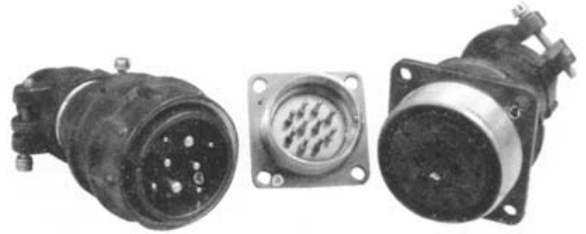


2KA Circular connector series

2PM 2PMД small circular electrical connector, for circuit connections in electrical and radio installations, the plug and socket are connected by a threaded connection nut.

2PMГ, 2PMДГ for sealed type.

2PMГП, 2PMГПД for sealed through-wall type.



Localized model: **2KA**

(2PM, 2PMД the unified model of the series is 2KA, the combination code is unified)

Specifications

- Ambient temperature: $-60^{\circ}\text{C}\sim+150^{\circ}\text{C}$, $-60^{\circ}\text{C}\sim+200^{\circ}\text{C}$ (seal)
- Vibration acceleration: $10\sim5000\text{Hz}$ 50g
- Shock acceleration: once 500g, repeatedly 100g
- Operating Voltage: $\leq 560\text{V}$

• Rated current:	$\varnothing 1.0$	$\varnothing 1.5$	$\varnothing 2.0$	$\varnothing 3.0$
	5A	10A	20A	40A

• Contact resistance:	$\varnothing 1.0$	$\varnothing 1.5$	$\varnothing 2.0$	$\varnothing 3.0$
	$\leq 5\text{m}\Omega$	$\leq 2.5\text{m}\Omega$	$\leq 1.6\text{m}\Omega$	$\leq 0.8\text{m}\Omega$

- Insulation resistance: $\geq 1000\text{M}\Omega$ (normal), $\geq 20\text{M}\Omega$ (damp, heat)
- Mechanical wear resistance: plug and unplug 500 times
- Warranty period: 7 years
- Specifications: Q/3E 20006-2003

Ordering information

Serial number	Code meaning	Russian code
1	Model unsealed: Unsealed heat resistant (T): Seal (Г): Through the wall (П):	2PM, 2PMД 2PMT, 2PMДТ 2PMГ, 2PMГД 2PMГП, 2 PMГПД
2	Shell standard size (mm)	14,18,22,24,27,30, 33,36,39,42,45
3	Connector composition: socket, plug	Б (Fixed end) К (Free end)
4	Tail: Straight, curved	П (straight), У (curved)
5	Tail: shield, unshielded	Э (shield), Н(unshielded)
6	Number of contacts	4,7,8,10,19,20,22,24, 30,32,42,45,50
7	Contact type: pin, receptacle	Щ (pin), Г (receptacle)
8	Contact arrangement and Combination number 1-9	1 - both $\varnothing 1$ 2 - $\varnothing 1 + \varnothing 1.5$ 3 - $\varnothing 2 + \varnothing 3$ 4 - $\varnothing 1 + \varnothing 3$ 5 - both $\varnothing 1.5$ 6 - $\varnothing 1.5 + \varnothing 3$ 7 - $\varnothing 1.5 + \varnothing 2$ 8 - $\varnothing 1 + \varnothing 2$ 9 - both $\varnothing 3$
9	Contact plating	А(gold), В(silver), Е(nickel)
10	Temperature class	1(100°C) 2(200°C)
11	Any conditions	В

Serial number	Code meaning	APMA code
1	Model Unsealed: Seal (M) Seal through the wall (C)	2KA 2KA-M 2KA-C
2	Shell standard size (mm)	14,18,22,24,27,30, 33,36,39,42,45
3	Contact type: pin, hole	J(pin), K(hole)
4	Number of contacts	4,7,8,10,19,20,22,24, 30,32,42,45,50
5	Connector composition: plug/unsealed socket/sealed socket (through wall)	Not marked/A/M(C)
6	Tail attachment: straight shield (unshielded) curved shield (unshielded)	P(Q) R(S)
7	Contact arrangement and Combination number	Same as Russian code name
8	Contact plating	B(gold), not marked (silver) Note: M/Seal - nickel plated C/Through the wall - nickel plated
9	Left plug	U












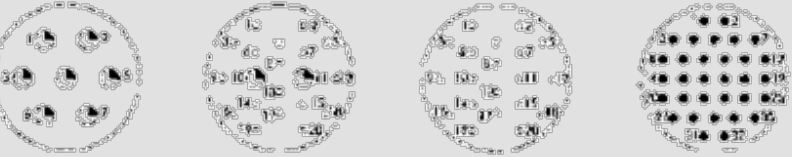




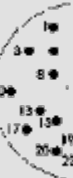
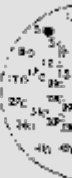
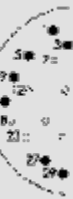

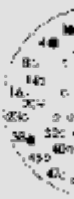
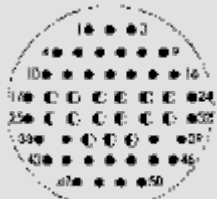
APMA Sealed wall socket

Model	2KA	27	J	24	C	1	B
Shell number							
Pin							
Number of contacts							
Sealed wall sockets							
Permutation number							
Gold plated contacts (nickel plated not marked)							

APMA Sealed socket

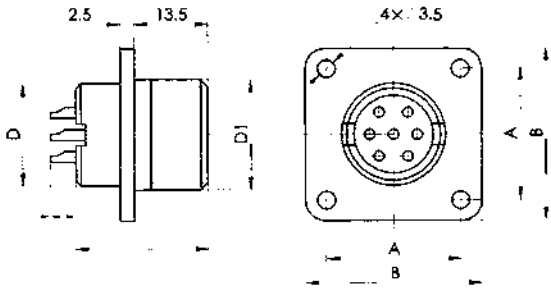
Model	2KA	27	J	24	M	1	B
Shell number							
Pin							
Number of contacts							
Sealed wall sockets							
Permutation number							
Gold plated contacts (nickel plated not marked)							

Insulator socket group arrangement (viewed from the hole insulator mating surface)

Permutation number Shell number	14/4/1 (shell number/number of contacts/permutation number)				Contact diameter			
					∅1.0	∅1.5	∅2	∅3
14					∅1.0	∅1.5	∅2	∅3
18	18/7/1	18/4/5			22	22/4/3		22/10/1
								
24	24/10/5		24/19/1					
								
27	27/7/5	27/7/2	27/19/5	27/24/1				
								
	30/8/7		30/24/5		30/32/1			
								
33	33/7/9	33/20/4	33/20/1	33/32/5				
								
	36/22/1		36/20/2		36/20/6		36/20/5	
								
39	39/22/5		39/45/2					
								
42	42/30/2		42/45/5		42/50/2		45/50/8	
								
					45			

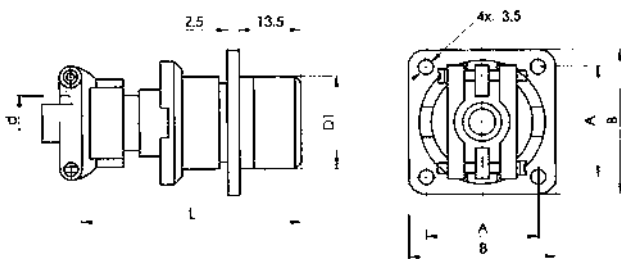
Shape and installation dimensions

- **Socket without tail (Б)**



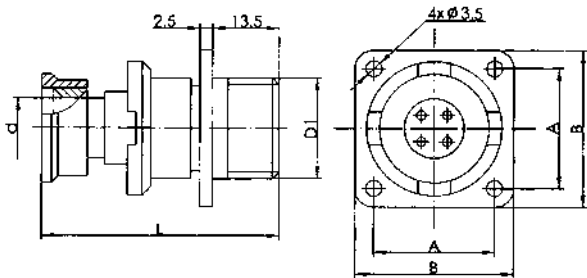
Shell number	Dimension (mm)					
	D(left)	D ₁	A	B	B	
14	M14x1	M16x1	17±0.1	24	24	
18	M18x1	M20x1	20±0.1	27		
22	M22x1	M24x1	23±0.1	30		
24	M24x1	M27x1.5	26±0.1	33		
27	M27x1	M30x1.5	29±0.1	36		
30	M30x1	M33x1.5	31±0.1	38		
33	M33x1	M36x1.5	32±0.1	40		
36	M36x1	M39x1.5	35±0.1	43		
39	M38x1	M42x1.5	37±0.1	46		
42	M42x1	M45x1.5	40±0.1	49		
45	M45x1	M48x1.5	43±0.1	52		26

- **With straight unshielded tail (БПН)**



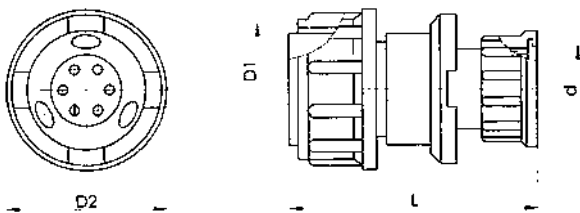
Shell number	Dimension (mm)				
	D ₁	d	A	B	L
14	M16x1	6.5	17±0.1	24	54
18	M20x1	10.5	20±0.1	27	54
22	M24x1	14.5	23±0.1	30	57
24	M27x1.5	16.5	26±0.1	33	62.5
27	M30x1.5	18.5	29±0.1	36	62.5
30	M33x1.5	20.5	31±0.1	38	62.5
33	M36x1.5	22.5	32±0.1	40	67.5
36	M39x1.5	22.5	35±0.1	43	67.5
39	M42x1.5	24.5	37±0.1	46	67.5
42	M45x1.5	30.5	40±0.1	49	67.5
45	M48x1.5	30.5	43±0.1	52	67.5

- **With straight shield tail (БПЭ)**



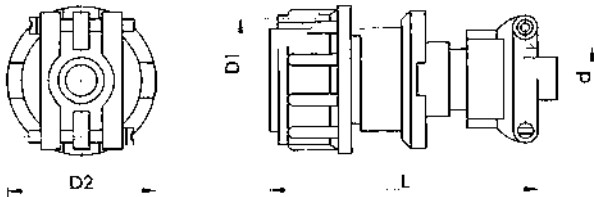
Dimension (mm)					
Shell number	D1	d	A	B	L
14	M16x1	6.5	17±0.1	24	48
18	M20x1	10.5	20±0.1	27	48
22	M24x1	14	23±0.1	30	48
24	M27x1.5	16.5	26±0.1	33	54
27	M30x1.5	18	29±0.1	36	54
30	M33x1.5	20.5	31±0.1	38	54
33	M36x1.5	23.7	32±0.1	40	59
36	M39x1.5	22.5	35±0.1	43	59
39	M42x1.5	25	37±0.1	46	59
42	M45x1.5	29.5	40±0.1	49	59
45	M48x1.5	29.5	43±0.1	52	59

- **Plug with straight shield tail (КПЭ)**



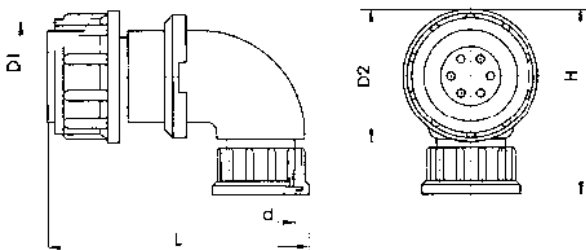
Dimension (mm)				
Shell number	D1	D2	d	L
14	M16x1	22	6.5	48
18	M20x1	25	10.5	48
22	M24x1	29	14	48
24	M27x1.5	32	16.5	54
27	M30x1.5	35	18	54
30	M33x1.5	39	20.5	54
33	M36x1.5	42	23.7	59
36	M39x1.5	45	22.5	59
39	M42x1.5	48.5	25	59
42	M45x1.5	51	29.5	59
45	M48x1.5	54	29.5	59

- **Plug with straight unshielded tail (КПН)**



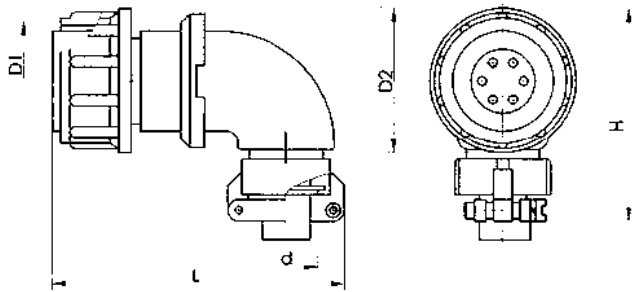
Dimension (mm)				
Shell number	D1	D2	d	L
14	M16x1	22	6.5	54
18	M20x1	25	10.5	54
22	M24x1	29	14.5	57
24	M27x1.5	32	16.5	62.5
27	M30x1.5	35	18.5	62.5
30	M33x1.5	39	20.5	62.5
33	M36x1.5	42	22.5	67.5
36	M39x1.5	45	22.5	67.5
39	M42x1.5	48.5	24.5	67.5
42	M45x1.5	51	30.5	67.5
45	M48x1.5	54	30.5	67.5

- **Plug with angled shield tail (КУЭ)**



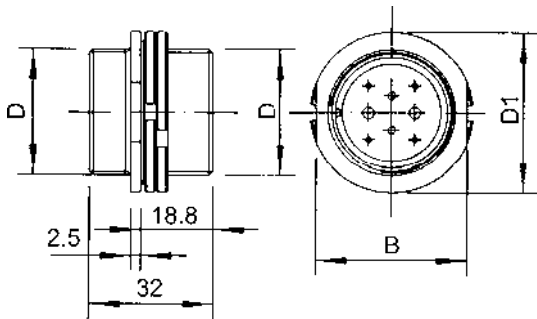
Dimension (mm)					
Shell number	D1	D2	d	H	L
14	M16x1	22	6.5	30.8	48
18	M20x1	25	10.5	35	51
22	M24x1	29	14	38	54
24	M27x1.5	32	16.5	41	57
27	M30x1.5	35	19	44	59
30	M33x1.5	39	20.5	47.8	62
33	M36x1.5	42	23.7	50.8	65
36	M39x1.5	45	22.5	53.8	72
39	M42x1.5	48.5	25	56	72
42	M45x1.5	51	29.5	60	72

- **Plug with angled unshielded tail (KVH)**



Dimension (mm)					
Shell number	D1	D2	d	H	L
14	M16x1	22	6.5	40	51
18	M20x1	25	10.5	41	54
22	M24x1	29	14.5	47	59
24	M27x1.5	32	16.5	50	60
27	M30x1.5	35	18.5	53	64
30	M33x1.5	39	20.5	57	65
33	M36x1.5	42	22.5	60	69
36	M39x1.5	45	22.5	63	74
39	M42x1.5	48.5	24.5	66	73
42	M45x1.5	51	30.5	69	76

- **Sealed wall sockets (IT1)**



Dimension (mm)			
Shell number	D	D1	B
14	M16x1	25	22
18	M20x1	29	26
22	M24x1	33	30
24	M27x1.5	36	33
27	M30x1.5	39	36
30	M33x1.5	42	39
33	M36x1.5	45	42
36	M39x1.5	48	45
39	M42x1.5	51	48
42	M45x1.5	54	51

Contact arrangement and combination code list

Shell number	Contacts combination code	Total number of contacts	Contact diameter (mm) and quantity			
			ø1.0	ø1.5	ø2.0	ø3.0
14	1	4	4			
18	1	7	7			
	5	4		4		
22	1	10	10			
	3	4			2	2
24	1	19	19			
	5	10		10		
27	1	24	24			
	2	7	5	2		
	5	7		7		
	5	19		19		
30	1	35	32			
	5	24		24		
	7	8		4	2	2
33	1	20	20			
	4	20	18			2
	5	32		32		
	9	7				7
36	1	22	22			
	2	20	16	4		
	5	20		20		
	6	20		18		2
39	2	45	40	5		
	5	22		22		
42	2	30	15	15		
	2	50	43	7		
	5	45		45		
45	8	50		35	15	