PAP Cable glands for armoured cables

Installation: hazardous areas - Zone 1 / 2 (Gases) - Zone 21 / 22 (Dusts)
Classification: Group II - Category 2G 2D

REFERENCE STANDARDS

	Directive 94/9/EC (until April 19th, 2016) and Directive 2014/34/EU (from April 20th, 2016)
EXECUTION	⟨Ex⟩ II 2 G Ex d / Exe / Exia IIC Gb ⟨Ex⟩ II 2 D Ex tb IIIC Db
RULES OF COMPLIANCE	EN/IEC 60079-0; EN/IEC 60079-1; EN/IEC 60079-7; EN/IEC 60079-31
EC Type-Examination Certificate	INERIS 09 ATEX 0028X
PROTECTION DEGREE	IP66 or IP66/68
AMBIENT TEMPERATURE	-40°C ÷ +90°C (Rubber rings EPDM-60) -60°C ÷ +180°C (Rubber rings SILICON)
OTHER AVAILABLE CERTIFICATES	IECEx: IECEx INE 11.0017X
	INMETRO: CEPEL 12.2177X
	EAC: TC RU C-IT.ГБ08.B 01624 (-75°C ÷ +180°C)
	RINA: ELE18111CS_016
	RUSSIAN MARINE CERTIFICATE (RMRS): 13.03518.315
	Kc (Korean certification):14-KB4B0-0455X

Mechanical characteristics

Body / cap	OT-58 marine brass (ON) - AISI-316L stainless steel (IX)
Finishes	full nickel plating threatment (brass material only)
Rubber rings	EPDM rubber- 50-60 shore hardness - Silicon rubber - 60 shore hardness
O-ring	silicon rubber - 60 shore hardness
Skid washer	nylon 6.0
Chamber for sealing	OT-58 marine brass ("R" version only)

Applications

- For steel wire armoured cables (swa) for steel tape armoured cables
- Double compression type for indoor and outdoor use
- Provided armour clamping using clamping arrangements suitable for all armour wire/braid types
- Double compression - under armour and overall of armour cable (inner and outer sealing)
- Sealing with proper resin into "chamber of sealing" (on barrier type version "R" only)

On Request Accessories:

- Locknuts, Gaskets, PVC Shrouds, Earthing Tags, Sealing (See DL-NW-PTD-ET bulletin)

PAP Cable gland selection table

CODE		ENTRY THREAD SIZE						DIA. UNDER ARMOUR		OUTER SHEATH DIA.		HEXAGON	MATERIAL	
(1)		METRIC (2)		NPT (2)		UNI ISO 228 (2)		min [mm]	max [mm]	min [mm]	max [mm]	[mm]		(3)
PAP# PAP-R#	00*	ISO-M20	M	1/2"NPT	N	1/2"	G	4,0	7,0	10,0	15,0	24,0	NICKEL PL.BRASS	ON
								7,0	10,0				STAINLESS STEEL	IX
PAP# PAP-R#	01	ISO-M20	M	1/2"NPT	N	1/2"	G	5,5	8,0	10,0	15,0	32,0	NICKEL PL.BRASS	ON
								8,0	10,5	14,0	19,0		STAINLESS STEEL	IX
								10,5	13,0					
PAP# PAP-R#	02	ISO-M25	M	3/4"NPT	N	3/4"	G	10,5	13,0	15,0	20,0	36,0	NICKEL PL.BRASS	ON
								13,0	15,5	19,0	24,0		STAINLESS STEEL	IX
								15,5	18,0					
PAP# PAP-R#	03	ISO-M32	M	1"NPT	N	1"	G	15,0	18,0	20,0	26,0	45,0	NICKEL PL.BRASS	ON
								18,0	21,0	25,0	31,0		STAINLESS STEEL	IX
								21,0	24,0					
PAP# PAP-R#	04	ISO-M40	M	1 1/4"NPT	N	1 1/4"	G	21,0	24,0	26,0	32,0	53,0	NICKEL PL.BRASS	ON
								24,0	27,0	31,0	37,0		STAINLESS STEEL	IX
								27,0	30,0	34,0	40,0			
PAP# PAP-R#	05	ISO-M50	M	1 1/2"NPT	N	1 1/2"	G	24,0	27,0	30,0	37,0	61,0	NICKEL PL.BRASS	ON
								27,0	30,0	36,0	43,0		STAINLESS STEEL	IX
								30,0	33,0	40,0	47,0			
								33,0	36,0					
PAP# PAP-R#	06	ISO-M63	M	2"NPT	N	2"	G	36,0	39,0	42,0	48,0	71,0	NICKEL PL.BRASS	ON
								39,0	42,0	47,0	53,0		STAINLESS STEEL	IX
								42,0	45,0	50,0	56,0			
PAP# PAP-R#	07	ISO-M75	M	2 1/2"NPT	N	2 1/2"	G	42,0	45,0	52,0	58,0	84,0	NICKEL PL.BRASS	ON
								45,0	48,0	58,0	64,0		STAINLESS STEEL	IX
								48,0	51,0	61,0	67,0			
								51,0	54,0					
PAP# PAP-R#	08	ISO-M90	M	3"NPT	N	3"	G	52,0	56,0	65,0	72,0	101,0	NICKEL PL.BRASS	ON
								56,0	59,0	71,0	78,0		STAINLESS STEEL	IX
								59,0	62,0	74,0	81,0			
								62,0	65,0					
								65,0	68,0					
PAP# PAP-R#	09	ISO-M100	M	4"NPT	N	4"	G	68,0	74,0	81,0	88,0	126,0	NICKEL PL.BRASS	ON
								74,0	80,0	88,0	96,0		STAINLESS STEEL	IX
								80,0	86,0	96,0	104,0			
								86,0	92,0					

***NOTE:** 00 SIZE WITH **ISO-M16 OR 3/8"NPT - 3/8"ISO-228** BODY, ON REQUEST

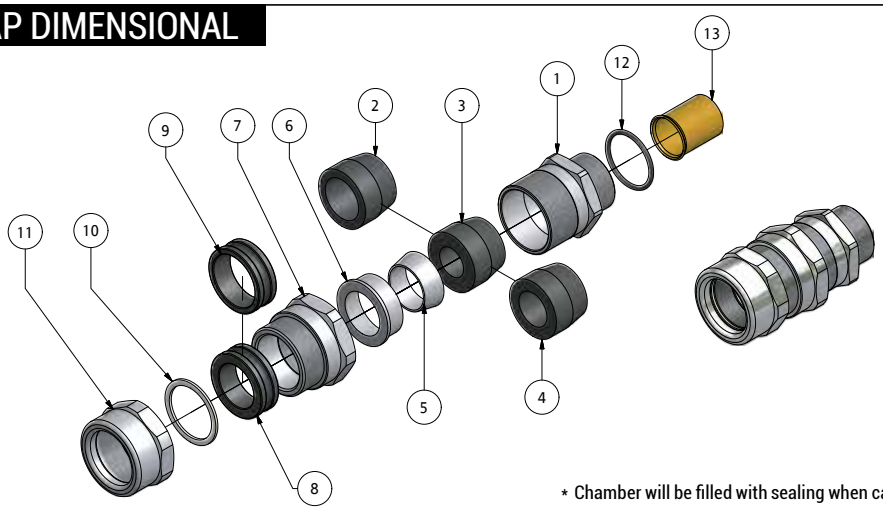
CABLE GLAND ORDERING EXAMPLES

PAP#	01	M	ON	**= PAP#01MON** (NON-BARRIER CABLE GLAND NICKEL PLATED BRASS ISO-M20 THR.)
PAP#	03	N	IX	**= PAP#03NIX** (NON-BARRIER CABLE GLAND STAINLESS STEEL 1"NPT THR.)

LEGEND

(1)	CABLE GLAND TYPE/MODEL	**PAP#** = NON-BARRIER CABLE GLAND - **PAP-R#** = BARRIER CABLE GLAND
(2)	THREADING	**M** = ISO METRIC pitch 1,5mm - **N** = NPT (ANSI/ASME B1.20.1) - **G** = UNI ISO-228
(3)	CABLE GLAND MATERIAL	**ON** = NICKEL PLATED MARINE BRASS - **IX** = AISI-316L STAINLESS STEEL

PAP DIMENSIONAL



1	BODY
2-3-4	INNER SEALING RING FOR ARMOURED CABLE
5	ARMOUR CLAMPING CONE
6	ARMOUR CLAMPING RING FOR ARMOURED CABLE
7	GLAND BARREL
8-9	OUTER SEALING RING
10	ANTI RUBBING WASHER
11	GLAND NUT
12	O-RING (ONLY FOR METRICAL)
13	*CHAMBER FOR SEALING ("R" VERSION ONLY)

* Chamber will be filled with sealing when cable gland is completely assembled.

REMARK:
Due to the development of the national and international specifications and of the technology, the above technical characteristics showed on this bulletin can be considered as binding on our confirmation only.

Installation: hazardous areas - Zone 1 / 2 (Gases) - Zone 21 / 22 (Dusts)
Classification: Group II - Category 2G 2D

REFERENCE STANDARDS	
Directive 2014/34/EU	
EXECUTION	⟨Ex⟩ II 2 G Ex db / Ex eb/ Ex ia/ IIC Gb ⟨Ex⟩ II 2 D Ex tb IIIC Db
RULES OF COMPLIANCE	EN/IEC 60079-0; EN/IEC 60079-1; EN/IEC 60079-7; EN/IEC 60079-31
EC Type-Examination Certificate	INERIS 09 ATEX 0028X
PROTECTION DEGREE	IP66 or IP66/68
AMBIENT TEMPERATURE	-40°C ÷ +90°C (Rubber rings EPDM-60) -60°C ÷ +180°C (Rubber rings SILICON)
OTHER AVAILABLE CERTIFICATES	IECEx: IECEx INE 11.0017X
	INMETRO: CEPEL 12.2175X
	EAC: TC RU C-IT.BH02.B.00587 (-75°C ÷ +180°C)
	RINA: ELE139017CS004
	RUSSIAN MARINE CERTIFICATE (RMRS): 19.02521.280
	CCOE-PESO: P405709/1

Mechanical characteristics	
Body / cap	OT-58 marine brass (ON) - AISI-316L stainless steel (IX) marine grade copper free aluminium (on project request only)
Finishes	full nickel plating treatment (brass material only)
Rubber rings	EPDM rubber 50-60 shore hardness (standard supply) Silicon rubber 60 shore hardness (on demand only)
O-ring	silicon rubber - 60 shore hardness
Skid washer	nylon 6.0
Chamber for sealing	OT-58 marine brass ("R" version only)

Applications
For unarmoured cables only
Single compression type suitable for indoor and outdoor use
Single compression - on cable (inner sealing)
Sealing with proper resin into "chamber of sealing" (on barrier type version "R" only)

On Request Accessories:

- Locknuts, Gaskets, PVC Shrouds, Earthing Tags, Sealing
  (See DL-NW-PTD-ET bulletin)

Cable gland selection table

CODE (1)	SIZE	ENTRY THREAD SIZE						INNER SHEATH DIA.		HEXAGON [mm]	MATERIAL	
		METRIC (2)		NPT (2)		ISO 228 (2)		min [mm]	max [mm]			(3)
PNA# PNA-R#	00	(16)ISO-M16 (0)3/8"	M	3/8"NPT	N	3/8"	G	4,0	7,0	24,0	NICKEL PL.BRASS	ON
								7,0	10,0		STAINLESS STEEL	IX
		(20)ISO-M20 (1)1/2"		1/2"NPT		1/2"		5,5	8,0	32,0	NICKEL PL.BRASS	ON
								8,0	10,5			
								10,5	13,0		STAINLESS STEEL	IX
PNA# PNA-R#	01	ISO-M20	M	1/2"NPT	N	1/2"	G	5,5	8,0	32,0	NICKEL PL.BRASS	ON
								8,0	10,5			
								10,5	13,0		STAINLESS STEEL	IX
PNA# PNA-R#	02	ISO-M25	M	3/4"NPT	N	3/4"	G	10,5	13,0	36,0	NICKEL PL.BRASS	ON
								13,0	15,5			
								15,5	18,0		STAINLESS STEEL	IX
PNA# PNA-R#	03	ISO-M32	M	1"NPT	N	1"	G	15,0	18,0	45,0	NICKEL PL.BRASS	ON
								18,0	21,0			
								21,0	24,0		STAINLESS STEEL	IX
PNA# PNA-R#	04	ISO-M40	M	1 1/4"NPT	N	1 1/4"	G	21,0	24,0	53,0	NICKEL PL.BRASS	ON
								24,0	27,0			
								27,0	30,0		STAINLESS STEEL	IX
PNA# PNA-R#	05	ISO-M50	M	1 1/2"NPT	N	1 1/2"	G	24,0	27,0	61,0	NICKEL PL.BRASS	ON
								27,0	30,0			
								30,0	33,0		STAINLESS STEEL	IX
								33,0	36,0			
PNA# PNA-R#	06	ISO-M63	M	2"NPT	N	2"	G	36,0	39,0	71,0	NICKEL PL.BRASS	ON
								39,0	42,0			
								42,0	45,0		STAINLESS STEEL	IX
PNA# PNA-R#	07	ISO-M75	M	2 1/2"NPT	N	2 1/2"	G	42,0	45,0	84,0	NICKEL PL.BRASS	ON
								45,0	48,0			
								48,0	51,0		STAINLESS STEEL	IX
								51,0	54,0			
PNA# PNA-R#	08	ISO-M90	M	3"NPT	N	3"	G	52,0	56,0	101,0	NICKEL PL.BRASS	ON
								56,0	59,0			
								59,0	62,0			
								62,0	65,0		STAINLESS STEEL	IX
								65,0	68,0			
PNA# PNA-R#	09	ISO-M100	M	4"NPT	N	4"	G	68,0	74,0	126,0	NICKEL PL.BRASS	ON
								74,0	80,0			
								80,0	86,0		STAINLESS STEEL	IX
								86,0	92,0			

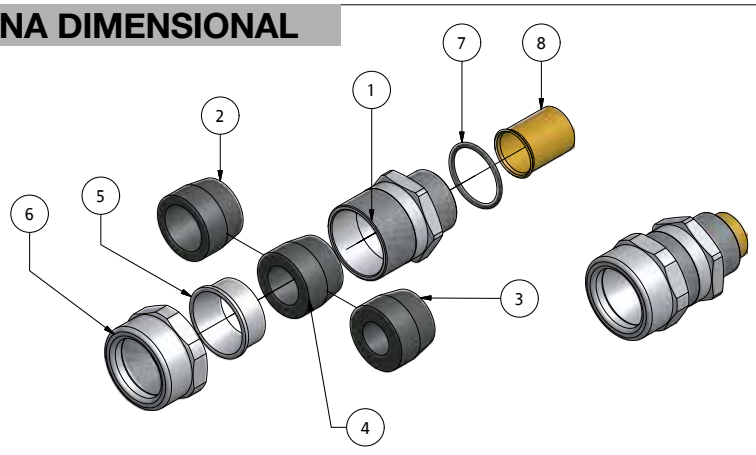
CABLE GLAND ORDERING EXAMPLES

PNA#	01	M	ON	= **PNA#01MON** (NON-BARRIER CABLE GLAND NICKEL PLATED BRASS ISO-M20 THR.)
PNA#	03	N	IX	= **PNA#03NIX** (NON-BARRIER CABLE GLAND STAINLESS STEEL 1/2"NPT THR.)

LEGEND

(1)	CABLE GLAND TYPE/MODEL	**PNA#** = NON-BARRIER CABLE GLAND - **PNA-R#** = BARRIER CABLE GLAND
(2)	THREADING	**M** = ISO METRIC pitch 1,5mm - **N** = NPT (ANSI/ASME B1.20.1) - **G** = ISO-228
(3)	CABLE GLAND MATERIAL	**ON** = NICKEL PLATED MARINE BRASS - **IX** = AISI-316L STAINLESS STEEL

PNA DIMENSIONAL



1	BODY
2-3-4	INNER SEALING RING FOR NOT ARMOURED CABLE
5	PRESS RING
6	GLAND NUT
7	O-RING (ONLY FOR METRICAL)
8	*CHAMBER FOR SEALING ("R" VERSION ONLY)

* Chamber will be filled with sealing when cable gland is completely assembled.

REMARK:
Due to the development of the national and international specifications and of the technology, the above technical characteristics showed on this bulletin can be considered as binding on our confirmation only.