.6	22.8
PWC-P162B	PWC-P162G	Pg16	12	22.5	13.0	45.8	60.8	15.0	27.6	22.8
PWC-P136B	PWC-P136G	Pg13.5	16	20.4	13.0	51.4	68.2	15.2	33.0	28.0
PWC-P16B	PWC-P16G	Pg16	16	22.5	13.0	51.4	68.2	17.5	33.0	28.0
PWC-P163B	PWC-P163G	Pg16	22	22.5	15.0	62.6	85.2	18.0	43.0	37.5
PWC-P21B	PWC-P21G	Pg21	22	28.3	15.0	62.6	85.2	22.0	43.0	37.5
PWC-P29B	PWC-P29G	Pg29	28	37.0	15.0	71.6	100.9	30.5	48.8	43.0
PWC-P36B	PWC-P36G	Pg36	36	47.0	19.0	81.3	116.9	33.0	60.6	52.2
PWC-P48B	PWC-P48G	Pg48	48	59.3	19.0	97.0	135.4	50.0	71.8	64.0

PAC IP68

EN45545-2(HL3)



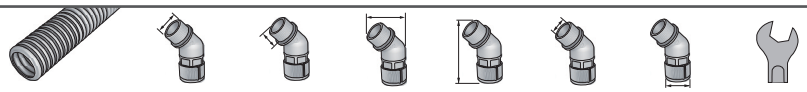
Black
Gray



● G(PF) ● M ● Pg

- Material : High Quality Polyamide 6
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Machine tool, Shipbuilding, Tramway, Industrial / Automatic Machinery, Printing Machine etc. Joint box with connector
- Certification :

≫ Product size

Ordering No.	

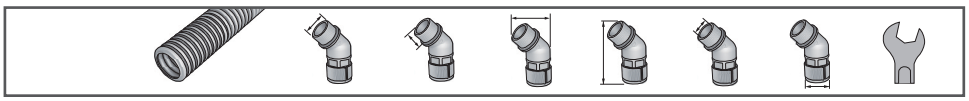
PF Thread (JIS B0202)

(단위 : mm)

Black	Gray	Thread	Tube Size	S	L1	L2	L	Øi	ØD	SW
PAC-G10B	PAC-G10G	G1/2"	10	21.0	13.0	35.5	61.5	15.1	24.5	19.7
PAC-G12B	PAC-G12G	G1/2"	12	21.0	13.0	37.6	62.7	15.1	27.6	22.8
PAC-G16B	PAC-G16G	G1/2"	16	21.0	13.0	41.1	66.4	15.3	33.0	28.0
PAC-G22B	PAC-G22G	G3/4"	22	26.5	15.0	50.8	80.7	22.2	43.0	37.5
PAC-G28B	PAC-G28G	G1"	28	33.3	15.0	56.6	92.7	27.2	48.8	43.0
PAC-G36B	PAC-G36G	G1 1/4"	36	41.9	20.0	71.3	111.7	34.3	60.6	52.2
PAC-G42B	PAC-G42G	G1 1/2"	48	47.8	20.0	80.1	121.5	41.1	71.8	64.0
PAC-G48B	PAC-G48G	G2"	48	59.6	20.0	84.1	125.5	50.4	71.8	64.0

※ Available in Light Gray production.

(Dimensions in mm)

Ordering No.	

Metric Thread (EN 60423)

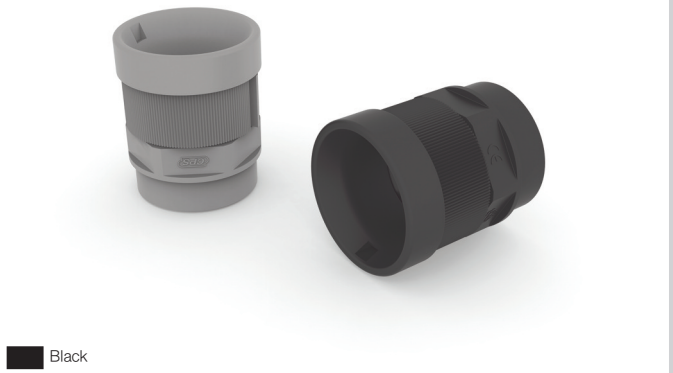
(Dimensions in mm)

Black	Gray	Thread	Tube Size	S	L1	L2	L	Øi	ØD	SW
PAC-M10B	PAC-M10G	M12 X 1.5	10	12.0	13.0	32.2	58.6	8.1	24.5	19.7
PAC-M12B	PAC-M12G	M16 X 1.5	12	16.0	13.0	35.8	61.3	12.1	27.6	22.8
PAC-M202B	PAC-M202G	M20 X 1.5	12	20.0	13.0	37.2	62.7	15.1	27.6	22.8
PAC-M16B	PAC-M16G	M20 X 1.5	16	20.0	13.0	40.6	66.3	15.3	33.0	28.0
PAC-M22B	PAC-M22G	M25 X 1.5	22	25.0	15.0	50.2	80.6	20.8	43.0	37.5
PAC-M28B	PAC-M28G	M32 X 1.5	28	32.0	15.0	56.4	92.5	27.2	48.8	43.0
PAC-M36B	PAC-M36G	M40 X 1.5	36	40.0	20.0	70.5	111.5	34.3	60.6	52.2
PAC-M48B	PAC-M48G	M50 X 1.5	48	50.0	20.0	81.3	122.5	42.3	71.8	64.0

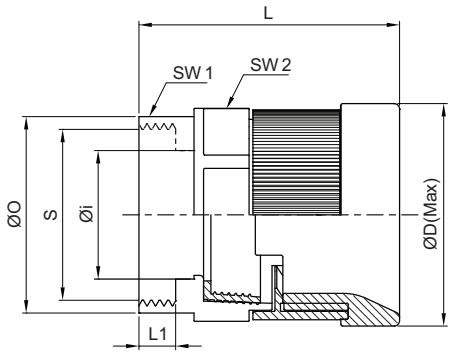
Pg Thread (DIN 40430)

Black	Gray	Thread	Tube Size	S	L1	L2	L	Øi	ØD	SW
PAC-P09B	PAC-P09G	Pg09	10	15.5	13.0	33.7	59.8	11.1	24.5	19.7
PAC-P110B	PAC-P110G	Pg11	10	18.6	13.0	34.8	60.9	15.1	24.5	19.7
PAC-P130B	PAC-P130G	Pg13.5	10	20.4	13.0	35.4	61.5	15.1	24.5	19.7
PAC-P11B	PAC-P11G	Pg11	12	18.6	13.0	37.1	62.2	14.1	27.6	22.8
PAC-P136B	PAC-P136G	Pg13.5	16	20.4	13.0	41.1	66.5	15.3	33.0	28.0
PAC-P16B	PAC-P16G	Pg16	16	22.5	13.0	41.8	67.3	17.6	33.0	28.0
PAC-P21B	PAC-P21G	Pg21	22	28.3	15.0	51.7	81.7	22.2	43.0	37.5
PAC-P29B	PAC-P29G	Pg29	28	37.0	15.0	57.8	94.1	31.2	48.8	43.0
PAC-P36B	PAC-P36G	Pg36	36	47.0	20.0	73.3	113.9	40.3	60.6	52.2
PAC-P48B	PAC-P48G	Pg48	48	59.3	20.0	84.6	125.9	50.4	71.8	64.0

EN45545-2(HL3)



Black
Gray

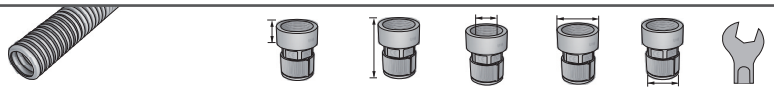


UNEF M Pg

- Material : High Quality Polyamide 6
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Machine tool, Shipbuilding, Tramway, Industrial / Automatic Machinery, Printing Machine etc. Joint box with connector
- Certification :

Product size

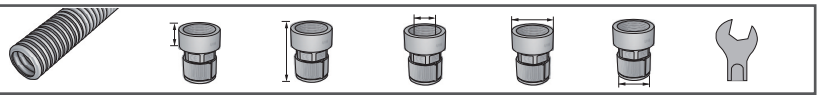
Ordering No.



UNEF Thread (ASME B1.1)

Black	Gray	Thread	Tube Size	Shell Size	L1	L	Øi	ØO	ØD	SW
PIC-U1010B	PIC-U1010G	1/2-28UNEF	10	8S, 10S	10.0	45.4	9.0	18.4	25.2	20.0
PIC-U1210B	PIC-U1210G	5/8-24UNEF	10	10SL, 12S	10.0	45.4	9.0	20.6	25.2	20.0
PIC-U1410B	PIC-U1410G	3/4-20UNEF	10	14, 14S	10.0	45.4	9.0	24.0	25.2	20.0
PIC-U1212B	PIC-U1212G	5/8-24UNEF	12	10SL, 12S	10.0	43.8	11.0	20.6	27.6	22.4
PIC-U1412B	PIC-U1412G	3/4-20UNEF	12	14, 14S	10.0	43.8	11.0	24.0	27.6	22.4
PIC-U1812B	PIC-U1812G	1-20UNEF	12	18	10.0	43.8	11.0	31.0	27.6	22.4
PIC-U2012B	PIC-U2012G	1 3/16-18UNEF	12	20, 22	10.0	43.8	11.0	35.5	27.6	22.4
PIC-U1616B	PIC-U1616G	7/8-20UNEF	16	16, 16S	10.0	45.8	13.0	28.0	33.0	28.0
PIC-U1816B	PIC-U1816G	1-20UNEF	16	18	10.0	45.8	13.0	31.0	33.0	28.0
PIC-U2016B	PIC-U2016G	1 3/16-18UNEF	16	20,22	10.0	45.8	13.0	35.5	33.0	28.0
PIC-U2316B	PIC-U2316G	1 3/8-8UNEF	16	20,22	10.0	45.8	13.0	40.0	33.0	28.0
PIC-U2816B	PIC-U2816G	1 7/16-18UNEF	16	24, 28	10.0	45.8	13.0	42.0	33.0	28.0
PIC-U2222B	PIC-U2222G	1 3/16-18UNEF	22	20, 22	9.5	54.0	18.0	35.5	43.0	36.7
PIC-U2822B	PIC-U2822G	1 7/16-18UNEF	22	24,28	9.5	54.0	18.0	42.0	43.0	36.7
PIC-U3622B	PIC-U3622G	2-18UNS	22	36	9.5	54.0	18.0	56.5	43.0	36.7
PIC-U2828B	PIC-U2828G	1 7/16-18UNEF	28	24,28	10.0	62.2	25.0	41.5	48.8	42.7
PIC-U3228B	PIC-U3228G	1 3/4-18UNS	28	32	10.0	62.2	25.0	49.5	48.8	42.7
PIC-U3628B	PIC-U3628G	2-18UNS	28	36	10.0	62.2	25.0	56.5	48.8	42.7
PIC-U3636B	PIC-U3636G	2-18UNS	36	36	10.0	71.0	35.0	53.5	60.6	52.0

(Dimensions in mm)

Ordering No.	

Metric Thread (EN 60423)

(Dimensions in mm)

Black	Gray	Thread	Tube Size	L1	L	Øi	ØO	ØD	SW
PIC-M12B	PIC-M12G	M16 X 1.5	12	10.0	43.8	11.0	20.6	27.6	22.4
PIC-M226B	PIC-M226G	M25 X 1.5	16	10.2	46.0	13.0	35.5	33.0	28.0

Pg Thread (DIN 40430)

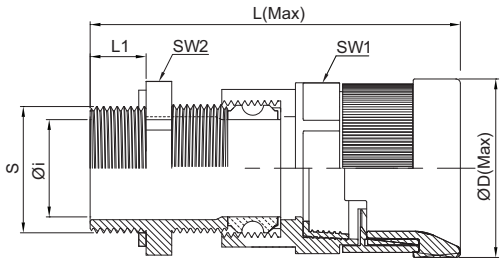
Black	Gray	Thread	Tube Size	L1	L	Øi	ØO	ØD	SW
PIC-P11B	PIC-P11G	Pg11	12	10.0	43.8	11.0	20.6	27.6	22.4
PIC-P132B	PIC-P132G	Pg13.5	12	10.0	43.8	11.0	24.0	27.6	22.4
PIC-P16B	PIC-P16G	Pg16	16	10.0	45.8	13.0	28.0	33.0	28.0
PIC-P21B	PIC-P21G	Pg21	22	9.5	59.7	13.0	35.5	43.0	36.7

PNCC IP68

EN45545-2(HL3)



Black
Gray

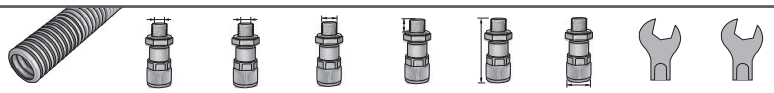


G(PF) M Pg

- Material : High Quality Polyamide 6
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Machine tool, Shipbuilding, Tramway, Industrial / Automatic Machinery, Printing Machine etc. Joint box with connector, Connector to avoid the cutoff of the cable in the machine.

Product size

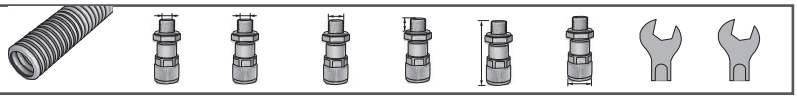
Ordering No.



PF Thread (JIS B0202)

Black	Gray	Thread	Tube Size	Øi(Min)	Øi(Max)	S	L1	L	ØD	SW1	SW2
PNCC-G10B	PNCC-G10G	G1/2"	10	3.5	6.5	20.9	15.0	74.2	25.0	19.7	20.3
PNCC-G12B	PNCC-G12G	G1/2"	12	4.0	8.0	20.9	15.0	73.1	27.6	22.8	22.7
PNCC-G16B	PNCC-G16G	G1/2"	16	7.0	12.3	20.9	15.0	77.3	33.0	28.0	27.7
PNCC-G1622B	PNCC-G1622G	G1/2"	22	12.0	15.2	20.9	15.0	90.3	43.0	37.5	36.9
PNCC-G22B	PNCC-G22G	G3/4"	22	12.0	18.0	26.4	15.0	90.3	43.0	37.5	36.9
PNCC-G228B	PNCC-G228G	G3/4"	28	18.0	20.3	26.4	15.0	97.2	48.8	43.0	43.0
PNCC-G28B	PNCC-G28G	G1"	28	18.0	26.0	33.2	15.0	97.2	48.8	43.0	43.0
PNCC-G36B	PNCC-G36G	G1 1/4"	36	22.0	33.0	41.9	19.0	120.2	60.6	52.2	52.2
PNCC-G48B	PNCC-G48G	G2"	48	30.0	38.0	59.6	19.0	130.0	71.8	64.0	64.1

(Dimensions in mm)

Ordering No.	

Metric Thread (EN 60423)

(Dimensions in mm)

Black	Gray	Thread	Tube Size	Øi(Min)	Øi(Max)	S	L1	L	ØD	SW1	SW2
PNCC-M10B	PNCC-M10G	M12 X 1.5	10	3.5	6.5	12.0	15.0	74.2	25.0	19.7	20.3
PNCC-M120B	PNCC-M120G	M16 X 1.5	10	3.5	6.5	16.0	15.0	74.2	25.0	19.7	20.3
PNCC-M102B	PNCC-M102G	M12 X 1.5	12	4.0	7.1	12.0	15.0	73.1	27.6	22.8	22.7
PNCC-M12B	PNCC-M12G	M16 X 1.5	12	4.0	8.0	16.0	15.0	73.1	27.6	22.8	22.7
PNCC-M162B	PNCC-M162G	M20 X 1.5	12	4.0	8.0	20.0	15.0	73.1	27.6	22.8	22.7
PNCC-M126B	PNCC-M126G	M16 X 1.5	16	7.0	10.9	16.0	15.0	77.3	33.0	28.0	27.7
PNCC-M16B	PNCC-M16G	M20 X 1.5	16	7.0	12.3	20.0	15.0	77.3	33.0	28.0	27.7
PNCC-M1622B	PNCC-M1622G	M20 X 1.5	22	12.0	14.5	25.0	15.0	90.3	33.0	28.0	36.9
PNCC-M22B	PNCC-M22G	M25 X 1.5	22	12.0	18.0	25.0	15.0	90.3	43.0	37.5	36.9
PNCC-M228B	PNCC-M228G	M25 X 1.5	28	18.0	19.5	32.0	15.0	97.2	43.0	37.5	43.0
PNCC-M28B	PNCC-M28G	M32 X 1.5	28	18.0	26.0	30.0	15.0	97.2	48.8	43.0	43.0
PNCC-M36B	PNCC-M36G	M40 X 1.5	36	22.0	33.0	40.0	19.0	120.2	60.6	52.2	52.2
PNCC-M48B	PNCC-M48G	M50 X 1.5	48	30.0	38.0	50.0	19.0	130.0	71.8	64.0	64.1

Pg Thread (DIN 40430)

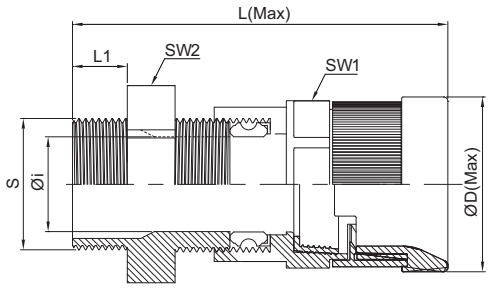
Black	Gray	Thread	Tube Size	Øi(Min)	Øi(Max)	S	L1	L	ØD	SW1	SW2
PNCC-P07B	PNCC-P07G	Pg07	10	3.5	6.5	12.5	15.0	74.2	25.0	19.7	20.3
PNCC-P09B	PNCC-P09G	Pg09	10	6.5	6.5	15.2	15.0	74.2	25.0	19.7	20.3
PNCC-P072B	PNCC-P072G	Pg07	12	4.0	8.0	12.5	15.0	73.1	27.6	22.8	22.7
PNCC-P092B	PNCC-P092G	Pg09	12	4.0	8.0	15.2	15.0	73.1	27.6	22.8	22.7
PNCC-P11B	PNCC-P11G	Pg11	12	4.0	8.0	18.6	15.0	73.1	27.6	22.8	22.7
PNCC-P132B	PNCC-P132G	Pg13.5	12	4.0	8.0	20.4	15.0	73.1	27.6	22.8	22.7
PNCC-P162B	PNCC-P162G	Pg16	12	4.0	8.0	22.5	15.0	73.1	27.6	22.8	22.7
PNCC-P096B	PNCC-P096G	Pg09	16	7.0	10.6	15.2	15.0	77.3	33.0	28.0	27.7
PNCC-P116B	PNCC-P116G	Pg11	16	7.0	12.3	18.6	15.0	77.3	33.0	28.0	27.7
PNCC-P13B	PNCC-P13G	Pg13.5	16	7.0	12.3	20.4	15.0	77.3	33.0	28.0	27.7
PNCC-P16B	PNCC-P16G	Pg16	16	7.0	12.3	22.5	15.0	77.3	33.0	28.0	27.7
PNCC-P122B	PNCC-P122G	Pg11	22	12.0	13.9	18.6	15.0	90.3	43.0	37.5	36.9
PNCC-P1322B	PNCC-P1322G	Pg13.5	22	12.0	14.8	20.4	15.0	90.3	43.0	37.5	36.9
PNCC-P1622B	PNCC-P1622G	Pg16	22	12.0	17.3	22.5	15.0	90.3	43.0	37.5	36.9
PNCC-P21B	PNCC-P21G	Pg21	22	12.0	18.0	28.3	15.0	90.3	43.0	37.5	36.9
PNCC-P218B	PNCC-P218G	Pg21	28	18.0	22.5	28.3	15.0	97.2	48.8	43.0	43.0
PNCC-P29B	PNCC-P29G	Pg29	28	18.0	26.0	37.0	15.0	97.2	48.8	43.0	43.0
PNCC-P36B	PNCC-P36G	Pg36	36	22.0	33.0	47.0	19.0	120.2	60.6	52.2	52.2
PNCC-P48B	PNCC-P48G	Pg48	48	30.0	38.0	59.3	19.0	130.0	71.8	64.0	64.1

PNCCL IP68

EN45545-2(HL3)



Black
Gray

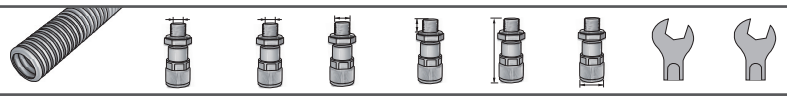


● G(PF) ● M ● Pg

- Material : High Quality Polyamide 6
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Machine tool, Shipbuilding, Tramway, Industrial / Automatic Machinery, Printing Machine etc. Joint box with connector, Connector to avoid the cutoff of the cable in the machine.

≫ Product size

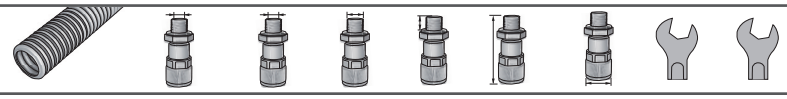
Ordering No.



PF Thread (JIS B0202)

Black	Gray	Thread	Tube Size	Øi(Min)	Øi(Max)	S	L1	L	ØD	SW1	SW2
PNCCL-G10B	PNCCL-G10G	G1/2"	10	3.5	6.5	20.9	9.0	68.2	25.0	19.7	20.3
PNCCL-G12B	PNCCL-G12G	G1/2"	12	4.0	8.0	20.9	6.0	67.1	27.6	22.8	22.7
PNCCL-G16B	PNCCL-G16G	G1/2"	16	7.0	12.3	20.9	6.0	71.3	33.0	28.0	27.7

(Dimensions in mm)

Ordering No.	

Metric Thread (EN 60423)

(Dimensions in mm)

Black	Gray	Thread	Tube Size	Øi (Min)	Øi (Max)	S	L1	L	ØD	SW1	SW2
PNCCL-M10B	PNCCL-M10G	M12 X 1.5	10	3.5	6.5	12.0	9.0	68.2	25.0	19.7	20.3
PNCCL-M120B	PNCCL-M120G	M16 X 1.5	10	3.5	6.5	16.0	9.0	68.2	25.0	19.7	20.3
PNCCL-M102B	PNCCL-M102G	M12 X 1.5	12	4.0	7.1	12.0	9.0	67.1	27.6	22.8	22.7
PNCCL-M12B	PNCCL-M12G	M16 X 1.5	12	4.0	8.0	16.0	9.0	67.1	27.6	22.8	22.7
PNCCL-M162B	PNCCL-M162G	M20 X 1.5	12	4.0	8.0	20.0	9.0	67.1	27.6	22.8	22.7
PNCCL-M126B	PNCCL-M126G	M16 X 1.5	16	7.0	10.9	16.0	6.0	71.3	33.0	28.0	27.7
PNCCL-M16B	PNCCL-M16G	M20 X 1.5	16	7.0	12.3	20.0	9.0	71.3	33.0	28.0	27.7
PNCCL-M216B	PNCCL-M216G	M25 X 1.5	16	12.0	14.5	25.0	6.0	71.3	33.0	28.0	36.9

Pg Thread (DIN 40430)

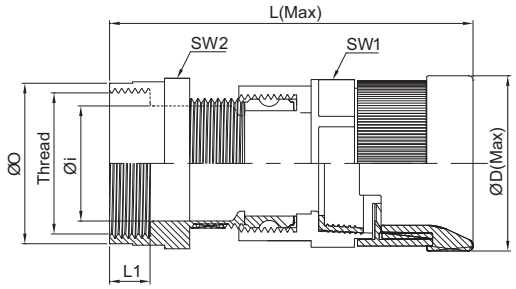
Black	Gray	Thread	Tube Size	Øi (Min)	Øi (Max)	S	L1	L	ØD	SW1	SW2
PNCCL-P09B	PNCCL-P09G	Pg09	10	6.5	6.5	15.2	9.0	68.2	25.0	19.7	20.3
PNCCL-P092B	PNCCL-P092G	Pg09	12	4.0	8.0	15.2	9.0	67.1	27.6	22.8	22.7
PNCCL-P11B	PNCCL-P11G	Pg11	12	4.0	8.0	18.6	9.0	67.1	27.6	22.8	22.7
PNCCL-P132B	PNCCL-P132G	Pg13.5	12	4.0	8.0	20.4	9.0	67.1	27.6	22.8	22.7
PNCCL-P162B	PNCCL-P162G	Pg16	12	4.0	8.0	22.5	9.0	67.1	27.6	22.8	22.7
PNCCL-P116B	PNCCL-P116G	Pg11	16	7.0	12.3	18.6	9.0	71.3	33.0	28.0	27.7
PNCCL-P13B	PNCCL-P13G	Pg13.5	16	7.0	12.3	20.4	9.0	71.3	33.0	28.0	27.7
PNCCL-P16B	PNCCL-P16G	Pg16	16	7.0	12.3	22.5	9.0	71.3	33.0	28.0	27.7

PICC IP68

EN45545-2(HL3)



Black
Gray

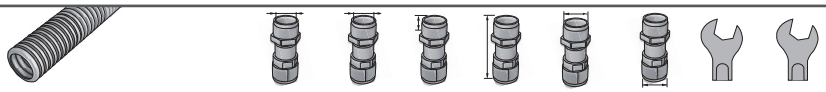


UNEF

- Material : High Quality Polyamide 6
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Machine tool, Shipbuilding, Tramway, Industrial / Automatic Machinery, Printing Machine etc. Joint box with connector, Connector to avoid the cutoff of the cable in the machine.

>> Product size

Ordering No.



UNEF Thread (ASME B1.1)

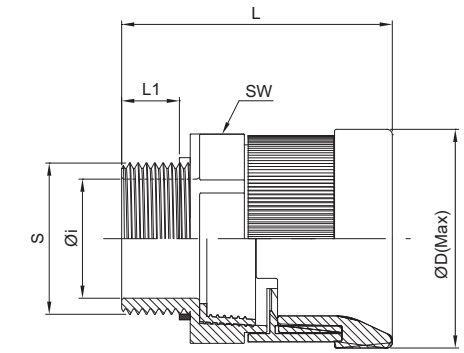
Black	Gray	Thread	Tube Size	Shell Size	Øi(Min)	Øi(Max)	L1	L	ØO	ØD	SW1	SW2
PICC-U1010B	PICC-U1010G	1/2-28UNEF	10	8S, 10S	3.5	6.5	10.0	74.2	18.4	25.2	20.0	22.6
PICC-U1210B	PICC-U1210G	5/8-24UNEF	10	10SL, 12S	3.5	6.5	10.0	74.2	20.6	25.2	20.0	22.6
PICC-U1410B	PICC-U1410G	3/4-20UNEF	10	14, 14S	3.5	6.5	10.0	74.2	24.0	25.2	20.0	22.6
PICC-U1212B	PICC-U1212G	5/8-24UNEF	12	10SL, 12S	4.0	8.0	10.0	73.1	20.6	27.6	22.4	25.5
PICC-U1412B	PICC-U1412G	3/4-20UNEF	12	14, 14S	4.0	8.0	10.0	73.1	24.0	27.6	22.4	25.5
PICC-U1812B	PICC-U1812G	1-20UNEF	12	18	4.0	8.0	10.0	73.1	31.0	27.6	22.4	25.5
PICC-U1616B	PICC-U1616G	7/8-20UNEF	16	16, 16S	7.0	12.3	10.0	77.3	28.0	33.0	28.0	25.4
PICC-U1816B	PICC-U1816G	1-20UNEF	16	18	7.0	12.3	10.0	77.3	31.0	33.0	28.0	25.4
PICC-U2016B	PICC-U2016G	1 3/16-18UNEF	16	20, 22	7.0	12.3	10.0	77.3	35.5	33.0	28.0	25.4
PICC-U2816B	PICC-U2816G	1 7/16-18UNEF	16	24, 28	7.0	12.3	10.0	77.3	42.0	33.0	28.0	25.4
PICC-U2222B	PICC-U2222G	1 3/16-18UNEF	22	20, 22	12.0	16.0	9.5	90.3	35.5	43.0	36.7	34.0
PICC-U2822B	PICC-U2822G	1 7/16-18UNEF	22	24, 28	12.0	16.0	9.5	90.3	42.0	43.0	36.7	34.0
PICC-U2828B	PICC-U2828G	1 7/16-18UNEF	28	24, 28	18.0	26.0	10.0	97.2	50.0	48.8	42.7	43.4
PICC-U3228B	PICC-U3228G	13/4-18UNS	28	32	18.0	26.0	10.0	97.2	50.0	48.8	42.7	43.4
PICC-U3628B	PICC-U3628G	2-18UNS	28	36	18.0	26.0	10.0	97.2	56.5	48.8	42.7	53.0
PICC-U3636B	PICC-U3636G	2-18UNS	36	36	22.0	33.0	10.0	122.0	56.5	60.6	52.0	66.5

(Dimensions in mm)

EN45545-2(HL3)



Black
Gray

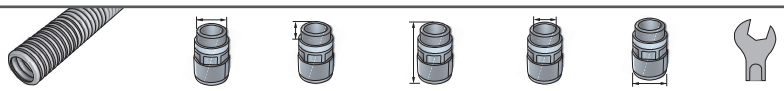


● G(PF) ● M ● Pg

- Material : High Quality Polyamide 6
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Machine tool, Shipbuilding, Tramway, Industrial / Automatic Machinery, Printing Machine etc. Joint box with connector, Connector for jointing into Limit-Switch.

≫ Product size

Ordering No.



PF Thread (JIS B0202)

Black	Gray	Thread	Tube Size	S	L1	L	Øi	ØD	SW
PNCL-G10B	PNCL-G10G	G1/2"	10	20.9	8.0	44.2	12.0	25.0	19.7
PNCL-G12B	PNCL-G12G	G1/2"	12	20.9	8.0	43.1	15.0	27.6	22.8
PNCL-G16B	PNCL-G16G	G1/2"	16	20.9	8.0	45.0	15.2	33.0	28.0

Metric Thread / Straight (EN 60423)

Black	Gray	Thread	Tube Size	S	L1	L	Øi	ØD	SW
PNCL-M10B	PNCL-M10G	M12 X 1.5	10	12.0	8.0	43.5	7.5	25.0	19.7
PNCL-M120B	PNCL-M120G	M16 X 1.5	10	16.0	8.0	43.5	10.0	25.0	19.7
PNCL-M20B	PNCL-M20G	M20 X 1.5	10	20.0	8.0	43.5	12.0	25.0	19.7
PNCL-M102B	PNCL-M102G	M12 X 1.5	12	12.0	8.0	43.1	8.0	27.6	22.8
PNCL-M12B	PNCL-M12G	M16 X 1.5	12	16.0	8.0	43.1	12.0	27.6	22.8
PNCL-M202B	PNCL-M202G	M20 X 1.5	12	20.0	8.0	43.1	15.0	27.6	22.8
PNCL-M126B	PNCL-M126G	M16 X 1.5	16	16.0	8.0	45.0	12.0	33.0	28.0
PNCL-M16B	PNCL-M16G	M20 X 1.5	16	20.0	8.0	45.0	15.2	33.0	28.0
PNCL-M226B	PNCL-M226G	M25 X 1.5	16	25.0	8.0	45.0	17.5	33.0	28.0

Pg Thread / Straight (DIN 40430)

Black	Gray	Thread	Tube Size	S	L1	L	Øi	ØD	SW
PNCL-P09B	PNCL-P09G	Pg09	10	15.2	8.0	43.5	10.0	25.0	19.7
PNCL-P160B	PNCL-P160G	Pg16	10	22.5	8.0	43.5	12.0	25.0	19.7
PNCL-P0912B	PNCL-P0912G	Pg09	12	15.2	8.0	43.1	12.0	27.6	22.8
PNCL-P11B	PNCL-P11G	Pg11	12	18.6	8.0	43.1	12.0	27.6	22.8
PTNCL-P136B	PNCL-P136G	Pg13.5	16	20.4	8.0	45.0	15.2	33.0	28.0
PNCL-P16B	PNCL-P16G	Pg16	16	22.5	8.0	45.0	15.2	33.0	28.0

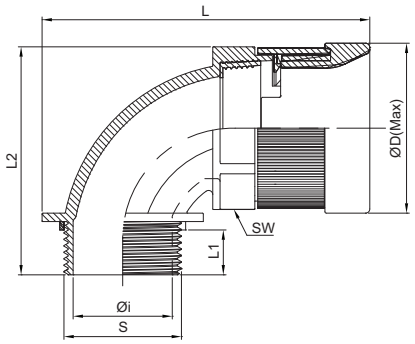
(Dimensions in mm)

PWCL IP68

EN45545-2(HL3)



Black
Gray

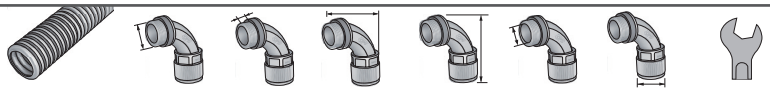


G(PF) M Pg

- Material : High Quality Polyamide 6
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Machine tool, Shipbuilding, Tramway, Industrial / Automatic Machinery, Printing Machine etc. Joint box with connector, Connector for jointing into Limit-Switch.

>> Product size

Ordering No.



PF Thread (JIS B0202)

Black	Gray	Thread	Tube Size	S	L1	L2	L	Øi	ØD	SW
PWCL-G10B	PWCL-G10G	G1/2"	10	20.9	8.0	45.1	60.7	12.0	24.5	19.7
PWCL-G12B	PWCL-G12G	G1/2"	12	20.9	8.0	45.8	60.8	15.0	27.6	22.8
PWCL-G16B	PWCL-G16G	G1/2"	16	20.9	8.0	51.4	68.2	15.2	33.0	28.0

Metric Thread / 90°Elbow (EN 60423)

Black	Gray	Thread	Tube Size	S	L1	L2	L	Øi	ØD	SW
PWCL-M10B	PWCL-M10G	M12 X 1.5	10	12.0	8.0	45.1	60.7	8.0	24.5	19.7
PWCL-M12B	PWCL-M12G	M16 X 1.5	12	16.0	8.0	45.8	60.8	12.0	27.6	22.8
PWCL-M202B	PWCL-M202G	M20 X 1.5	12	20.0	8.0	45.8	60.8	15.0	27.6	22.8
PWCL-M16B	PWCL-M16G	M20 X 1.5	16	20.0	8.0	51.4	68.2	15.2	33.0	28.0

Pg Thread / 90°Elbow (DIN 40430)

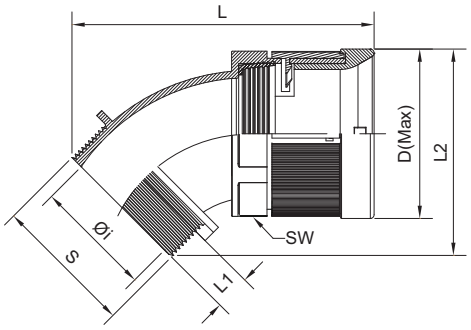
Black	Gray	Thread	Tube Size	S	L1	L2	L	Øi	ØD	SW
PWCL-P09B	PWCL-P09G	Pg09	10	15.2	8.0	45.1	60.7	11.0	24.5	19.7
PWCL-P110B	PWCL-P110G	Pg11	10	18.6	8.0	45.1	60.7	12.0	24.5	19.7
PWCL-P130B	PWCL-P130G	Pg13.5	10	20.4	8.0	45.1	60.7	12.0	24.5	19.7
PWCL-P11B	PWCL-P11G	Pg11	12	18.6	8.0	45.8	60.8	13.0	27.6	22.8
PWCL-P132B	PWCL-P132G	Pg13.5	12	20.4	8.0	45.8	60.8	15.0	27.6	22.8
PWCL-P162B	PWCL-P162G	Pg16	12	22.5	8.0	45.8	60.8	15.0	27.6	22.8
PWCL-P136B	PWCL-P136G	Pg13.5	16	20.4	8.0	51.4	68.2	15.2	33.0	28.0
PWCL-P16B	PWCL-P16G	Pg16	16	22.5	8.0	51.4	68.2	17.5	33.0	28.0

(Dimensions in mm)

EN45545-2(HL3)



Black
Gray

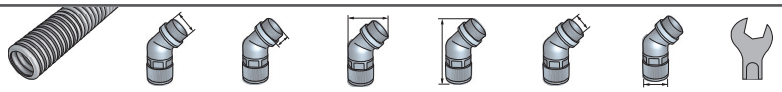


G(PF) M Pg

- Material : High Quality Polyamide 6
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150°C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Machine tool, Shipbuilding, Tramway, Industrial / Automatic Machinery, Printing Machine etc. Joint box with connector, Connector for jointing into Limit-Switch.

>> Product size

Ordering No.



PF Thread / 45°Elbow (JIS B0202)

Black	Gray	Thread	Tube Size	S	L1	L2	L	Øi	ØD	SW
PACL-G10B	PACL-G10G	G1/2"	10	21.0	8.0	35.5	61.5	15.1	24.5	19.7
PACL-G12B	PACL-G12G	G1/2"	12	21.0	8.0	37.6	62.7	15.1	27.6	22.8
PACL-G16B	PACL-G16G	G1/2"	16	21.0	8.0	41.1	66.4	15.3	33.0	28.0

Metric Thread / 45°Elbow (EN 60423)

Black	Gray	Thread	Tube Size	S	L1	L2	L	Øi	ØD	SW
PACL-M10B	PACL-M10G	M12 X 1.5	10	12.0	8.0	32.2	58.6	8.1	24.5	19.7
PACL-M12B	PACL-M12G	M16 X 1.5	12	16.0	8.0	35.8	61.3	12.1	27.6	22.8
PACL-M16B	PACL-M16G	M20 X 1.5	16	20.0	8.0	37.2	62.7	15.1	27.6	22.8

Pg Thread / 45°Elbow (DIN 40430)

Black	Gray	Thread	Tube Size	S	L1	L2	L	Øi	ØD	SW
PACL-P09B	PACL-P09G	Pg09	10	15.5	8.0	33.7	59.8	11.1	24.5	19.7
PACL-P110B	PACL-P110G	Pg11	10	18.6	8.0	34.8	60.9	15.1	24.5	19.7
PACL-P130B	PACL-P130G	Pg13.5	10	20.4	8.0	35.4	61.5	15.1	24.5	19.7
PACL-P11B	PACL-P11G	Pg11	12	18.6	8.0	37.1	62.2	14.1	27.6	22.8
PACL-P136B	PACL-P136G	Pg13.5	16	20.4	8.0	41.1	66.5	15.3	33.0	28.0
PACL-P16B	PACL-P16G	Pg16	16	22.5	8.0	41.8	67.3	17.6	33.0	28.0

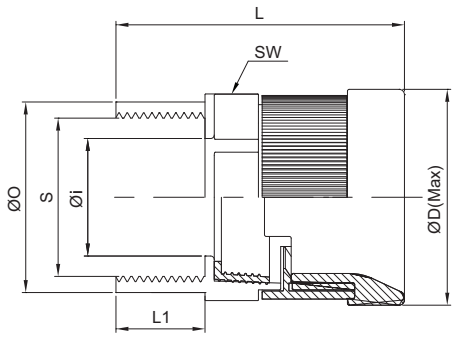
(Dimensions in mm)

PIPC IP68

EN45545-2(HL3)



Black
Gray

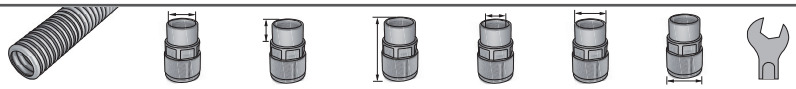


G(PF)

- Material : High Quality Polyamide 6
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Machine tool, Shipbuilding, Tramway, Industrial / Automatic Machinery, Printing Machine etc. Pipe with connector.

Product size

Ordering No.

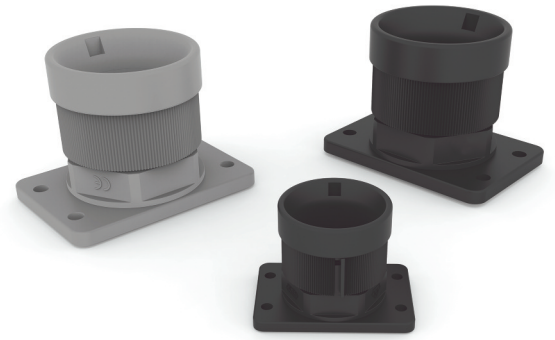


PF Thread (JIS B0202)

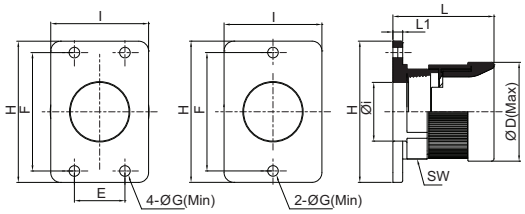
Black	Gray	Thread	Tube Size	S	L1	L	Øi	ØO	ØD	SW
PIPC-G16B	PIPC-G16G	G1/2"	16	18.6	13.8	45.7	15.2	28.0	33.0	28.0
PIPC-G22B	PIPC-G22G	G3/4"	22	24.1	15.0	54.7	22.0	35.0	43.0	37.5
PIPC-G28B	PIPC-G28G	G1"	28	30.2	15.0	62.7	27.0	41.5	48.8	43.0
PIPC-G36B	PIPC-G36G	G1 1/4"	36	38.9	29.0	84.7	33.0	53.0	60.6	52.2
PIPC-G42B	PIPC-G42G	G1 1/2"	48	44.8	29.0	89.1	40.8	66.0	71.8	64.0
PIPC-G48B	PIPC-G48G	G2"	48	56.6	29.0	89.1	50.0	66.0	71.8	64.0

(Dimensions in mm)

EN45545-2(HL3)



Black
Gray



- Material : High Quality Polyamide 6
- Degrees of Protection : IP 67 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150°C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Machine tool, Shipbuilding, Tramway, Industrial / Automatic Machinery, Printing Machine etc. Pipe with connector.

Product size

Ordering No.



Black	Gray	Tube Size	E	F	G	H	I	L1	L	Øi	ØD	SW
PNOC-12B	PNOC-12G	12	-	36.5	5.5	46.0	32.0	5.0	35.1	15.0	27.6	22.8
PNOC-16B	PNOC-16G	16	-	36.5	5.5	46.0	32.0	5.0	37.0	17.5	33.0	28.0
PNOC-22B	PNOC-22G	22	30.5	53.5	5.5	65.0	45.0	5.0	44.7	22.0	43.0	37.5
PNOC-28B	PNOC-28G	28	31.0	54.8	6.5	64.8	45.0	6.0	53.4	27.0	48.8	43.0
PNOC-36B	PNOC-36G	36	31.0	72.6	6.5	86.6	60.0	6.0	62.0	36.0	60.6	52.2
PNOC-48B	PNOC-48G	48	30.5	72.6	6.5	86.6	73.0	6.0	66.4	50.0	71.8	64.0

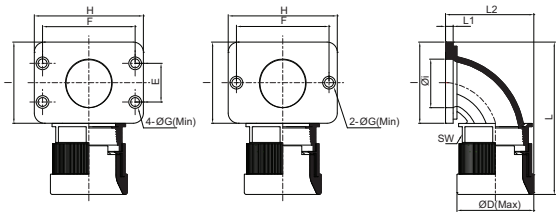
(Dimensions in mm)

PWOC IP67

EN45545-2(HL3)



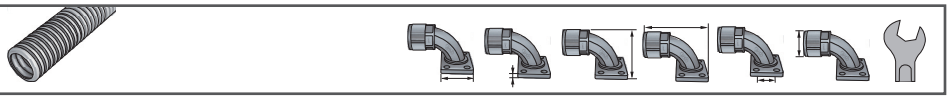
Black
Gray



- Material : High Quality Polyamide 6
- Degrees of Protection : IP 67 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Machine tool, Shipbuilding, Tramway, Industrial / Automatic Machinery, Printing Machine etc. Control box with connector.

≫ Product size

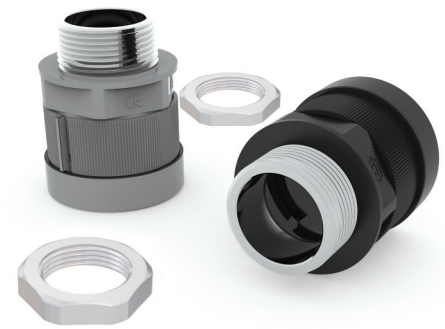
Ordering No.



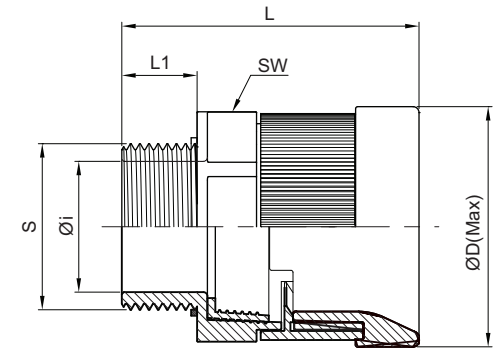
Black	Gray	Tube Size	E	F	G	H	I	L1	L2	L	Øi	ØD	SW
PWOC-12B	PWOC-12G	12	-	36.5	5.5	45.0	32.0	5.0	38.9	64.1	15.0	27.6	22.8
PWOC-16B	PWOC-16G	16	-	36.5	5.5	44.0	32.0	5.0	44.6	69.0	17.5	33.0	28.0
PWOC-22B	PWOC-22G	22	30.5	53.5	5.5	65.0	45.0	5.0	53.6	87.2	22.0	43.0	37.5
PWOC-28B	PWOC-28G	28	31.0	55.0	6.0	65.0	45.0	6.0	63.5	100.9	27.0	48.8	43.0
PWOC-36B	PWOC-36G	36	30.5	73.0	7.0	86.0	64.0	6.0	69.6	120.1	36.0	60.6	52.2
PWOC-48B	PWOC-48G	48	30.5	73.0	7.0	86.0	78.0	6.0	84.9	139.4	50.0	71.8	64.0

(Dimensions in mm)

EN45545-2(HL3)



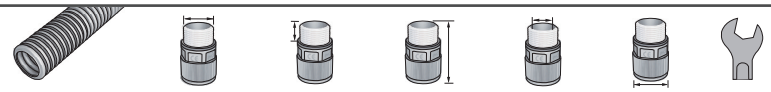
Black
Gray



● M ● Pg

- Material : High Quality Polyamide 6 + Brass Nickel plated
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Tramway Vehicle Construction etc.

≫ Product size

Ordering No.	

Pg Thread (DIN 40430)

Black	Gray	Thread	Tube Size	S	L1	L	Øi	ØD	SW
SPNC-P09B	SPNC-P09G	Pg09	10	15.2	13.0	43.5	10.0	25.0	19.7
SPNC-P11B	SPNC-P11G	Pg11	12	18.6	13.0	43.1	12.0	27.6	22.8
SPNC-P132B	SPNC-P132G	Pg13.5	12	20.4	13.0	42.0	12.0	25.0	22.7
SPNC-P136B	SPNC-P136G	Pg13.5	16	20.4	13.0	45.0	15.2	33.0	28.0
SPNC-P16B	SPNC-P16G	Pg16	16	22.5	13.0	45.0	15.2	33.0	28.0
SPNC-P21B	SPNC-P21G	Pg21	22	28.3	15.0	54.7	22.0	43.0	37.5
SPNC-P29B	SPNC-P29G	Pg29	28	37.0	15.0	62.4	30.5	48.8	43.0
SPNC-P36B	SPNC-P36G	Pg36	36	47.0	19.0	76.6	36.0	60.6	52.2
SPNC-P48B	SPNC-P48G	Pg48	48	59.3	21.0	81.4	50.0	71.8	64.0

Metric Thread (EN 60423)

Black	Gray	Thread	Tube Size	S	L1	L	Øi	ØD	SW
SPNC-M10B	SPNC-M10G	M12 X 1.5	10	12.0	13.0	43.5	7.5	25.0	19.7
SPNC-M12B	SPNC-M12G	M16 X 1.5	12	16.0	13.0	43.1	12.0	27.6	22.8
SPNC-M16B	SPNC-M16G	M20 X 1.5	16	20.0	13.0	45.0	15.2	33.0	28.0
SPNC-M22B	SPNC-M22G	M25 X 1.5	22	25.0	15.0	54.7	20.6	43.0	37.5
SPNC-M28B	SPNC-M28G	M32 X 1.5	28	32.0	15.0	62.4	27.0	48.8	43.0
SPNC-M36B	SPNC-M36G	M40 X 1.5	36	40.0	19.0	76.6	34.0	60.6	52.2
SPNC-M48B	SPNC-M48G	M50 X 1.5	48	50.0	21.0	81.4	42.0	71.8	64.0

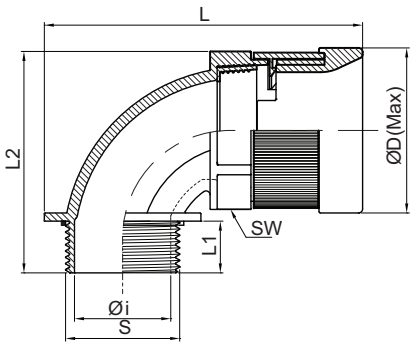
(Dimensions in mm)

SPWC IP68 ※ Under development

EN45545-2(HL3)



Black
Gray

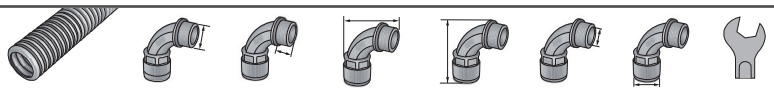


M Pg

- Material : High Quality Polyamide 6 + Brass Nickel plated
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Tramway Vehicle Construction etc.

≫ Product size

Ordering No.



Pg Thread (DIN 40430)

Black	Gray	Thread	Tube Size	S	L1	L2	L	Øi	ØD	SW
SPWC-P077B	SPWC-P077G	Pg07	07	12.5	11.0	33.0	41.0	6.0	17.0	14.2
SPWC-P09B	SPWC-P09G	Pg09	10	15.2	13.0	53.0	62.0	8.0	25.0	19.8
SPWC-P11B	SPWC-P11G	Pg11	12	18.6	13.0	53.0	60.0	9.0	25.0	22.7
SPWC-P136B	SPWC-P136G	Pg13.5	16	20.4	13.0	62.0	66.0	12.0	30.0	28.0
SPWC-P16B	SPWC-P16G	Pg16	16	22.5	13.0	62.0	66.0	12.0	30.0	28.0
SPWC-P21B	SPWC-P21G	Pg21	22	28.3	15.0	71.0	81.0	18.0	41.0	37.5
SPWC-P29B	SPWC-P29G	Pg29	28	37.0	15.0	77.0	96.0	25.0	47.0	43.0
SPWC-P36B	SPWC-P36G	Pg36	36	47.0	19.0	97.0	119.0	31.0	56.0	52.2
SPWC-P48B	SPWC-P48G	Pg48	48	59.3	19.0	112.0	141.0	42.0	68.0	64.1

Metric Thread (EN 60423)

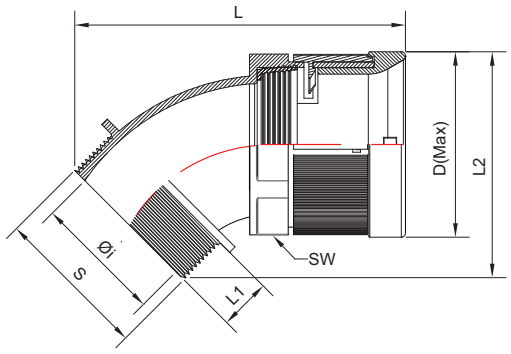
Black	Gray	Thread	Tube Size	S	L1	L2	L	Øi	ØD	SW
SPWC-M107B	SPWC-M107G	M12 X 1.5	07	12.0	11.0	33.0	41.0	6.0	17.0	14.2
SPWC-M10B	SPWC-M10G	M12 X 1.5	10	12.0	13.0	53.0	62.0	6.0	25.0	19.8
SPWC-M12B	SPWC-M12G	M16 X 1.5	12	16.0	13.0	53.0	60.0	9.0	25.0	22.7
SPWC-M16B	SPWC-M16G	M20 X 1.5	16	20.0	13.0	62.0	66.0	12.0	30.0	28.0
SPWC-M22B	SPWC-M22G	M25 X 1.5	22	25.0	15.0	71.0	81.0	16.0	41.0	37.5
SPWC-M28B	SPWC-M28G	M32 X 1.5	28	32.0	15.0	77.0	96.0	23.0	47.0	43.0
SPWC-M36B	SPWC-M36G	M40 X 1.5	36	40.0	19.0	97.0	119.0	31.0	56.0	52.2
SPWC-M48B	SPWC-M48G	M50 X 1.5	48	50.0	19.0	112.0	141.0	41.0	68.0	64.1

(Dimensions in mm)

EN45545-2(HL3)



Black
Gray

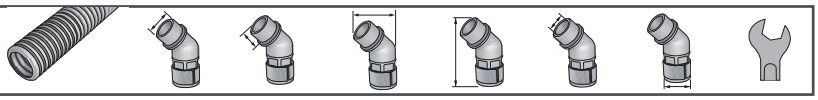


M Pg

- Material : High Quality Polyamide 6 + Brass Nickel plated
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Tramway Vehicle Construction etc.

≫ Product size

Ordering No.



Pg Thread (DIN 40430)

Black	Gray	Thread	Tube Size	S	L1	L2	L	Øi	ØD	SW
SPAC-P09B	SPAC-P09G	Pg09	10	15.5	13.0	33.7	59.8	11.1	24.5	19.7
SPAC-P11B	SPAC-P11G	Pg11	12	18.6	13.0	37.1	62.2	14.1	27.6	22.8
SPAC-P136B	SPAC-P136G	Pg13.5	16	20.4	13.0	41.1	66.5	15.3	33.0	28.0
SPAC-P16B	SPAC-P16G	Pg16	16	22.5	13.0	41.8	67.3	17.6	33.0	28.0
SPAC-P21B	SPAC-P21G	Pg21	22	28.3	15.0	51.7	81.7	22.2	43.0	37.5
SPAC-P29B	SPAC-P29G	Pg29	28	37.0	15.0	57.8	94.1	31.2	48.8	43.0
SPAC-P36B	SPAC-P36G	Pg36	36	47.0	20.0	73.3	113.9	40.3	60.6	52.2
SAC-P48B	SPAC-P48G	Pg48	48	59.3	20.0	84.6	125.9	50.4	71.8	64.0

Metric Thread (EN 60423)

Black	Gray	Thread	Tube Size	S	L1	L2	L	Øi	ØD	SW
SPAC-M10B	SPAC-M10G	M12 X 1.5	10	12.0	13.0	32.2	58.6	8.1	24.5	19.7
SPAC-M12B	SPAC-M12G	M16 X 1.5	12	16.0	13.0	35.8	61.3	12.1	27.6	22.8
SPAC-M16B	SPAC-M16G	M20 X 1.5	16	20.0	13.0	40.6	66.3	15.3	33.0	28.0
SPAC-M22B	SPAC-M22G	M25 X 1.5	22	25.0	15.0	50.2	80.6	20.8	43.0	37.5
SPAC-M28B	SPAC-M28G	M32 X 1.5	28	32.0	15.0	56.4	92.5	27.2	48.8	43.0
SPAC-M36B	SPAC-M36G	M40 X 1.5	36	40.0	20.0	70.5	111.5	34.3	60.6	52.2
SPAC-M48B	SPAC-M48G	M50 X 1.5	48	50.0	20.0	81.3	122.5	42.3	71.8	64.0

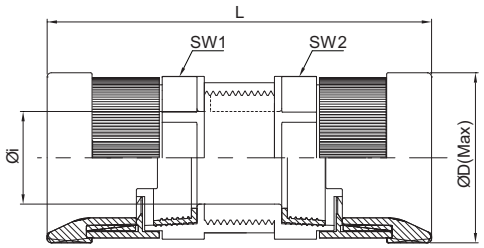
(Dimensions in mm)

PNSC IP68 ※ Under development

EN45545-2(HL3)

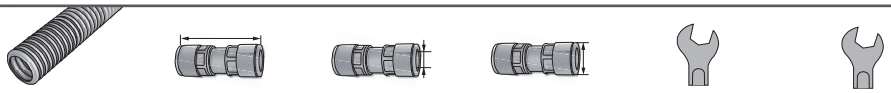


Black
Gray



- Material : High Quality Polyamide 6
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : The connector which can connect tube and tube each other.

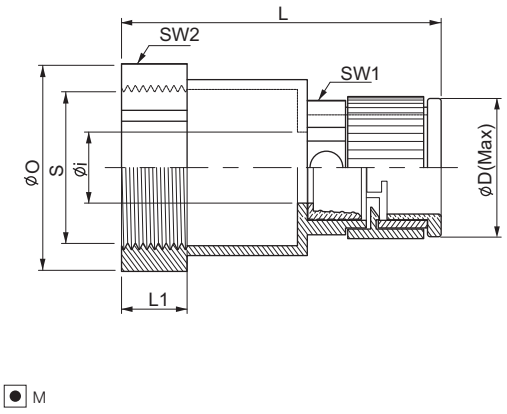
≫ Product size



Black	Gray	Tube Size	L	Øi	ØD	SW1	SW2
PNSC-10B	PNSC-10G	10 + 10	78.4	8.0	25.0	19.7	19.7
PNSC-12B	PNSC-12G	12 + 12	78.9	11.0	27.6	22.8	22.8
PNSC-16B	PNSC-16G	16 + 16	82.7	12.5	33.0	28.0	28.0
PNSC-22B	PNSC-22G	22 + 22	109.2	19.0	43.0	37.5	37.5
PNSC-28B	PNSC-28G	28 + 28	117.2	22.0	48.8	43.0	43.0
PNSC-36B	PNSC-36G	36 + 36	140.6	30.0	60.6	52.2	52.2
PNSC-48B	PNSC-48G	48 + 48	149.8	42.0	71.8	64.0	64.0

(Dimensions in mm)





- Material : High Quality Polycarbonate
- Degrees of Protection : IP 67 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150˚C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Transparency
- Application : Machine tool, Shipbuilding, Tramway, Industrial / Automatic Machinery, Printing Machine etc. Sencer with connector.

>> Product size

Ordering No.



Metric Thread (EN 60423)

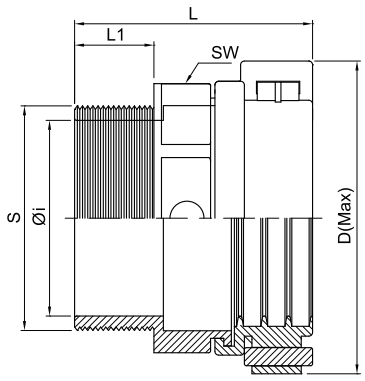
Black	Gray	Tube Size	S	L1	L	Øi	ØO	ØD	SW1	SW2
TIS-M08T	M8 X 1.0	10	7.7	12.8	61.5	5.0	17.5	23.0	20.0	16.0
TIS-M12T	M12 X 1.0	10	11.6	12.8	61.5	9.0	20.0	23.0	20.0	18.3
TIS-M18T	M18 X 1.0	10	17.7	12.8	61.5	9.0	24.0	23.0	20.0	22.0
TIS-M30T	M30 X 1.5	10	28.5	12.8	61.5	9.0	38.0	23.0	20.0	34.0

(Dimensions in mm)

TNRC IP66



Black
Gray

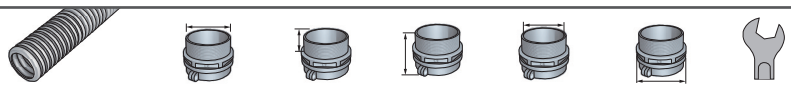


● G(PF)

- Material : High Quality Polyamide 6
- Degrees of Protection : IP 66 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Machine tool, Shipbuilding, Tramway, Industrial / Automatic Machinery, Printing Machine etc. Applied in control box or moving point.

≫ Product size

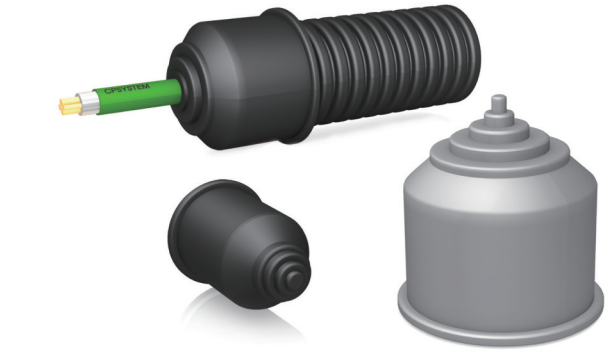
Ordering No.

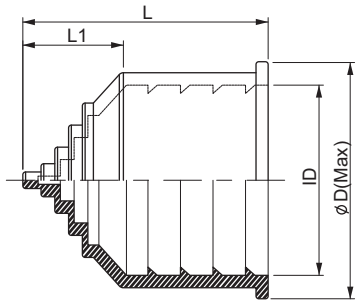


PF Thread (JIS B0202)

Black	Gray	Thread	Tube Size	S	L1	L	Øi	ØD	SW
TNRC-G22B	TNRC-G22G	G3/4"	22	26.4	15.0	50.8	19.4	50.6	36.9
TNRC-G28B	TNRC-G28G	G1"	28	33.2	15.0	49.0	26.2	57.7	42.7
TNRC-G36B	TNRC-G36G	G1 1/4"	36	41.6	19.0	60.0	35.0	70.0	52.2
TNRC-G48B	TNRC-G48G	G2"	48	58.7	21.0	63.3	51.0	85.0	64.1

(Dimensions in mm)





- Material : N.B.R (Nitrile-Gutadiene Rubber)
- Properties : Tube terminal, assembled by just putting on
- Degrees of Protection : IP 66 (EN 60529)
- Color : Black & Gray
- For tube type : Corrugated tubes, type of CPSFLEX

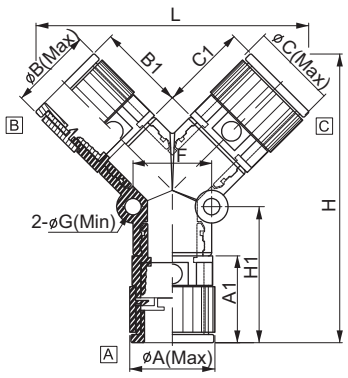
Product size

Ordering No.		Tube Size	Min	Max	L1	L	ID	ØD
Black	Gray							
FEC-07B	FEC-07G	07	2.0	7.0	8.0	24.0	10.0	16.0
FEC-10B	FEC-10G	10	3.0	10.0	11.0	33.0	12.5	17.0
FEC-12B	FEC-12G	12	4.2	12.	11.0	33.0	16.0	23.5
FEC-16B	FEC-16G	16	6.0	160.	12.5	34.5	21.2	29.0
FEC-22B	FEC-22G	22	6.0	220	16.0	43.0	28.5	37.0
FEC-28B	FEC-28G	28	6.0	28.0	16.0	43.0	34.5	43.0
FEC-36B	FEC-36G	36	6.0	36.0	24.0	58.5	42.5	52.0
FEC-48B	FEC-48G	48	6.0	48.0	24.0	58.5	54.5	64.0
FEC-56B	FEC-56G	56	9.0	56.0	29.0	71.0	67.2	76.7
FEC-70B	FEC-70G	70	10.0	70.0	36.0	86.0	82.5	92.0
FEC-95B	FEC-95G	95	13.0	95.0	45.0	110.0	106.0	115.5

(Dimensions in mm)

TVC IP67





- Feature : CPS distributors guarantee elegant layout and save on cost instead of using distribution boxes.
  Available to use not only their basic shape TYC, TTC & TVC but also various configurations.
  One Standard model can be changed into 6 different shapes.
  Nominal width from 28, reduceable to 10.

Ordering

TVC - 10 10 10B : 100EA

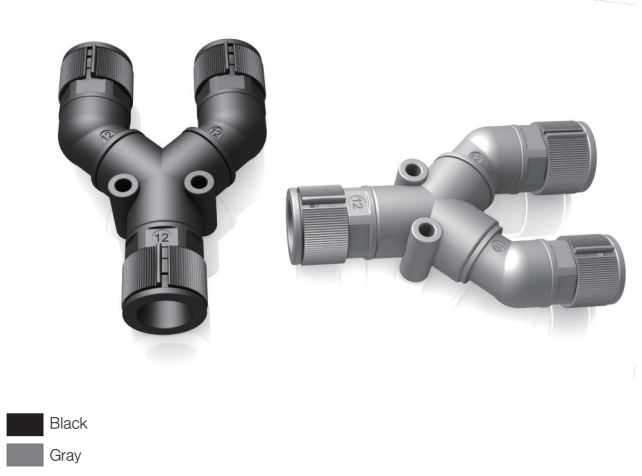
- CPSFIX
- Basic Hole A
- Divided Hole B
- Divided Hole C
- Color (B : Black / G : Gray)
- Q'ty

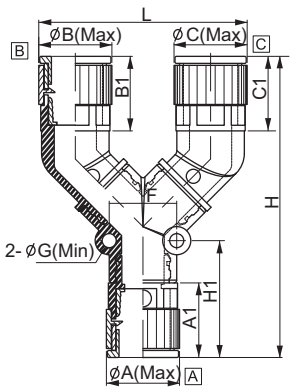


Product size

Black	Gray	A	B	C	ØA	A1	ØB	B1	ØC	C1	ØG	F	H1	H	L
TVC-101010B	TVC-101010G	10	10	10	23	26.6	23	26.6	23	26.6	5.0	24	41.6	86	80.0
TVC-121010B	TVC-121010G	12	10	10	25	26.5	23	26.6	23	26.6	5.0	24	41.5	86	80.0
TVC-121210B	TVC-121210G	12	12	10	25	26.5	25	26.5	23	26.6	5.0	24	41.5	88	83.0
TVC-121212B	TVC-121212G	12	12	12	25	26.5	25	26.5	25	26.5	5.0	24	41.5	88	83.0
TVC-161010B	TVC-161010G	16	10	10	30	28.5	23	26.6	23	26.6	5.0	24	43.5	88	83.0
TVC-161210B	TVC-161210G	16	12	10	30	28.5	25	26.5	23	26.6	5.0	24	43.5	90	81.0
TVC-161212B	TVC-161212G	16	12	12	30	28.5	25	26.5	25	26.5	5.0	24	43.5	90	83.0
TVC-161616B	TVC-161616G	16	16	16	30	28.5	30	28.5	30	28.5	5.0	24	43.5	93	89.8
TVC-222222B	TVC-222222G	22	22	22	41	33.3	41	33.3	41	33.3	5.6	39	48.2	112	112.0
TVC-282222B	TVC-282222G	28	22	22	47	39.0	41	33.3	41	33.3	5.6	39	53.9	118	112.0
TVC-282822B	TVC-282822G	28	28	22	47	39.0	47	39.0	41	33.3	5.6	39	53.9	124	118.0
TVC-282828B	TVC-282828G	28	28	28	47	39.0	47	39.0	47	39.0	5.6	39	53.9	124	124.0

(Dimensions in mm)



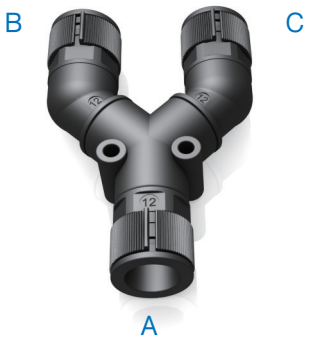


• Feature : CPS distributors guarantee elegant layout and save on cost instead of using distribution boxes.
Available to use not only their basic shape TYC, TTC & TVC but also various configurations.
One Standard model can be changed into 6 different shapes.
Nominal width from 28, reduceable to 10.

Ordering

TYC - 10 10 10B : 100EA

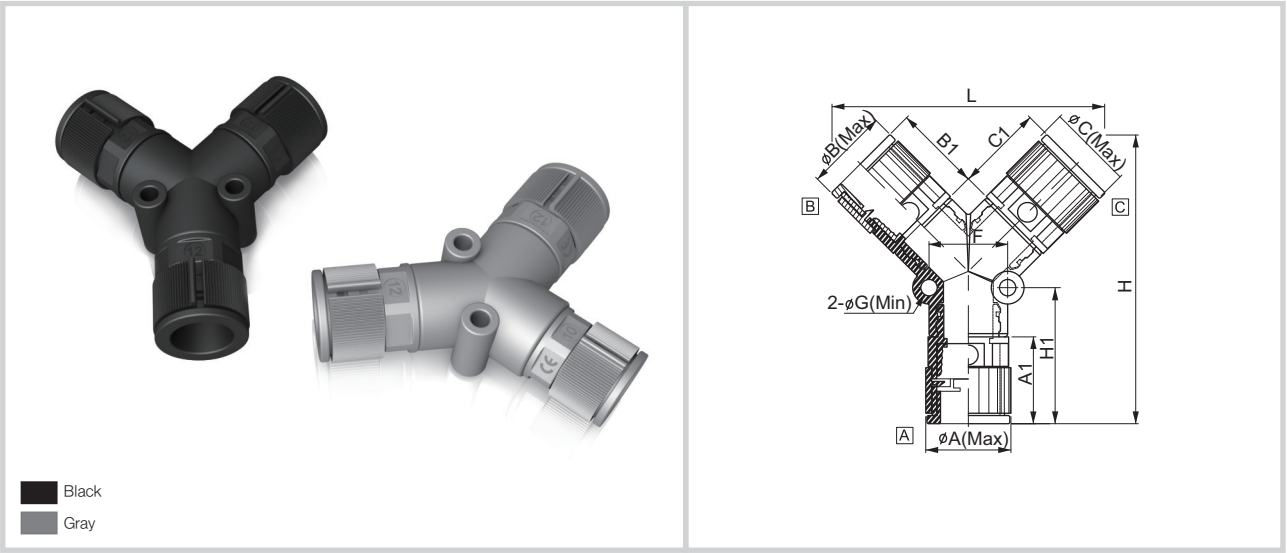
- CPSFIX
- Basic Hole A
- Divided Hole B
- Divided Hole C
- Color (B : Black / G : Gray)
- Q'ty



Product size

Black	Gray	A	B	C	ØA	A1	ØB	B1	ØC	C1	ØG	F	H1	H	L
TYC-101010B	TYC-101010G	10.0	10.0	10.0	23.0	26.6	23.0	24.0	23.0	24.0	5.0	24.0	41.6	104.0	67.0
TYC-121010B	TYC-121010G	12.0	10.0	10.0	25.0	26.5	23.0	24.0	23.0	24.0	5.0	24.0	41.5	104.0	67.0
TYC-121210B	TYC-121210G	12.0	12.0	10.0	25.0	26.5	25.0	24.4	23.0	24.0	5.0	24.0	41.5	107.0	69.7
TYC-121212B	TYC-121212G	12.0	12.0	12.0	25.0	26.5	25.0	24.4	25.0	24.4	5.0	24.0	41.5	107.0	73.5
TYC-161010B	TYC-161010G	16.0	10.0	10.0	30.0	28.5	23.0	24.0	23.0	24.0	5.0	24.0	43.5	105.7	67.0
TYC-161210B	TYC-161210G	16.0	12.0	10.0	30.0	28.5	25.0	24.4	23.0	24.0	5.0	24.0	43.5	108.7	69.7
TYC-161212B	TYC-161212G	16.0	12.0	12.0	30.0	28.5	25.0	24.4	25.0	24.4	5.0	24.0	43.5	108.7	73.0
TYC-161616B	TYC-161616G	16.0	16.0	16.0	30.0	28.5	30.0	26.0	30.0	26.0	5.0	24.0	43.5	110.8	83.0
TYC-222222B	TYC-222222G	22.0	22.0	22.0	41.0	33.3	41.0	33.5	41.0	33.5	5.6	39.0	48.2	134.5	108.0
TYC-282222B	TYC-282222G	28.0	22.0	22.0	47.0	39.0	41.0	33.5	41.0	33.5	5.6	39.0	53.9	142.0	108.0
TYC-282822B	TYC-282822G	28.0	28.0	22.0	47.0	39.0	47.0	39.5	41.0	33.5	5.6	39.0	53.9	150.0	111.0
TYC-282828B	TYC-282828G	28.0	28.0	28.0	47.0	39.0	47.0	39.5	47.0	39.5	5.6	39.0	53.9	150.0	114.0

(Dimensions in mm)

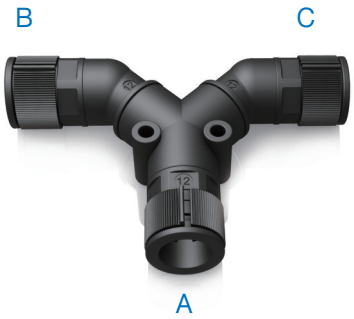


- Feature : CPS distributors guarantee elegant layout and save on cost instead of using distribution boxes.
  Available to use not only their basic shape TYC, TTC & TVC but also various configurations.
  One Standard model can be changed into 6 different shapes.
  Nominal width from 28, reduceable to 10.

Ordering

TTC - 10 10 10B : 100EA

- CPSFIX
- Basic Hole A
- Divided Hole B
- Divided Hole C
- Color (B : Black / G : Gray)
- Q'ty



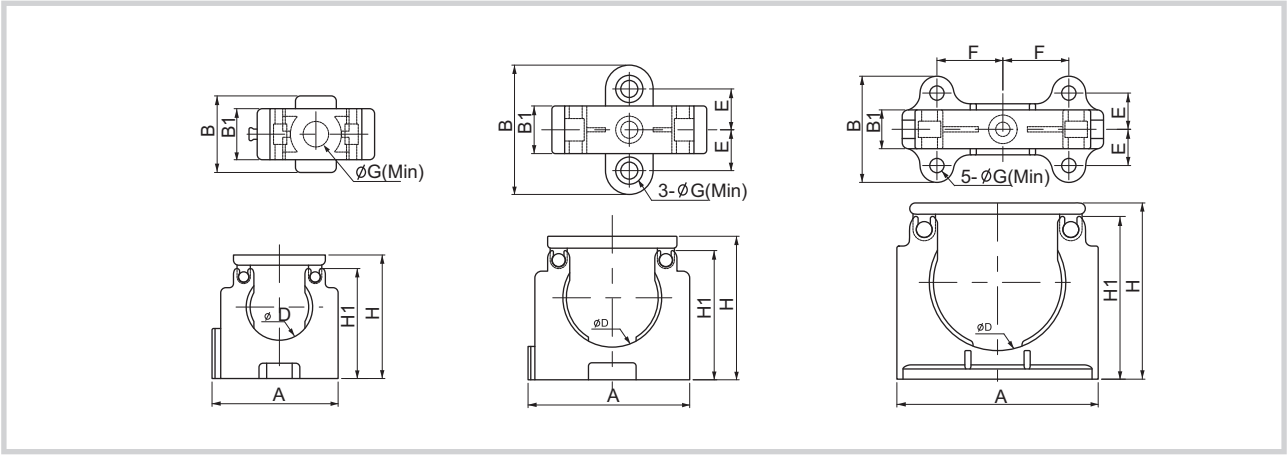
Product size

Black	Gray	A	B	C	ØA	A1	ØB	B1	ØC	C1	ØG	F	H1	H	L
TTC-101010B	TTC-101010G	10.0	10.0	10.0	23.0	26.6	23.0	24.0	23.0	24.0	5.0	24.0	41.6	81.0	114.0
TTC-121010B	TTC-121010G	12.0	10.0	10.0	25.0	26.5	23.0	24.0	23.0	24.0	5.0	24.0	41.5	81.0	114.0
TTC-121210B	TTC-121210G	12.0	12.0	10.0	25.0	26.5	25.0	24.4	23.0	24.0	5.0	24.0	41.5	83.0	118.0
TTC-121212B	TTC-121212G	12.0	12.0	12.0	25.0	26.5	25.0	24.4	25.0	24.4	5.0	24.0	41.5	83.0	120.0
TTC-161010B	TTC-161010G	16.0	10.0	10.0	30.0	28.5	23.0	24.0	23.0	24.0	5.0	24.0	43.5	82.0	114.0
TTC-161210B	TTC-161210G	16.0	12.0	10.0	30.0	28.5	25.0	24.4	23.0	24.0	5.0	24.0	43.5	85.0	118.0
TTC-161212B	TTC-161212G	16.0	12.0	12.0	30.0	28.5	25.0	24.4	25.0	24.4	5.0	24.0	43.5	85.0	120.0
TTC-161616B	TTC-161616G	16.0	16.0	16.0	30.0	28.5	30.0	26.0	30.0	26.0	5.0	24.0	43.5	90.0	124.0
TTC-222222B	TTC-222222G	22.0	22.0	22.0	41.0	33.3	41.0	33.5	41.0	33.5	5.6	39.0	48.2	110.0	156.0
TTC-282222B	TTC-282222G	28.0	22.0	22.0	47.0	39.0	41.0	33.5	41.0	33.5	5.6	39.0	53.9	116.0	156.0
TTC-282822B	TTC-282822G	28.0	28.0	22.0	47.0	39.0	47.0	39.5	41.0	33.5	5.6	39.0	53.9	120.0	165.0
TTC-282828B	TTC-282828G	28.0	28.0	28.0	47.0	39.0	47.0	39.5	47.0	39.5	5.6	39.0	53.9	120.0	174.0

(Dimensions in mm)



- Material : High Quality Polyamide 6
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Fixing tubes
  By making more screw holes, the clip is more stable and the hinge cover is easy to use. This new clip was developed to facilitate straight arrangement and be installable at any size.



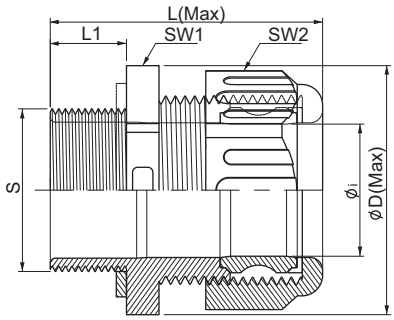
>> Product size

Black	Gray	Tube Size	ØD	A	H	H1	B	B1	E	F	ØG	Bolt
NFH-07B	NFH-07G	07	10.0	16.6	20.5	17.9	14.5	10.0	-	-	5.0	1-M4
NFH-10B	NFH-10G	10	13.0	23.0	24.2	21.6	15.0	10.0	-	-	5.0	1-M4
NFH-12B	NFH-12G	12	16.0	27.5	25.7	22.5	33.0	14.0	11.30	-	5.4	3-M5
NFH-16B	NFH-16G	16	21.5	34.2	33.0	29.5	36.0	14.0	12.00	-	5.4	3-M5
NFH-22B	NFH-22G	22	29.0	45.5	42.2	38.0	38.0	14.0	12.00	-	6.4	3-M6
NFH-28B	NFH-28G	28	35.0	55.0	49.8	45.3	37.0	14.0	12.50	17.00	6.4	5-M6
NFH-36B	NFH-36G	36	42.0	66.0	59.5	54.3	41.5	14.0	13.50	18.75	6.4	5-M6
NFH-48B	NFH-48G	48	54.0	84.9	73.2	66.9	41.5	14.0	13.50	28.00	6.4	5-M6
NFH-56B	NFH-56G	56	66.8	98.6	86.3	79.7	52.0	19.0	17.75	32.30	6.4	5-M6
NFH-70B	NFH-70G	70	82.0	121.0	105.8	97.6	63.0	23.0	21.50	39.50	8.4	5-M8
NFH-95B	NFH-95G	95	105.6	155.4	136.3	125.8	82.0	30.0	28.00	51.70	8.4	5-M8

FCG IP68



Black
Gray



● G(PF) ● M ● Pg

- Material : High Quality Polyamide 6
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Connector for control box radio box or cables from electric machine. Water & Dust, Oil proof halogen free.

≫ Product size

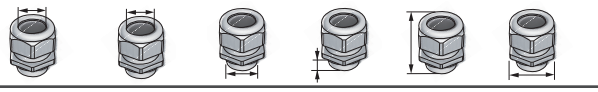
Ordering No.



PF Thread (JIS B0202)

Black	Gray	Thread	Øi (Min)	Øi (Max)	S	L1	L	ØD	SW1	SW2
FCG-G10B	FCG-G10G	G1/2"	3.5	6.5	20.9	15.0	43.9	24.4	22.6	18.0
FCG-G12B	FCG-G12G	G1/2"	4.0	8.0	20.9	15.0	46.2	28.8	25.5	21.3
FCG-G16B	FCG-G16G	G1/2"	7.0	12.3	20.9	15.0	47.2	28.6	25.4	25.4
FCG-G1622B	FCG-G1622G	G1/2"	12.0	15.2	20.9	15.0	53.4	38.2	34.0	34.0
FCG-G22B	FCG-G22G	G3/4"	12.0	18.0	26.4	15.0	53.4	38.2	34.0	34.0
FCG-G228B	FCG-G228G	G3/4"	18.0	20.3	26.4	15.0	53.4	49.0	43.4	43.4
FCG-G28B	FCG-G28G	G1"	18.0	26.0	33.2	15.0	53.4	49.0	43.4	43.4
FCG-G36B	FCG-G36G	G1 1/4"	22.0	33.0	41.9	19.0	67.7	59.0	53.0	51.6
FCG-G48B	FCG-G48G	G2"	36.0	42.0	59.6	19.0	69.7	74.0	66.5	67.0

(Dimensions in mm)

Ordering No.	

Metric Thread (EN 60423)

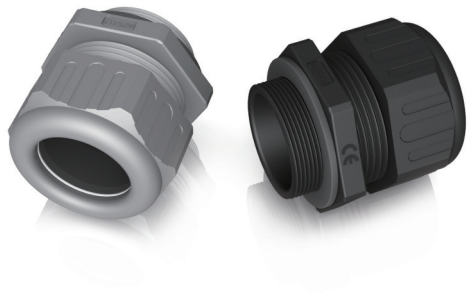
Black	Gray	Thread	Øi (Min)	Øi (Max)	S	L1	L	ØD	SW1	SW2
FCG-M10B	FCG-M10G	M12 X 1.5	3.5	6.5	12.0	15.0	43.9	25.4	22.6	18.0
FCG-M120B	FCG-M120G	M16 X 1.5	3.5	6.5	16.0	15.0	43.9	25.4	22.6	18.0
FCG-M102B	FCG-M102G	M12 X 1.5	4.0	7.1	12.0	15.0	46.2	28.8	25.5	21.3
FCG-M12B	FCG-M12G	M16 X 1.5	4.0	8.0	16.0	15.0	46.2	28.8	25.5	21.3
FCG-M162B	FCG-M162G	M20 X 1.5	4.0	8.0	20.0	15.0	46.2	28.8	25.5	21.3
FCG-M126B	FCG-M126G	M16 X 1.5	7.0	10.9	16.0	15.0	47.2	28.6	25.4	25.4
FCG-M16B	FCG-M16G	M20 X 1.5	7.0	12.3	20.0	15.0	47.2	28.6	25.4	25.4
FCGM1622B	FCGM1622G	M20 X 1.5	12.0	14.5	20.0	15.0	53.4	38.2	34.0	34.0
FCG-M22B	FCG-M22G	M25 X 1.5	12.0	18.0	25.0	15.0	53.4	38.2	34.0	34.0
FCG-M228B	FCG-M228G	M25 X 1.5	18.0	19.5	25.0	15.0	53.4	49.0	43.4	43.4
FCG-M28B	FCG-M28G	M32 X 1.5	18.0	26.0	32.0	15.0	53.4	49.0	43.4	43.4
FCG-M36B	FCG-M36G	M40 X 1.5	22.0	33.0	40.0	19.0	67.7	59.0	53.0	51.6
FCG-M48B	FCG-M48G	M50 X 1.5	36.0	42.0	50.0	19.0	69.7	74.0	66.5	67.0

Pg Thread (DIN 40430)

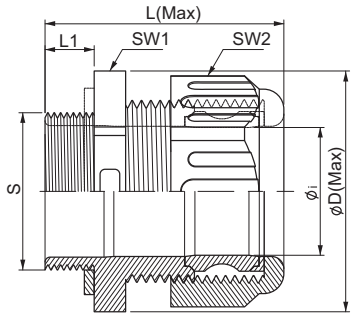
Black	Gray	Thread	Øi (Min)	Øi (Max)	S	L1	L	ØD	SW1	SW2
FCG-P07B	FCG-P07G	Pg07	3.5	6.5	12.5	15.0	43.9	25.4	22.6	18.0
FCG-P09B	FCG-P09G	Pg09	3.5	6.5	15.2	15.0	43.9	25.4	22.6	18.0
FCG-P072B	FCG-P072G	Pg07	4.0	8.0	12.5	15.0	46.2	28.8	25.5	21.3
FCG-P092B	FCG-P092G	Pg09	4.0	8.0	15.2	15.0	46.2	28.8	25.5	21.3
FCG-P11B	FCG-P11G	Pg11	4.0	8.0	18.6	15.0	46.2	28.8	25.5	21.3
FCG-P132B	FCG-P132G	Pg13.5	4.0	8.0	20.4	15.0	46.2	28.8	25.5	21.3
FCG-P162B	FCG-P162G	Pg16	4.0	8.0	22.5	15.0	46.2	28.8	25.5	21.3
FCG-P096B	FCG-P096G	Pg09	7.0	10.6	15.2	15.0	47.2	28.6	25.4	25.4
FCG-P116B	FCG-P116G	Pg11	7.0	12.3	18.6	15.0	47.2	28.6	25.4	25.4
FCG-P13B	FCG-P13G	Pg13.5	7.0	12.3	20.4	15.0	47.2	28.6	25.4	25.4
FCG-P16B	FCG-P16G	Pg16	7.0	12.3	22.5	15.0	47.2	28.6	25.4	25.4
FCG-P122B	FCG-P122G	Pg11	12.0	13.9	18.6	15.0	53.4	38.2	34.0	34.0
FCG-P1322B	FCG-P1322G	Pg13.5	12.0	14.8	20.4	15.0	53.4	38.2	34.0	34.0
FCG-P1622B	FCG-P1622G	Pg16	12.0	17.3	22.5	15.0	53.4	38.2	34.0	34.0
FCG-P21B	FCG-P21G	Pg21	12.0	18.0	28.3	15.0	53.4	38.2	34.0	34.0
FCG-P218B	FCG-P218G	Pg21	18.0	22.5	28.3	15.0	53.4	49.0	43.4	43.4
FCG-P29B	FCG-P29G	Pg29	18.0	26.0	37.0	15.0	53.4	49.0	43.4	43.4
FCG-P36B	FCG-P36G	Pg36	22.0	33.0	47.0	19.0	67.7	59.0	53.0	51.6
FCG-P48B	FCG-P48G	Pg48	36.0	42.0	59.3	19.0	69.7	74.0	66.5	67.0

(Dimensions in mm)

FCGL IP68



Black
Gray



● G(PF) ● M ● Pg

- Material : High Quality Polyamide 6
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Connector for control box radio box or cables from electric machine. Water & Dust, Oil proof halogen free.

≫ Product size

Ordering No.



PF Thread (JIS B0202)

Black	Gray	Thread	Øi (Min)	Øi (Max)	S	L1	L	ØD	SW1	SW2
FCGL-G10B	FCGL-G10G	G1/2"	3.5	6.5	20.9	9.0	37.9	25.4	22.6	18.0
FCGL-G12B	FCGL-G12G	G1/2"	4.0	8.0	20.9	9.0	40.2	28.8	25.5	21.3
FCGL-G16B	FCGL-G16G	G1/2"	7.0	12.3	20.9	9.0	41.2	28.6	25.4	25.4

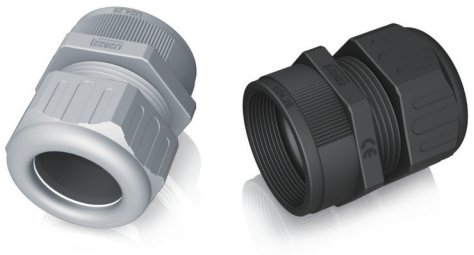
Metric Thread (EN 60423)

Black	Gray	Thread	Øi (Min)	Øi (Max)	S	L1	L	ØD	SW1	SW2
FCGL-M10B	FCGL-M10G	M12 X 1.5	3.5	6.5	12.0	9.0	37.9	25.4	22.6	18.0
FCGL-M120B	FCGL-M120G	M16 X 1.5	3.5	6.5	16.0	9.0	37.9	25.4	22.6	18.0
FCGL-M102B	FCGL-M102G	M12 X 1.5	4.0	7.1	12.0	9.0	40.2	28.8	25.5	21.3
FCGL-M12B	FCGL-M12G	M16 X 1.5	4.0	8.0	16.0	9.0	40.2	28.8	25.5	21.3
FCGL-M162B	FCGL-M162G	M20 X 1.5	4.0	8.0	20.0	9.0	40.2	28.8	25.5	21.3
FCGL-M126B	FCGL-M126G	M16 X 1.5	7.0	10.9	16.0	9.0	41.2	28.6	25.4	25.4
FCGL-M16B	FCGL-M16G	M20 X 1.5	7.0	12.3	20.0	9.0	41.2	28.6	25.4	25.4
FCGL-M216B	FCGL-M216G	M25 X 1.5	7.0	12.3	25.0	9.0	41.2	28.6	25.4	25.4

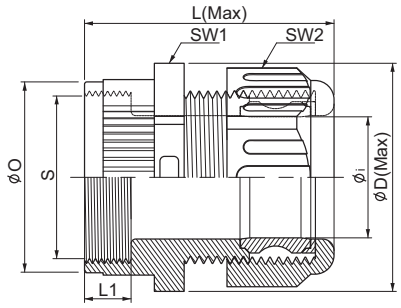
Pg Thread (DIN 40430)

Black	Gray	Thread	Øi (Min)	Øi (Max)	S	L1	L	ØD	SW1	SW2
FCGL-P09B	FCGL-P09G	Pg09	3.5	6.5	15.2	9.0	37.9	25.4	22.6	18.0
FCGL-P092B	FCGL-P092G	Pg09	4.0	8.0	15.2	9.0	40.2	28.8	25.5	21.3
FCGL-P11B	FCGL-P11G	Pg11	4.0	8.0	18.6	9.0	40.2	28.8	25.5	21.3
FCGL-P132B	FCGL-P132G	Pg13.5	4.0	8.0	20.4	9.0	40.2	28.8	25.5	21.3
FCGL-P162B	FCGL-P162G	Pg16	4.0	8.0	22.5	9.0	40.2	28.8	25.5	21.3
FCGL-P116B	FCGL-P116G	Pg11	7.0	12.3	18.6	9.0	41.2	28.6	25.4	25.4
FCGL-P13B	FCGL-P13G	Pg13.5	7.0	12.3	20.4	9.0	41.2	28.6	25.4	25.4
FCGL-P16B	FCGL-P16G	Pg16	7.0	12.3	22.5	9.0	41.2	28.6	25.4	25.4

(Dimensions in mm)



Black
Gray



● UNEF

- Material : High Quality Polyamide 6
- Degrees of Protection : IP 68 (EN 60529)
- The max. Instantaneous Temperature : -40℃ to +105℃
- Short Term : up to +150° C
- Self-Extinguishing : UL94-HB / Free of Halogen Phosphorous and cadmium
- Color : Black & Gray
- Application : Connector for control box radio box or cables from electric machine. Water & Dust, Oil proof halogen free.

≫ Product size

Ordering No.	

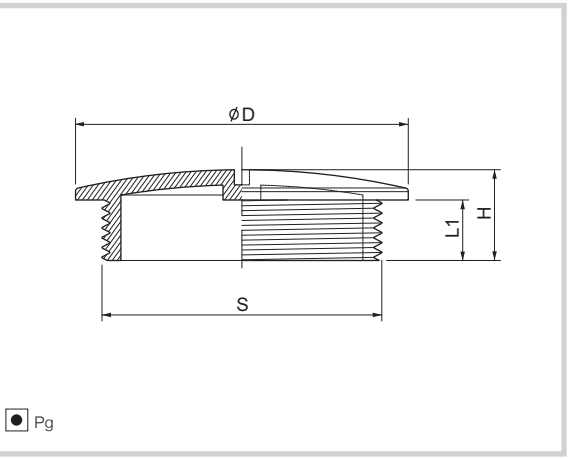
UNEF Thread (ASME B1.1)

Black	Gray	Thread	Shell Size	Øi (Min)	Øi (Max)	L1	L	ØO	ØD	SW1	SW2
TICG-U1010B	TICG-U1010G	1/2-28UNEF	8S, 10S	3.5	6.5	10.0	43.9	18.4	25.4	22.6	18.0
TICG-U1210B	TICG-U1210G	5/8-24UNEF	10SL, 12S	3.5	6.5	10.0	43.9	20.6	25.4	22.6	18.0
TICG-U1410B	TICG-U1410G	3/4-20UNEF	14, 14S	3.5	6.5	10.0	43.9	24.0	25.4	22.6	18.0
TICG-U1610B	TICG-U1610G	7/8-20UNEF	16, 16S	3.5	6.5	10.0	43.9	28.0	25.4	22.6	18.0
TICG-U1810B	TICG-U1810G	1-20UNEF	18	3.5	6.5	10.0	43.9	31.0	25.4	22.6	18.0
TICG-U2010B	TICG-U2010G	1 3/16-18UNEF	20, 22	3.5	6.5	10.0	43.9	35.5	25.4	22.6	18.0
TICG-U2810B	TICG-U2810G	1 7/16-18UNEF	24, 28	3.5	6.5	10.0	43.9	42.0	25.4	22.6	18.0
TICG-U1212B	TICG-U1212G	5/8-24UNEF	10SL, 12S	4.0	8.0	10.0	46.2	20.6	28.8	25.5	21.3
TICG-U1412B	TICG-U1412G	3/4-20UNEF	14, 14S	4.0	8.0	10.0	46.2	24.0	28.8	25.5	21.3
TICG-U1612B	TICG-U1612G	7/8-20UNEF	16, 16S	4.0	8.0	10.0	46.2	28.0	28.8	25.5	21.3
TICG-U1812B	TICG-U1812G	1-20UNEF	18	4.0	8.0	10.0	46.2	31.0	28.8	25.5	21.3
TICG-U2012B	TICG-U2012G	1 3/16-18UNEF	20, 22	4.0	8.0	10.0	46.2	35.5	28.8	25.5	21.3
TICG-U2812B	TICG-U2812G	1 7/16-18UNEF	24, 28	4.0	8.0	10.0	46.2	42.0	28.8	25.5	21.3
TICG-U1616B	TICG-U1616G	7/8-20UNEF	16, 16S	7.0	12.3	10.0	47.2	28.0	28.6	25.4	25.4
TICG-U1816B	TICG-U1816G	1-20UNEF	18	7.0	12.3	10.0	47.2	31.0	28.6	25.4	25.4
TICG-U2016B	TICG-U2016G	1 3/16-18UNEF	20, 22	7.0	12.3	10.0	47.2	35.5	28.6	25.4	25.4
TICG-U2816B	TICG-U2816G	1 7/16-18UNEF	24, 28	7.0	12.3	10.0	47.2	42.0	28.6	25.4	25.4
TICG-U2222B	TICG-U2222G	1 3/16-18UNEF	20, 22	12.0	18.0	10.0	53.4	35.5	38.2	34.0	34.0
TICG-U2822B	TICG-U2822G	1 7/16-18UNEF	24, 28	12.0	18.0	10.0	53.4	42.0	38.2	34.0	34.0
TICG-U3222B	TICG-U3222G	1 3/4-18UNS	32	12.0	18.0	10.0	53.4	50.0	38.2	34.0	34.0
TICG-U3622B	TICG-U3622G	2-18UNS	36	12.0	18.0	10.0	53.4	56.5	38.2	34.0	34.0
TICG-U3228B	TICG-U3228G	1 3/4-18UNS	32	18.0	26.0	10.0	53.4	50.0	49.0	43.4	43.4
TICG-U3628B	TICG-U3628G	2-18UNS	36	18.0	26.0	10.0	67.7	56.5	59.0	53.0	51.6
TICG-U3636B	TICG-U3636G	2-18UNS	36	22.0	33.0	10.0	69.7	56.5	74.0	66.5	67.0

(Dimensions in mm)

BBS CPSNUT





- Material : High Quality Polyamide 6
- The max. Instantaneous Temperature : -30℃ to +80℃
- Short Term : up to +150° C
- Color : Gray & White

>> Product size

Ordering No.

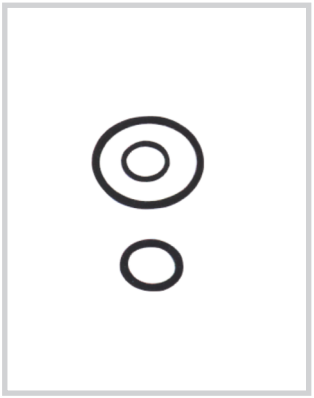


Pg Thread (DIN 40430)

White	Gray	Thread	S	L1	H	ØD
BBS-P07W	BBS-P07G	Pg07	12.5	6.0	8.0	15.0
BBS-P09W	BBS-P09G	Pg09	15.2	6.0	9.0	19.0
BBS-P11W	BBS-P11G	Pg11	18.6	6.0	10.0	22.0
BBS-P13W	BBS-P13G	Pg13.5	20.4	6.0	10.0	25.0
BBS-P16W	BBS-P16G	Pg16	22.5	6.0	10.0	27.0
BBS-P21W	BBS-P21G	Pg21	28.3	8.0	12.0	33.0
BBS-P29W	BBS-P29G	Pg29	37.0	8.0	12.0	44.0
BBS-P36W	BBS-P36G	Pg36	47.0	10.0	15.0	55.0

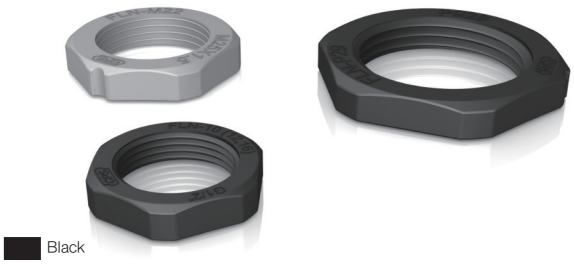
(Dimensions in mm)

FWH CPS WASHER



PF(G) Thread	Metric Thread	Pg Thread
-	-	FWH-P07
FWH-G10	FWH-M10	FWH-P09
FWH-G12	FWH-M12	FWH-P11
FWH-G16	FWH-M16	FWH-P13
FWH-G22	FWH-M22	FWH-P16
FWH-G28	FWH-M28	FWH-P21
FWH-G36	FWH-M36	FWH-P29
FWH-G42	-	FWH-P36
FWH-G48	FWH-M48	FWH-P48

FLN • Material : High Quality Polyamide 6

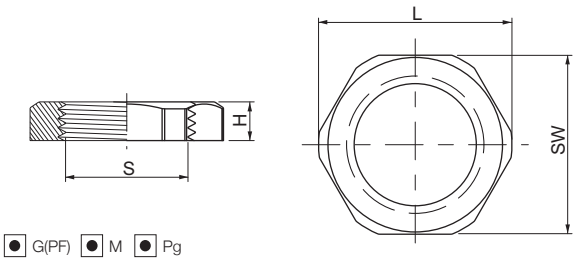


Black
Gray

SLN • Material : High Quality Polyamide 6



Steel



G(PF) M Pg

Product size

PF Thread (JIS B0202)

Black	Gray	Thread	S	H	L	SW	
FLN-G07B	FLN-G07G	G1/4"	13.0	6.0	20.7	19.0	SLN-G07
FLN-G10B	FLN-G10G	G1/2"	20.9	6.0	29.5	27.3	SLN-G10
FLN-G12B	FLN-G12G	G1/2"	20.9	6.0	29.5	27.3	SLN-G12
FLN-G16B	FLN-G16G	G1/2"	20.9	6.0	29.5	27.3	SLN-G16
FLN-G22B	FLN-G22G	G3/4"	26.4	6.8	38.4	36.0	SLN-G22
FLN-G28B	FLN-G28G	G1"	33.2	6.8	47.8	44.0	SLN-G28
FLN-G36B	FLN-G36G	G1 1/4"	41.9	8.0	52.3	49.0	SLN-G36
FLN-G42B	FLN-G42G	G1 1/2"	47.8	8.0	72.3	65.0	SLN-G42
FLN-G48B	FLN-G48G	G2"	59.6	8.0	76.5	70.0	SLN-G48

Metric Thread (EN 60423)

Black	Gray	Thread	S	H	L	SW	
FLN-M10B	FLN-M10G	M12 X 1.5	12.0	6.0	18.6	17	SLN-M10
FLN-M12B	FLN-M12G	M16 X 1.5	16.0	6.0	24.0	22	SLN-M12
FLN-M16B	FLN-M16G	M20 X 1.5	20.0	6.0	28.0	26	SLN-M16
FLN-M22B	FLN-M22G	M25 X 1.5	25.0	6.8	35.6	33	SLN-M22
FLN-M28B	FLN-M28G	M32 X 1.5	32.0	6.8	43.6	40	SLN-M28
FLN-M36B	FLN-M36G	M40 X 1.5	40.0	8.0	54.0	50	SLN-M36
FLN-M48B	FLN-M48G	M50 X 1.5	50.0	8.0	65.4	60	SLN-M48

Pg Thread (DIN 40430)

Black	Gray	Thread	S	H	L	SW	
FLN-P07B	FLN-P07G	Pg07	12.5	4.0	21.1	19.0	SLN-P07
FLN-P09B	FLN-P09G	Pg09	15.2	4.0	23.9	22.0	SLN-P09
FLN-P11B	FLN-P11G	Pg11	18.6	6.0	25.8	24.0	SLN-P11
FLN-P13B	FLN-P13G	Pg13.5	20.4	6.0	28.7	27.0	SLN-P13
FLN-P16B	FLN-P16G	Pg16	22.5	6.0	32.1	30.3	SLN-P16
FLN-P21B	FLN-P21G	Pg21	28.3	6.8	38.5	36.0	SLN-P21
FLN-P29B	FLN-P29G	Pg29	37.0	6.8	49.7	46.0	SLN-P29
FLN-P36B	FLN-P36G	Pg36	47.0	8.0	66.5	60.0	SLN-P36
FLN-P48B	FLN-P48G	Pg48	59.3	8.0	78.1	70.2	SLN-P48

(Dimensions in mm)

PNC pull-out Test Report

Test Report

CPS-T-170417-001 Issued Date : 2017. 4. 17

CP SYSTEM CO,.LTD
#27-37, Jeonggwansanggok 1-gil,
Jeonggwan-myeon, Gijang-gun, Busan,
Korea

Test No.	: CPS-T-170417-001
Document No.	: CP SYSTEM(P) 17 - 053
Description	: PULLING OUT Test
Sample Name	: CP SYSTEM PNC connector + CPS TUBE
Testing Dept.	: CP SYSTEM CO,.LTD, Q.C Department
Test person	: Minwook Shin
Test Period	: 2017.04.17

CPS-T-170417-001

CPSYSTEM PNC connector + CPS TUBE

Contents

1. Experimental equipment data
2. Sample data
3. Testing method
4. Test environment
5. Examination result

(Legally binding signature of the issuer)

CPS

Test Report

CPS-T-170417-001

Issued Date : 2017. 4. 17

1. Experimental equipment data

· Name : Whole material tester, mechanical, tensile, compressive
· No of equipment : TM-141224-001
· Test category : Material tensile, material compression, material tensile elongation test

Method	Specification
Max. Load Capacity	2,000 kgf
Load Sensor	Load Cell
Measurement Accuracy	Within ± 0.3%
Max. Stroke	999 mm



FIG 1. Whole material tester

2. Sample data

· Specimen A : PNC connector + CPS tube (07~48)



FIG 2. PNC connector + CPS tube (07~48)

3. Test method

· Strech a specimen by speed, 30mm/min and measure maximum weight when tube and connector are separated.

※ Arbitrary and non-standard test



FIG 3. PULLING OUT TEST (07,10,12,22)

4. Test environment

· Temperature : 20°C
· Humidity : 23%

PNC pull-out Test Report

CPS

Test Report

CPS-T-170417-001

Issued Date : 2017. 4. 17

5. Examination result

Specimen	SIZE	Measured value
A (PNC connector + CPS tube)	**07**	**7.6 kgf**
	10	**9.9 kgf**
	12	**22.1 kgf**
	16	**27.4 kgf**
	22	**29.9 kgf**
	28	**52.2 kgf**
	36	**52.6 kgf**
	48	**52.1 kgf**

※ Refer to attached file to see test graph

PNC pull-out Test Report

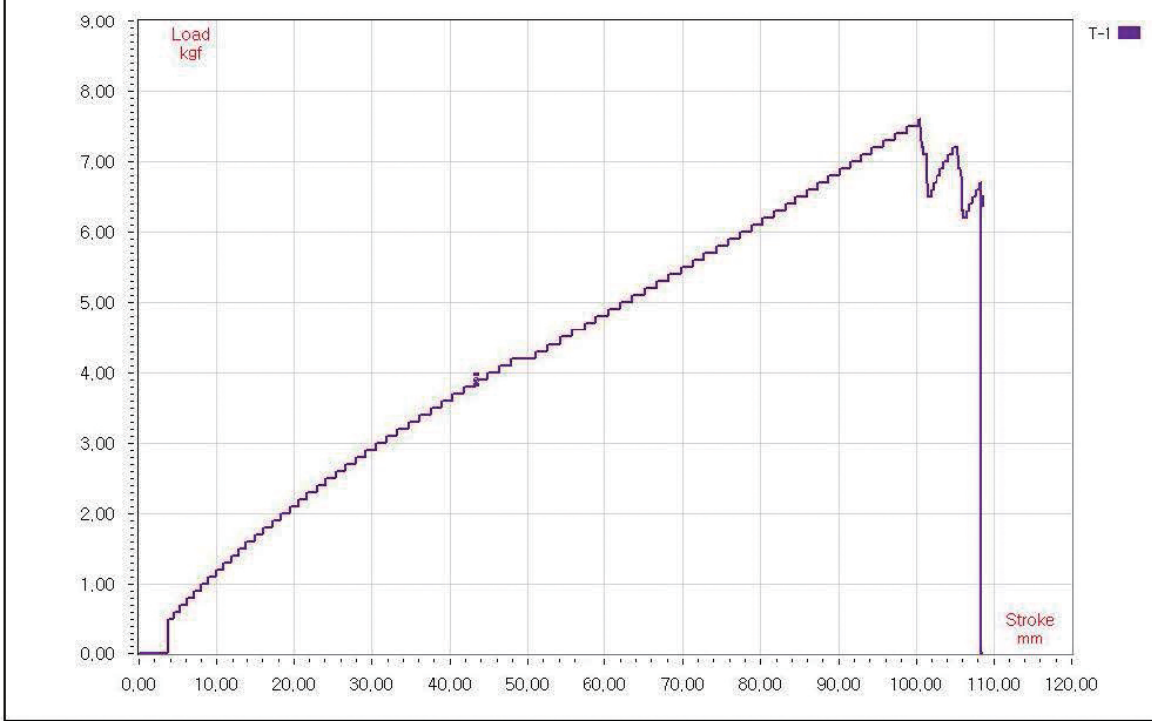
인장 시험 성적서
(Tensile Test Certificate)

Tested by	Reviewed by	Certified by

[Test Result]

시료 번호 No.	시료명 Test Name	최대 하중 Max.Load (kgf)	인장 강도 T.Stren (kgf/cm²)	항복 하중 Y.Load (kgf)	항복 강도 Y.Stren (kgf/cm²)	최대 변위 Max.Disp (mm)	경 도 (Hardness)	판 정 (NG/OK)
1	PNC-07	7.60	4.92	3.90	2.53	108.41	---	OK
Aver.	---	7.60	4.92	3.90	2.53	108.41	---	---
[Test Spec]								
Min.	---	---	---	---	---	---	---	---
Max.	---	---	---	---	---	---	---	---

[Test Graph]



[Remark]

씨피시스템(주)

PNC pull-out Test Report

인장 시험 성적서
(Tensile Test Certificate)

Tested by	Reviewed by	Certified by

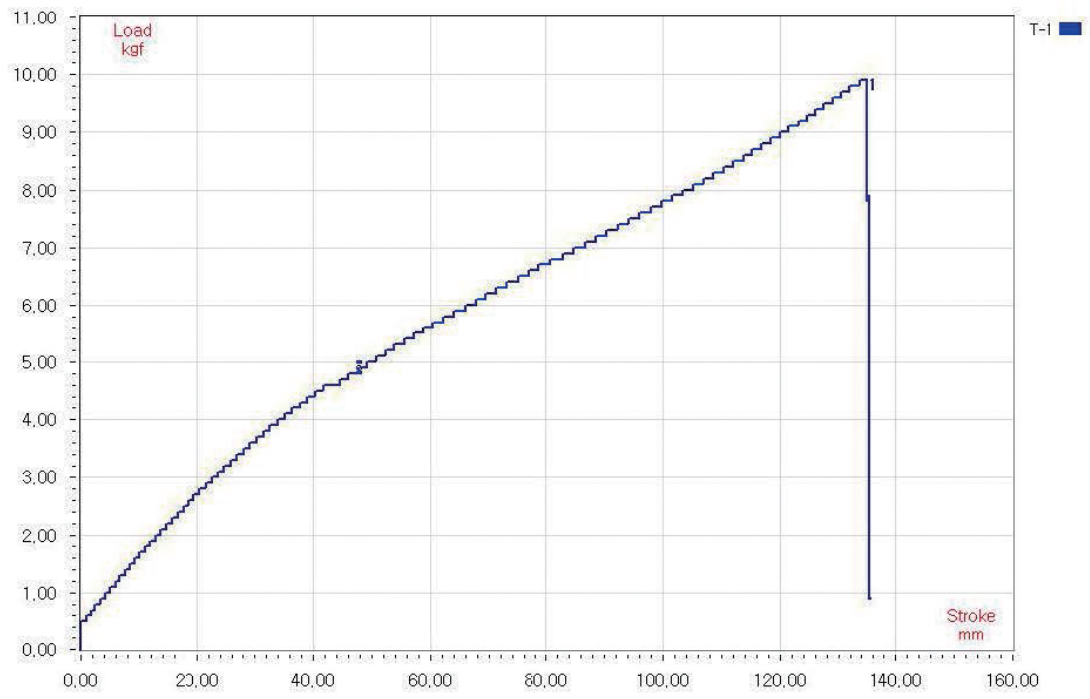
[Test Result]

시료 번호 No.	시료명 Test Name	최대 하중 Max.Load (kgf)	인장 강도 T.Stren (kgf/cm²)	항복 하중 Y.Load (kgf)	항복 강도 Y.Stren (kgf/cm²)	최대 변위 Max.Disp (mm)	경 도 (Hardness)	판 정 (NG/OK)
1	PNC-10	9.90	6.41	4.90	3.17	135.35	---	OK
Aver.	---	9.90	6.41	4.90	3.17	135.35	---	---

[Test Spec]

Min.	---	---	---	---	---	---	---	---
Max.	---	---	---	---	---	---	---	---

[Test Graph]



[Remark]

씨피시스템(주)

PNC pull-out Test Report

인장 시험 성적서
(Tensile Test Certificate)

Tested by	Reviewed by	Certified by

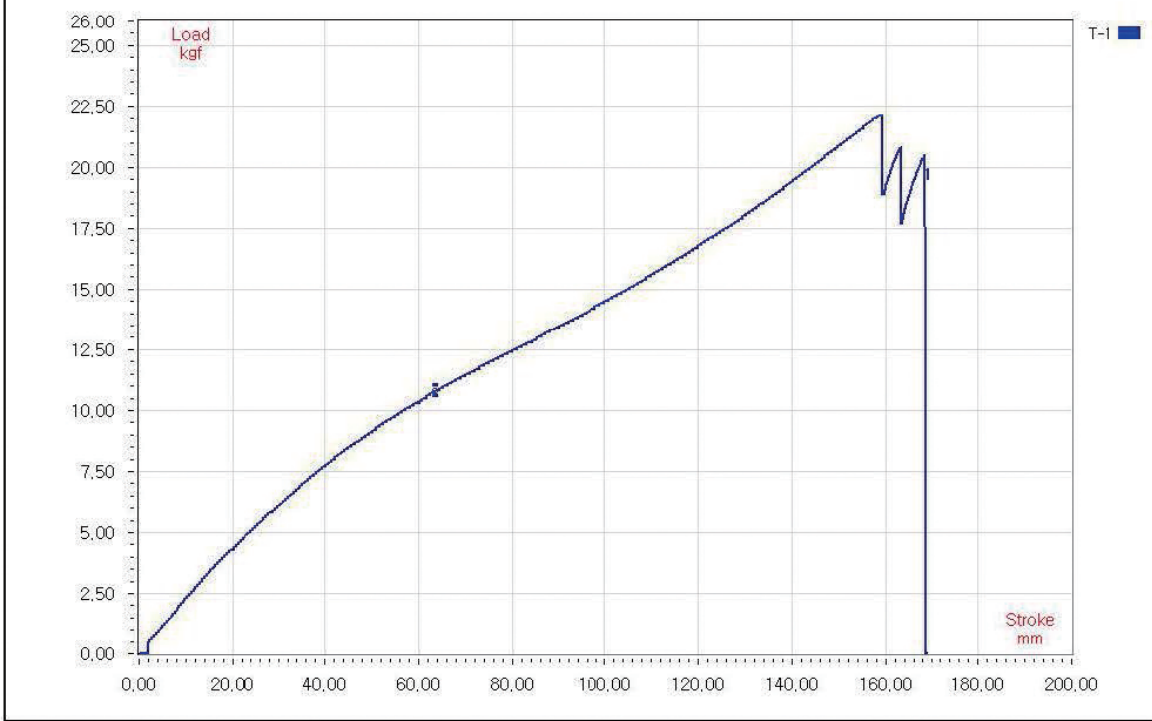
[Test Result]

시료 번호 No.	시료명 Test Name	최대 하중 Max.Load (kgf)	인장 강도 T.Stren (kgf/cm²)	항복 하중 Y.Load (kgf)	항복 강도 Y.Stren (kgf/cm²)	최대 변위 Max.Disp (mm)	경 도 (Hardness)	판 정 (NG/OK)
1	PNC-12	22.10	14.32	10.80	7.00	168.57	---	OK
Aver.	---	22.10	14.32	10.80	7.00	168.57	---	---

[Test Spec]

Min.	---	---	---	---	---	---	---	---
Max.	---	---	---	---	---	---	---	---

[Test Graph]



[Remark]

씨피시스템(주)

PNC pull-out Test Report

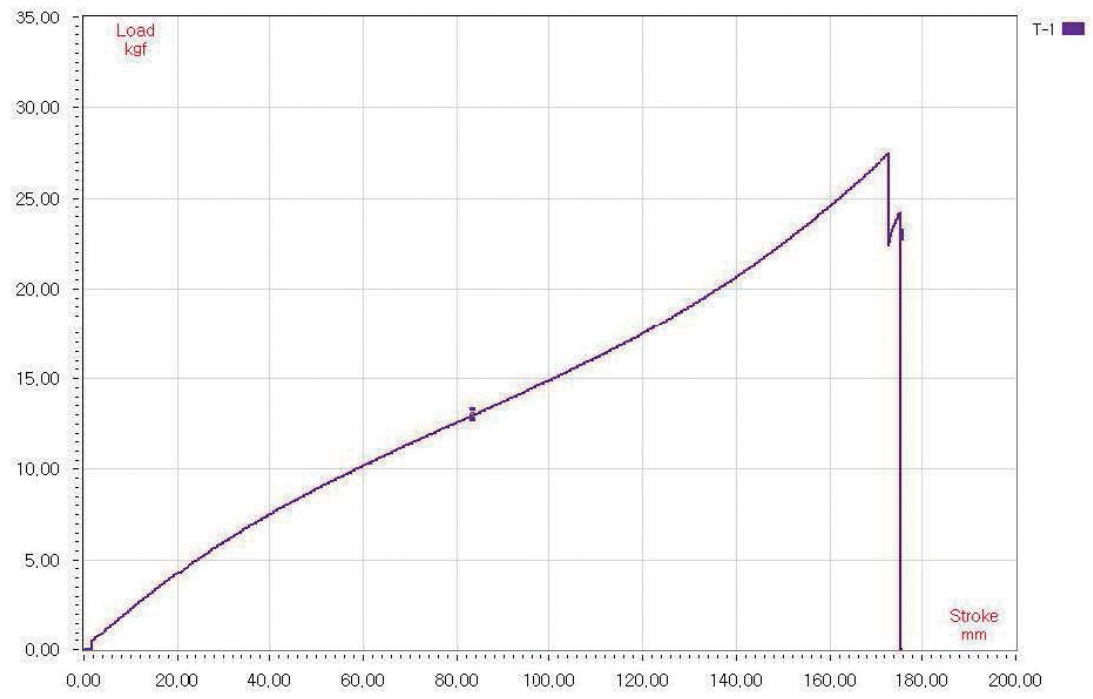
인장 시험 성적서
(Tensile Test Certificate)

Tested by	Reviewed by	Certified by

[Test Result]

시료 번호 No.	시료명 Test Name	최대 하중 Max.Load (kgf)	인장 강도 T.Stren (kgf/cm²)	항복 하중 Y.Load (kgf)	항복 강도 Y.Stren (kgf/cm²)	최대 변위 Max.Disp (mm)	경 도 (Hardness)	판 정 (NG/OK)
1	PNC-16	27.40	17.75	13.00	8.42	175.38	---	OK
Aver.	---	27.40	17.75	13.00	8.42	175.38	---	---
[Test Spec]								
Min.	---	---	---	---	---	---	---	---
Max.	---	---	---	---	---	---	---	---

[Test Graph]



[Remark]

씨피시스템(주)

PNC pull-out Test Report

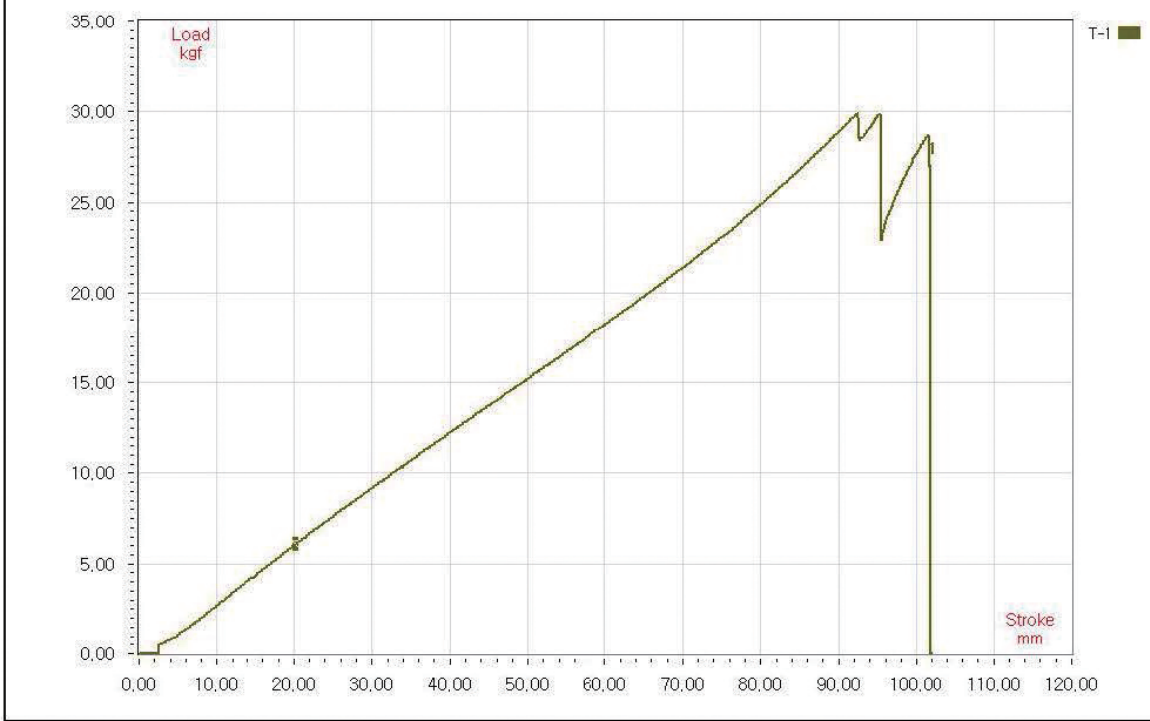
인장 시험 성적서
(Tensile Test Certificate)

Tested by	Reviewed by	Certified by

[Test Result]

시료 번호 No.	시료명 Test Name	최대 하중 Max.Load (kgf)	인장 강도 T.Stren (kgf/cm²)	항복 하중 Y.Load (kgf)	항복 강도 Y.Stren (kgf/cm²)	최대 변위 Max.Disp (mm)	경 도 (Hardness)	판 정 (NG/OK)
1	PNC-22	29.90	19.37	6.10	3.95	101.78	---	OK
Aver.	---	29.90	19.37	6.10	3.95	101.78	---	---
[Test Spec]								
Min.	---	---	---	---	---	---	---	---
Max.	---	---	---	---	---	---	---	---

[Test Graph]



[Remark]

씨피시스템(주)

PNC pull-out Test Report

인장 시험 성적서
(Tensile Test Certificate)

Tested by	Reviewed by	Certified by

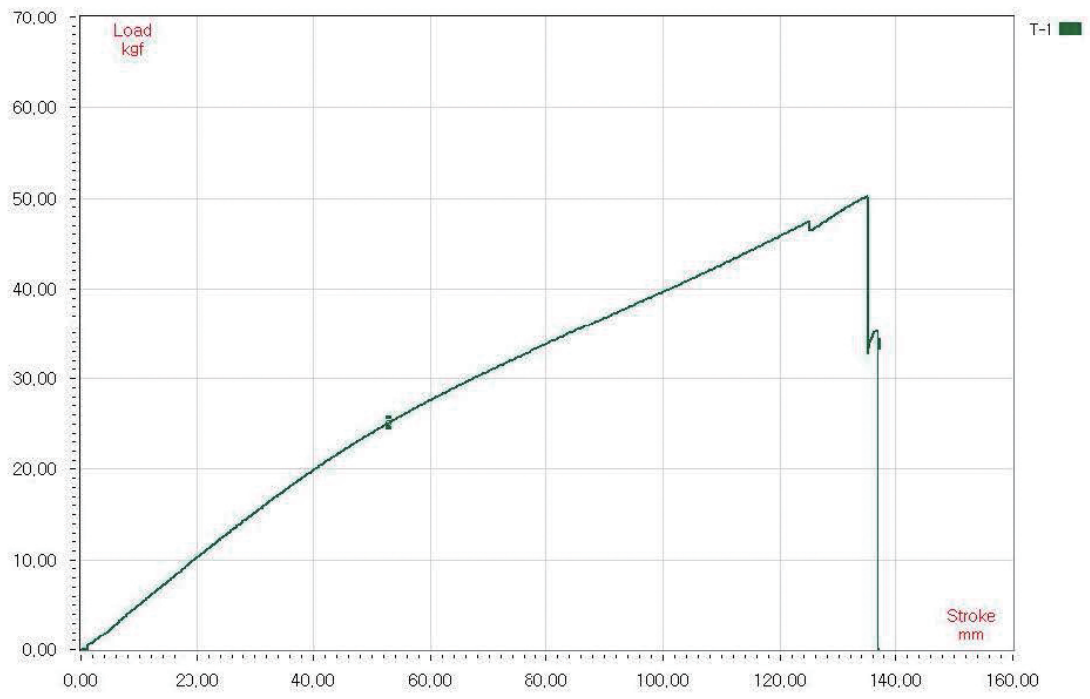
[Test Result]

시료 번호 No.	시료명 Test Name	최대 하중 Max.Load (kgf)	인장 강도 T.Stren (kgf/cm²)	항복 하중 Y.Load (kgf)	항복 강도 Y.Stren (kgf/cm²)	최대 변위 Max.Disp (mm)	경 도 (Hardness)	판 정 (NG/OK)
1	PNC-28	50.20	32.52	25.10	16.26	137.01	---	OK
Aver.	---	50.20	32.52	25.10	16.26	137.01	---	---

[Test Spec]

Min.	---	---	---	---	---	---	---	---
Max.	---	---	---	---	---	---	---	---

[Test Graph]



[Remark]

씨피시스템(주)

PNC pull-out Test Report

인장 시험 성적서
(Tensile Test Certificate)

Tested by	Reviewed by	Certified by

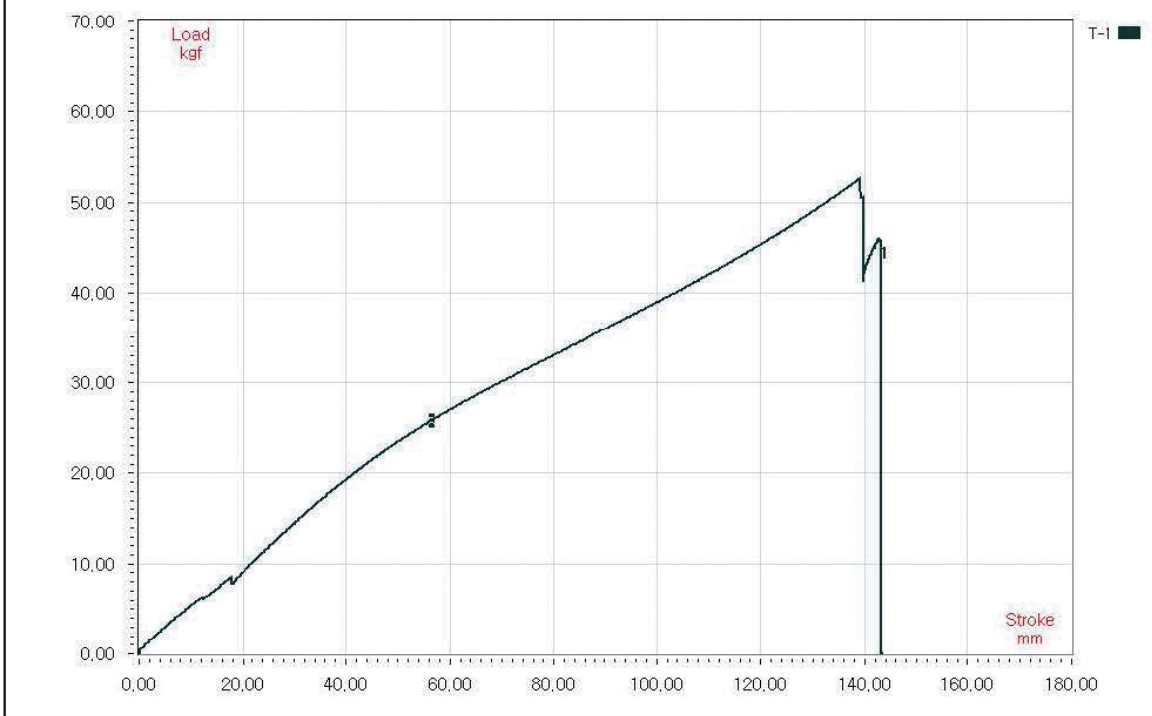
[Test Result]

시료 번호 No.	시료명 Test Name	최대 하중 Max.Load (kgf)	인장 강도 T.Stren (kgf/cm²)	항복 하중 Y.Load (kgf)	항복 강도 Y.Stren (kgf/cm²)	최대 변위 Max.Disp (mm)	경 도 (Hardness)	판 정 (NG/OK)
1	PNC-36	52.60	34.08	25.80	16.71	143.21	---	OK
Aver.	---	52.60	34.08	25.80	16.71	143.21	---	---

[Test Spec]

Min.	---	---	---	---	---	---	---	---
Max.	---	---	---	---	---	---	---	---

[Test Graph]



[Remark]

씨피시스템(주)

PNC pull-out Test Report

인장 시험 성적서
(Tensile Test Certificate)

Tested by	Reviewed by	Certified by

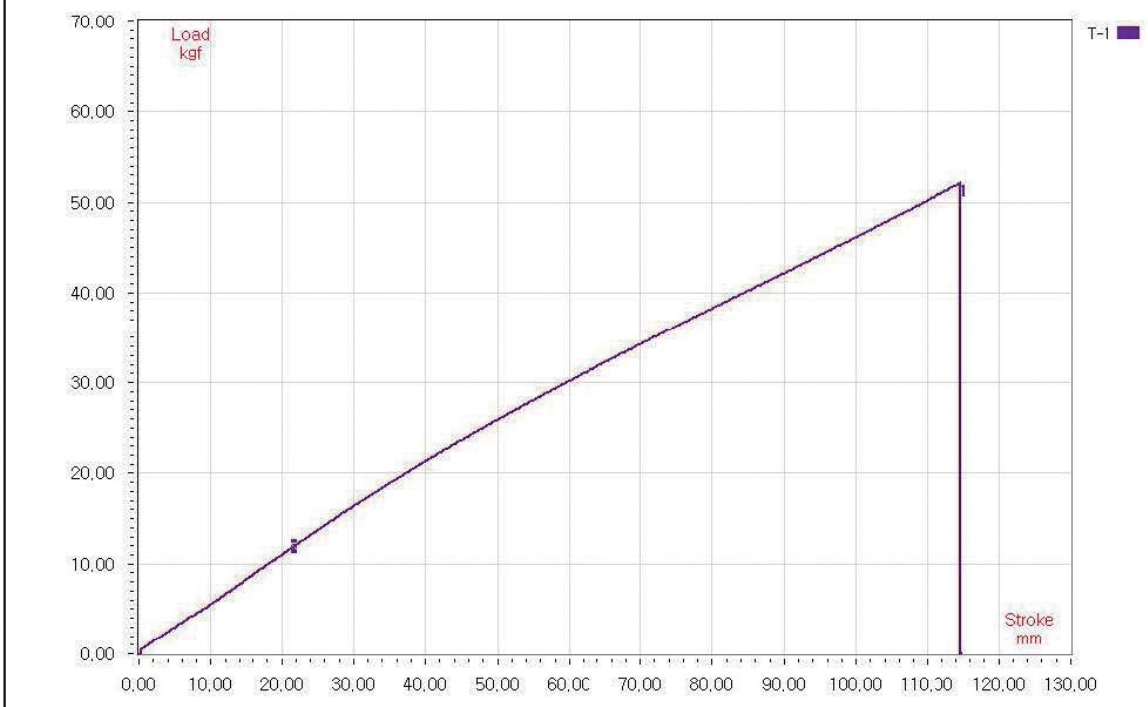
[Test Result]

시료 번호 No.	시료명 Test Name	최대 하중 Max.Load (kgf)	인장 강도 T.Stren (kgf/cm²)	항복 하중 Y.Load (kgf)	항복 강도 Y.Stren (kgf/cm²)	최대 변위 Max.Disp (mm)	경 도 (Hardness)	판 정 (NG/OK)
1	PNC-48	52.10	33.75	11.90	7.71	114.68	---	OK
Aver.	---	52.10	33.75	11.90	7.71	114.68	---	---

[Test Spec]

Min.	---	---	---	---	---	---	---	---
Max.	---	---	---	---	---	---	---	---

[Test Graph]



[Remark]

씨피시스템(주)

PWC pull-out Test Report

Test Report

CPS-T-170417-002

Issued Date : 2017. 4. 17

CP SYSTEM CO,.LTD
#27-37, Jeonggwansanggok 1-gil,
Jeonggwan-myeon, Gijang-gun, Busan,
Korea

Test No.	: CPS-T-170417-002
Document No.	: CP System 17 - 054
Description	: PULLING OUT Test
Sample Name	: CPSYSTEM PWC connector + CPS TUBE
Testing dept.	: CP SYSTEM CO,.LTD, Q.C Department
시험 담당자	: Minwook Shin
Test Period	: 2017.04.17

CPS-T-170417-001

CPSYSTEM PWC connector + CPS TUBE

Contents

1. Experimental equipment data
2. Sample data
3. Testing method
4. Test environment
5. Examination result

(Legally binding signature of the issuer)

Test Report

CPS-T-170417-002

Issued Date : 2017. 4. 17

1. Experimental equipment data

· Name : Whole material tester, mechanical, tensile, compressive
· No of equipment : TM-141224-001
· Test category : Material tensile, material compression, material tensile elongation test

Method	Specification
Max. Load Capacity	2,000 kgf
Load Sensor	Load Cell
Measurement Accuracy	Within ± 0.3%
Max. Stroke	999 mm



FIG 1. Whole material tester

2. Sample data

· Specimen A : PWC connector + CPS tube (07~48)



FIG 2. PWC connector + CPS tube (07~48)

PWC pull-out Test Report

3. Test method

· Strech a specimen by speed, 30mm/min and measure weight when tube and connector are separated.

※ Arbitrary and non-standard test



FIG 3. PULLING OUT TEST

4. Test environment

· Temperature : 20°C
· Humidity : 23%

PWC pull-out Test Report

CPS

Test Report CPS-T-170417-002 Issued Date : 2017. 4. 17

5. Examination result

Specimen	SIZE	Measured value
A (PWC connector + CPS tube)	07	8.2 kgf
	10	13.3 kgf
	12	22.9 kgf
	16	26.4 kgf
	22	52.9 kgf
	28	39.4 kgf
	36	44.8 kgf
	48	48.2 kgf

※ Refer to attached file to see test graph

PWC pull-out Test Report

인장 시험 성적서
(Tensile Test Certificate)

Tested by	Reviewed by	Certified by

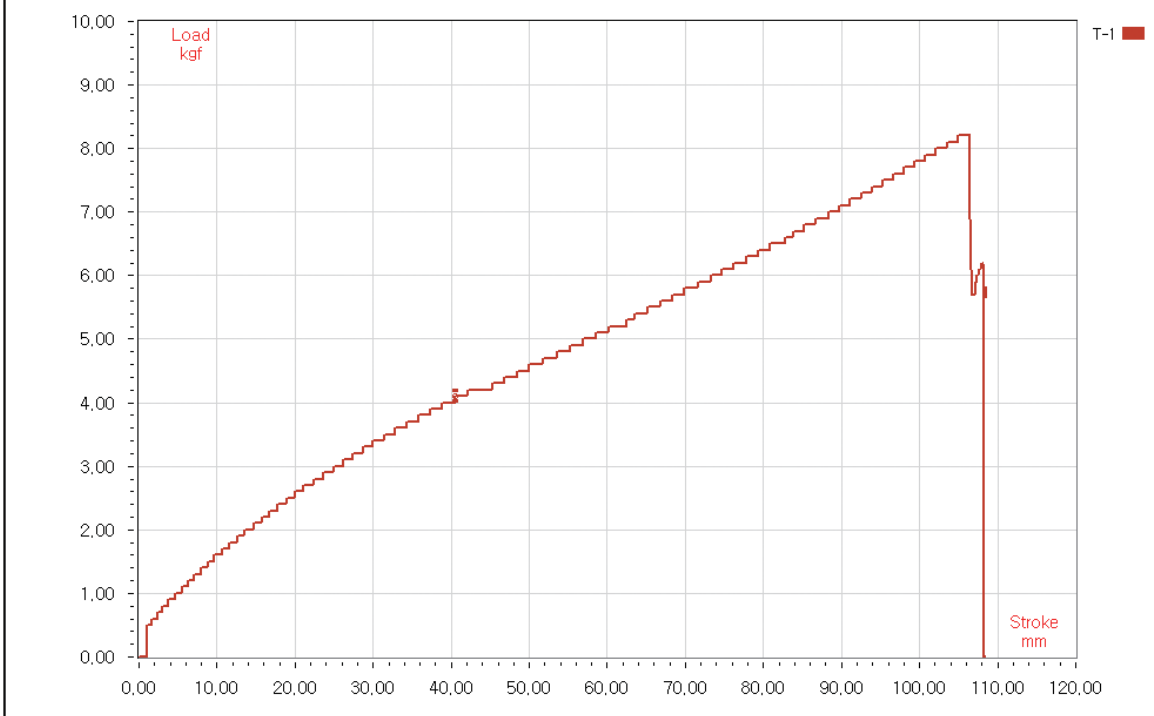
[Test Result]

시료 번호 No.	시료명 Test Name	최대 하중 Max.Load (kgf)	인장 강도 T.Stren (kgf/cm²)	항복 하중 Y.Load (kgf)	항복 강도 Y.Stren (kgf/cm²)	최대 변위 Max.Disp (mm)	경 도 (Hardness)	판 정 (NG/OK)
1	PWC-07	8.20	5.31	4.10	2.66	108.20	---	OK
Aver.	---	8.20	5.31	4.10	2.66	108.20	---	---

[Test Spec]

Min.	---	---	---	---	---	---	---	---
Max.	---	---	---	---	---	---	---	---

[Test Graph]



[Remark]

씨피시스템(주)

PWC pull-out Test Report

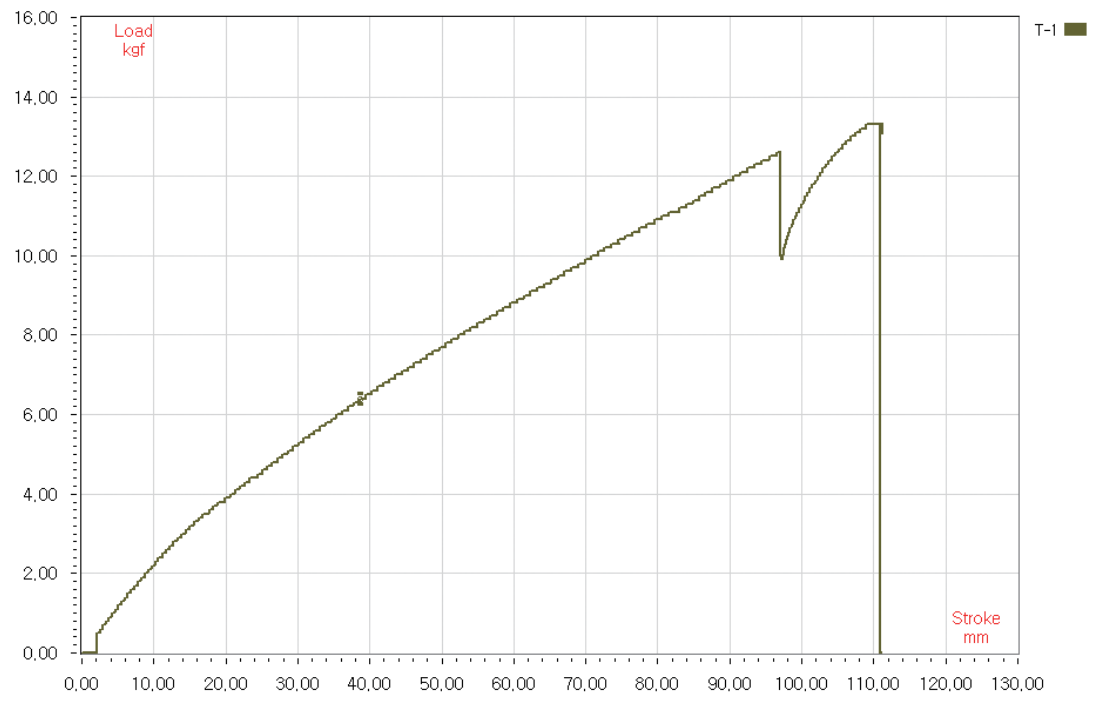
인장 시험 성적서
(Tensile Test Certificate)

Tested by	Reviewed by	Certified by

[Test Result]

시료 번호 No.	시료명 Test Name	최대 하중 Max.Load (kgf)	인장 강도 T.Stren (kgf/cm²)	항복 하중 Y.Load (kgf)	항복 강도 Y.Stren (kgf/cm²)	최대 변위 Max.Disp (mm)	경 도 (Hardness)	판 정 (NG/OK)
1	PWC-10	13,30	8,62	6,40	4,15	110,89	---	OK
Aver.	---	13,30	8,62	6,40	4,15	110,89	---	---
[Test Spec]								
Min.	---	---	---	---	---	---	---	---
Max.	---	---	---	---	---	---	---	---

[Test Graph]



[Remark]

씨피시스템(주)

PWC pull-out Test Report

인장 시험 성적서
(Tensile Test Certificate)

Tested by	Reviewed by	Certified by

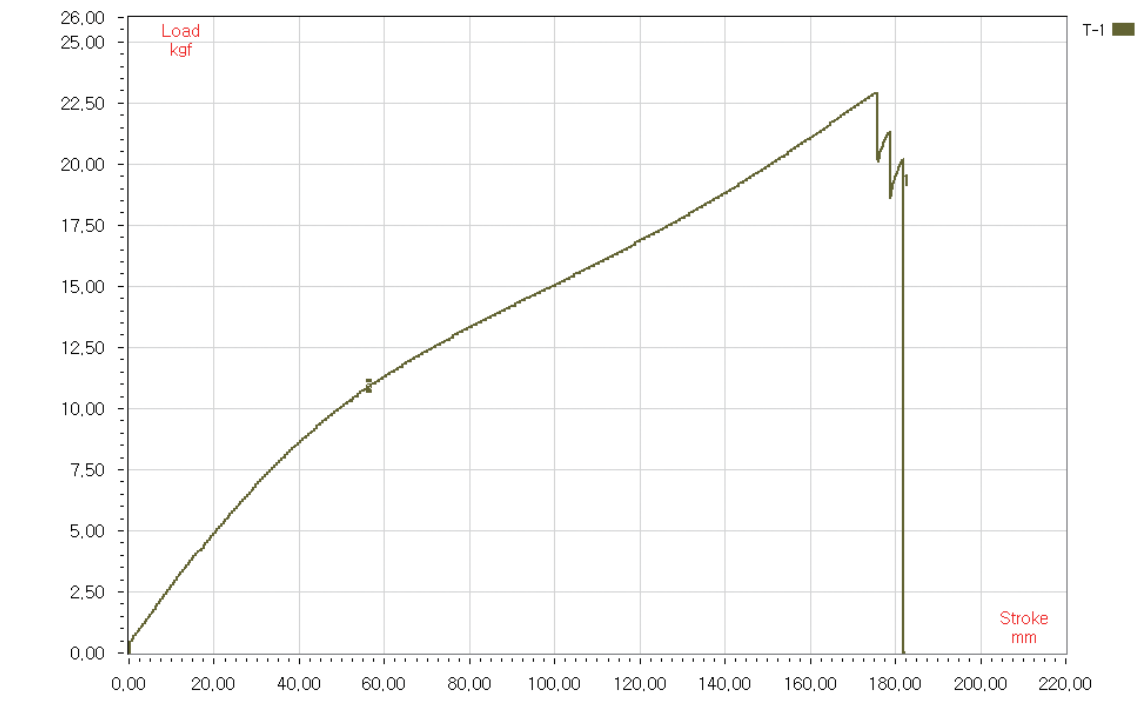
[Test Result]

시료 번호 No.	시료명 Test Name	최대 하중 Max.Load (kgf)	인장 강도 T.Stren (kgf/cm²)	항복 하중 Y.Load (kgf)	항복 강도 Y.Stren (kgf/cm²)	최대 변위 Max.Disp (mm)	경 도 (Hardness)	판 정 (NG/OK)
1	PWC-12B	22.90	14.84	10.90	7.06	181.90	---	OK
Aver.	---	22.90	14.84	10.90	7.06	181.90	---	---

[Test Spec]

Min.	---	---	---	---	---	---	---	---
Max.	---	---	---	---	---	---	---	---

[Test Graph]



[Remark]

씨피시스템(주)

PWC pull-out Test Report

인장 시험 성적서
(Tensile Test Certificate)

Tested by	Reviewed by	Certified by

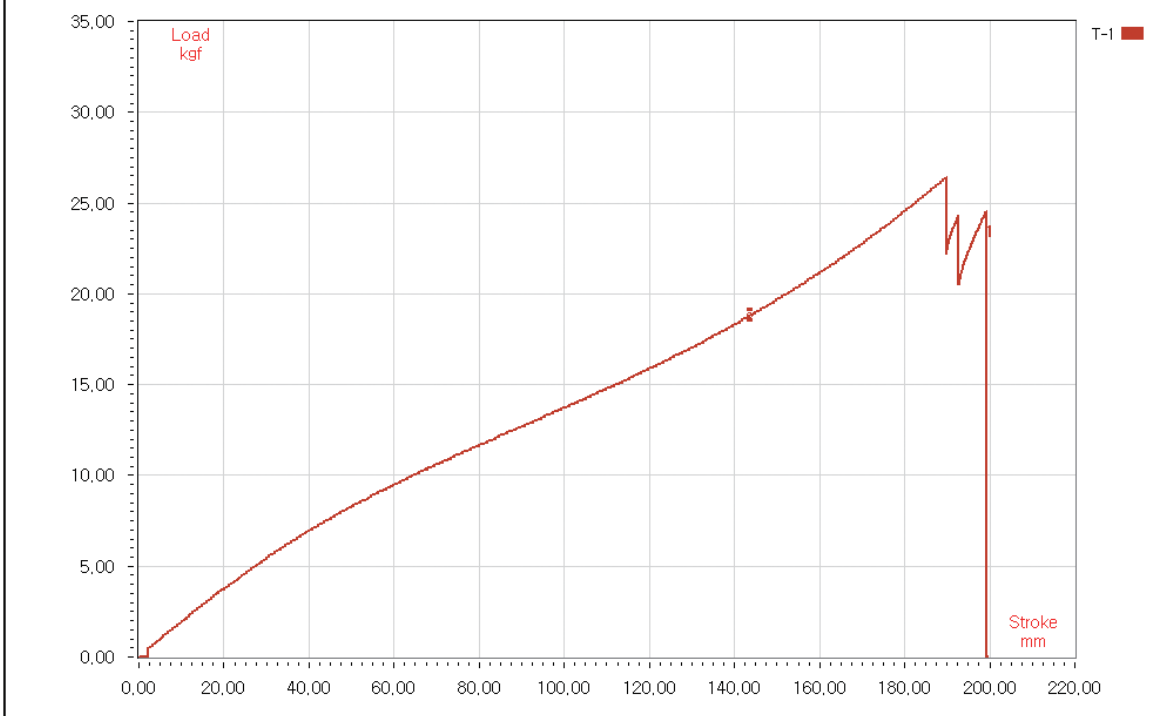
[Test Result]

시료 번호 No.	시료명 Test Name	최대 하중 Max.Load (kgf)	인장 강도 T.Stren (kgf/cm²)	항복 하중 Y.Load (kgf)	항복 강도 Y.Stren (kgf/cm²)	최대 변위 Max.Disp (mm)	경 도 (Hardness)	판 정 (NG/OK)
1	PWC-16B	26.40	17.10	18.80	12.18	199.33	---	OK
Aver.	---	26.40	17.10	18.80	12.18	199.33	---	---

[Test Spec]

Min.	---	---	---	---	---	---	---	---
Max.	---	---	---	---	---	---	---	---

[Test Graph]



[Remark]

씨피시스템(주)

PWC pull-out Test Report

인장 시험 성적서
(Tensile Test Certificate)

Tested by	Reviewed by	Certified by

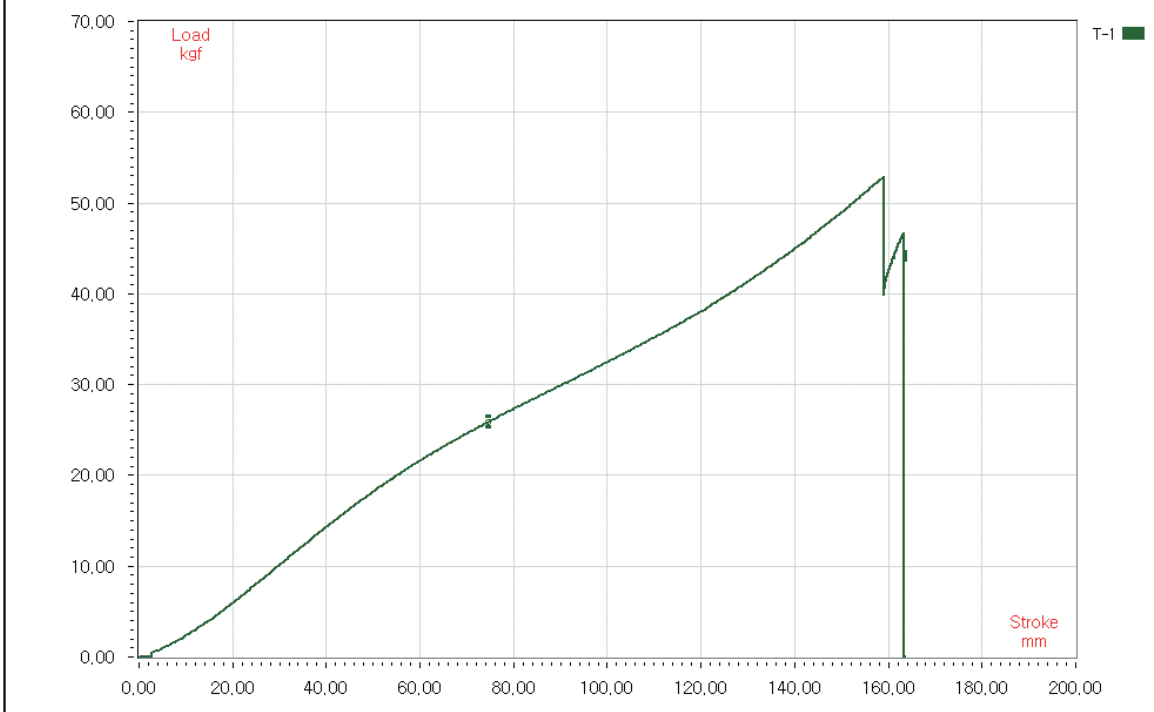
[Test Result]

시료 번호 No.	시료명 Test Name	최대 하중 Max.Load (kgf)	인장 강도 T.Stren (kgf/cm²)	항복 하중 Y.Load (kgf)	항복 강도 Y.Stren (kgf/cm²)	최대 변위 Max.Disp (mm)	경 도 (Hardness)	판 정 (NG/OK)
1	PWC-22	52.90	34.27	25.90	16.78	163.39	---	OK
Aver.	---	52.90	34.27	25.90	16.78	163.39	---	---

[Test Spec]

Min.	---	---	---	---	---	---	---	---
Max.	---	---	---	---	---	---	---	---

[Test Graph]



[Remark]

씨피시스템(주)

PWC pull-out Test Report

인장 시험 성적서
(Tensile Test Certificate)

Tested by	Reviewed by	Certified by

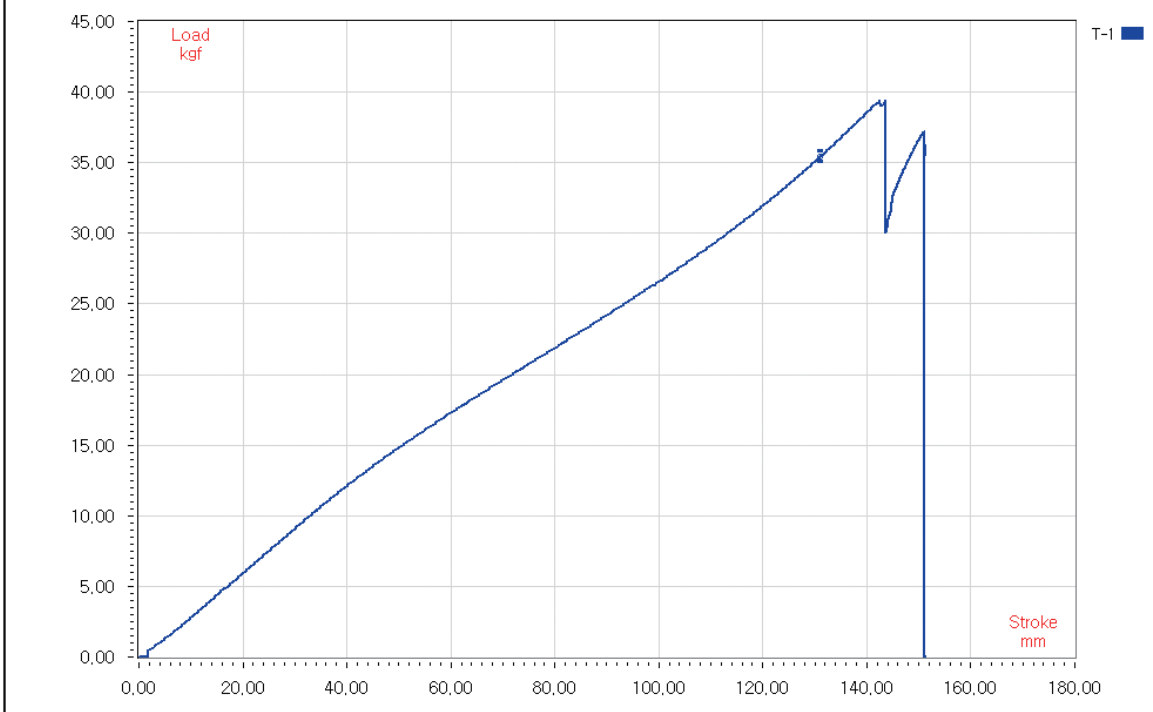
[Test Result]

시료 번호 No.	시료명 Test Name	최대 하중 Max.Load (kgf)	인장 강도 T.Stren (kgf/cm²)	항복 하중 Y.Load (kgf)	항복 강도 Y.Stren (kgf/cm²)	최대 변위 Max.Disp (mm)	경 도 (Hardness)	판 정 (NG/OK)
1	PWC-28	39.40	25.53	35.40	22.93	151.08	---	OK
Aver.	---	39.40	25.53	35.40	22.93	151.08	---	---

[Test Spec]

Min.	---	---	---	---	---	---	---	---
Max.	---	---	---	---	---	---	---	---

[Test Graph]



[Remark]

씨피시스템(주)

PWC pull-out Test Report

인장 시험 성적서
(Tensile Test Certificate)

Tested by	Reviewed by	Certified by

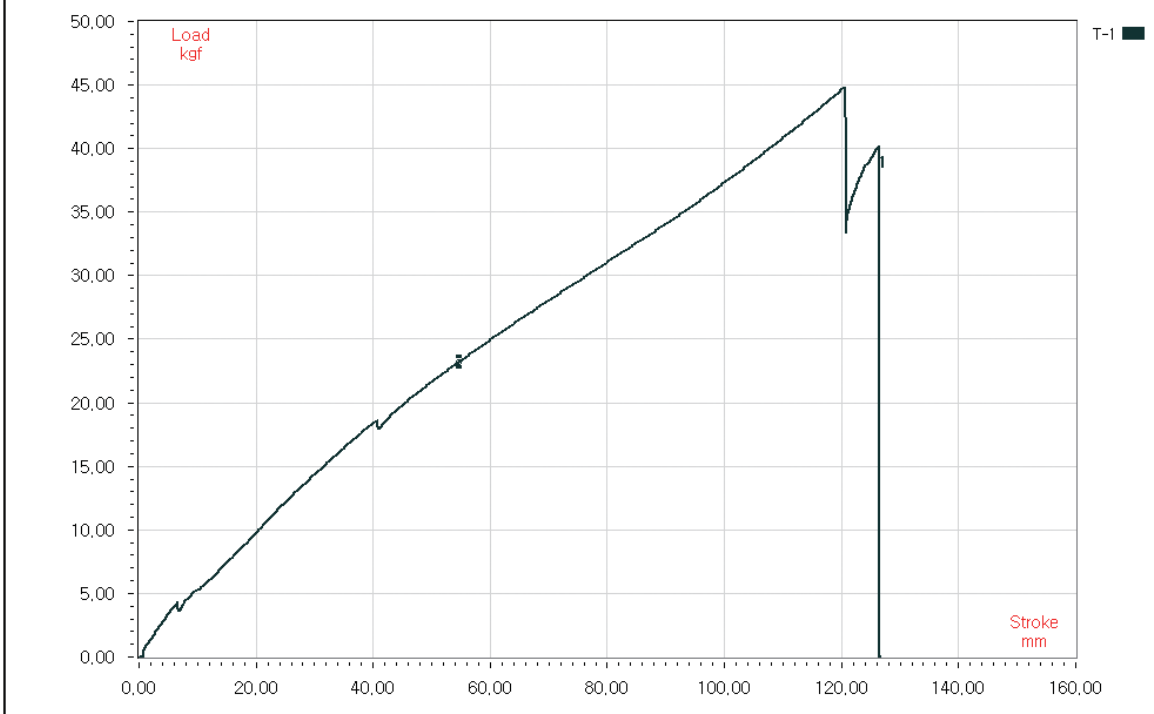
[Test Result]

시료 번호 No.	시료명 Test Name	최대 하중 Max.Load (kgf)	인장 강도 T.Stren (kgf/cm²)	항복 하중 Y.Load (kgf)	항복 강도 Y.Stren (kgf/cm²)	최대 변위 Max.Disp (mm)	경 도 (Hardness)	판 정 (NG/OK)
1	PWC-36	44.80	2.99	23.20	1.55	126.50	---	OK
Aver.	---	44.80	2.99	23.20	1.55	126.50	---	---

[Test Spec]

Min.	---	---	---	---	---	---	---	---
Max.	---	---	---	---	---	---	---	---

[Test Graph]



[Remark]

씨피시스템(주)

PWC pull-out Test Report

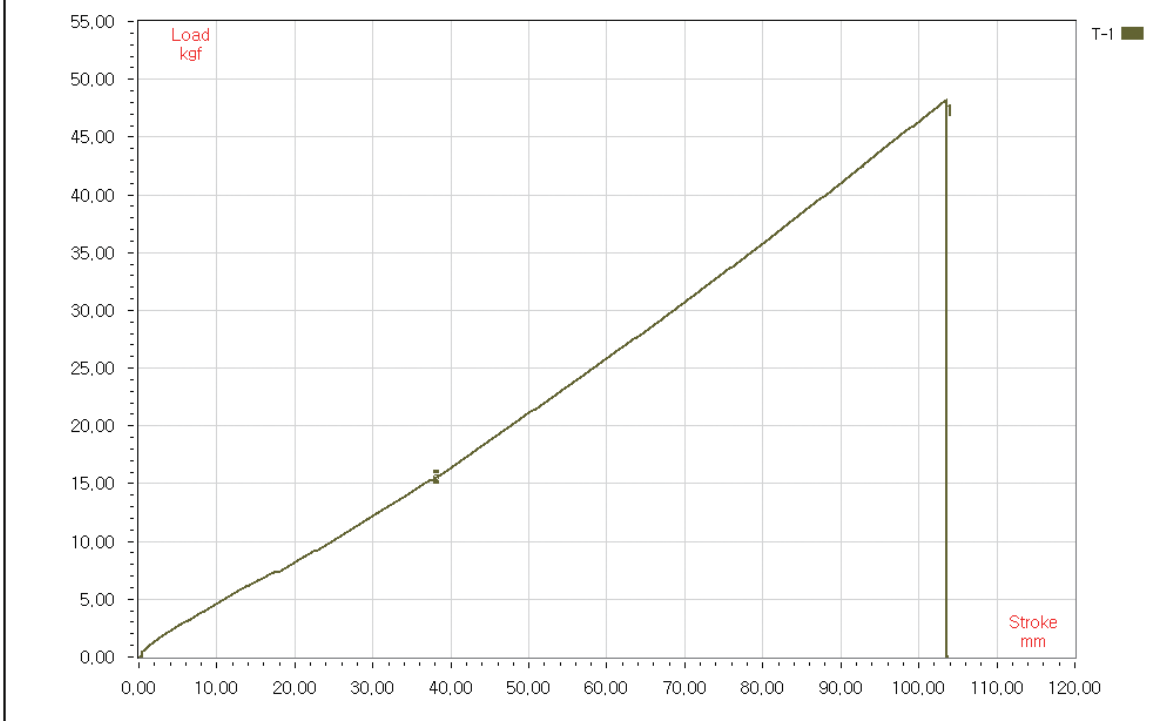
인장 시험 성적서
(Tensile Test Certificate)

Tested by	Reviewed by	Certified by

[Test Result]

시료 번호 No.	시료명 Test Name	최대 하중 Max.Load (kgf)	인장 강도 T.Stren (kgf/cm²)	항복 하중 Y.Load (kgf)	항복 강도 Y.Stren (kgf/cm²)	최대 변위 Max.Disp (mm)	경 도 (Hardness)	판 정 (NG/OK)
1	PWC-48	48.20	31.23	15.60	10.11	103.60	---	OK
Aver.	---	48.20	31.23	15.60	10.11	103.60	---	---
[Test Spec]								
Min.	---	---	---	---	---	---	---	---
Max.	---	---	---	---	---	---	---	---

[Test Graph]



[Remark]

씨피시스템(주)

Chemical test

Chemical resistance of Polyamide Detailed information on request

acetone	resistant
ammonia	resistant
aresenic acid, water	resistant
beer	resistant
benzol	resistant
borax, watery	resistant
boron acid, watery	conditional resistant
butance, gaseous	resistant
calcium chloride, watery	resistant
carbon disulphide	resistant
carbonic acid	resistant
copper sulphate, watery	conditional resistant
diesel oil, watery	resistant
ethyl acetate	resistant
ethyl ether	resistant
ethyl alcohol	conditional resistant
fatty acid conditional	resistant
fruit juice	resistant
formic acid, watery	non-resistant
glucose, watery	resistant
glycerine	resistant
heating oil	resistant
hydraulics oil	resistant
hydrogen	resistant
hydrogen sulphide	resistant
iron chloride	conditional resistant
lactic acid, watery	conditional resistant
methyl acetate	resistant
methyl alcohol	resistant
mineral oil	resistant
nitric acid, hydrochloride acid, watery	non-resistant
ozone	conditional resistant
paraffin	resistant
petrol	resistant
phosphoric acid, watery	resistantpoash lye,
potashlye, watery	resistant
propane, liquid	resistant
sel solution, watery	resistant
sea water	resistant
sebum	resistant
silicic acid, watery	resistant
skydrol	resistant
soap suds	resistant
sodium chloride	resistant
sodium hydroxide	resistant
sparks erosion liquids	resistant
starch, white	resistant
stearin acid	resistant
sulphuric acid	non-resistant
terpentine	resistant
toluol	resistant
transformer oil	resistant
urine	resistant
vinegar and acetic acid, watery	resistant
wine acid, watery	non-resistant
xylol	resistant
zinc sulphate, watery	conditional resistant
zyan potash, watery	resistant
Oil and Grease	
- mineral without additive, at20℃	resistant
- ASTM oil no1, 20℃	resistant
- ASTM oil no2, 20℃	resistant
- ASTM oil no3, 20℃	resistant
- animal	resistant
- vegetable	resistant
- transformer oil(pyranole)	resistant
- on silicone basis	resistant
- diesel oil	resistant
- heating	resistant
- hydraulic oil based on	
- mineral oil	resistant
- phoshate ester	resistant
- drilling oil	resistant
- cutting oil	resistant

Made of Protection

code Degree of Protection (Water)

Protection against contacting and penetrating foreign materals

FIRST INDEX

CODE	Degree of Protection (contact and foreign materials)	
0	no protection	no contact protection, no protection against. solid foreign materials.
1	protection against arge foreign materials	protection against large contact area with hands, protection against foreign materials with ϕ >50mm.
2	protection against medium-sized foreign materials	protection against contact with fingers, protection against foreign materials with ϕ >12mm.
3	protection against small foreign materials	protection against tool contact, wire or the like with ϕ >12mm, protection against foreign material with ϕ >2.5mm.
4	protection against foreign grains	see 3, but ϕ >1mm.
5	protection against dual deposits.	full contact protection, protection against dust deposits inside.
6	protection against	full contact protection, protection against dust penetration penetration.

Protection against fluids

SECOND INDEX

CODE	Degree of Protection (contact and foreign materials)	
0	no protection	no protection against water
1	protection against dripping water	protection against vertical water drops
2	protection against inclined water drops	protection against inclined water drops (any < up to 15° to vertical line)
3	protection against spray water	protection against splash water from all directions, 60° to vertical line
4	protection against splash water	protection against splash water from all directions.
5	protection against jet water	protection against water jets from any <
6	protection against flooding	protection against temporary flooding.
7	protection against immersion	protection against water penetration 1m below water
8	protection against submersion	protection against pressure water for an indefinite time(customer tailored)

example : code IP67

All techincal details without engagement. All dimensions in mm. Changes without announcement, Range of tolerance : ±10%

Global Network Systems

HEAD OFFICE

#27-37 Jeonggwansanggok 1-gil, Jeonggwan-eup, Gijang-gun, Busan, Korea
T : +82-51-868-4356 F : +82-051-868-4358 E : overseas_info@cpsysem.kr

Shanghai CPS

RM203, SEC-2, 125 SANBANG ROAD SONGJIANG DIST, SHANGHAI, CHINA 201600
T : +86-21-3702-6312 F : +86-21-3702-6832 E : shanghaicps@163.com



EUROPE

TURKEY (teknik16)
Nilüfer Tic.Merk. Alaaddinbey Mah. 634 Sok. No:2/L
Nilüfer Bursa Turkey
T : +90 224 443 03 14-15 / F : +90 224 443 03 19
www.teknik16.com / sales@teknik16.com

HUNGARY (Power Belt Kft.)
1194 Budapest, Hofherr Albert u. 38/B
T : +36 1/455-2079
www.powerbelt.hu / csaba.dorottya@powerbelt.hu

SLOVAKIA (Power Belt Kft.)
Slovnaftská 102/B, 821 07 Bratislava
T : +421 2 446 38 144
powerbelt@powerbelt.sk

ROMANIA (Power Belt Kft.)
B-dul. Muncii 277, 400641, Cluji-Napoca, Romania
T : +40 264 502 495 / kerekes.a@powerbelt.ro

SERBIA (Power Belt Kft.)
24000 Subotica, Segedinski put 62.
T : +380-65 / 82-81-576 / office@powerbelt.rs

FRANCE (Decril)
Rue de la Traille-ZI de la Tuillière 01700 MIRIBEL (France)
T : +33 (0)4 72 25 83 17 / F : +33 (0)4 72 25 82 67
www.decril.fr / g.bourdic@decril.fr

ITALY (IMYTECH S.R.L.)
Via Galileo Galilei, 119/121 36066 Sandrigo(VI)
T : +39 0444 361312 / F : +39 0444 592272
www.imytech.it / info@imytech.it

DENMARK (Brd.Klee)
Gadagervej 11, 2620 Albertslund, Denmark
T : +45 43 86 83 33
www.klee.dk / kju@klee.dk

FINLAND (Kone OSA)
Suomen Koneosa Oy Tuottotie 3 33960 Pirkkala
T : +358 40 5208 729
www.koneosa.com / tomi@koneosa.com

RUSSIA (Servotechnica)
Viborgskays ST., 22, Moscow, Russia 125130
T : +7 (495) 797-88-66
www.servotechnica.ru / logist3@servotechnica.ru

UKRAINE (Power Belt Kft.)
Ivana Franka St, Mukacheve, Zakarpats'ka oblast,
Ukraina 89600
T : +38 (03131) 3 13 06
www.powerbelt.com.ua / reho.janos@powerbelt.co.ua

MIDDLE EAST

IRAN (OSKOYI Ball Bearing Co.)
No.3, Mobaser Pussage, Nazem-Al-Ateba-Alley Amirkabir
Avenue Tehran Iran
T : + 98 21 3395 1660 / F : + 98 21 3391 3364
www.1obc.com / hamid970@gmail.com

ISRAEL (Automation Yeruham & Co., Ltd)
34 Hahofer st. P.O. Box 1844, Holon 58117, Israel
T : +972 3 556 7322 / F : +972 3 559 6616
www.ayeruham.com / revital@ayeruham.com



ASIA

JAPAN (DSJ CO.,LTD)
1-327 TSURUGASAWA MIDORI-KU NAGOYA-CITY
458-0814
T : +81 52 877 9933 / choi0226@sanritsu-co.com

INDIA (CONTROLWELL India Pvt Ltd)
A-22/23/24, MIDC, Phase-1, Dombivli (East) - 421203
MAHARASHTRA, INDIA
T : +91 251 3980600/800 / F : +91 2513980700
www.controlwell.com / product-mgmt@controlwell.com

TAIWAN (Der Fung Enterprise Co., Ltd)
No373, Sec2. Minzu RD., Qingshui, Taichung City
43652, Taiwan, R.O.C
T : +886-4-2655-8555 / F : +886-4-2656-1117
www.der-fung.com.tw / sales@der-fung.com.tw

THAILAND (Pneumax Co., Ltd)
107/1 Chaloem Phrakiat R.9 Rd., Pravet,
Bangkok 10250, Thailand
T : +66 2726 8000 / F : +66 2726 8560
www.pneumax.co.th / import@pneumax.co.th

MALAYSIA (LETROMEC Industrial (K L) SDN BHD)
MALAYSIA(LETROMEC Idustries (KUALA LUMPUR) SDN BHD) NO. 2A, JALAN MJ
14, TAMAN INDUSTRI MERANTI JAYA, 47120 PUCHONG, SELANGOR, MALAYSIA
T : +603-8063-0270 / F : +603-8063-0276
www.letromec.com / siewwan@letromec.com

INDONESIA (PT.RODA MAS ABADI)
Ruko Mutiara Taman Palem Blok C19/91
Cengkareng -Jakarta Barat 11730, Indonesia
T : (021) 5435 6017 / F : (021) 5435 6018
rm_abadi@cbn.net.id

OCEANIA

AUSTRALIA (Key Tubing & Electrical Industries)
6 Manfull ST Melrose Park SA 5039 Adelaide, Australia
T : +61 8 8374 1400 / F : +61 8 8276 9581
www.kte.com.au / Vicki.Brent@kte.com.au

AUSTRALIA (VGL IMPEX PTY. LTD)
27 Station Street, Dandenong 3175, Melbourne, Victoria,
Australia
T :+61 3 9793 4666 / FAX : +61 3 9706 7010
www.alliedconnectors.com / sales@alliedconnectors.com

AMERICA

USA (AmeriMation)
108, Terrace Dr., Mundelein, Il 60060
T : +1 847 388 7189 / F : +1 847 388 7194
www.amerimation.net / spark@amerimation.net

ARGENTINA (Varitel Electronica S.A.)
M. Balina 456(1832) Lomas de Zamora, Buenos Aires,
Argentina
T : +54 11 4243 1171 / F : +54 11 4292 7545
www.varitel.com / liliana@varitel.com