

# PMA® Smart Line IP66

## General technical details

Modern, versatile and attractive. Functional and modern design at an excellent value for money. Suitable for machine building, installation and construction industries.

One-piece design, IP66 protection and simple, fast installation are the outstanding features of the Smart Line. Other characteristics including a modern, functional design and an excellent price/performance ratio make this product line a very attractive solution.

### Material

- Fittings made from specially formulated polyamide 6
- Self-extinguishing
- Free from halogens, REACH + RoHS compliant
- Temperature range:  
–45°C to +105°C, short-term to +150°C

### Characteristics

- High impact resistance
- Good conduit pull-out strength
- Vibration-proof connection to PMA conduits
- Fits conduit profiles – fine (T) and coarse (G)
- To avoid accidental opening, disassembling only possible with a screwdriver





**PMA® Smart Line**

General technical details



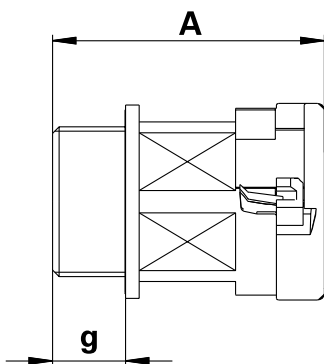
— Patent

IP66

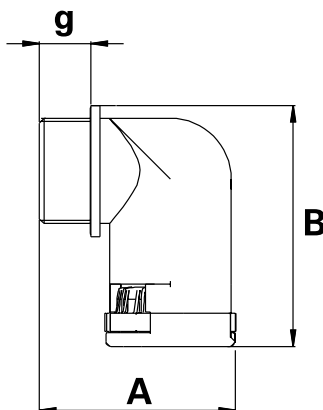
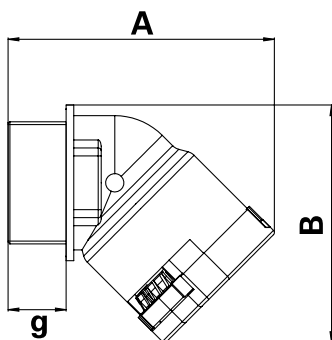
**IP66 static**

**IP54 dynamic**

- One piece fitting
- Conical sealing method
- Integrated sealing lip in thread flange
- Easy “push-in” installation
- Ready for installation (fitting gets delivered with engaged locking elements)



g = Thread length A = Overall length

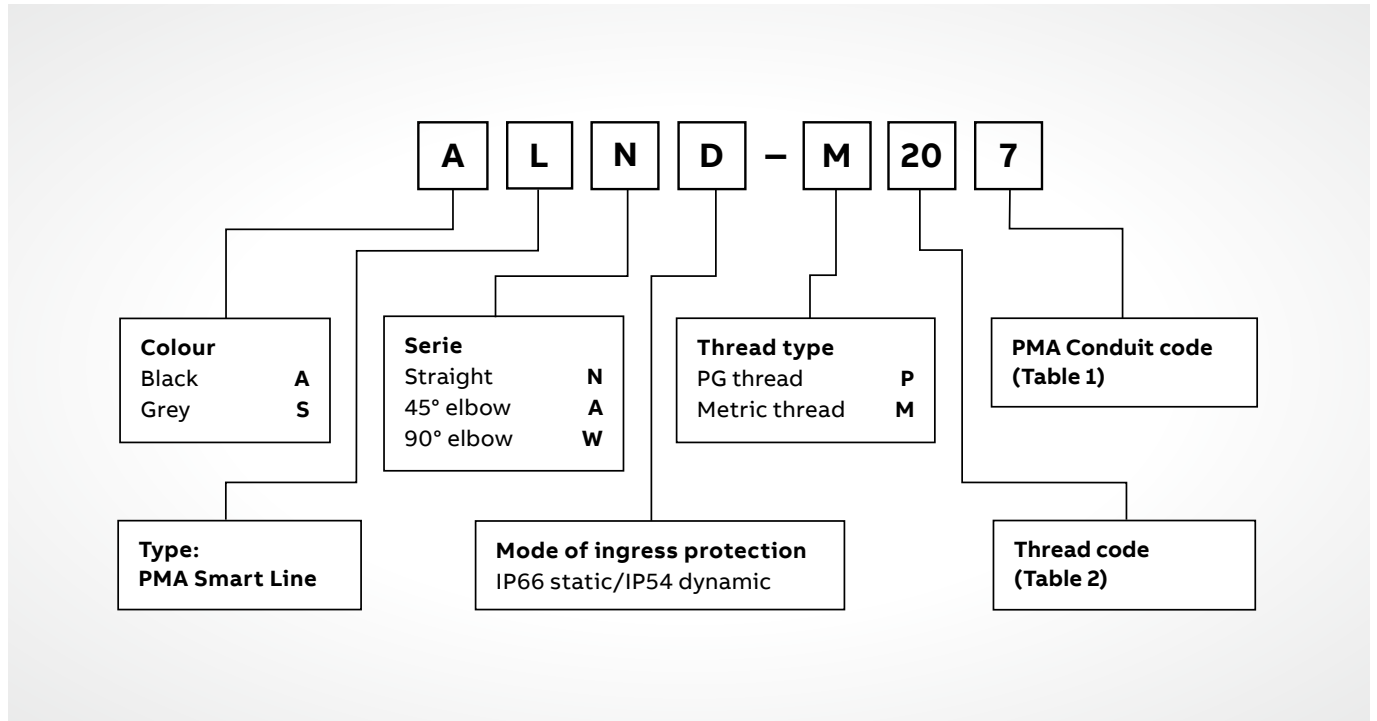


g = Thread length A x B = External dimensions



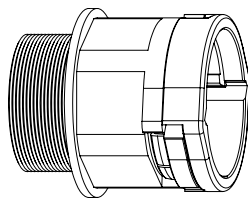
## PMA® Smart Line

### Part number codes

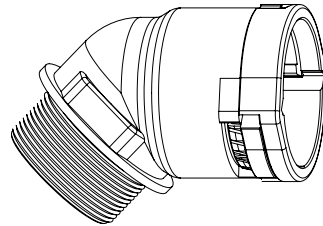


### Connector series

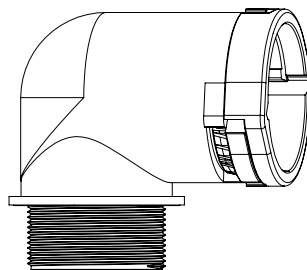
- 01 Straight (N)
- 02 45° elbow (A)
- 03 90° elbow (W)



01



02



03

## PMA® Smart Line

### Size codes, installation

Table 1: Conduit codes

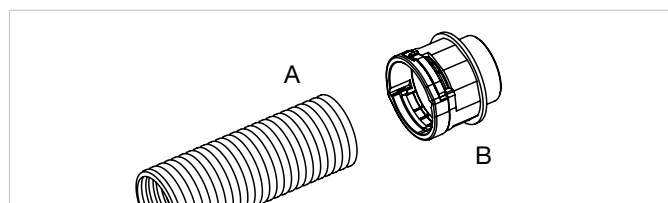
Nominal width	Metric size	PMA code
07	10	M
10	12	0
12	16	2
17	20	7
23	25	3
29	32	9
36	40	6
48	50	8

Table 2: Thread codes

Thread Metric	PMA code
M12 x 1.5	M12
M16 x 1.5	M16
M20 x 1.5	M20
M25 x 1.5	M25
M32 x 1.5	M32
M40 x 1.5	M40
M50 x 1.5	M50
M63 x 1.5	M63

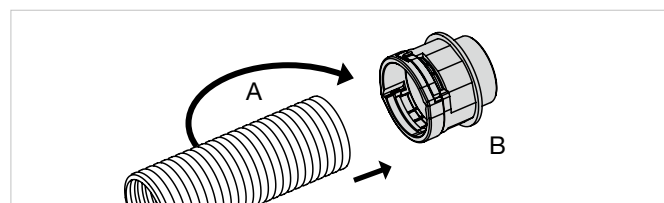
Thread PG	PMA code
PG07	P07
PG09	P09
PG11	P11
PG13.5	P13
PG16	P16
PG21	P21
PG29	P29
PG36	P36
PG48	P48

### Installation IP66



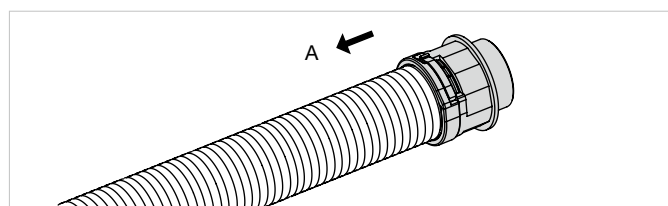
01

A = Conduit  
B = Fitting



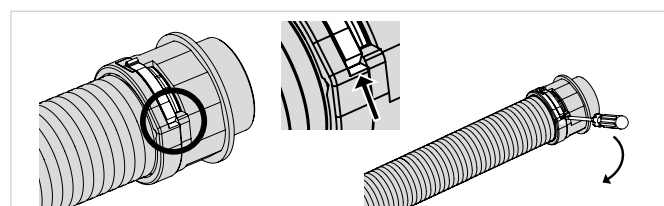
02

Push in the conduit (A) with a slight twist until the stop.



03

Pull back the conduit (A) slightly to ensure the locking mechanism is fully engaged.




04

To disengage the locking mechanism use a size 1 screwdriver.


## Connectors, metric, polyamide thread

### Type LND & LAD

#### Type LND - Connector straight, metric thread

	Order no. black, IP66	Order no. grey, IP66	Thread metric	Fits to conduit size		Thread length (mm)	Overall length (mm)
				NW	Metric		
LND, patent 	ALND-M120	SLND-M120	M12 x 1.5	10	12	11.0	34.0
	ALND-M160	SLND-M160	M16 x 1.5	10	12	11.0	34.0
	ALND-M162	SLND-M162	M16 x 1.5	12	16	11.0	38.0
	ALND-M200	SLND-M200	M20 x 1.5	10	12	11.0	34.0
	ALND-M202	SLND-M202	M20 x 1.5	12	16	11.0	38.0
	ALND-M207	SLND-M207	M20 x 1.5	17	20	11.0	41.0
	ALND-M257	SLND-M257	M25 x 1.5	17	20	12.0	42.0
	ALND-M253	SLND-M253	M25 x 1.5	23	25	12.0	45.5
	ALND-M323	SLND-M323	M32 x 1.5	23	25	15.0	48.5
	ALND-M329	SLND-M329	M32 x 1.5	29	32	15.0	50.5
	ALND-M409	SLND-M409	M40 x 1.5	29	32	19.0	54.5
	ALND-M406	SLND-M406	M40 x 1.5	36	40	19.0	60.5
	ALND-M506	SLND-M506	M50 x 1.5	36	40	19.0	61.0
	ALND-M508	SLND-M508	M50 x 1.5	48	50	19.0	61.0
	ALND-M638	SLND-M638	M63 x 1.5	48	50	19.0	61.0


#### Type LAD - Connector 45° elbow, metric thread

	Order no. black, IP66	Order no. grey, IP66	Thread metric	Fits to conduit size		Thread length (mm)	External Dimensions (mm)
				NW	Metric		
LAD, patent 	ALAD-M120	SLAD-M120	M12 x 1.5	10	12	11.0	42.5 x 33.0
	ALAD-M160	SLAD-M160	M16 x 1.5	10	12	11.0	42.5 x 35.0
	ALAD-M162	SLAD-M162	M16 x 1.5	12	16	11.0	47.5 x 39.5
	ALAD-M202	SLAD-M202	M20 x 1.5	12	16	11.0	47.5 x 41.5
	ALAD-M207	SLAD-M207	M20 x 1.5	17	20	11.0	54.0 x 46.0
	ALAD-M257	SLAD-M257	M25 x 1.5	17	20	12.0	55.0 x 48.5
	ALAD-M253	SLAD-M253	M25 x 1.5	23	25	12.0	63.5 x 55.5
	ALAD-M323	SLAD-M323	M32 x 1.5	23	25	15.0	67.0 x 60.0
	ALAD-M329	SLAD-M329	M32 x 1.5	29	32	15.0	72.5 x 63.5
	ALAD-M409	SLAD-M409	M40 x 1.5	29	32	19.0	76.5 x 66.5
	ALAD-M406	SLAD-M406	M40 x 1.5	36	40	19.0	87.5 x 78.0
	ALAD-M506	SLAD-M506	M50 x 1.5	36	40	19.0	88.0 x 82.0
	ALAD-M508	SLAD-M508	M50 x 1.5	48	50	19.0	97.5 x 88.0
	ALAD-M638	SLAD-M638	M63 x 1.5	48	50	19.0	97.5 x 94.5


## Connectors, metric and PG, polyamide thread

### Type LWD & LND

#### Type LWD - Connector 90° elbow, metric thread

	Order no. black, IP66	Order no. grey, IP66	Thread metric	Fits to conduit size		Thread length (mm)	External dimensions (mm)
				NW	Metric		
LWD, patent 	ALWD-M120	SLWD-M120	M12 x 1.5	10	12	11.0	33.0 x 36.5
	ALWD-M160	SLWD-M160	M16 x 1.5	10	12	11.0	33.0 x 38.5
	ALWD-M162	SLWD-M162	M16 x 1.5	12	16	11.0	37.5 x 43.0
	ALWD-M202	SLWD-M202	M20 x 1.5	12	16	11.0	37.5 x 45.0
	ALWD-M207	SLWD-M207	M20 x 1.5	17	20	11.0	42.0 x 50.5
	ALWD-M257	SLWD-M257	M25 x 1.5	17	20	12.0	43.0 x 53.0
	ALWD-M253	SLWD-M253	M25 x 1.5	23	25	12.0	52.5 x 59.0
	ALWD-M323	SLWD-M323	M32 x 1.5	23	25	15.0	56.0 x 62.5
	ALWD-M329	SLWD-M329	M32 x 1.5	29	32	15.0	62.5 x 69.0
	ALWD-M409	SLWD-M409	M40 x 1.5	29	32	19.0	66.5 x 72.0
	ALWD-M406	SLWD-M406	M40 x 1.5	36	40	19.0	76.0 x 83.0
	ALWD-M506	SLWD-M506	M50 x 1.5	36	40	19.0	76.0 x 87.0
	ALWD-M508	SLWD-M508	M50 x 1.5	48	50	19.0	89.0 x 92.5
	ALWD-M638	SLWD-M638	M63 x 1.5	48	50	19.0	89.0 x 99.0

#### Type LND - Connector straight, PG thread


	Order no. black, IP66	Order no. grey, IP66	Thread PG	Fits to conduit size		Thread length (mm)	Overall length (mm)
				NW	Metric		
LND, patent 	ALND-P070*	SLND-P070*	07	10	12	7.0	44.0
	ALND-P090	SLND-P090	09	10	12	11.0	34.0
	ALND-P092*	SLND-P092*	09	12	16	8.0	50.0
	ALND-P110	SLND-P110	11	10	12	8.0	45.5
	ALND-P112	SLND-P112	11	12	16	11.0	38.0
	ALND-P132	SLND-P132	13.5	12	16	11.0	38.0
	ALND-P137	SLND-P137	13.5	17	20	11.0	41.0
	ALND-P167	SLND-P167	16	17	20	11.0	41.0
	ALND-P213	SLND-P213	21	23	25	12.0	45.5
	ALND-P299	SLND-P299	29	29	32	12.0	47.5
	ALND-P366	SLND-P366	36	36	40	13.0	54.5
	ALND-P488	SLND-P488	48	48	50	13.0	55.0

\*These products will be delivered with a thread adapter


## Connectors, PG, polyamide thread

### Type LAD & LWD conduits

#### Type LAD - Connector 45° elbow, PG thread

	Order no. black, IP66	Order no. grey, IP66	Thread PG	Fits to conduit size		Thread length (mm)	External dimensions (mm)
				NW	Metric		
LAD, patent 	ALAD-P090	SLAD-P090	09	10	12	11.0	42.5 x 34.0
	ALAD-P112	SLAD-P112	11	12	16	11.0	47.5 x 40.0
	ALAD-P132	SLAD-P132	13.5	12	16	11.0	47.5 x 41.5
	ALAD-P137	SLAD-P137	13.5	17	20	11.0	54.0 x 46.0
	ALAD-P167	SLAD-P167	16	17	20	11.0	54.0 x 47.0
	ALAD-P213	SLAD-P213	21	23	25	12.0	63.5 x 57.5
	ALAD-P299	SLAD-P299	29	29	32	12.0	69.5 x 65.0
	ALAD-P366	SLAD-P366	36	36	40	13.0	81.5 x 80.0
	ALAD-P488	SLAD-P488	48	48	50	13.0	91.5 x 93.0

#### Type LWD - Connector 90° elbow, PG thread

	Order no. black, IP66	Order no. grey, IP66	Thread PG	Fits to conduit size		Thread length (mm)	External dimensions (mm)
				NW	Metric		
LWD, patent 	ALWD-P070*	SLWD-P070*	07	10	12	7.0	42.0 x 37.5
	ALWD-P090	SLWD-P090	09	10	12	11.0	32.5 x 37.5
	ALWD-P092*	SLWD-P092*	09	12	16	8.0	48.0 x 43.5
	ALWD-P110*	SLWD-P110*	11	10	12	8.0	44.0 x 40.0
	ALWD-P112	SLWD-P112	11	12	16	11.0	36.5 x 43.5
	ALWD-P130*	SLWD-P130*	13.5	10	12	9.0	37.5 x 40.0
	ALWD-P132	SLWD-P132	13.5	12	16	11.0	36.5 x 45.0
	ALWD-P137	SLWD-P137	13.5	17	20	11.0	41.0 x 50.5
	ALWD-P167	SLWD-P167	16	17	20	11.0	41.0 x 51.5
	ALWD-P213	SLWD-P213	21	23	25	12.0	52.0 x 61.0
	ALWD-P299	SLWD-P299	29	29	32	12.0	58.5 x 70.5
	ALWD-P366	SLWD-P366	36	36	40	13.0	70.0 x 85.0
	ALWD-P488	SLWD-P488	48	48	50	13.0	83.0 x 97.5

\*These products will be delivered with a thread adapter