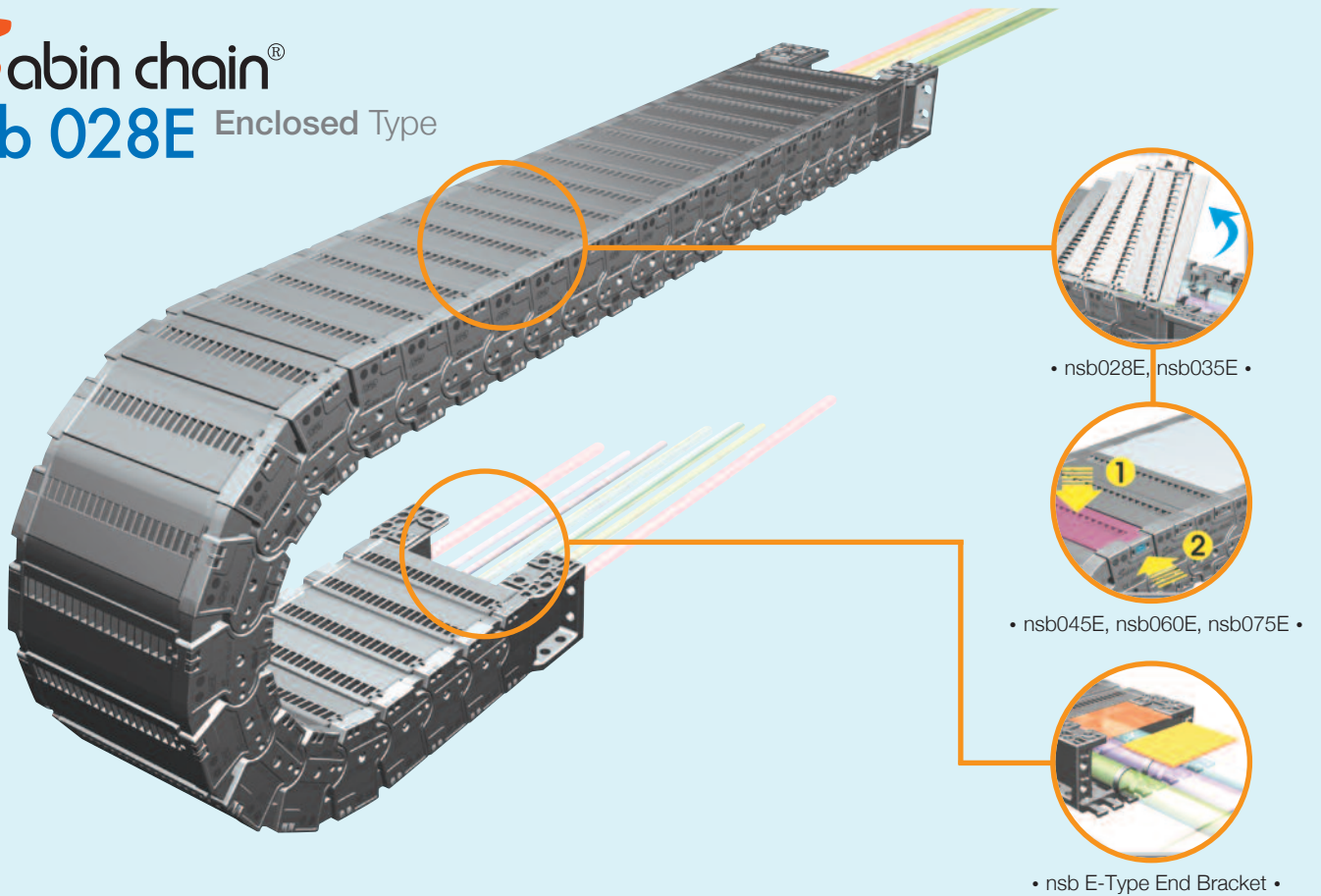




Min ●●●●●●● Max

## Sabin chain<sup>®</sup> nsb 028E Enclosed Type



### MATERIAL

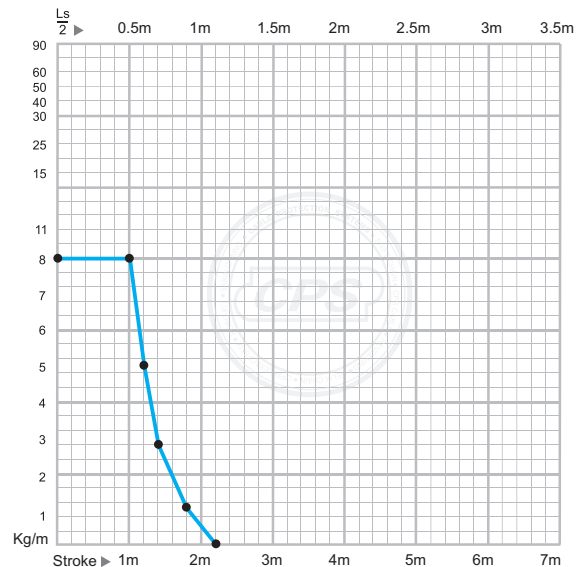
- **Chain material:**  
CPS-amide UL94-HB
- **Low Noise:**
- **Low Mote:**
- **Speed :** 15m / sec
- **Temperature :** -30°C ~ +130°C
- **Other installation Length:**  
Vertical curve above, Unsupported= max 2.0m  
Vertical curve below, Unsupported= max 40m  
Side Mounted, Unsupported= max 1.0m

- **Applications**  
Sabin Chain E can be found on car manufacturer's welding line, robot carriages and press lines and on any machine where excess material can damage your inserted cables.  
저분진, 저소음을 요구하는 산업현장, 외부위험 요소로부터 케이블의 보호가 필요한 용접라인, 도장라인 등에 적용.

### Calculation of the chain length

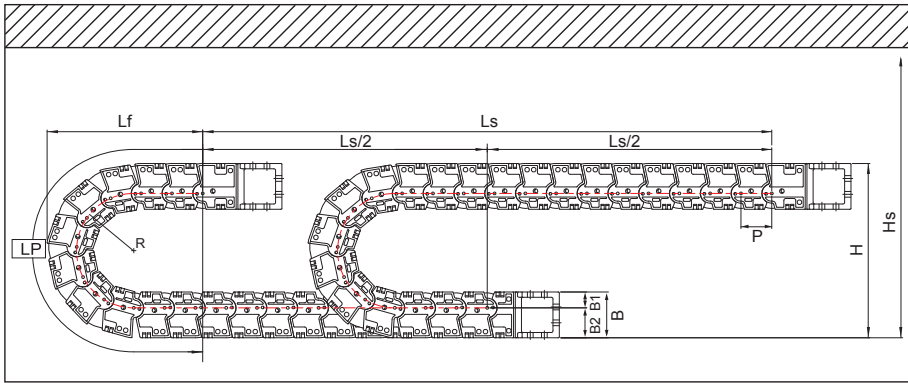
$$\left[ L = \frac{L_s}{2} + L_p \right]$$

### Load diagrams self-supporting length



## Enclosed Type **nsb 028E**

### LAYOUT OF THE CHAIN



(Dimensions in mm)

Bending radius R	66	86	116	146
Lp	376	439	533	627
Lf	173	193	223	253
H	178	218	278	338

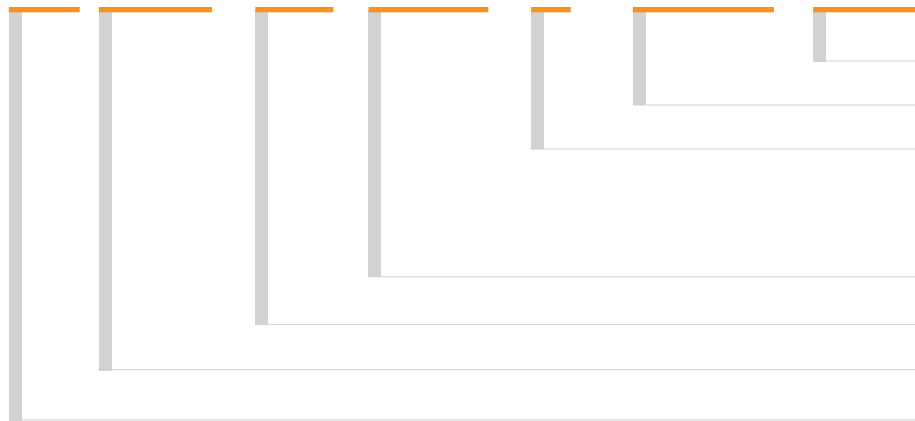
- Ls:** Stroke
- Lp:** Loop Length
- Lf:** Loop Projection
- Hs:** Safe Space

### nsb 028E Type

- Pitch P:** 28mm
- Height B:** 38mm
- Height H:** 2R+46mm
- Hs** ≥ H+30mm
- B1:** 15mm **B2:** 23mm

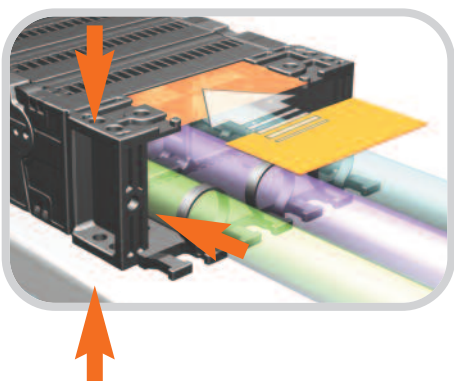
### ORDERING (주문방법)

## nsb 028E . 050. R66 / F- 1000L : 10ST



- 주문수량 Q'ty(set)
  - 체인길이 Length(mm)
  - 브라켓 F : Free End Bracket  
G : Guide Channel Type  
V : Vertical Guide Type
  - 곡률반경 Bending Radius
  - 내폭 Inside Width
  - 밀폐형태입 Enclosed Type
- New Sabin Chain**

### BRACKET TYPE (브라켓타입)



#### FEB (Free End Bracket)

Fixes the cable chain to the machinery or moving application. CPS has improved mounting efficiency by unifying the existing Easy End Bracket and Normal End Bracket. Also, inserting plastic sheets creates enclosed structure in the bracket.

체인을 고정하는 끝부분으로 기존 Easy End Bracket 과 Normal End Bracket 을 하나로 통합한 방식으로 취부의 효율성을 높임. 또한 부자재를 삽입하여 브라켓부분이 완전밀폐가 될수 있는 구조.

▶ Above products are patent registered item which can be protected by industrial property right. (상기제품은 특허등록 제품으로 산업재산권의 보호를 받는 제품입니다.)

## Enclosed Type **nsb 028E**

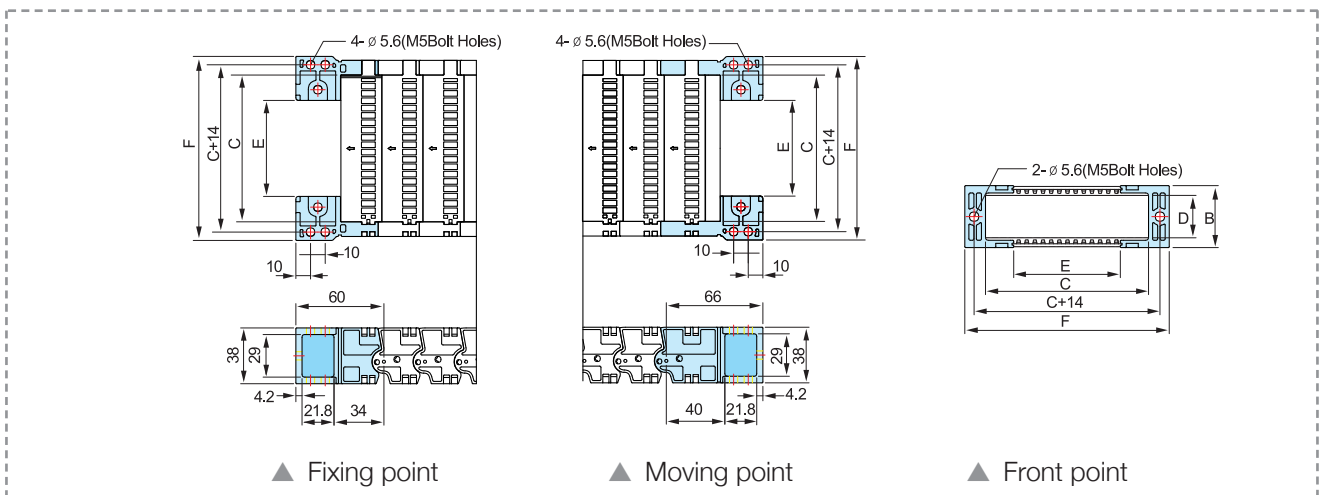
### CHAIN CROSS SECTION



• Hinge Type

Chain Type	A	B	C	D	Bending Radius(R)	Weight in kg/m
nsb 028E.035	55		35			1.00
nsb 028E.055	75	38	55	26	66, 86, 116, 146	1.13
nsb 028E.075	95		75			1.30
nsb 028E.100	120		100			1.50

### FREE END BRACKET



▲ Fixing point

▲ Moving point

▲ Front point

Chain Type	F	B	C	D	E	Hole Type
nsb 028E.035	60.4		35		0.4	M5 Bolt Holes
nsb 028E.055	80.4	38	55	26	20.4	
nsb 028E.075	100.4		75		40.4	
nsb 028E.100	125.4		100		65.4	

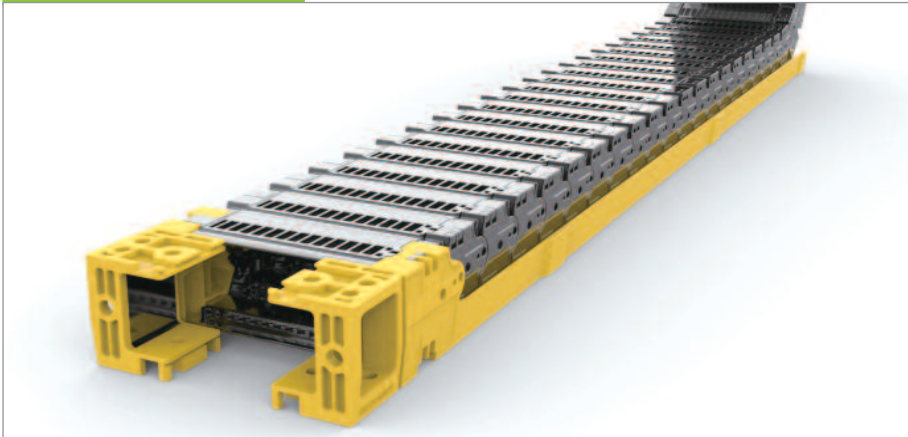
2014 NEW PRODUCT  
**Unity Systems®**

Enclosed Type **nsb 028E**

This type of bracket is to protect deflection of chain which will support the weight of certain section start from bracket, also will protect the damage of chain.

케이블 보호 장치에 전해지는 하중을 지지하여 케이블 체인의 처짐이 없이 일정구간을 끈게 유지 하므로, 케이블 체인의 파손을 방지하는 Guide Channel 일체형 브라켓입니다.

▼ Horizon Type 수평형

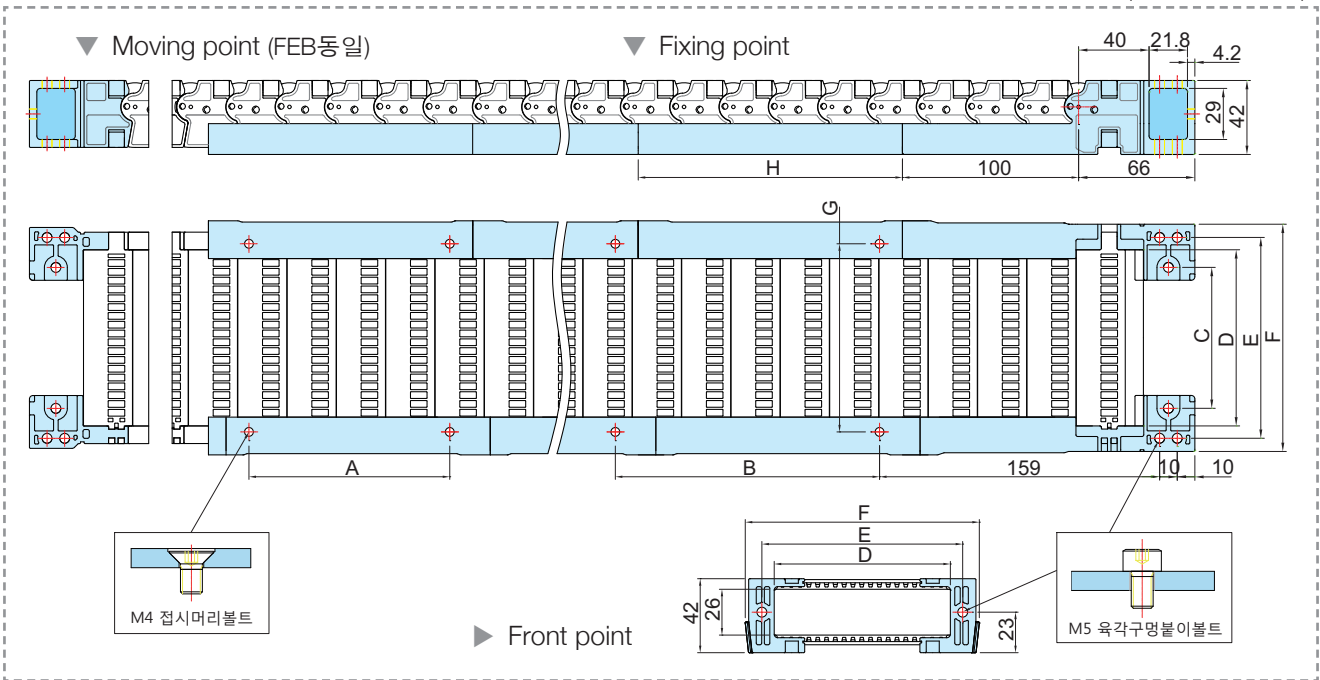


▼ Vertical Type 수직형



**GUIDE CHANNEL TYPE END BRACKET**

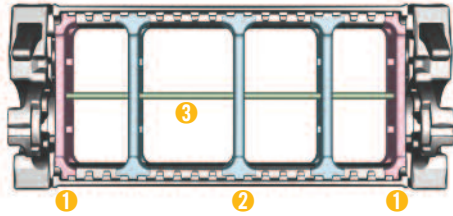
(Dimensions in mm)



Chain Type	C FEB fix hole(inner)	D Frame length dimension	E FEB width	F FEB width	G GC hole width	GC TYPE	H GC length	B GC fixing hole	A GC hole dimension
nsb 028E.035	15	35	49	68	41.8	GC150	150	151	114
nsb 028E.055	35	55	69	88	61.8				
nsb 028E.075	55	75	89	108	81.8	GC250	250	251	214
nsb 028E.100	80	100	114	133	106.8				

## Enclosed Type **nsb 028E**

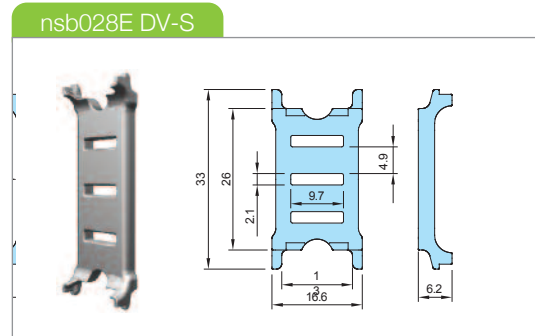
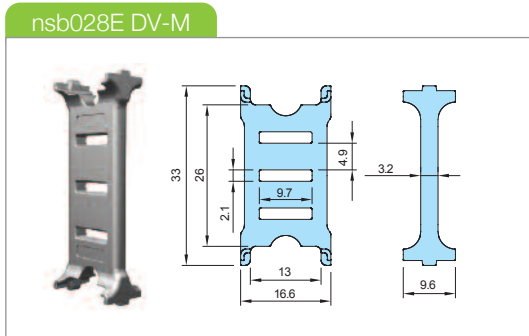
### DIVIDERS & SEPARATORS



- ① DV-S (측면전용다바이더)
- ② DV-M
- ③ Separator(SP)

Dividers (Vertical) and Separators (Horizontal) divide the inner chamber of the cable chain to give each cable diameter its own requirements as two or more levels can be made within the same chamber. To prevent twisting or damage to the cables, as a rule, there needs to be at least 10% space between the inserted cable and its enclosure.

다바이더(세로분리대)와 세퍼레이터(가로분리대)는 체인내에 많은 케이블들이 입선될 시 케이블들을 서로 분리하여 케이블상호간의 마찰로 인한 **피복손상 및 단선을 방지하는 역할**을 하며 케이블과 10%이상의 여유공간을 확보해야 합니다. 또한 케이블을 체인내 2단이상 입선시 반드시 세퍼레이터를 다바이더에 결합하여 사용해야 케이블의 꼬임방지와 피복손상을 방지할 수 있습니다.

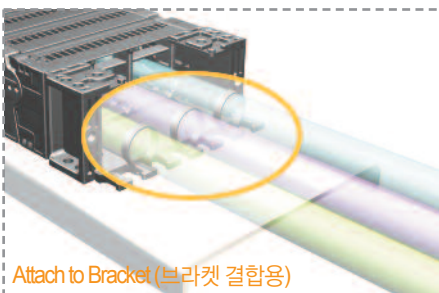


▶ Assemble divider every four links.(4링크마다 결합.)

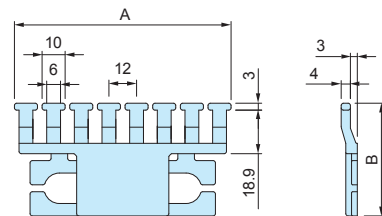
### nsb028E Separators (SP) (No. : S-SP/M)

Chain Type \ Separators	SP035	SP050	SP055	SP075	SP100	SP125	SP150	SP175	SP200
nsb028E	○	○	○	○	○	○	○	○	○
nsb035E	○	○	○	○	○	○	○	○	○

### TIE WRAP



Attach to Bracket (브라켓 결합용)



(Dimensions in mm)

Tie Wrap	035	055	075	100
A	46	70	94	118
B	35.4	48.9	48.9	48.9

The tie wrap separated from the Sabin Chain bracket, when installed properly, protects the inserted cables from becoming entangled and twisted during operation. There are two types in the tie wrap; Attached & Unattached to the bracket.

Tiewrap은 Sabin Chain 의 브라켓을 기준으로 설치함으로써 체인의 움직임으로 인해 체인내의 케이블이나 호스가 당겨져 단선되는 경우를 방지할 수 있다. Sabin Chain의 Tiewrap은 브라켓부분과 근접해서 사용할 수 있는 사양 과 브라켓에 결합해서 사용할 수 있는 사양으로 구분되어 사용할 수 있다.