

PROTECTIVE MODULES

APKTEX



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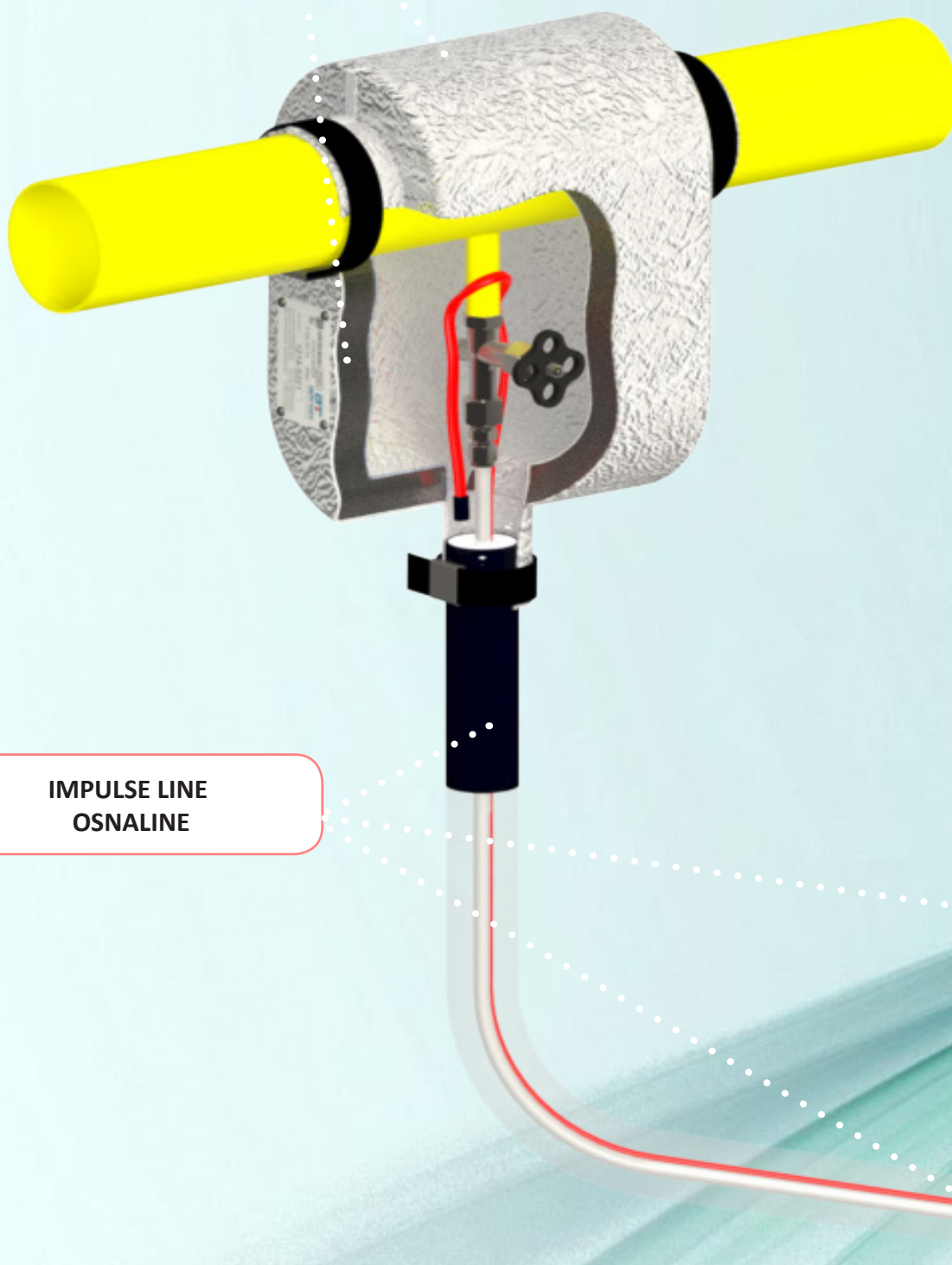




PROTECTIVE MODULE **APKTEX**

APKTEX-FLEX

IMPULSE LINE
OSNALINE



**PROTECTIVE MODULE
APKTEX-PRO.D**

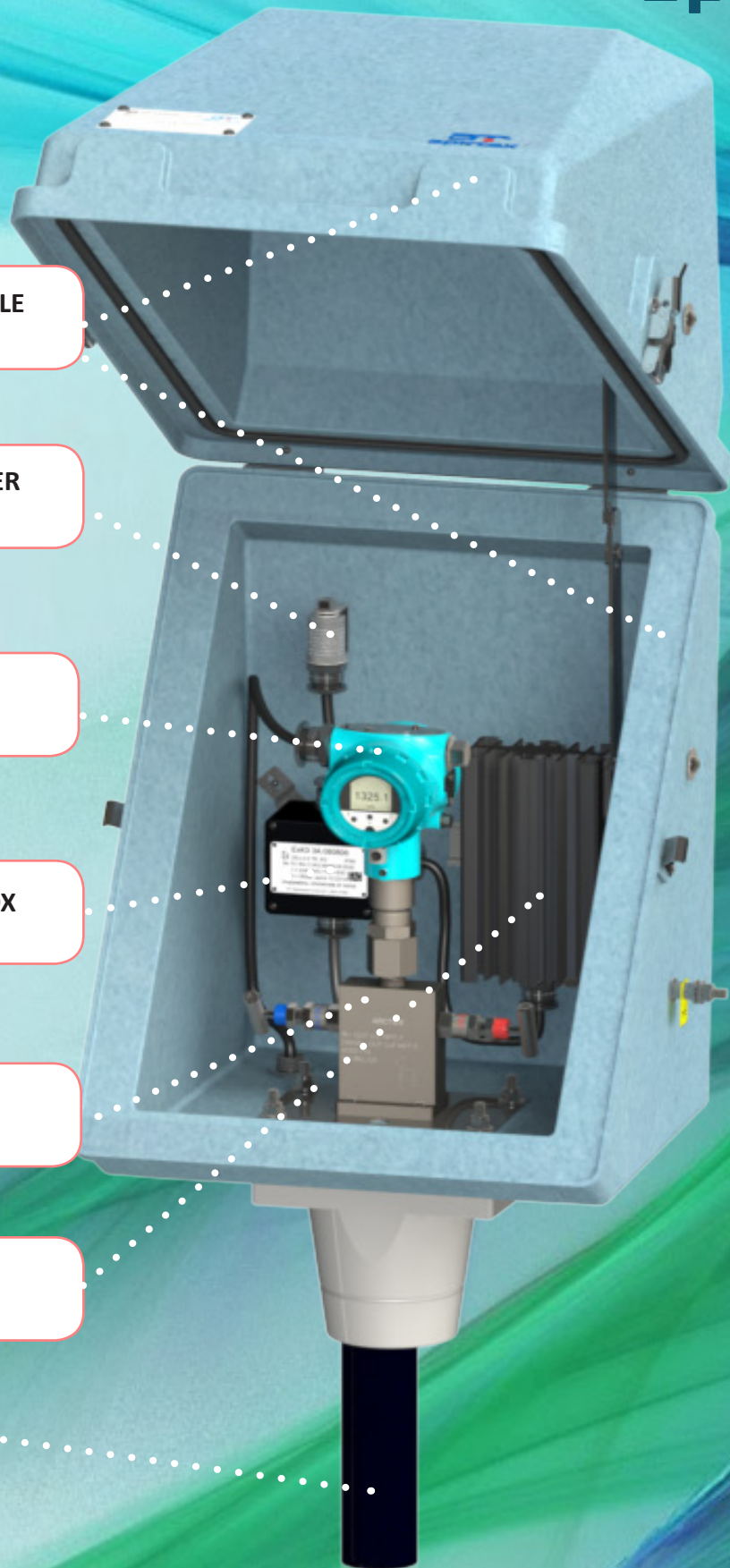
**HEATING CONTROLLER
APKTEX**

**INSTRUMENTATION
SENSOR**

**CONNECTION BOX
APKTEX**

**VALVE ASSEMBLY
APKTEX**

ELECTRIC HEATER



COMPARISON CHART

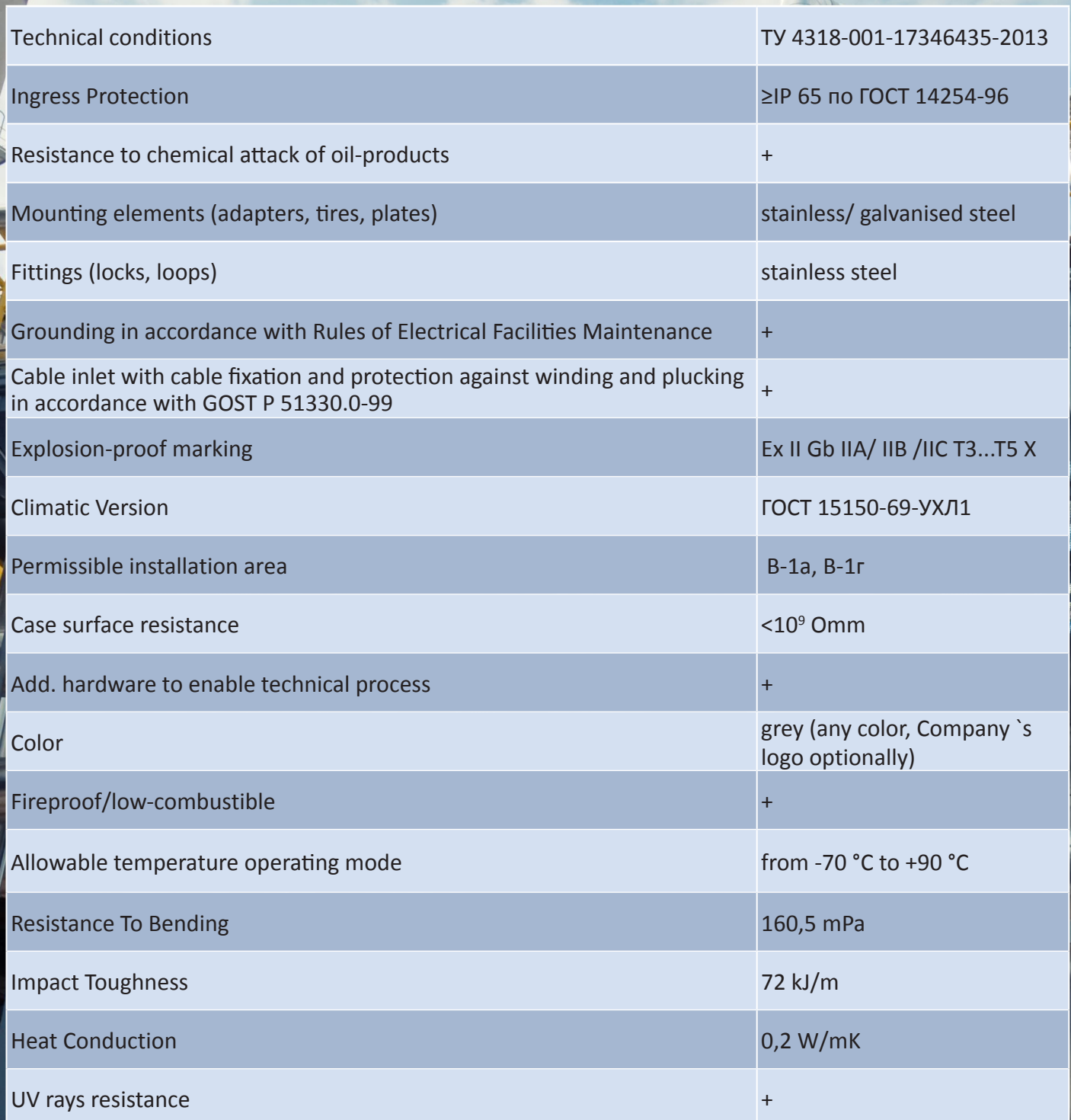
OF PROTECTIVE MODULES TYPES

Design — two fiber-glass cases, the space between which is filled with isocyanate foam, that is heat-insulating material. Overall “sandwich” thickness is in between 10 and 40 mm depending on the module type. Additional isolation on the basis of foil-coated cellular rubber substance ensures usage of modules for instrumentation and controls protection at temperatures of up to -70 °C.

APKTEX MODULE COMPLEMENT	INSTRUM	THERMO	BASIC
Assemblage of mounting elements	+	+	+
Heat and temperature regulation system	+	+	-
Terminal connection box and cable termination elements	+	+	-
Sensor/ sensors	+	-	-
Valve assembly	optionally	-	-
Isolating diaphragms	optionally	-	-
Heated impulse lines	+	optionally	
Flexible module	optionally		
Add. hardware to enable technical process	optionally		
Watch window	optionally		
Unauthorized breaking sensor	optionally		
Additional locks for unauthorized breaking prevention	optionally		
Additional isolation	optionally		
Automatic alarm sensor of heat system / pulse tube	+	optionally	-

*** APKTEX modules of PRO version – functional integrated modular systems, that connect several types of modules versions into one solution with the possibility of the usage of temperature-controlled tubes and tube banks for inlet, drainage and outlet of fluid.**

TECHNICAL CHARACTERISTICS

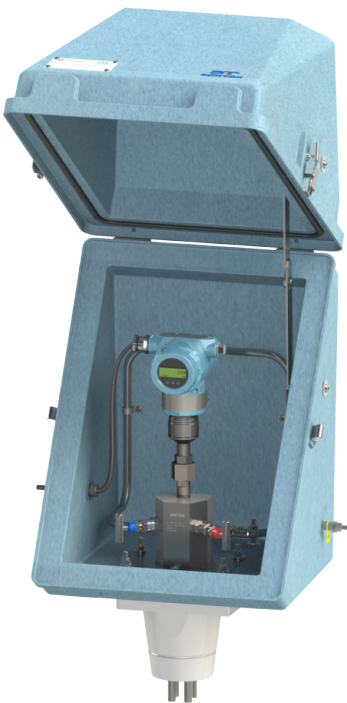


Technical conditions	TY 4318-001-17346435-2013
Ingress Protection	≥IP 65 по ГОСТ 14254-96
Resistance to chemical attack of oil-products	+
Mounting elements (adapters, tires, plates)	stainless/ galvanised steel
Fittings (locks, loops)	stainless steel
Grounding in accordance with Rules of Electrical Facilities Maintenance	+
Cable inlet with cable fixation and protection against winding and plucking in accordance with GOST P 51330.0-99	+
Explosion-proof marking	Ex II Gb IIA/ IIB /IIC T3...T5 X
Climatic Version	ГОСТ 15150-69-УХЛ1
Permissible installation area	B-1a, B-1r
Case surface resistance	<10 ⁹ Ohm
Add. hardware to enable technical process	+
Color	grey (any color, Company`s logo optionally)
Fireproof/low-combustible	+
Allowable temperature operating mode	from -70 °C to +90 °C
Resistance To Bending	160,5 mPa
Impact Toughness	72 kJ/m
Heat Conduction	0,2 W/mK
UV rays resistance	+

PROTECTIVE MODULE

APKTEX-D

Line of protective modules at hand are widely used in oil and gas industry and have been proven “universal” at the expense of convenient construction and possibility of different equipment accommodation. Diagonal connector gives the possibility to mount modules in small space. For additional convenience a complement with a watch window is possible.



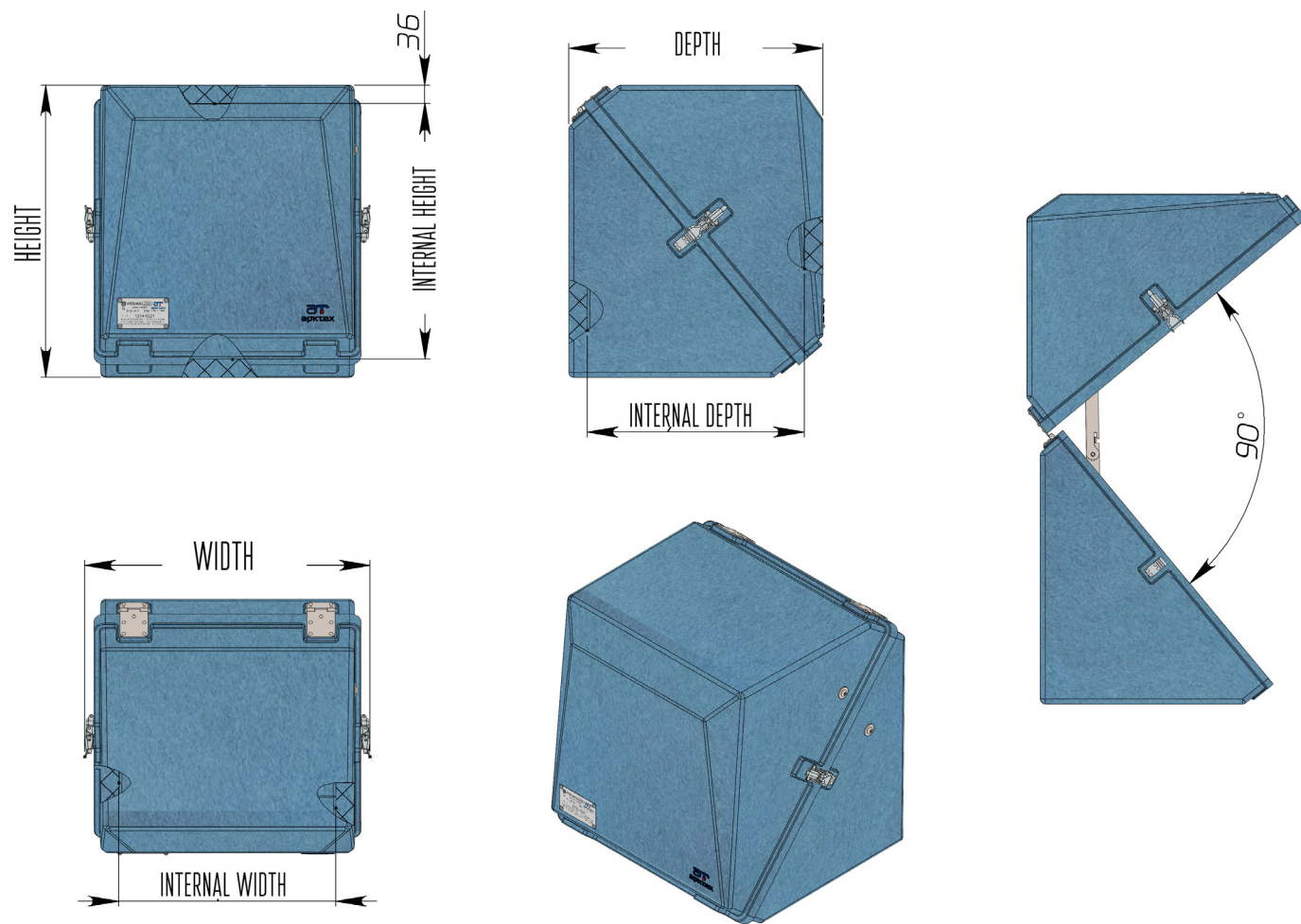
COMPLEMENT:	DETAILS
▪ Valve assembly	p.30
▪ Heat and temperature regulation system	p.40
▪ Terminal connection box and cable termination elements	p.44
▪ Mounting elements are defined depending on mounting type	p.46
▪ Heated impulse lines	p.48
▪ Flexible module	p.51
▪ Isolating diaphragm	Information is available on request: info@arctex.ru +7(495)215-16-66
▪ Control and measuring instrument	
▪ Additional hardware to enable technical process	
▪ Name plate, marker plate picture	

MOUNTING TYPES:

- Pipeline
- Flange
- Flat surface
- Pipe rack

DESCRIPTION AND DIMENSIONS

OF PROTECTIVE MODULES APKTEX-D



PROTECTIVE MODULES

COMPARISON CHART OF DIMENSIONS OF APKTEX-D

MODULE APKTEX-D	APKTEX.D1	APKTEX.D2	APKTEX.D3	APKTEX.D4	APKTEX.D5	APKTEX.D6
						
Overall dimensions (WxDxH), mm	445x410x530	750x410x530	560x500x570	640x630x640	950x500x570	1130x620x645
Internal dimensions (WxDxH), mm	305x330x455	610x330x445	425x420x500	510x560x575	820x420x500	1000x550x570
Heating power, W	50, 60	100, 150	100	150	200	300
Net volume, l	40	80	85	130	170	260
Mass, kg	10	15	15	20	25	30

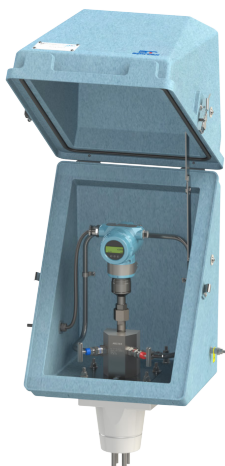
DESCRIPTION AND DIMENSIONS

OF PROTECTIVE MODULES APKTEX-D

D1

Is used to protect control and instrumentation equipment of small dimensions. It is suitable for overpressure sensors, manometers, temperature and level sensors.

CHARACTERISTICS



Overall dimensions (WxDxH), mm	445x410x530
Internal dimensions (WxDxH), mm	305x330x455
Heating power, W	50,60
Net volume, l	40
Mass, kg	10

THE MOST COMPACT MODULE FOR 1 DEVICE

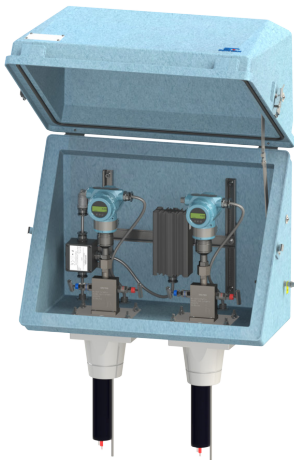
FOR OVERPRESSURE SENSORS, CONTROL AND INSTRUMENTATION

FOR 1 DEVICE

D2

It is recommended for two or more overpressure sensors, for a combination of several control and instrumentation of small dimensions. The main advantage of module APKTEX-D2 is energy conservation in comparison with other modules of big dimensions.

CHARACTERISTICS



Overall dimensions (WxDxH), mm	750x410x530
Internal dimensions (WxDxH), mm	610x330x455
Heating power, W	100, 150
Net volume, l	80
Mass, kg	15

THE MOST COMPACT MODULE FOR 2 DEVICES

FOR OVERPRESSURE SENSORS, CONTROL AND INSTRUMENTATION

FOR 2 DEVICES

DESCRIPTION AND DIMENSIONS

OF PROTECTIVE MODULES APKTEX-D

D3

It is the most widely spread module in oil and gas industry (“universal”). It is more often used To protect sensors of different modification, level transducers of all types, level sensors. Module internal dimensions make conduction of branching of impulse and drainage lines possible.

CHARACTERISTICS



Overall dimensions (WxDxH), mm	560x500x570
Internal dimensions (WxDxH), mm	425x420x500
Heating power, W	100
Net volume, l	85
Mass, kg	15

- THE MOST POPULAR
- FOR OVERPRESSURE SENSORS, CONTROL AND INSTRUMENTATION
- CONVENIENT CONNECTION

PROTECTIVE MODULES

D4

It is suitable for converters, evaluators, recorders, secondary sensors of middle and big dimensions. Most widely it is used to install an overpressure sensor with volumetric piping.

CHARACTERISTICS



Overall dimensions (WxDxH), mm	640x630x640
Internal dimensions (WxDxH), mm	510x560x575
Heating power, W	150
Net volume, l	130
Mass, kg	20

- FOR SENSORS OF MIDDLE AND BIG DIMENSIONS
- FOR PRESSURE DIFFERENTIAL SENSORS, CONTROL AND INSTRUMENTATION
- FOR 1 OR 2 DEVICES

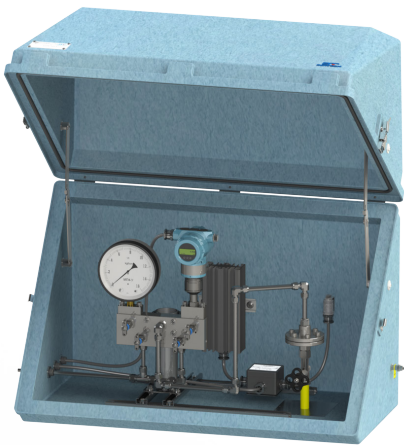
DESCRIPTION AND DIMENSIONS

OF PROTECTIVE MODULES APKTEX-D

D5

It is recommended for the protection and heating of two or more pressure differential sensors of middle dimensions and for a combinations of devices of quite considerable dimensions.

CHARACTERISTICS



Overall dimensions (WxDxH), mm	950x500x570
Internal dimensions (WxDxH), mm	820x420x500
Heating power, W	200
Net volume, l	170
Mass, kg	25

POPULAR MODEL IN LINE

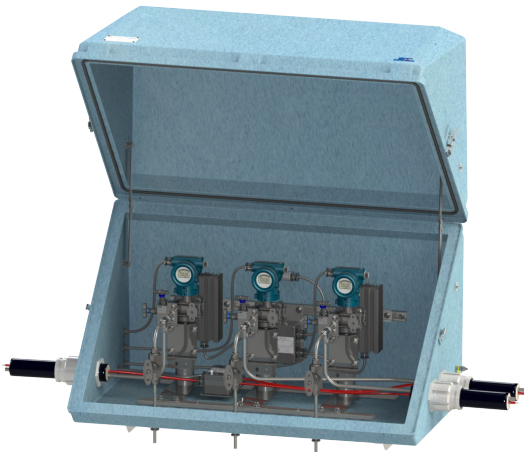
POPULAR MODEL IN LINE

FOR 2 PRESSURE DIFFERENTIAL SENSORS

D6

It is the most commodious module in the line at hand. It is used with sensors of big dimensions and for a combination of devices of different dimensions performing different functions.

CHARACTERISTICS



Overall dimensions (WxDxH), mm	1130x620x645
Internal dimensions (WxDxH), mm	1000x550x570
Heating power, W	300
Net volume, l	260
Mass, kg	30

THE MOST COMMODIOUS MODULE IN LINE

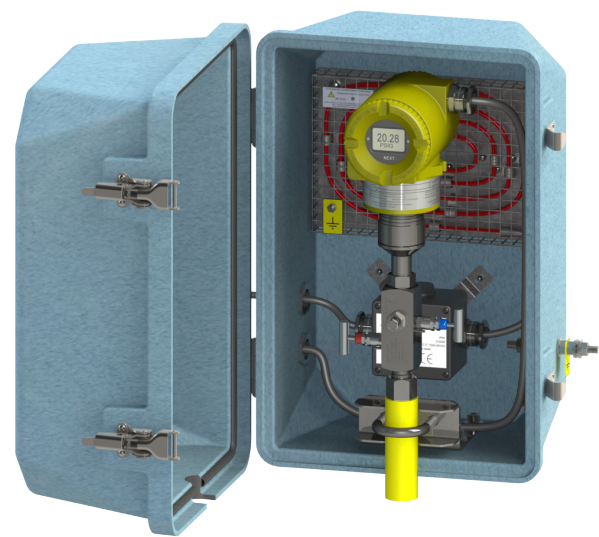
FOR SENSORS OF BIG DIMENSIONS, CONTROL AND INSTRUMENTATION

FOR 3 OR MORE SENSORS

PROTECTIVE MODULE

APKTEX-M

The main peculiarity of this module – maximum possible amount of onsite installation options. It is achieved by means of vertical connector. Moreover, design makes the installation of equipment in any part of a module possible. Horizontal mounting is allowed (in such situation a module lid is opened upwards), including pipeline mounting.



COMPLEMENT:

▪ Valve assembly	p.30
▪ Heat and temperature regulation system	c.40
▪ Terminal connection box and cable termination elements	p.44
▪ Mounting elements are defined depending on mounting type	p.46
▪ Heated impulse lines	p.48
▪ Flexible module	p.51
▪ Isolating diaphragm	Information is available on request: info@arctex.ru +7(495)215-16-66
▪ Control and measuring instrument	
▪ Additional hardware to enable technical process	
▪ Name plate, marker plate picture	

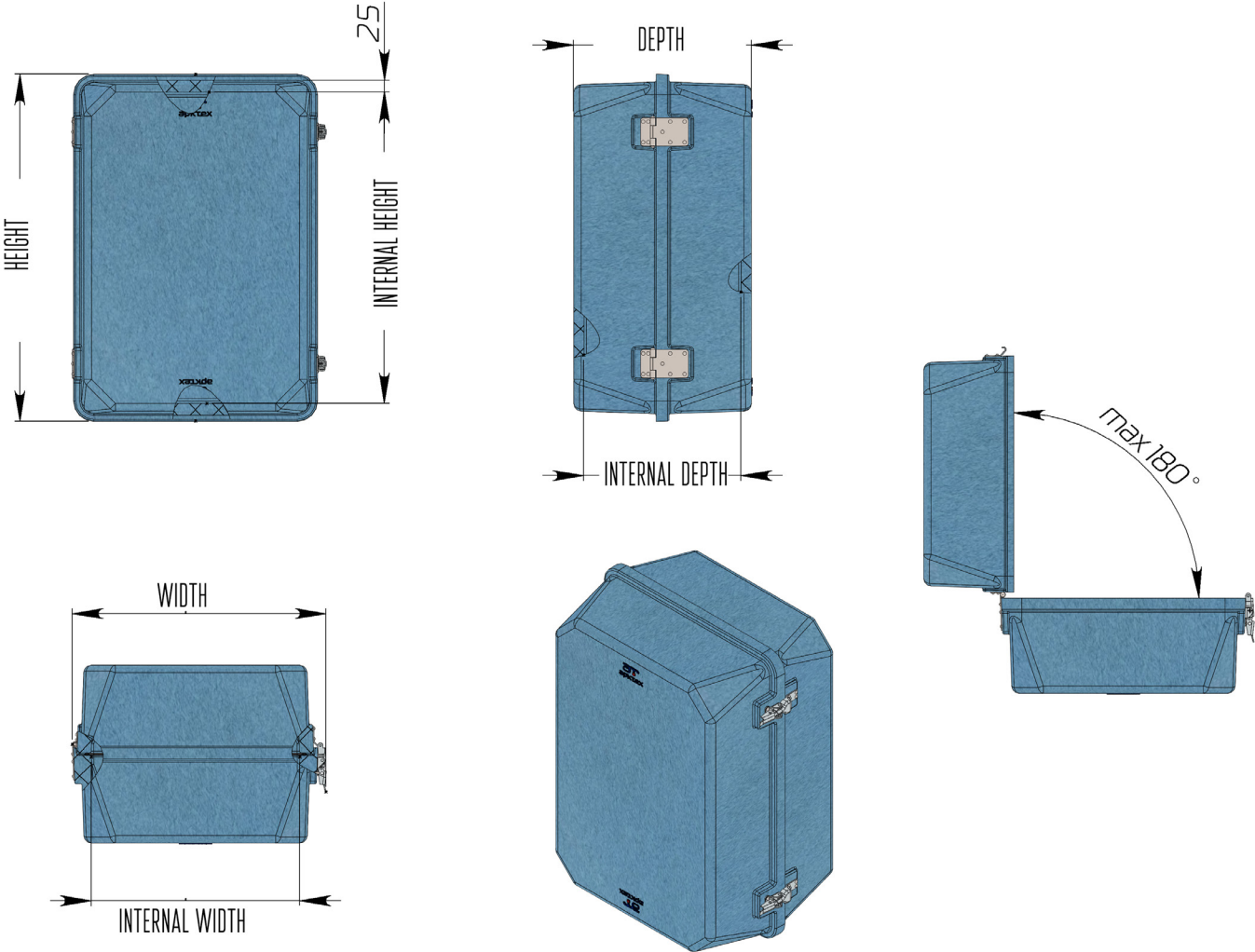
СПОСОБЫ МОНТАЖА:

- Pipeline
- Flange
- Flat surface
- Pipe rack
- Spool

DESCRIPTION AND DIMENSIONS

OF PROTECTIVE MODULES APKTEX-M

PROTECTIVE MODULES



COMPARISON CHART OF DIMENSIONS OF APKTEX-M

MODULE APKTEX-M	APKTEX.M1	APKTEX.M2	APKTEX.M3	APKTEX.M5	APKTEX.M6
					
Overall dimensions (WxDxH), mm	320x305x450	425x455x345	495x345x675	495x445x675	590x500x770
Internal dimensions (WxDxH), mm	250x285x400	355x335x305	405x305x605	405x405x605	500x460x700
Heating power, W	50, 60	75	100	100, 150	150
Net volume, l	25	35	70	95	150
Mass, kg	3	9	9,5	10	15

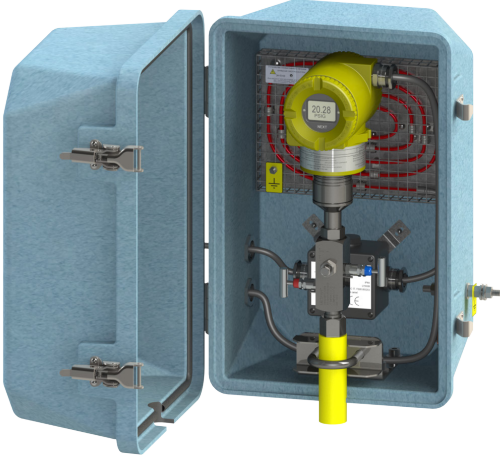
DESCRIPTION AND DIMENSIONS

DESCRIPTION AND DIMENSIONS APKTEX-M

M1

More often than not it is used onsite for the protection and heating of controllers, evaluators of small size, splitters. Moderate dimensions and weight enable the installation of module right onto a pipeline without using any additional massive mounting elements.

CHARACTERISTICS



Overall dimensions (WxDxH), mm	320x305x450
Internal dimensions (WxDxH), mm	250x285x400
Heating power, W	50, 60
Net volume, l	25
Mass, kg	3

THE MOST COMPACT MODULE IN LINE

FOR CONTROLEERS HEATING


CONVENIENT MOUNTING

PROTECTIVE MODULES

M2

It is suitable for level transducers, temperature sensors and other typically flanged elements.

CHARACTERISTICS



Overall dimensions (WxDxH), mm	425x445x345
Internal dimensions (WxDxH), mm	355x335x305
Heating power, W	60, 75
Net volume, l	35
Mass, kg	9

SMALL DIMENSIONS

FOR LEVEL AND TEMPERATURE SENSORS

LITTLE WEIGHT

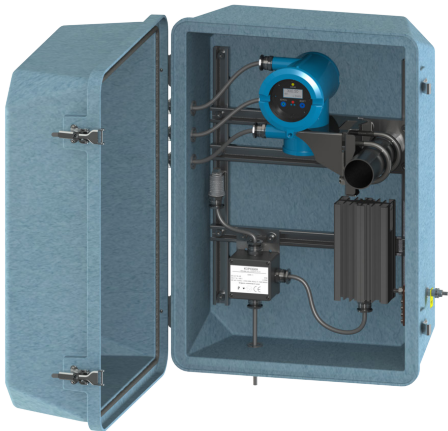
DESCRIPTION AND DIMENSIONS

OF PROTECTIVE MODULES APKTEX-M

M4

It is universal in its series of modules. It is actual for groups of controllers, intrinsic safety barriers and pressure sensors

CHARACTERISTICS



Overall dimensions (WxDxH), mm	495x345x675
Internal dimensions (WxDxH), mm	405x305x605
Heating power, W	100
Net volume, l	70
Mass, kg	9,5

COMPACT

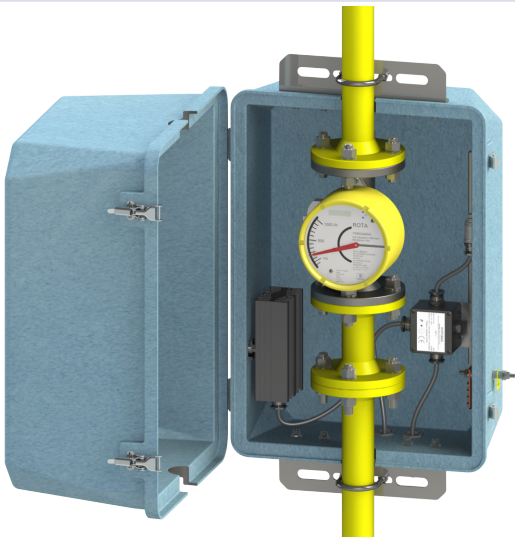
ERGONOMICAL

IS OFTEN USED FOR CONTROLLER GROUPS

M5

It is recommended for installation of flowmeters of small size, gas meters, rotameters and various instrumentation and controls possessing deep depth.

CHARACTERISTICS



Overall dimensions (WxDxH), mm	495x445x675
Internal dimensions (WxDxH), mm	405x405x605
Heating power, W	100, 150
Net volume, l	95
Mass, kg	10

FOR OVERALL DEVICES MOUNTING

IS CONVENIENT FOR SURFACE MOUNTING

EVALUATORS, FLOWMETERS OF SMALL SIZE, ROTAMETERS

DESCRIPTION AND DIMENSIONS OF PROTECTIVE MODULES APKTEX-M

M6

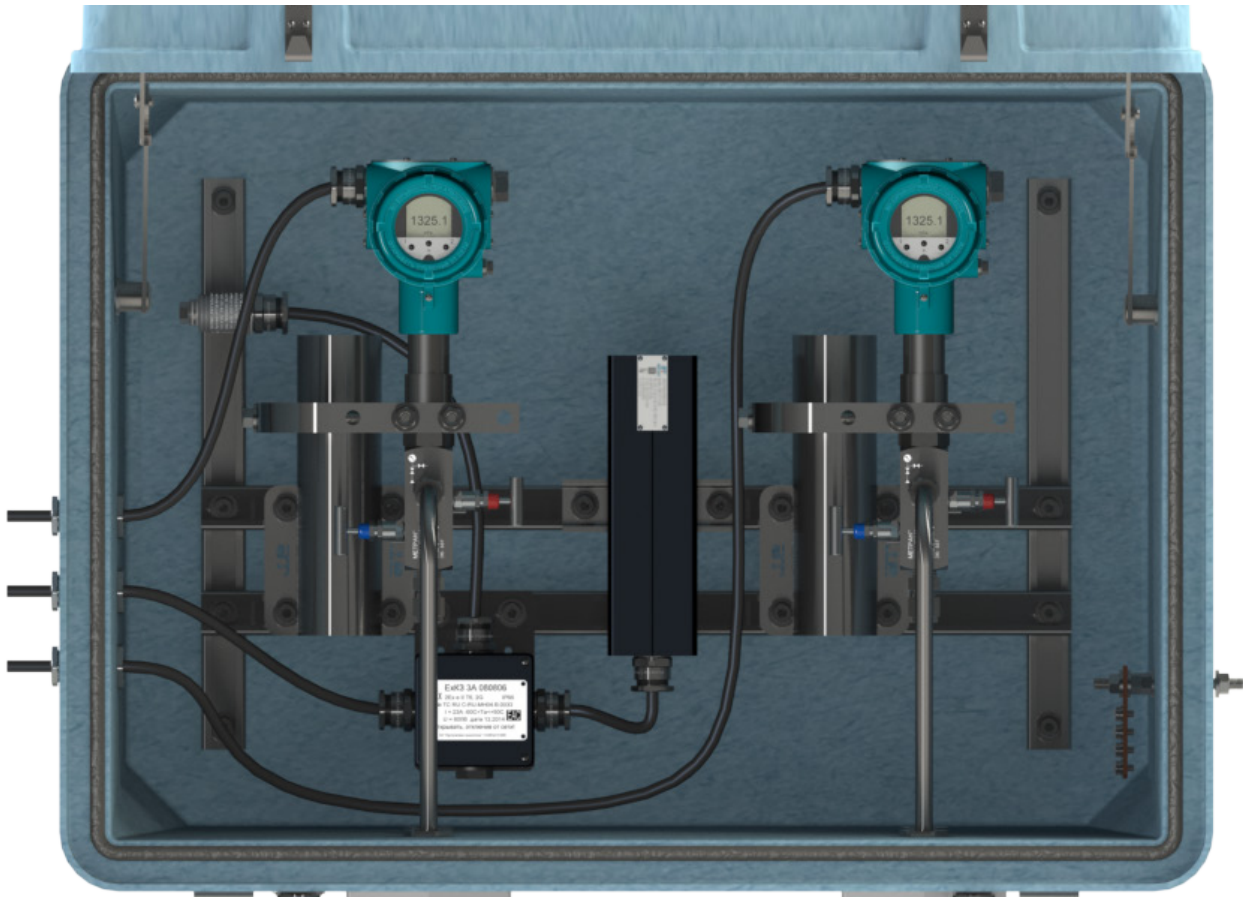
The biggest model in line. Самая большая модель в линейке. It is suitable for installation of several groups of instrumentation and controls secondary converters, evaluators, pressure sensors.

CHARACTERISTICS



Overall dimensions (WxDxH), mm	590x500x770
Internal dimensions (WxDxH), mm	500x460x700
Heating power, W	150
Net volume, l	150
Mass, kg	15

- THE MOST COMPACT IN LINE
- FOR INSTALLATION OF SEVELAS GROUPS OF INSTRUMENTATION AND CONTROLS
- NEW MODEL

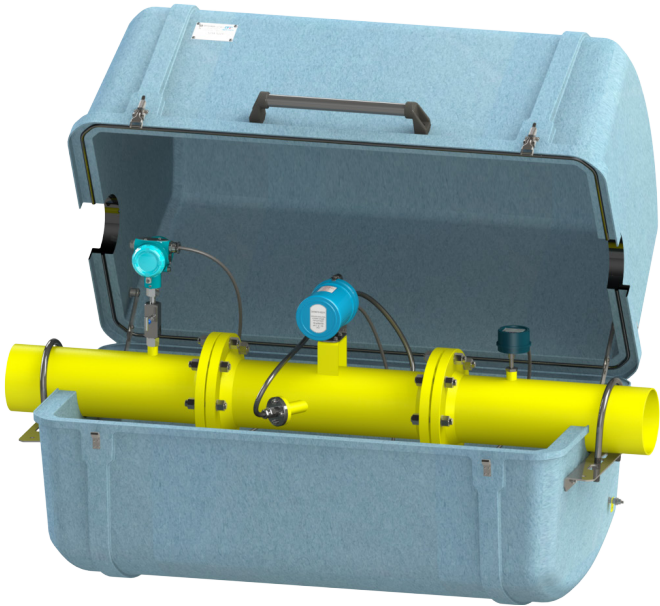


PROTECTIVE MODULES

PROTECTIVE MODULE

APKTEX-K

Modules of the form of truncated elliptic cylinder are meant for pipeline mounting. Case and lid adjoin each other tightly and they are connected by means of hinged loops and quick-action locks. For the sake of lid fixation in an open position a stop is provided. There is a wide range of typical sizes. It enables placement of flow systems which include pressure, temperature and flow sensors, an evaluator.



COMPLEMENT:	DETAILS
▪ Valve assembly	p.30
▪ Heat and temperature regulation system	p.40
▪ Terminal connection box and cable termination elements	p.44
▪ Mounting elements are defined depending on mounting type	p.46
▪ Heated impulse lines	p.48
▪ Flexible module	p.51
▪ Isolating diaphragm	Information is available on request: info@arctex.ru +7(495)215-16-66
▪ Control and measuring instrument	
▪ Additional hardware to enable technical process	
▪ Name plate, marker plate picture	

MOUNTING TYPES:

- Pipeline
- Mounting supports

DESCRIPTION AND DIMENSIONS

OF PROTECTIVE MODULES APKTEX-K



Model	Module Dimensions, mm							
	Height	Overall Width	Depth	Internal Height	Internal Width	Internal Depth	Lid Height	Case Height
APKTEX-K.5	710	630	700	600	500	605	300	300
APKTEX-K.6			800			705	400	300
APKTEX-K.7			800			705	300	400
APKTEX-K.8			900			805	400	400
APKTEX-K.9	910	630	700	800	500	605	300	300
APKTEX-K.10			800			705	400	300
APKTEX-K.11			800			705	300	400
APKTEX-K.12			900			805	400	400
APKTEX-K.13	1110	770	900	1000	640	805	400	400
APKTEX-K.14			1000			905	500	400
APKTEX-K.15			1000			905	400	500
APKTEX-K.16			1100			1005	500	500
APKTEX-K.17	1310	770	900	1200	640	805	400	400
APKTEX-K.18			1000			905	500	400
APKTEX-K.19			1000			905	400	500
APKTEX-K.20			1100			1005	500	500
APKTEX-K.21	1510	770	900	1400	640	805	400	400
APKTEX-K.22			1000			905	500	400
APKTEX-K.23			1000			905	400	500
APKTEX-K.24			1100			1005	500	500

PROTECTIVE MODULES

PROTECTIVE MODULE

APKTEX-ZSK

Streamlined caps are used for the sake of devices protection against precipitations, dust deposits and ultra-violet rays. They are more often mounted in the conditions in which equipment heating and full protection are not required. They are suitable for the placement of one or several devices.

COMPLEMENT:		DETAILS
▪ Valve assembly		p.30
▪ Mounting elements are defined depending on mounting type		p.46
▪ Heated impulse lines		p.48
▪ Flexible module		p.51
▪ Isolating diaphragm		Information is available on request: info@arctex.ru +7(495)215-16-66
▪ Control and measuring instrument		
▪ Additional hardware to enable technical process		
▪ Name plate, marker plate picture		

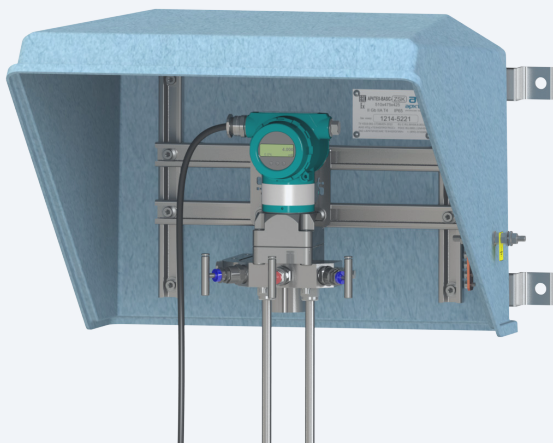
MOUNTING TYPES:

- Wall
- Rack

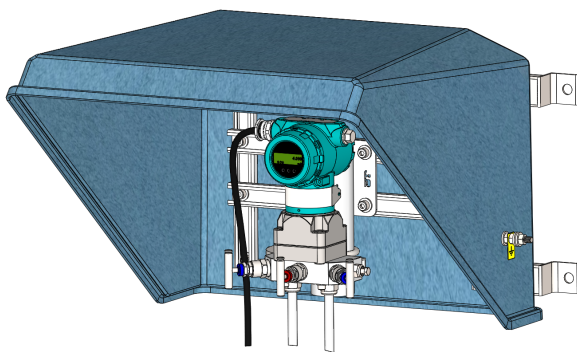
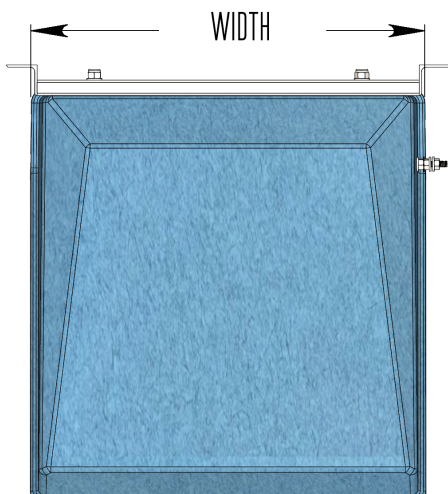
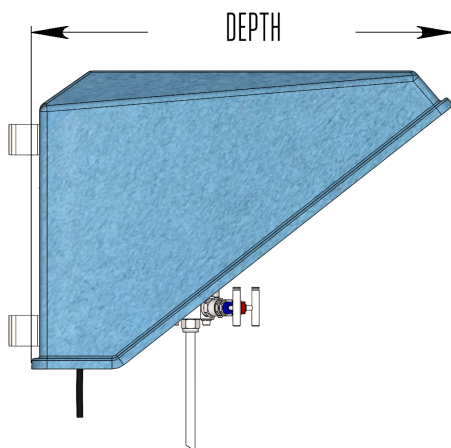
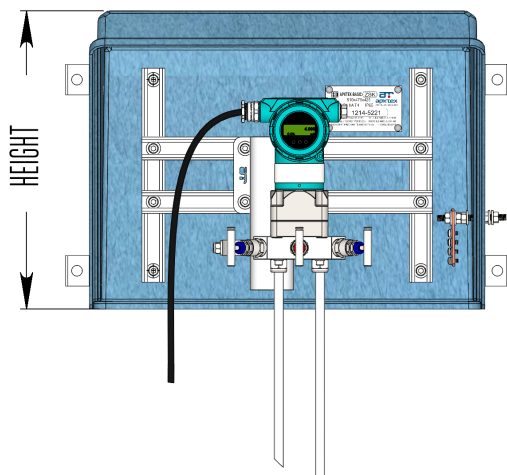
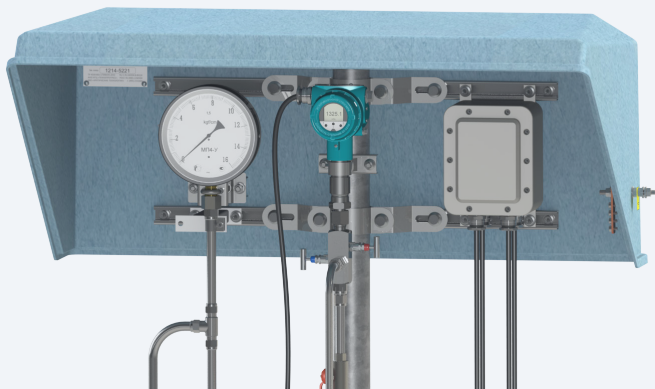
Model	Module Dimensions, mm					
	Internal			Overall		
	Height	Width	Depth	Height	Width	Depth
APKTEX-ZSK1	370	500	530	390	520	550
APKTEX-ZSK2		890			910	

DESCRIPTION AND DIMENSIONS OF PROTECTIVE MODULES APKTEX-ZSK

APKTEX-ZSK1



APKTEX-ZSK2



PROTECTIVE MODULE

APKTEX-A

Modules of reduced-weight series ensure the protection of automation means, control and instrumentation equipment, etc. Protective modules of “A” series can be of only one version possessing one door. They are completed with a bedplate and other elements to be used for installation onsite. The main advantages of a module.

- Seamless module version
- High-strength level and light weight
- It is suitable for the installation of evaluators, controllers, control and regulation systems, for various groups of instrumentation and controls
- 19-inch equipment placement



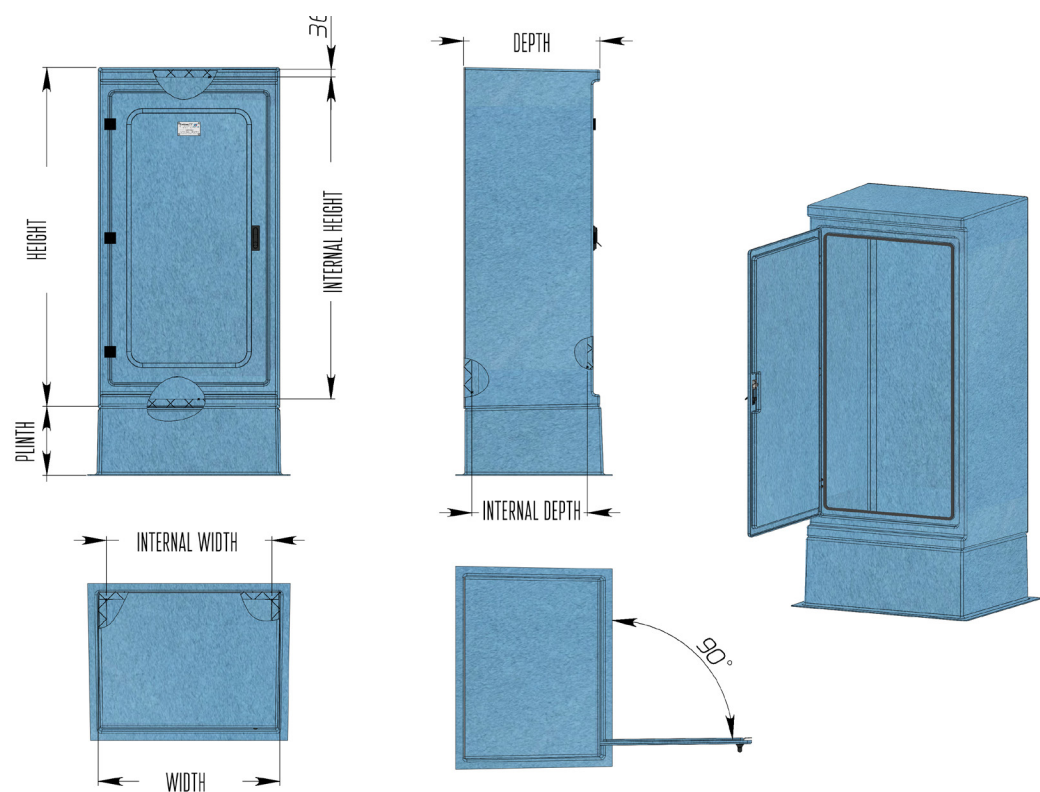
COMPLEMENT:	DETAILS
▪ Valve assembly	p.30
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▪ Additional hardware to enable technical process	
▪ Name plate, marker plate picture	

СПОСОБЫ МОНТАЖА:

- На горизонтальную поверхность

DESCRIPTION AND DIMENSIONS

OF PROTECTIVE MODULES APKTEX-A



Model	Module Dimensions, mm					
	Internal			Overall		
	Height	Width	Depth	Height	Width	Depth
ARCTEX-A-100.60.60	920	530	510	1200*	600	600
ARCTEX-A-100.60.80			710			800
ARCTEX-A-100.60.100			910			1000
ARCTEX-A-100.80.60		730	510		800	600
ARCTEX-A-100.80.80			710			800
ARCTEX-A-100.80.100			910			1000
ARCTEX-A-100.100.60		930	510		1000	600
ARCTEX-A-100.100.80			710			800
ARCTEX-A-100.100.100			910			1000
ARCTEX-A-150.60.60	1420	530	510	1700*	600	600
ARCTEX-A-150.60.80			710			800
ARCTEX-A-150.60.100			910			1000
ARCTEX-A-150.80.60		730	510		800	600
ARCTEX-A-150.80.80			710			800
ARCTEX-A-150.80.1000			910			1000
ARCTEX-A-150.100.60		930	510		1000	600
ARCTEX-A-150.100.80			710			800
ARCTEX-A-150.100.100			910			1000
ARCTEX-A-200.60.60	1920	530	510	2200*	600	600
ARCTEX-A-200.60.80			710			800
ARCTEX-A-200.60.100			910			1000
ARCTEX-A-200.80.100		730	510		800	600
ARCTEX-A-200.80.100			710			800
ARCTEX-A-200.80.100			910			1000
ARCTEX-A-200.100.60		930	510		1000	600
ARCTEX-A-200.100.100			710			800
ARCTEX-A-200.100.100			910			1000

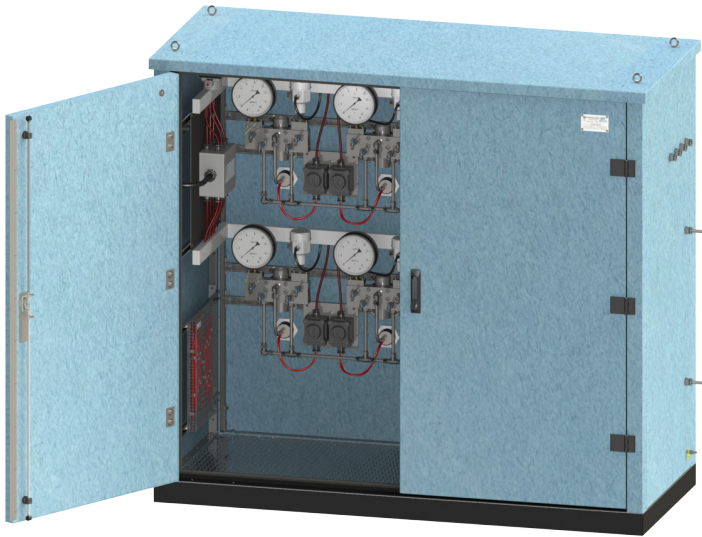
*is supplied in assortment with plinth h=100mm. When ordering plinth variants of H=200, 300mm are available

PROTECTIVE MODULE

APKTEX-B

They are successfully used in different industrial spheres, such as:

- oil and gas industry
- transportation
- electrical energy industry
- urban infrastructure
- communications and data transmission, etc.

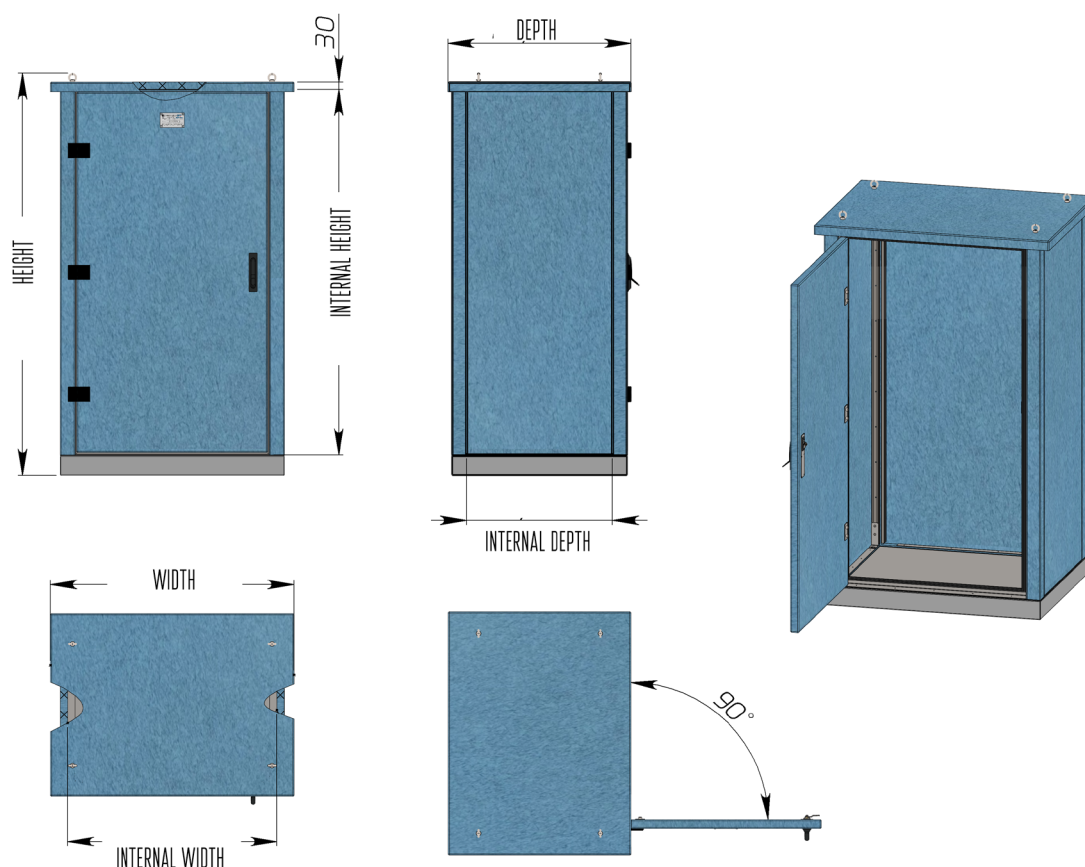


COMPLEMENT:		DETAILS
▪ Valve assembly		p.30
▪ Heat and temperature regulation system		p.40
▪ Terminal connection box and cable termination elements		p.44
▪ Mounting elements are defined depending on mounting type		p.46
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▪ Control and measuring instrument		
▪ Additional hardware to enable technical process		
▪ Name plate, marker plate picture		

MOUNTING TYPES:

- on a horizontal surface
- mounting within buildings, under field conditions and at steel structures is possible

DESCRIPTION AND DIMENSIONS OF PROTECTIVE MODULES APKTEX-B



CHARACTERISTICS:

- Protection level for modules with single-leaf door - IP65, two-leaf door - IP54.
- Resistibility of case made of fiber-glass composite to various environmental exposures, seawater, corrosion and chemical attacks.
- High thermal insulating is achieved by means of walls with the thickness of 35-40 mm, made with interlayer of foamed polyurethane. For more extreme conditions of operation it is available to use additional thermal insulating Arctic made of cellular rubber substance and having the increased wall thickness up to 80 mm.
- Design of module allows to make production for individual requests. Careful selection of all the necessary equipment was made as well as elimination of errors by means of working out the three-dimensional simulation project with Customer.
- Standard coloring - grey (any color optionally).

VERSION:

- single-leaf
- double-leaf
- with double-sided opening

DESCRIPTION AND DIMENSIONS

OF PROTECTIVE MODULES APKTEX-B

PROTECTIVE MODULES

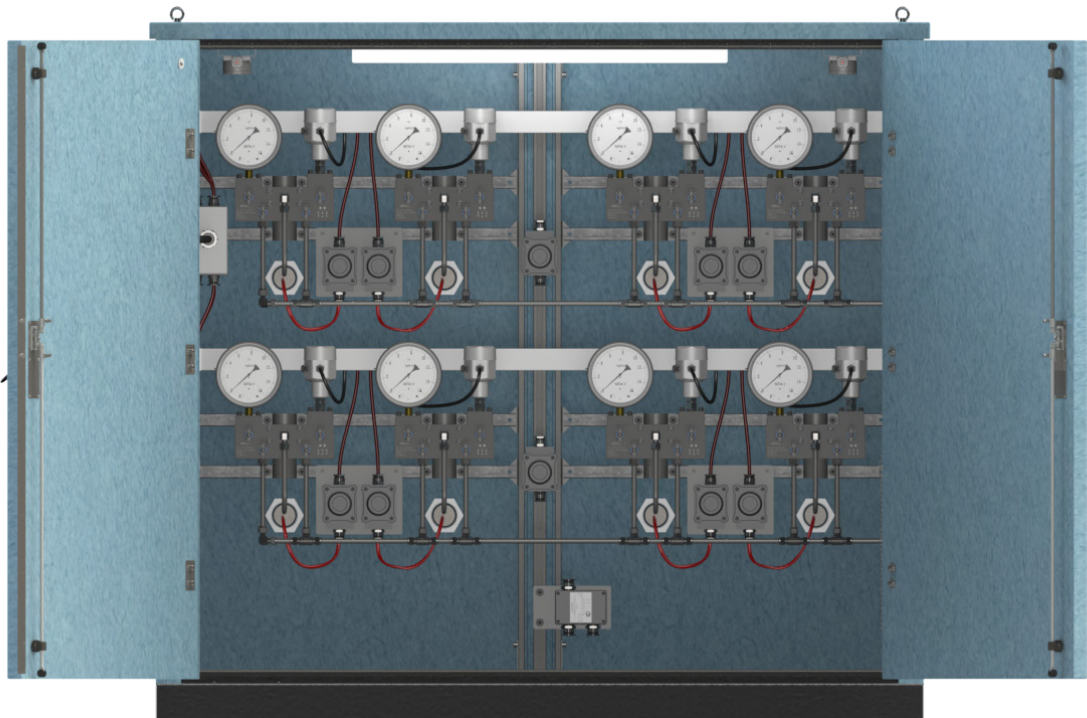
Model	Module Dimensions, mm								
	Internal			Overall			Door Version		double-sided opening optionally Additional door series B.2
	Height	Width	Depth	Height	Width	Depth	Single-leaf	Double-leaf	
APKTEX-B1-100.60.60	1000	600	600	1200*	720	720	+	-	+
APKTEX-B1-100.60.80			800			1000			
APKTEX-B1-100.60.100			1000			1200			
APKTEX-B1-100.80.60		800	600		1000	720			
APKTEX-B1-100.80.80			800			1000			
APKTEX-B1-100.80.100			1000			1200			
APKTEX-B1-100.100.60		1000	600		1200	720	-	+	-
APKTEX-B1-100.100.80			800			1000			
APKTEX-B1-100.100.100			1000			1200			
APKTEX-B1-100.120.60		1260	600		1550	850			
APKTEX-B1-100.120.80			800			1050			
APKTEX-B1-100.120.100			1000			1250			
APKTEX-B1-100.160.60		1660	600		1950	850	-	+	-
APKTEX-B1-100.160.80			800			1050			
APKTEX-B1-100.160.100			1000			1250			
APKTEX-B1-100.200.60		2060	600		2350	850			
APKTEX-B1-100.200.80			800			1050			
APKTEX-B1-100.200.100			1000			1250			
APKTEX-B1-150.60.60	1500	600	600	1700*	1950	720	+	-	+
APKTEX-B1-150.60.80			800			1000			
APKTEX-B1-150.60.100			1000			1200			
APKTEX-B1-150.80.60		800	600		2350	720			
APKTEX-B1-150.80.80			800			1000			
APKTEX-B1-150.80.100			1000			1200			
APKTEX-B1-150.100.60		1000	600		1200	720	-	+	-
APKTEX-B1-150.100.80			800			1000			
APKTEX-B1-150.100.100			1000			1200			
APKTEX-B1-150.120.60		1260	600		1550	850			
APKTEX-B1-150.120.80			800			1050			
APKTEX-B1-150.120.100			1000			1250			
APKTEX-B1-150.160.60		1660	600		1950	850	-	+	-
APKTEX-B1-150.160.80			800			1050			
APKTEX-B1-150.160.100			1000			1250			
APKTEX-B1-150.200.60		2060	600		2350	850			
APKTEX-B1-150.200.80			800			1050			
APKTEX-B1-150.200.100			1000			1250			

DESCRIPTION AND DIMENSIONS

OF PROTECTIVE MODULES APKTEX-B

Model	Module Dimensions, mm								
	Internal			Overall			Door Version		double-sided opening optionally Additional door series B.2
	Height	Width	Depth	Height	Width	Depth	Single-leaf	Double-leaf	
APKTEX-B1-200.60.60	2000	600	600	2200*	720	720	+	-	+
APKTEX-B1-200.60.80			800			1000			
APKTEX-B1-200.60.100			1000			1200			
APKTEX-B1-200.80.60		800	600		1000	720			
APKTEX-B1-200.80.80			800			1000			
APKTEX-B1-200.80.100			1000			1200			
APKTEX-B1-200.100.60		1000	600		1200	720	-	+	-
APKTEX-B1-200.100.80			800			1000			
APKTEX-B1-200.100.100			1000			1200			
APKTEX-B1-200.120.60		1260	600		1550	850			
APKTEX-B1-200.120.80			800			1050			
APKTEX-B1-200.120.100			1000			1250			
APKTEX-B1-200.160.60		1660	600		1950	850	-	+	-
APKTEX-B1-200.160.80			800			1050			
APKTEX-B1-200.160.100			1000			1250			
APKTEX-B1-200.200.60		2060	600		2350	850			
APKTEX-B1-200.200.80			800			1050			
APKTEX-B1-200.200.100			1000			1250			

PROTECTIVE MODULES



DESCRIPTION AND DIMENSIONS OF PROTECTIVE MODULES APKTEX-B

HOUSINGS

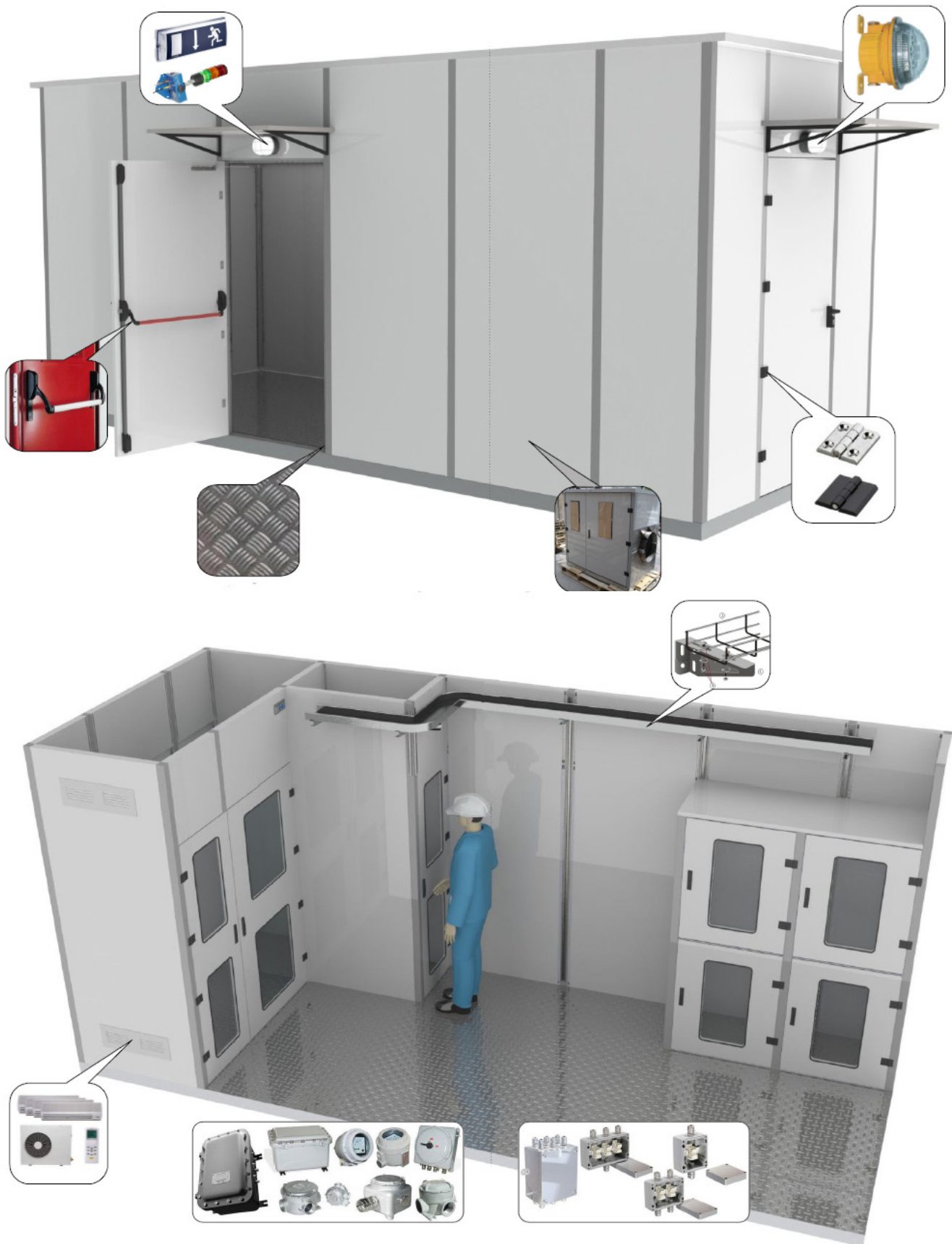
Design of housings allows the creation of any planning by means of modular construction: installation of interior partitions, placement of instrument cabinets which can be the part of housing or have an independent construction. Mounting elements systems, cable inlets and cable trays which are situated inside ensure reliable equipment installment with the preservation of operation convenience. Conditioning, air ventilation and heating systems create mobile temperature control necessary for safe and constant operation of equipment. In the process of project development there is an opportunity to fit a housing with all the equipment necessary, and packaged supply offers the opportunity of embracing of wide range of components. The latter reduces expenses on transportation drastically.

COMPLEMENT:

- Mounting elements, systems for laying and fixation of cables and tubes inside and outside the module are presented in a wide range
- Details, nodal points mounting panels with standard characteristics as well as produced by individual order
- Explosion-protected cases and boxes
- Various variants of heating, air ventilation and conditioning systems
- Purging system under extreme pressure
- Fittings of high quality: door slop blocks, gas or pneumatic door closers, loops, hinges, locks for private keys as well as shaped lock, set «antipanic», etc.
- Elements of illumination, alarm and information signaling in an explosion-proof as well as general purpose industrial version for external and internal mounting
- Cable channels systems and complements for wiring
- Systems of cable and tube transits through a cabinet wall in a universal and classical versions
- Grounding elements
- Clampings for gas balloons
- Caps and awnings
- Turning mounting brackets for a convenient access to equipment; watch windows; ringbolts; crane corners on a supporting frame and a drip plate

DESCRIPTION AND DIMENSIONS

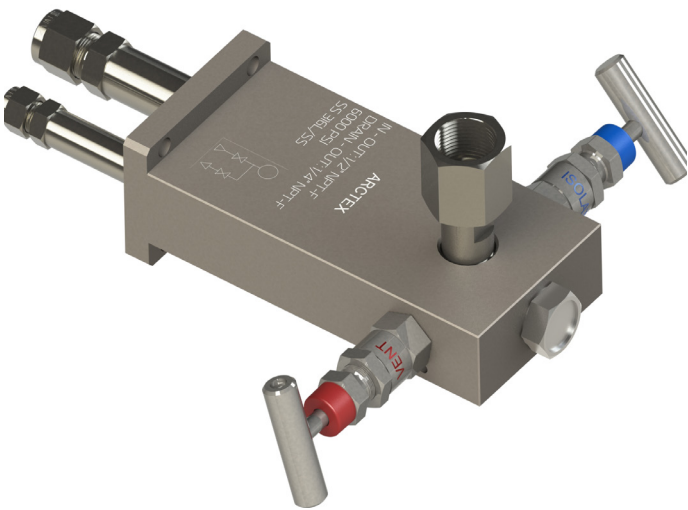
OF PROTECTIVE MODULES APKTEX-B



VALVE ASSEMBLY

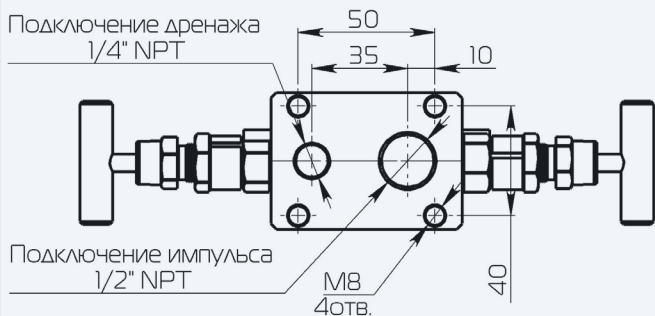
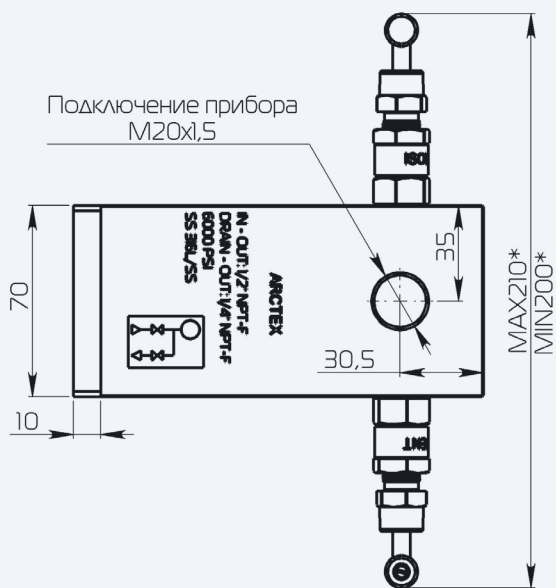
APKTEX-VBM-201

Valve assembly 201 is meant for the connection of pressure sensors and manometers. The fundamental difference of this block is an integral mounting right onto protective module case with the connection of impulse and drainage lines from environment. A package of specialized fittings which are delivered together with block 201 allows connection of sensors and manometers possessing different variants of screw joint as well as impulse and drainage tubes of different diameters.



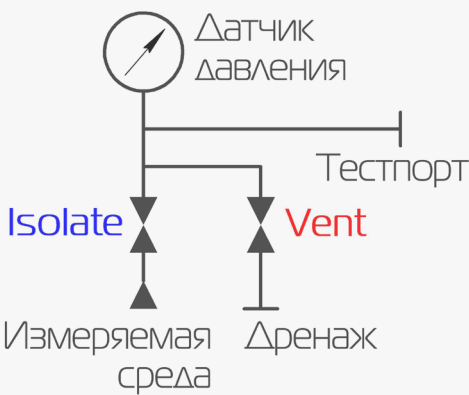
DIMENSIONS

APKTEX-VBM-201



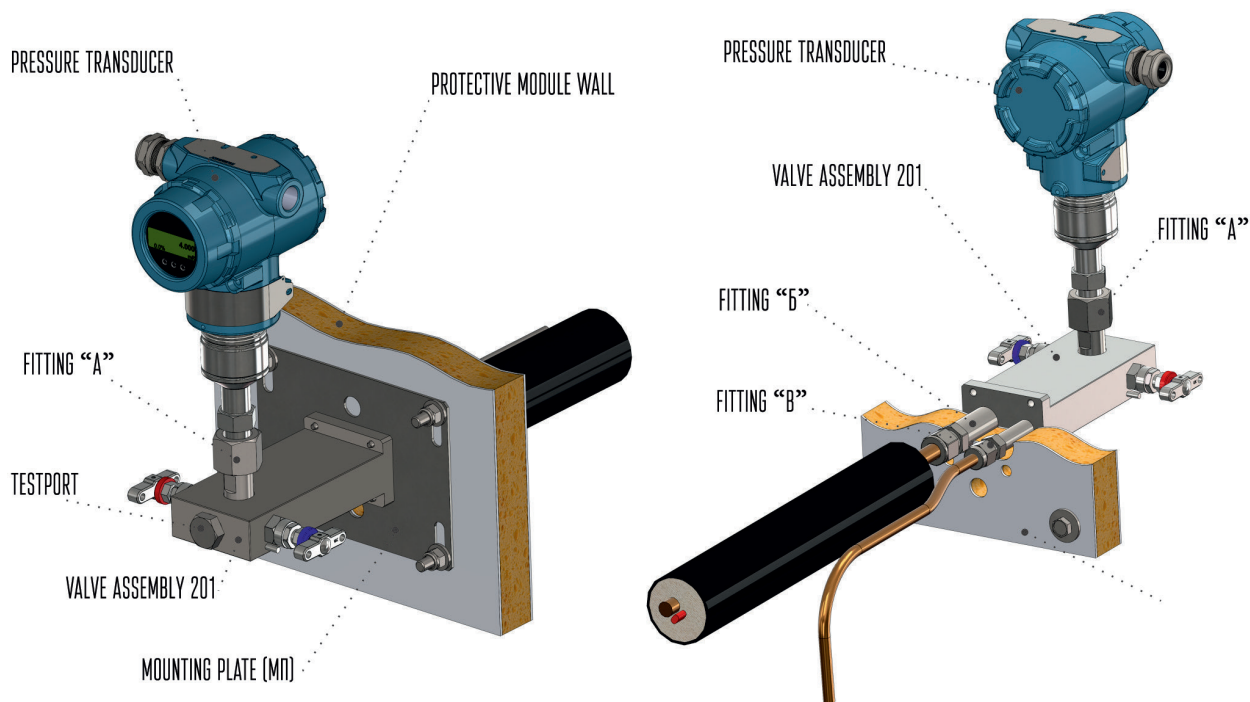
HYDRAULIC CIRCUIT

DIAGRAM



VALVE ASSEMBLY

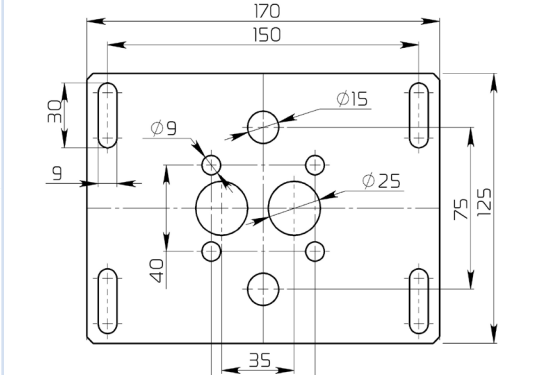



APKTEX-VBM-201



ORDER CODE: APKTEX-VBM-201 - «А» / «Б» / «В» / «МП»

- *«А»- order code of fitting «А», if not «0»
- *«Б» - order code of fitting «Б», if not«0»
- *«В» - order code of fitting «В», if not«0»
- *«МП» - order code of mounting accessories, if not «0»

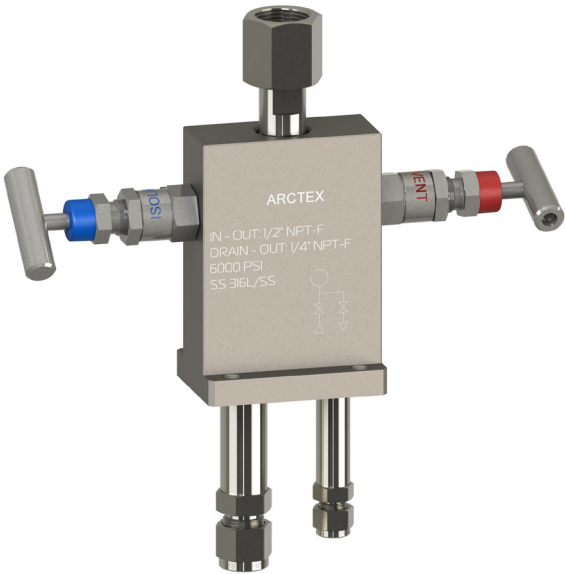
VALVE ASSEMBLIES

MOUNTING ACCESSORIES	FITTINGS RECOMMENDED TO CONNECT TO A PROCESS	DETAILS
	 <p>Fitting «А» is meant for connection of pressure transducer</p>  <p>Fitting «Б» is meant for connection of an impulse line</p>  <p>Fitting «В» is meant for connection of a drainage line</p>	p. 53
<ul style="list-style-type: none">▪ is meant for mounting of a valve assembly onto a case▪ ensures reliable fixation, connections, wiring of fittings «Б» and «В»		

VALVE ASSEMBLY

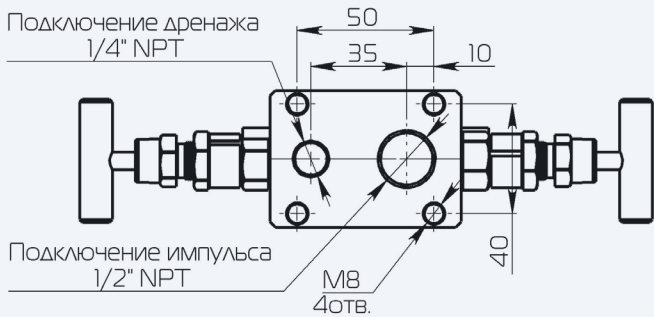
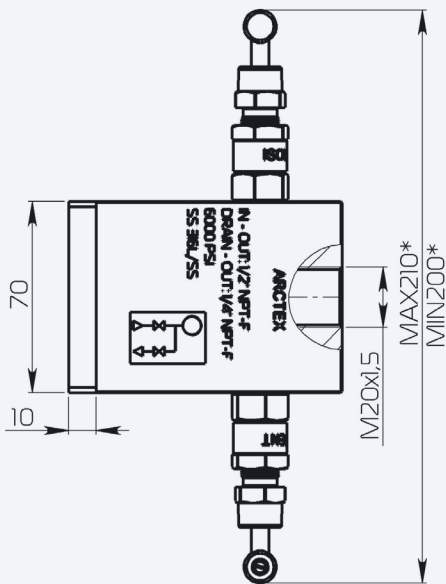
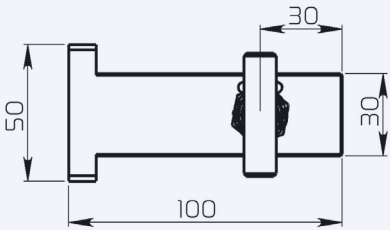
APKTEX-VBM-202

Valve assembly 202 is meant for the connection of pressure sensors and manometers. The fundamental difference of this block is an integral mounting right onto protective module case. The main difference of valve assembly 202 in comparison with valve assembly 201 is mounting on a lower (horizontal) surface, reduces case dimensions, connection of pressure traducer from the “front” side for the sake of mounting convenience and the record of instrument readings.



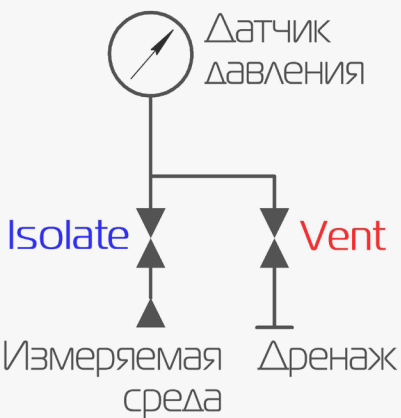
DIMENSIONS

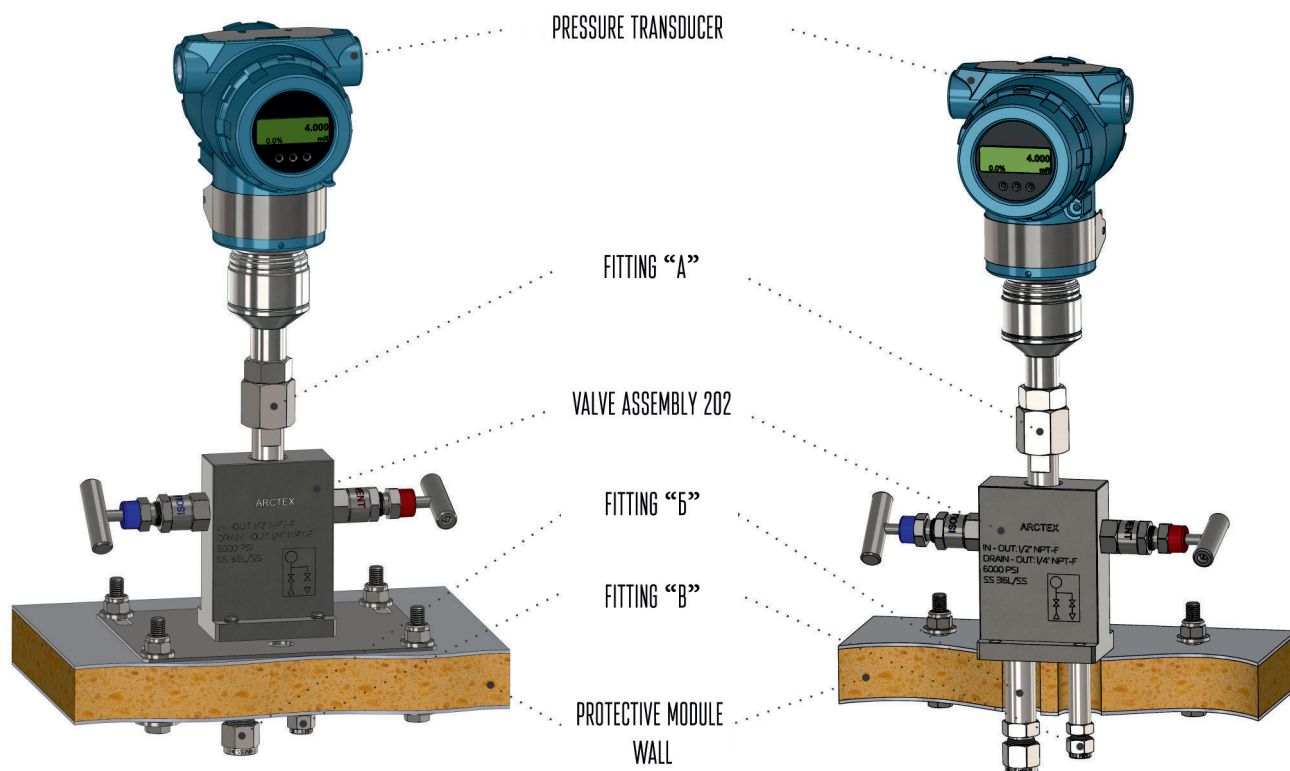
APKTEX-VBM-202



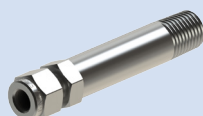
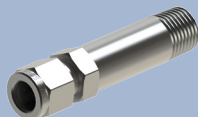
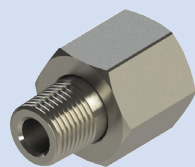
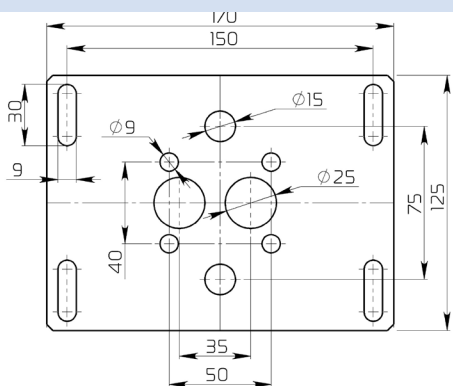
HYDRAULIC CIRCUIT

DIAGRAM





- *«А»- order code of fitting «А», if not «0»
- *«Б» - order code of fitting «Б», if not«0»
- *«В» - order code of fitting «В», if not«0»
- *«МП» - order code of mounting accessories, if not «0»



DETAILS

p. 53

VALVE ASSEMBLY

APKTEX-VBM-203

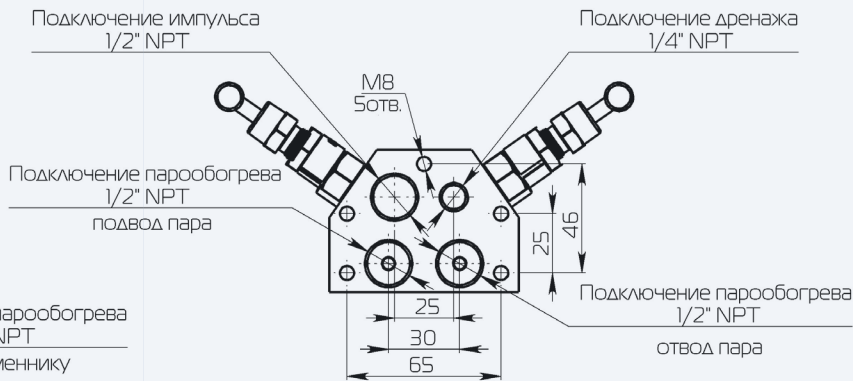
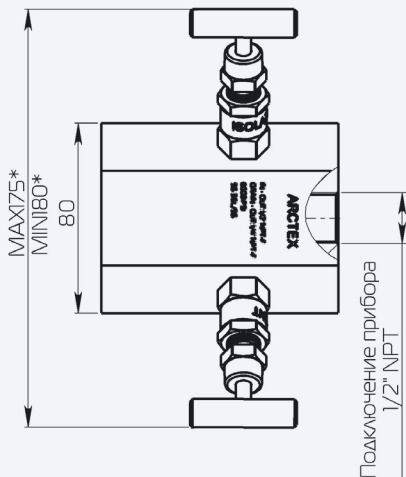
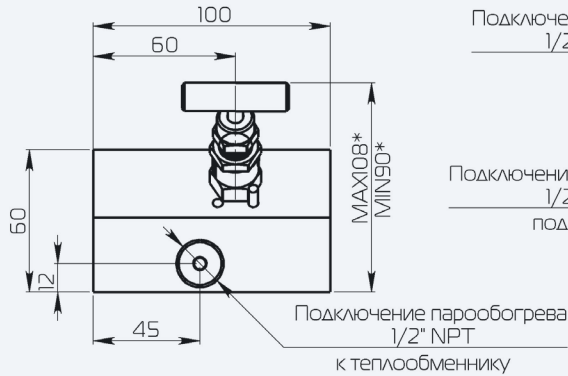
Valve assembly 203 is meant for connection to pressure sensors and manometers. This valve assembly is designed especially for modules with heating heat carrier water/steam. A complement of specialized fittings delivered together with block 203 enables connection of sensors and manometers with various variants of screw joint versions, impulse and drainage tubes of different diameters as well as heating lines with heat carrier. The fundamental difference of this valve assembly is connection of impulse and drainage lines as well as heating lines with a heat carrier directly outside. The latter makes mounting and maintenance of measurement system easier.



VALVE ASSEMBLIES

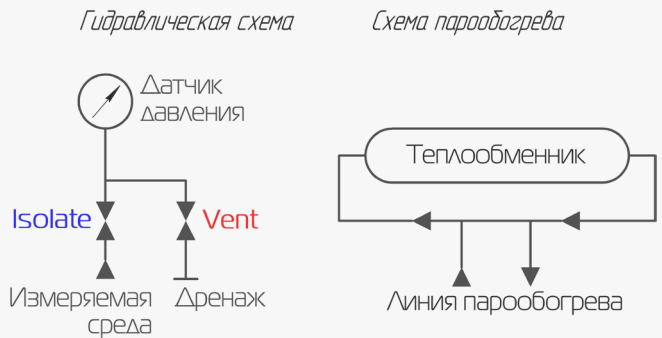
DIMENSIONS

APKTEX-VBM-203



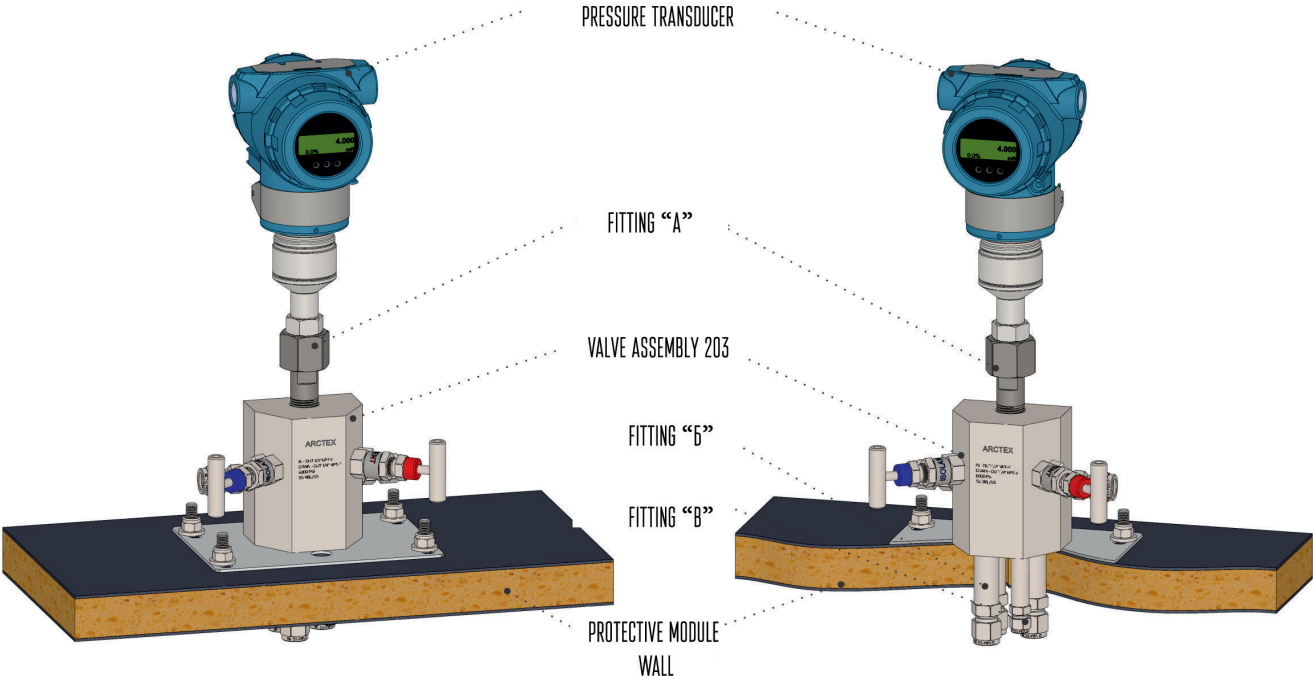
HYDRAULIC CIRCUIT

DIAGRAM



VALVE ASSEMBLY

APKTEX-VBM-203



ORDER CODE: APKTEX-VBM-203 - «A» / «Б» / «В» / «МП»

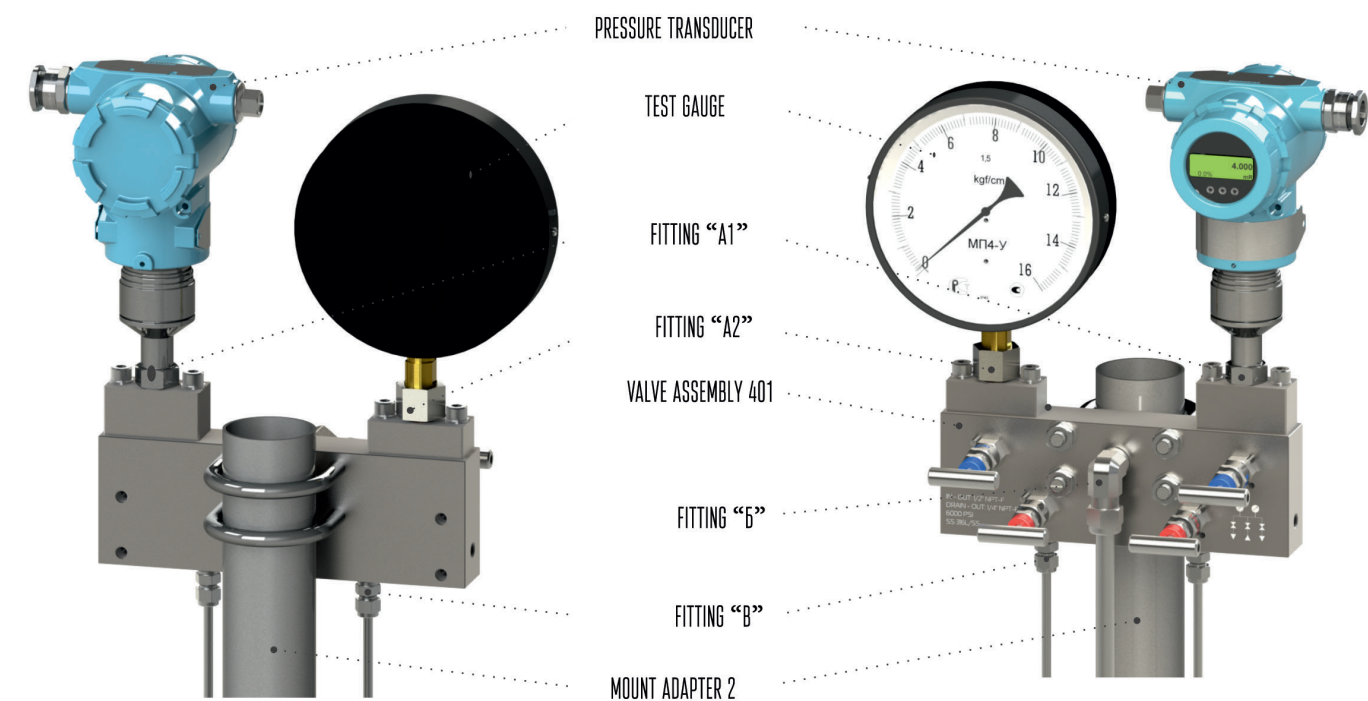
- *«A»- order code of fitting «A», if not «0»
- *«Б» - order code of fitting «Б», if not«0»
- *«В» - order code of fitting «В», if not«0»
- *«МП» - order code of mounting accessories, if not «0»

VALVE ASSEMBLIES

MOUNTING ACCESSORIES	FITTINGS RECOMMENDED TO CONNECT TO A PROCESS	DETAILS
	<p>Fitting «A» is meant for connection of pressure transducer</p>	p. 53
<ul style="list-style-type: none">▪ Is meant for mounting of a valve assembly onto a case▪ Ensures reliable fixation, connections, wiring of fittings «Б» and «В»	<p>Fitting «Б» is meant for connection of an impulse line</p>	
	<p>Fitting «В» is meant for connection of a drainage line</p>	


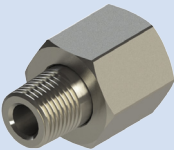


VALVE ASSEMBLY

APKTEX-VBM-401



ORDER CODE: APKTEX-VBM-401 - «A» / «Б» / «В» / «МП»

- *«A»- order code of fitting «A», if not «0»
- *«Б» - order code of fitting «Б», if not«0»
- *«В» - order code of fitting «В», if not«0»
- *«МП» - order code of mounting accessories, if not «0»

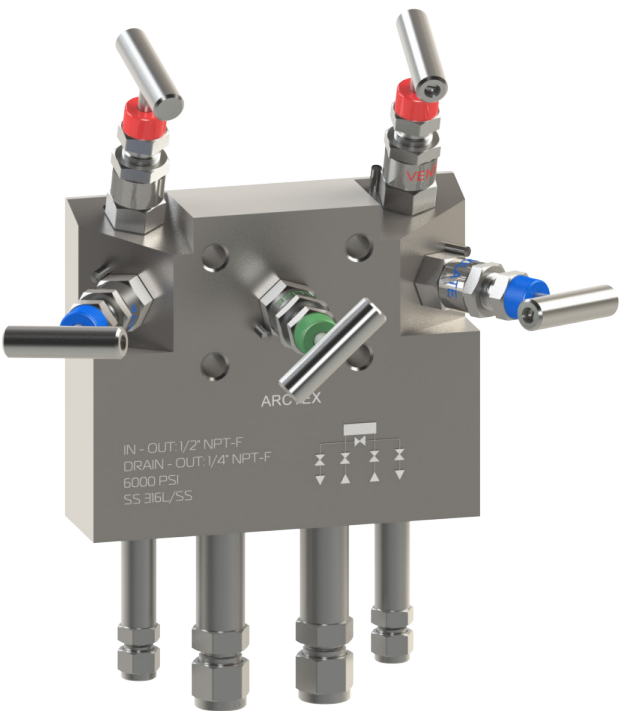
MOUNTING ACCESSORIES	FITTINGS RECOMMENDED TO CONNECT TO A PROCESS		DETAILS
 <p>Mounting Bracket for 2" pipe adapter. Supplied complete (2 units.)</p>		Fitting «A» is meant for connection of pressure transducer	p. 53
		Fitting «Б» is meant for connection of an impulse line	
		Fitting «В» is meant for Connection of a drainage line	

VALVE ASSEMBLY

APKTEX-VBM-501

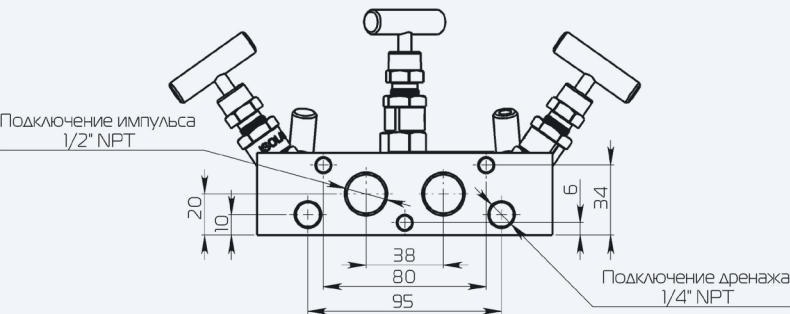
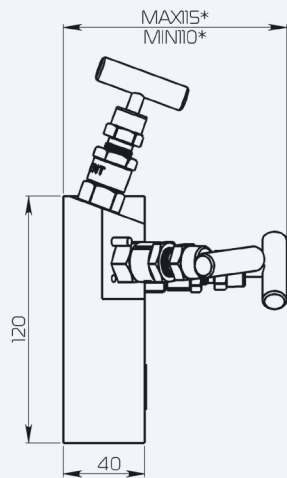
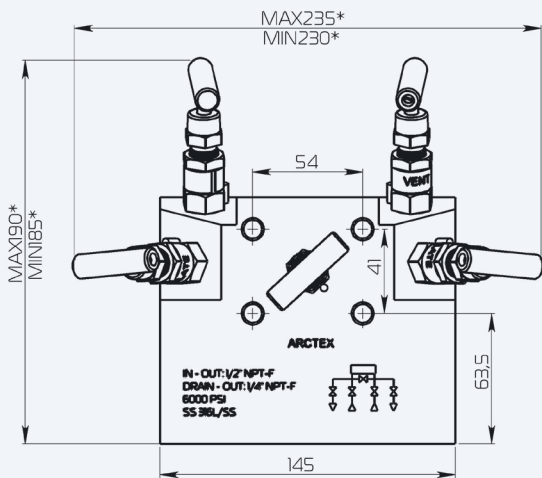
Valve assembly 501 is meant for connection of pressure differential sensors. A complement of specialized fittings delivered together with block 501 enables connection of pressure differential sensors, impulse and drainage tubes of different diameters. The fundamental difference of this valve assembly is connection of impulse and drainage lines directly outside. The latter makes mounting and maintenance of measurement system easier.

- Reduction of time and material expenses while mounting
- Compact monoblock doesn't require much mounting place.
- Compact placement of all the valves.



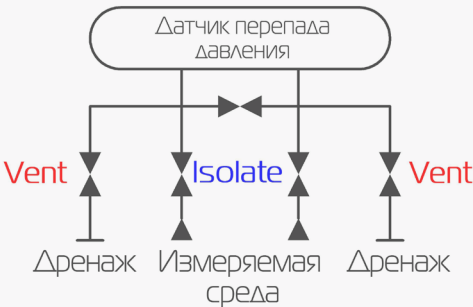
DIMENSIONS

APKTEX-VBM-501



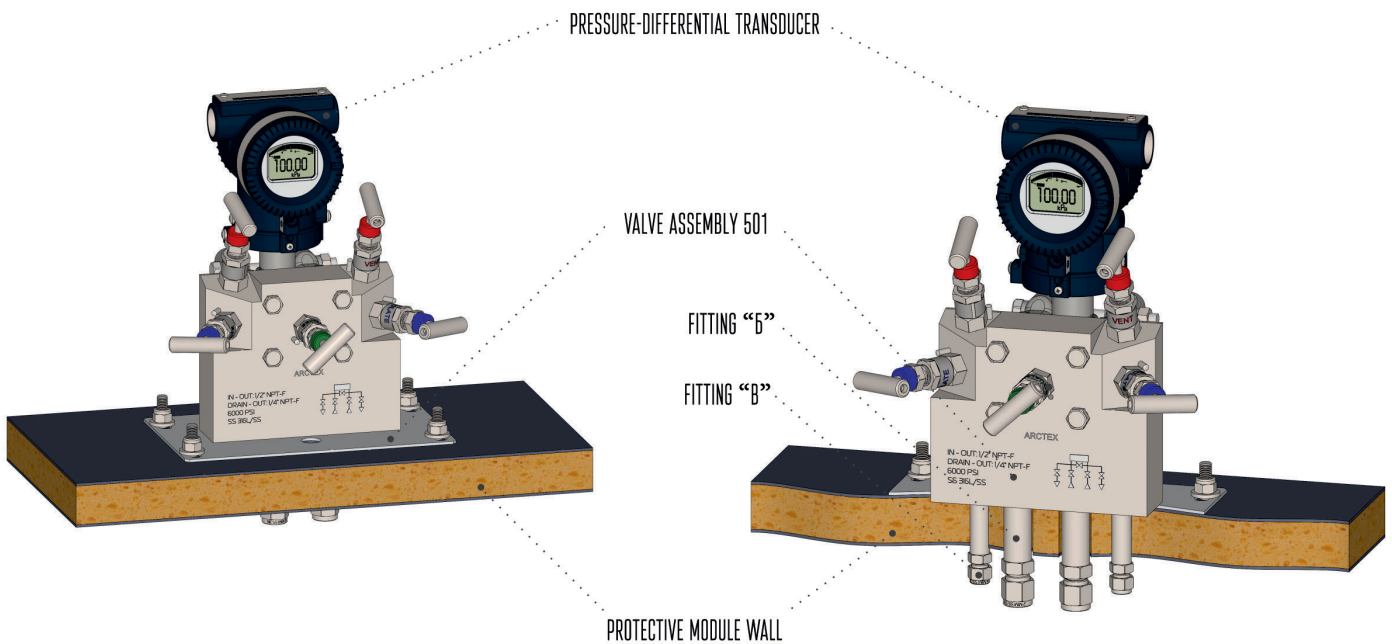
HYDRAULIC CIRCUIT

DIAGRAM



VALVE ASSEMBLY

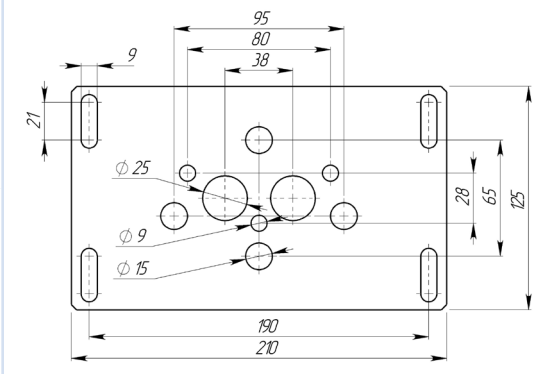
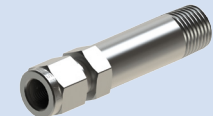
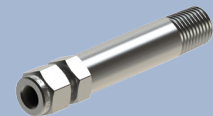
APKTEX-VBM-501



ORDER CODE: APKTEX-VBM-501 - «Б» / «В» / «МП»

- *«Б» - order code of fitting «Б», if not«0
- *«В» - order code of fitting «В», if not«0»
- *«МП» - order code of mounting accessories, if not «0»

VALVE ASSEMBLIES

MOUNTING ACCESSORIES	FITTINGS RECOMMENDED TO CONNECT TO A PROCESS	DETAILS
	 <p>Fitting «Б» is meant for connection of an impulse line</p>	p. 53
<ul style="list-style-type: none">▪ Предназначена для установки вентиляционного блока на корпус▪ Обеспечивает надежную фиксацию, подключения, проводку фитингов «Б» и «В»	 <p>Fitting «В» is meant for connection of a drainage line</p>	

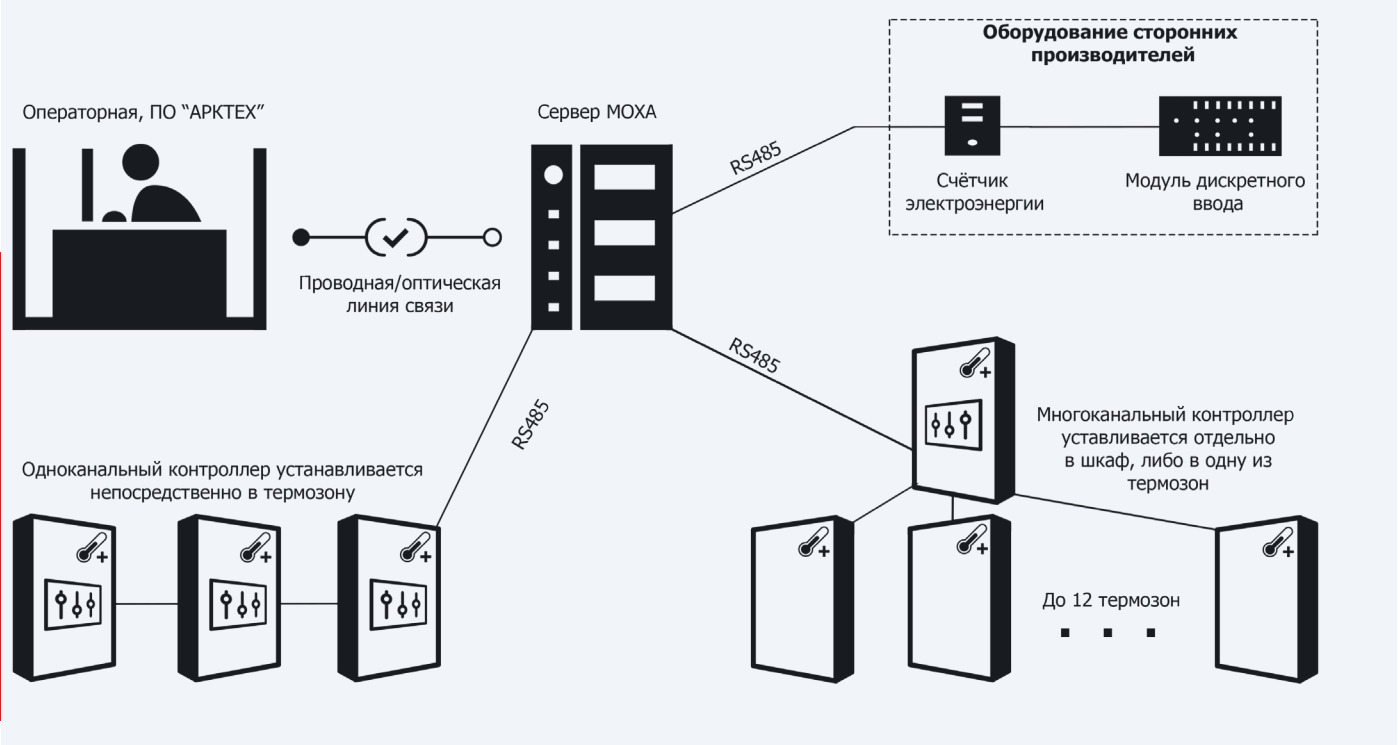
HEATING OF PROTECTIVE MODULES

CONTROL AND MONITOR SYSTEM OF ELECTRICAL HEAT TRACING OF
APKTEX PROTECTIVE MODULES

ASUE (AUTOMATED POWER SUPPLY CONTROL SYSTEM)

This system ensures automatic collection and processing of information from controllers of series APKTEX PTB-Э. It also possesses the possibility to control them depending on the needs of a customer:

- for automatic control and management of electric heating system on a real time basis;
- allows to upper energy efficiency of equipment and to eliminate its damages resulting from heating systems failure.



ASUE CABINET

It is a component of automatic control and monitor system by means of electric heating. Pre-installed software has intuitive interface which allows to monitor and control system. Large screen diagonal and capacitive touch screen ensure work with comfort. Installed fanless industrial PC has long lifetime and doesn't require any additional maintenance. Cabinet is completed with heating which keeps the optimal temperature for the equipment installed in it.

HEATING OF PROTECTIVE MODULES

APKTEX PTB TEMPERATURE CONTROLLER

APKTEX PTB-3-12

It is a multichannel temperature controller suitable for PID-control. Controller has 12 independent temperature control channels, maintains the connection of both heater and cooler. All device control elements as well as information display are on a faceplate, which allows for setting and control of device operation without any additional tooling. The mode of proportional-integral- differentiate modulation ensures the maximum set point exactness and possesses high energy efficiency. Interface RS485 allows for remote control of device as well as the using it as a part of automated power supply control system.

CHARACTERISTICS OF APKTEX PTB-3-12	
Ambient temperature, C°	from (0) to (+40)
Relative humidity of surrounding air, % under 25 C°	40-80
Atmosphere pressure, kPa (mm of mercury)	84-107 (от 630 до 800)
Sea level elevation, m	1000
Enclosure class	IP40
Climate version type defined in the standard GOST 15150	УХЛ 2.1
Power supply voltage, V	~220, ±10%, 50Гц
Power intake, W	Не более 10
Maximum commutated current, A	1, 10, 15, 25
Mean time between malfunctions	50 000 hours
Life expectancy	20 years



APKTEX PTB-3-1/25

This digital controller has a display and control elements on a faceplate, which allows for setting without the application of any additional tooling. Controller operates on the basis of two-range modulation law and can commute severe load up to 30A. It is produced in explosion proof version. Temperature probe can be either integrated (as shown in the photo) or on a separate traverse. Interface RS485 allows for remote control of device as well as the using it as a part of automated power supply control system.

CHARACTERISTICS OF APKTEX PTB-3-1/25	
Ambient temperature, C°	from (0) to (+40)
Relative humidity of surrounding air, % under 25 C°	40-80
Atmosphere pressure, kPa (mm of mercury)	84-107 (от 630 до 800)
Sea level elevation, m	1000
Enclosure class	IP40
Climate version type defined in the standard GOST 15150	УХЛ 2.1
Power supply voltage, V	~220, ±10%, 50Hz
Power intake, W	Not more than 10
Maximum commutated current, A	25
Mean time between malfunctions	100 000 cycles
Life expectancy	10 years



HEATING OF PROTECTIVE
MODULES

ОБОГРЕВ ЗАЩИТНЫХ МОДУЛЕЙ

РЕГУЛЯТОРЫ ТЕМПЕРАТУРЫ СЕРИИ АРКТЕХ РТВ

АРКТЕХ РТВ-М

Mechanic temperature controller has compact dimensions, high resources and can commute severe load up to 15A. It is produced in explosion proof version Exd. It can be installed on a traverse or on an explosion proof box instead of inlet. It is produced with a permanent cable.

CHARACTERISTICS OF АРКТЕХ РТВ-М	
Ambient temperature, C°	from (0) to (+40)
Relative humidity of surrounding air, % under 25 C°	40-80
Atmosphere pressure, kPa (mm of mercury)	84-107 (от 630 до 800)
Sea level elevation, m	1000
Enclosure class	IP67
Climate version type defined in the standard GOST 15150	УХЛ 2.1
Power supply voltage, V	-12, -24, ~100, ~220
Power intake, W	for РТ(В)-М: 10
Maximum commutated current, A	for РТ(В)-Э: 1, 10,15, 25
Mean time between malfunctions	100 000 cycles
Life expectancy	10 years



АРКТЕХ РТВ-Э-1

Single-channel digital temperature controller with bus control RS 485. Controller operates on the basis of two-range modulation law and it has a status indicator on its facepiece. It can be produced both in general industrial and explosion proof versions. It can manage the load up to 1 A or up to 25A with the help of power unit Arktex CB. Interface RS485 allows for remote control of device as well as the using it as a part of automated power supply control system

CHARACTERISTICS OF АРКТЕХ РТВ-Э-1	
Ambient temperature, C°	from (0) to (+40) from (-60) to (+50)
Relative humidity of surrounding air, % under 25 C°	40-80
Atmosphere pressure, kPa (mm of mercury)	84-107 (от 630 до 800)
Sea level elevation, m	1000
Enclosure class	IP67/IP40
Climate version type defined in the standard GOST 15150	УХЛ 2.1
Power intake, W	~220, ±10%, 50Гц
Maximum commutated current, A	1, 10, 15, 25
Mean time between malfunctions	50 000 hours
Life expectancy	20 years



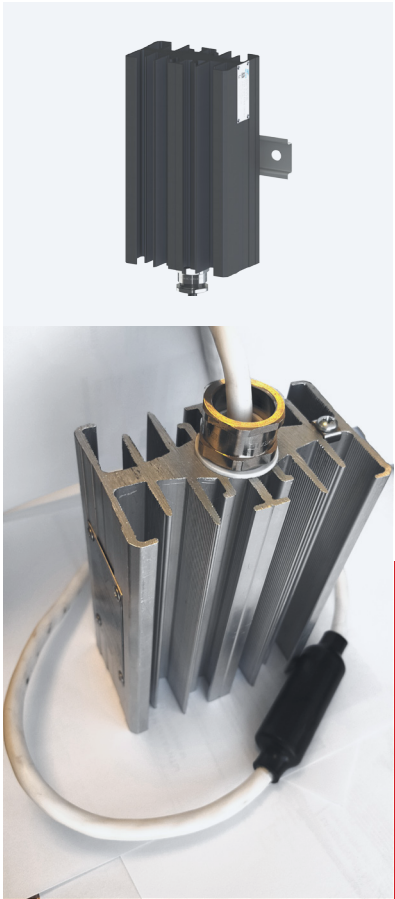
HEATING OF PROTECTIVE MODULES

APKTEX PTB TEMPERATURE CONTROLLER

АРКТЕХ ЭНБ-ПТ-Р

Stacking heaters meant for installation in protective modules. Heaters have monolithic case made of high-impact anodized aluminum. It can be produced in explosion proof version Exd. It can be mounted on DIN rail or traverse. Compact dimensions of the case enable the placement of heater even in small modules. Heater elements can be resistive making steady load possible or posistoric enabling the regulation of power intake depending on temperature possible.

CHARACTERISTICS OF АРКТЕХ ЭНБ-ПТ-Р	
Ambient temperature, C°	from (-60) to (+50)
Relative humidity of surrounding air, % under 25 C°	40-80
Atmosphere pressure, kPa (mm of mercury)	84-107 (от 630 до 800)
Sea level elevation, m	1000
Enclosure class	IP67
Climate version type defined in the standard GOST 15150	УХЛ 2.1
Power supply voltage, V	~220, ±10%, 500Hz
Power intake, W	50-300
Maximum acceptable temperature, C°	+95, +130, +195
Maximum consumption current, A	0,5 - 1,4
Mean time between malfunctions	25 000 hours
Life expectancy	10 years

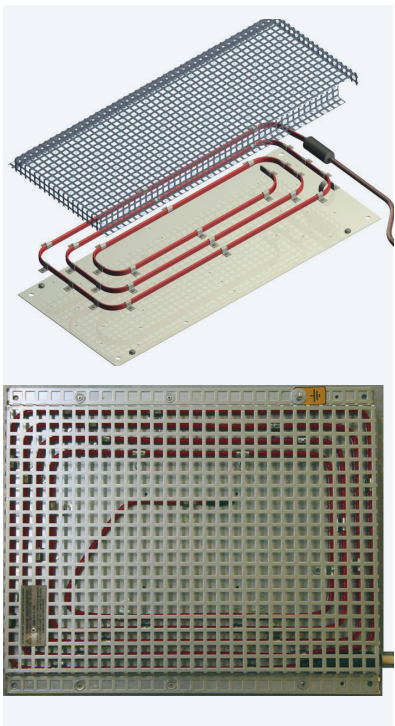


HEATING OF PROTECTIVE
MODULES

АРКТЕХ ЭНБ-СР-С

Heater is on the basis of self-regulating heating cable. It is produced in the form of section meant for installment into a protective module or can be reeled directly on the object heated (pipeline). The cable has internal temperature stabilization owing to which local thermal overloads don't occur and constant surface temperature throughout the length of the cable is ensured.

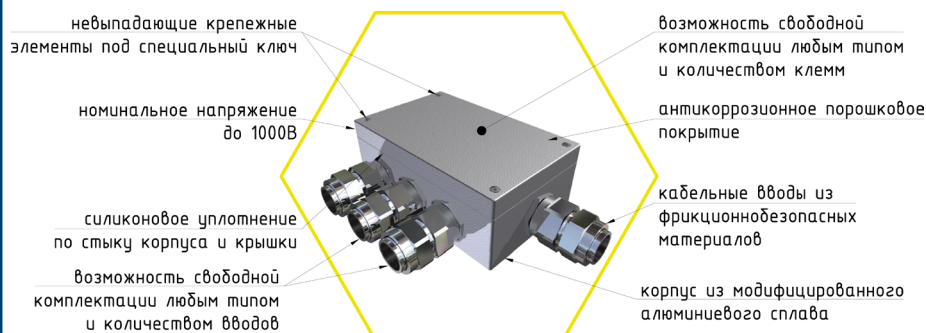
CHARACTERISTICS OF АРКТЕХ ЭНБ-СР-С	
Ambient temperature, C°	from (-60) to (+50)
Relative humidity of surrounding air, % under 25 C°	40-80
Atmosphere pressure, kPa (mm of mercury)	84-107 (от 630 до 800)
Sea level elevation, m	1000
Enclosure class	IP66
Climate version type defined in the standard GOST 15150	УХЛ 2.1
Power supply voltage, V	~220, ±10%, 50Hz
Power intake, W	50-700
Maximum acceptable temperature, C°	+95, +130, +195
Maximum consumption current, A	0,5 - 3
Mean time between malfunctions	25 000 hours
Life expectancy	10 years



EXPLOSION-PROOF EQUIPMENT ARKTEX

EXPLOSION-PROOF TERMINAL BOXES MADE OF ALUMINUM OF SERIES EXK3

Explosion-proof terminal boxes made of aluminum of series ExK3 are meant for connection and branching of power and control cables in circuits of direct and alternating current in explosion hazardous zones which are dangerous due to gas and dust ignition. They can be mounted on oil loading racks, distillation columns, diesel substations, drilling rigs and other objects in accordance with the explosion-proof marking assigned



EXPLOSION-PROOF CABLE INLETS OF SERIES EXKB

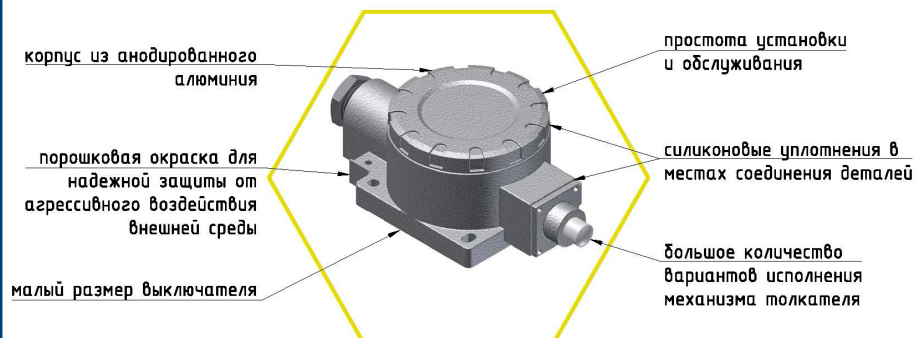
Cable inlets of series ExKB are meant for the entry of cable into a case and the sealing of it at the expense of rubber gasket deformation. Cable inlets types:

- for a flexible unarmored cable;
- for an armored cable, versions with one- and two O-rings, ensuring cable sealing after its settlement from armor; for a cable laid in a metal hose;
- for tubing;
- for a heating cable



EXPLOSION-PROOF LIMIT SWITCHES MADE OF MODIFIED ALUMINUM ALLOY OD SERIES EXBП

They are meant for commutation of electrical circuits of control, alarm and control of the of the moving parts of the mechanisms under the influence of the control stops at certain points of the track of the controlled object. Usually terminal switches are installed in such places, where the movement of a mechanism or of its moving part must be stopped. The operating principle of terminal switch is based of interruption by the contact group of the terminal switch of the electric power supply circuit of the mechanism in case of contact with the limiter. Switches are meant for installment in explosion-proof zones in accordance with explosion-proof marking assigned.

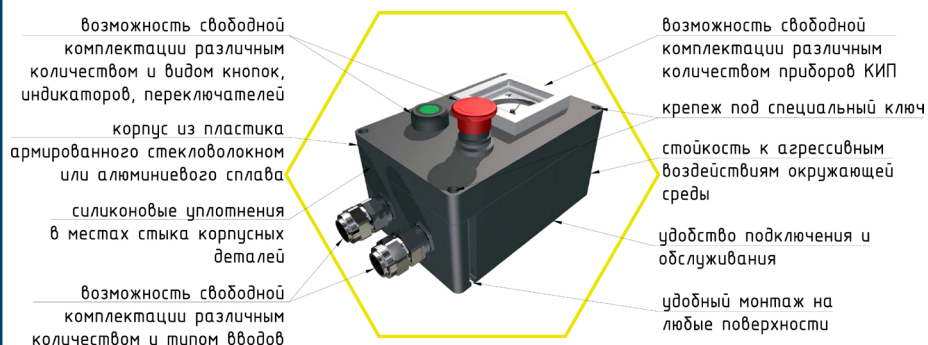


FOR DETAILED INFORMATION REFER TO THE CATALOGUE «EX-PROOF EQUIPMENT»

EXPLOSION-PROOF EQUIPMENT ARKTEX

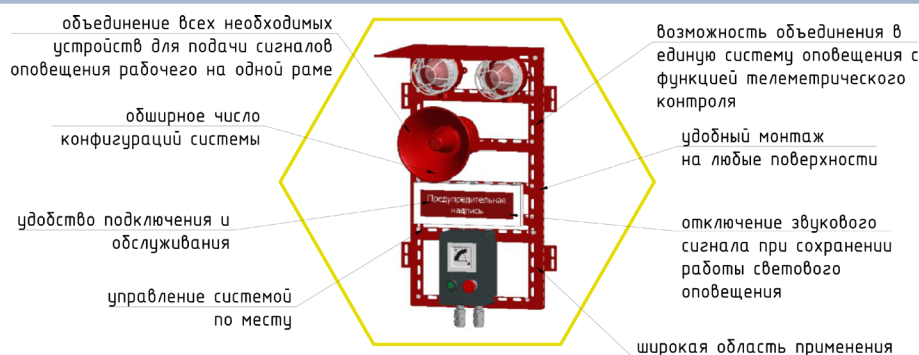
CONTROL SYSTEMS (CONTROL AND INDICATION STATIONS) OF SERIES EXCY

They are meant for commutation of electrical circuits of control, alarm and control of electrical machines and mechanisms operated manually by an operator. Devices are meant for installment in explosion hazardous zones in accordance with the explosion-proof marking assigned.



MODULAR SYSTEMS OF CONTROL AND WARNING

Creation of modular systems of control and warning of series ExCУOиT is possible on the basis of sound notification systems of series ExCO-3, obstruction lights of series ExCO-O as well as control systems of series ExCY



EXPLOSION-PROOF
EQUIPMENT

EXPLOSION-PROOF LANTERN OF SERIES EXCBA 33-LED

It is meant for illumination in explosion hazardous zones which are dangerous due to gas and dust ignition. It can be mounted on oil loading racks, distillation columns, diesel substations, drilling rigs and other objects in accordance with the explosion-proof marking assigned

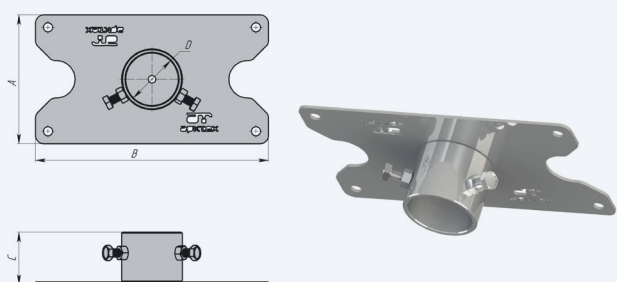


FOR DETAILED INFORMATION REFER TO THE CATALOGUE «EX-PROOF EQUIPMENT»

MOUNTING ELEMENTS

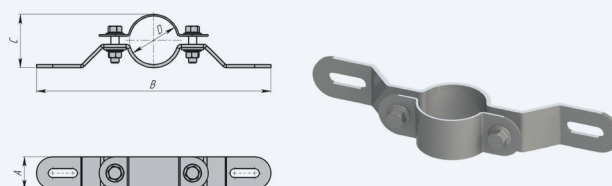
All the nodal points are made of high-grade steel. This is mainly stainless and galvanized steel. In the process of mounting standard and non-standard nodal points are used. Among the standard nodal points used are those on a pipeline, spool and surface. All the non-standard nodal points are designed depending on requirements when ordering.

MOUNTING PLATE



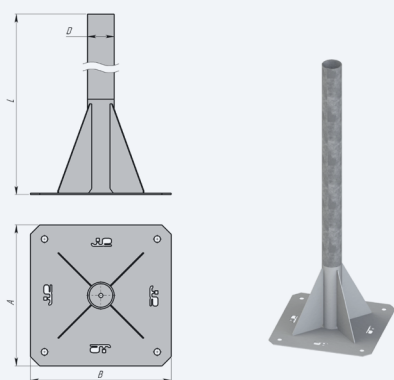
Mounting plate is used for installment of the module on a pipe stand with a bottom bracket. Diameter for the rack is 2 inches (it is the universal diameter for the installation onsite).

CLAMP PLANK



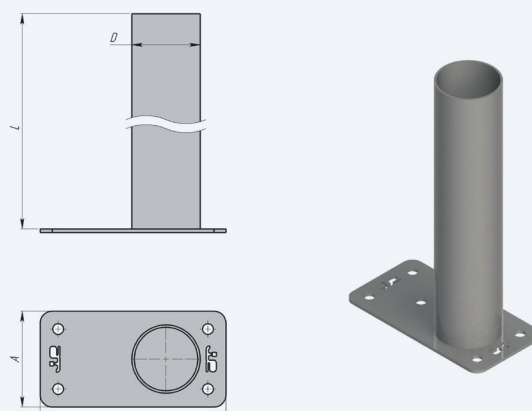
Clamp plank is used for installment of the module on a pipe stand with fastening on the back wall. Diameter for the rack is 2 inches (it is the universal diameter for the installation onsite).

PIPE RACK



Pipe rack is used for installment of protective module onsite. Pipe rack diameter is 2 inches. Depending on Installment requirements one can order rack of any length with a standard stroke of 100 mm. Rack is suitable for mounting both at the bottom of protective module and on a back wall. For bigger modules several racks are used.

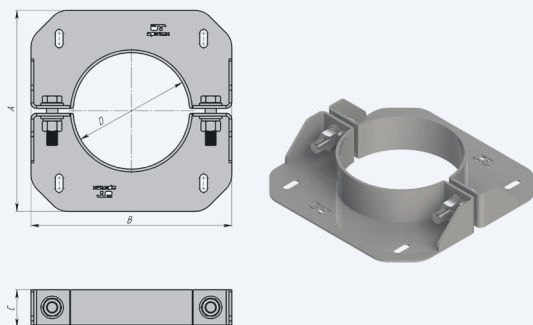
TUBE ADAPTER



Tube adapter is the most universal mounting nodal point for installment of most instrumentation and controls devices. Tube adapter diameter is 2 inches. It is a standard size for this type of mounting. Adapters series is extremely large. When ordering it is necessary to specify the length and mounting type (vertical or horizontal).

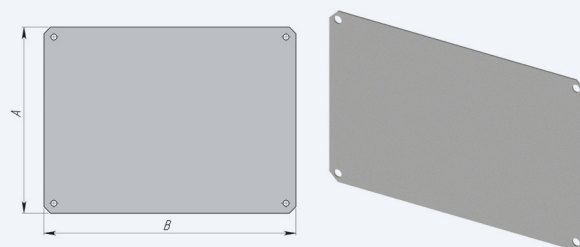
MOUNTING ELEMENTS

MOUNT ASSEMBLY ON FLANGE

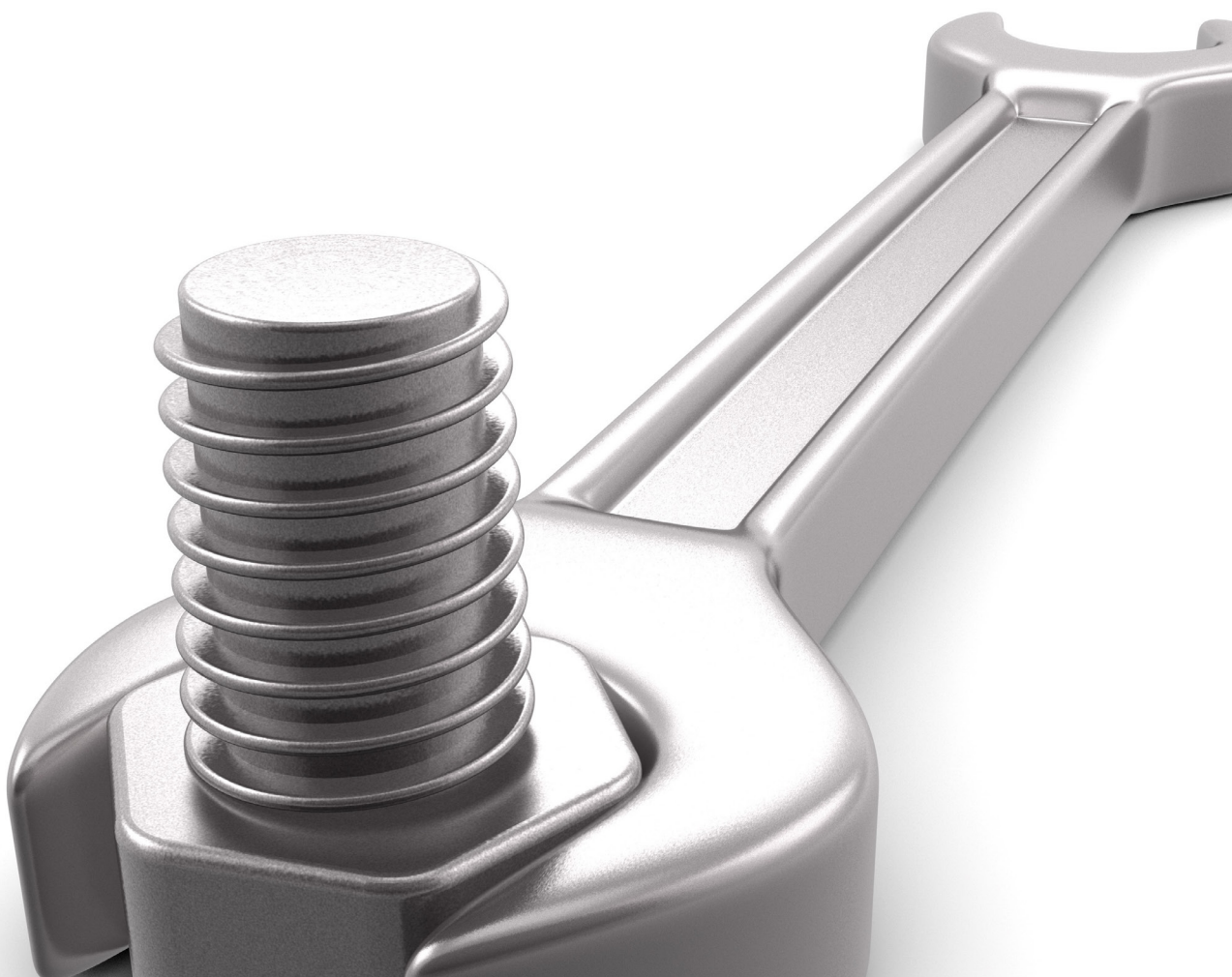


This assembly is used for installment of module with the fastening on flange. All the flange sizes are represented in this series. This assembly is also used in case of module being installed on a branch tube.

MOUNTING PLATE



Mounting plate is used for installment of instrumentation and controls, controller groups, switches. Plates can be supplied both with holes for equipment installation and without them. When ordering all the holes are discussed with a customer



TEMPERATURE-CONTROLLED TUBE BANKS

TECHNICAL ADVANTAGES

1. OUTER CASE

Plastic outer case protects pipes and heating tape from weather and mechanical damage. Requirements for chemical and thermal stability, reactions during combustion are performed with the help of various case materials. Outer case marking and pipes numbering facilitate coordination during installation.

2. TUBES

Corrosion-resistant pipe materials such as copper, stainless steel, monel metal 400, incoloy 825 and polytetrafluoroethylene make them suitable for various loads. It is possible to supply large-length tube banks from stainless steel, since they can be welded to each other by orbital welding. In accordance with operating conditions, the tube banks can have pipes of various sizes and different materials. Separate tubes in the tube banks can be connected with the connecting elements to the outgoing pipelines or equipment.

3.THERMAL INSULATING

Polyester felt (thermo-wool), used for thermal insulating has good insulating properties, stable at temperatures up to 200 ° C. A glass fiber felt can also be used in place of the thermal felt, which is applicable up to 500 ° C and is a non-combustible material.

4. HEAT TAPES

Thermostatically controlled tube banks with self-regulating heating tapes or parallel-resistance heating tapes can be cut at any place (up to maximum length of the heating circuit). In this case, the heating power per length unit remains unchanged. The electric heating tape emanating from the ends of the tube banks can be used as a protection against freezing of fittings, filtering plants and transmitters. Thanks to this, it is possible to save additional heating tape and a separate current loop.

5. TURNED PIPES

Pipes, twisted together in a tube bank, give good flexibility and allow the same installation technique to be used as with power cables. The reserve tubes in the tube bank facilitate further the necessary expansion of the system. The resulting tube banks of different lengths can reduce the number of pipe joints sensitive to interference (the danger of non-tightness) and reduce the cost of mounting. Pipes numbering makes it easy to determine their purpose during installation.

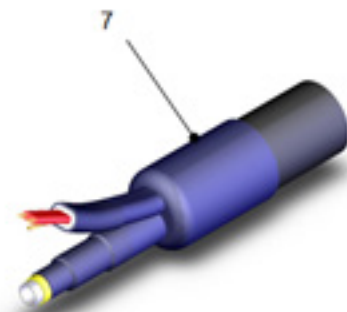
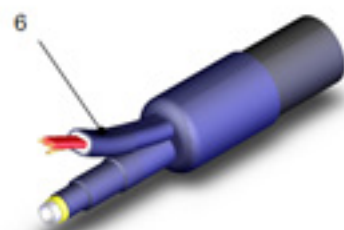
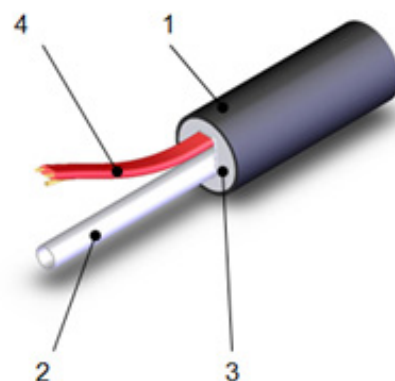
6. SEALING OFF

In the components supplied by the APKTEX endings of pipe endings must be protected from moisture penetration, and pipes from the ends must be laid before the connection fittings

7. LAYING

Laying the tube banks just before the reel saves installation time in comparison with manual laying and thermal insulation of individual pipelines.

When laying a tube bank, instead of several separate pipes, the fastening elements are saved. The need for the area becomes insignificant. A seamless extruded plastic outer case is more advantageous, relatively time-consuming and cost-effective, compared to a casing that is housed in a manual mode and protects from weathering by means of cuffs from metal plates. Twisted electrical lines for control, measurement and telephony save the cost of a separate installation. Thermostated tube banks require no maintenance.



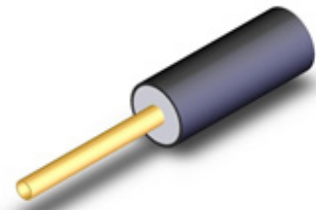
TEMPERATURE-CONTROLLED TUBE BANKS

ASSORTMENT

SEPARATE TEMPERATURE-CONTROLLED TUBES

Multi-layer thermal insulation made of polyester or fiberglass felt is applied to the pipe. Above there is a seamless extruded outer plastic case.

Application areas of this product are steam condensate pipelines or internal lines, in which slight heat loss is expected with a slight drop of temperature.



TEMPERATURE TUBE BANKS

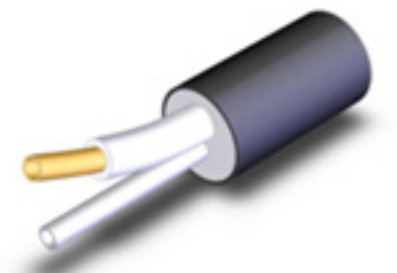
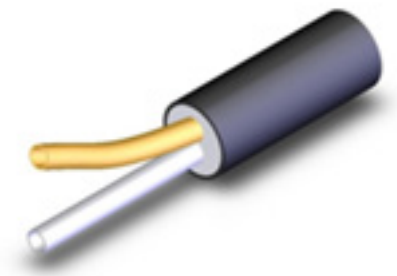
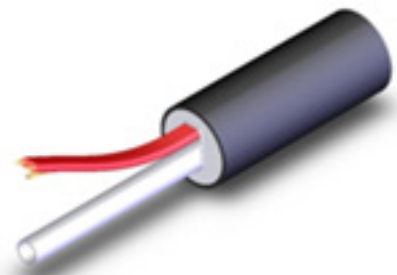
Pipes and tube banks are additionally equipped with electric heat tracing or pipes with steam heating, as well as heat insulation selected individually and depending on various operating conditions.

Electric thermostated tube banks are used for frost protection, as well as for medium holding temperatures (holding temperature up to 150 °C).

With long heating tapes, it is possible to use long-length tube banks. In addition, the banks can be used in the absence of steam or during downtime, when no steam comes.

Steam thermostated tube banks are used for frost protection, as well as for medium and high holding temperatures.

Due to the properties of the steam, simple installation / operation in hazardous areas is possible.



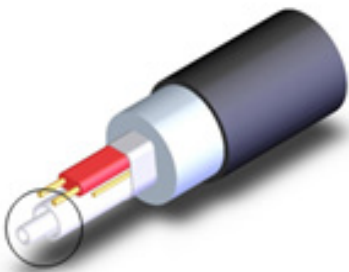
TEMPERATURE-CONTROLLED TUBE BANKS

SPECIAL FORMS OF PIPE BANKS

PIPE-IN-PIPE SYSTEM FOR HIGH TEMPERATURE FLUID

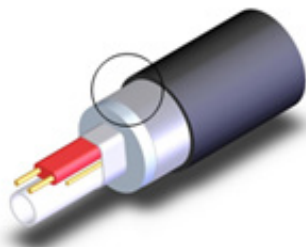
Multi-layer thermal insulation made of polyester or fiberglass felt is applied to the pipe. Above there is a seamless extruded outer plastic case

Application areas of this product are steam condensate pipelines or internal lines, in which slight heat loss is expected with a slight drop in temperature.
The system is suitable for environment temperature (steam purging temperature), which is higher than the maximum permissible temperature of the heating tape.
The heating tape is separated from the inner tube, so the temperature on the heating tape does not exceed the allowable limits



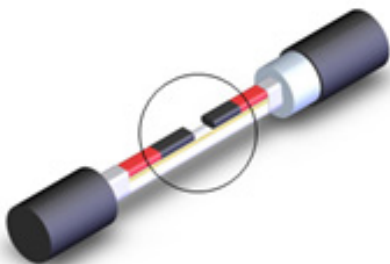
PIPE-IN-PIPE SYSTEM FOR HIGH TEMPERATURE FLUID

The system is suitable for tube banks situated near each other.
Due to the heat transfer through the outer case, while laying a distance of 10 mm between two tube banks must be observed in order to prevent overheating of the outer case at high ambient temperatures.
If this distance can't be realized, then this version of the tube banks is used.
Aluminum film under the outer case distributes heat at the point of contact, thus preventing partial overheating and eventual destruction of the outer case.



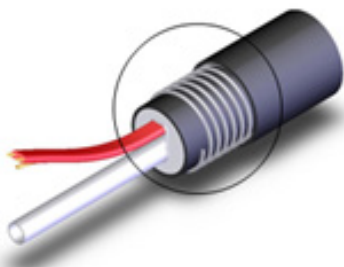
PRELIMINARY MOUNTED SEALLING OFF OF HEATING TAPE

Multi-layer thermal insulation made of polyester or fiberglass felt is applied to the pipe. Above there is a seamless extruded outer casing from the reservoir mass.
Application areas of this product are steam condensate pipelines or internal lines, in which slight heat loss is expected with a slight drop in temperature.



PRELIMINARY MOUNTED SEALLING OFF OF HEATING TAPE

Multi-layer thermal insulation made of polyester or fiberglass felt is applied to the pipe. Above there is a seamless extruded outer casing from the reservoir mass.
Application areas of this product are steam condensate pipelines or internal lines, in which slight heat loss is expected with a slight drop in temperature.



APKTEX FLEXIBLE MODULES

APKTEX-FLEX, APKTEX-FLAME, APKTEX-TEPMOTEK, APKTEX-XMASSTREE

DESCRIPTION

Flexible modules APKTEX – an integral part of modern industrial complexes. Advantages of using this type of products are the reduction of energy costs for heating due to the use of energy-saving technologies. Explosion-proof flexible modules APKTEX are thermally insulated cases with electrical heating based on a self-regulating heating cable.

At modern enterprises, flexible modules are used to protect equipment from freezing, as noise insulation, protection against aggressive chemical substances, as well as oil and gas processing products.

Flexible modules APKTEX can be used for various types of control and measuring equipment, pump and shut-off equipment, as well as pipelines, pipeline fittings. A line of protective modules has been designed. They withstand the resistance of ultrahigh temperatures, and complex modules for heating of wellhead equipment.



DOMESTIC MANUFACTURE

The full cycle of production of explosion-proof modules APKTEX makes it possible to guarantee high quality products and minimum production time.

MATERIALS AND COMPONENTS

During the production of APKTEX flexible modules the most up-to-date materials are used:

- Based on the technical specification of AO «APKTEX», which was formed taking into account the features of equipment operation under extreme conditions, the ultra-resistant material of the outer case of the modules was developed and patented - APKTEX-PTFE. APKTEX-PTFE — fully meets all technical requirements and successfully passed certification*, all necessary checks and trial operation.
- Materials and components are selected by the design department based on the results of thermal calculations, depending on the conditions of installation of equipment
- The outer and inner cases have moisture resistance, antistatic properties (surface electrical resistance less than 109 Ohm), resistance and low adhesion to petrochemical products.
- For high-temperature versions, as well as special-purpose versions, both multi-layer thermal insulation and thermal insulation based on environmentally friendly inorganic fibers with increased resistance to vibration loads are used.

* The certificate of conformity of APKTEX-PTFE material to GOST R 31613-2012 is available upon request.

DESIGN

The design database of AO «APKTEX» drawings contains several thousand standard solutions, which makes quick selection of an option for the requirements of T3 project possible

MOUNTING

The convenience of mounting APKTEX modules is provided by a detachable case design that allows the module to be mounted directly on the device without the need to disconnect the equipment from the process. An important feature of the design of APKTEX flexible modules is light weight of products and ergonomic dimensions that are as close as possible to the dimensions of the installed equipment, which makes it unnecessary for additional mounting elements, such as pipe racks, clamps, etc.

* When installing equipment of large dimensions for the sake of preservation of design features and the product form integrity, the internal structure of the APKTEX modules is additionally provided.

TYPES OF APKTEX FLEXIBLE MODULES

APKTEX-FLEX, APKTEX-FLAME, APKTEX-TEPMOTEK, APKTEX-XMASS TREE

APKTEX - FLEX

This is the module that ensures the operability and pre-start preparation of equipment in conditions of extremely low temperatures. The module provides effective protection against ultraviolet radiation, corrosive media and other negative external factors, production uses oil-resistant materials, features of operating environments are taken into account

IT IS USED FOR:

- Expansion of the temperature range of operation under conditions of low temperatures
- Protection from the negative impact of environment
- Protection against aggressive production environment
- Protection against UV radiation
- Compensation for the heat losses of thermostatically controlled objects
- Pre-start preparation of process equipment

APKTEX-FLEX



APKTEX-TEPMOTEK



APKTEX – TEPMOTEK

The module is used to protect equipment, as well as to create a temperature regime to maintain the operation of the instrumentation.

APKTEX – XMASS TREE

Unique patented development of AO «APKTEX». It is intended for complex heating of wellhead equipment by supplying the coolant through special collectors located inside the insulated blocks.

Block heat insulation with electric and steam heating provides effective heating of problem areas without dismantling of heat-insulated structure, and also increases the efficiency of mobile steam plants (PPU), which allows to shorten the warm-up time of wellhead equipment to eliminate paraffin plugs and clutches of mechanical elements of the fittings in the frost.

APKTEX – FLAME

Flexible module in fire-fighting design is meant for installation in fire-hazardous areas. For a long time it provides additional protection of the equipment against the effects of open fire and extremely high temperatures.

IT IS USED FOR:

- Protection of equipment from extremely high temperatures and open fire for a long time
- Ensuring the operability of equipment in the immediate vicinity of an open fire and if emergency shutdown of the shut-off valve is required (up to 80 minutes)
- Staff protection from burns

APKTEX- FLAME



FITTINGS AND ADAPTERS FOR CONNECTION

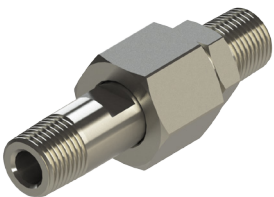
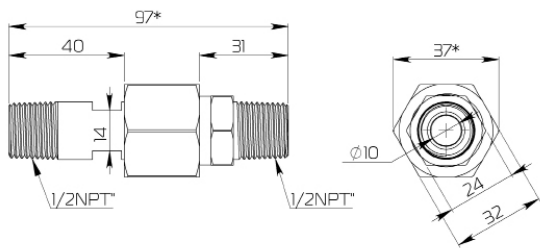
АРКТЕХ-ФТ-06-2

It is made of high quality stainless steel. It is intended for connection of the pipe of 6 mm to the valve assembly, external thread 1/4» NPT. Standard version, used to connect drainage lines.



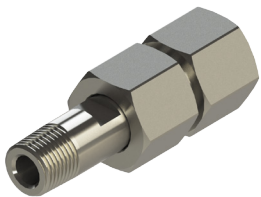
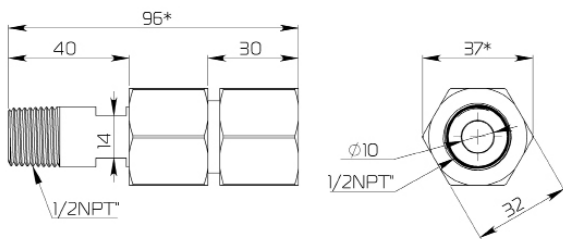
АРКТЕХ-ФП-1-1

It is made of high quality stainless steel. It is intended for connection of the measuring device to the valve block. Connection to the valve block external thread 1/2» NPT, to the measuring device outer 1/2» NPT. Fitting design allows rotation of device in a convenient position. When ordering, variants with thread M20x1.5 are available.



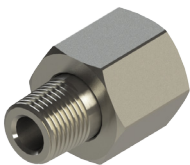
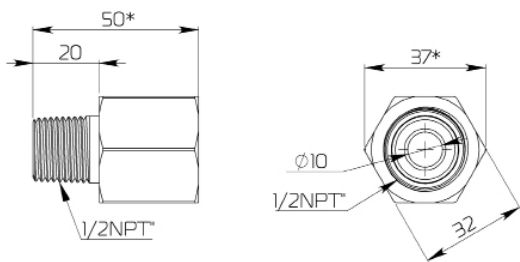
АРКТЕХ-ФП-1-2

It is made of high quality stainless steel. It is intended for connection of the measuring device to the valve block. Connection to the valve block external thread 1/2» NPT, to the measuring device inner 1/2» NPT. Standard version. It is suitable for devices with a swivel head. When ordering, variants with thread M20x1.5 are available



АРКТЕХ-ФП-2-1

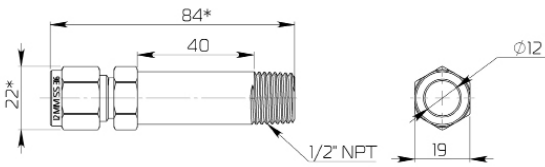
Изготовлен из высококачественной нержавеющей стали. Предназначен для подключения измерительного прибора к вентильному блоку. Подключение к вентильному блоку резьба наружная 1/2» NPT, к измерительному прибору внутренняя 1/2» NPT. Стандартное исполнение. Подходит для приборов с поворотной головой. При заказе доступны варианты с резьбой M20x1,5



FITTINGS AND ADAPTERS FOR CONNECTION

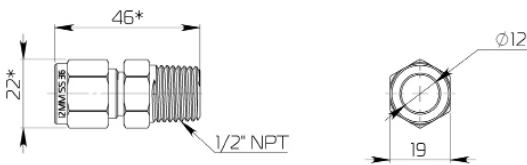
APKTEX-ΦT-12-1

It is made of high quality stainless steel. It is intended for connection of the pipe of 12 mm to valve block, external thread 1/2» NPT. Special long version. It allows for compensation of thickness of the module, for the sake of more convenient connection. It is used to connect to impulse line, by the integral installation of the valve block.



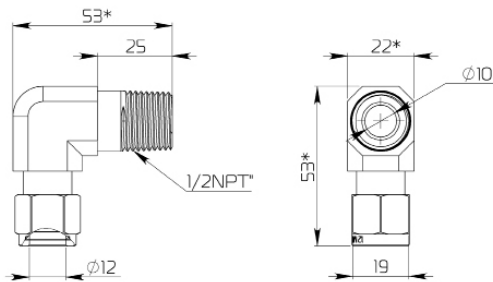
APKTEX-ΦT-12-2

It is made of high quality stainless steel. It is intended for connection of the pipe of 12 mm to valve block, external thread. Standard version. It is used for the connection of impulse lines, heat exchangers and parasputers.



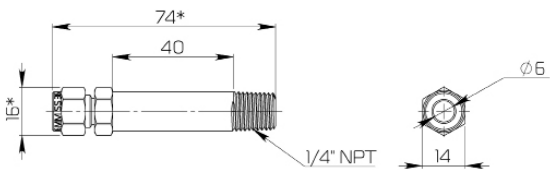
APKTEX-ΦT-12-3

It is made of high quality stainless steel. It is intended for connection of the pipe of 12 mm to valve block, external thread 1/2» NPT. Special angular version. It provides a convenient pulse input to the valve block. It is used for connecting a pulse line to a valve block for two devices.



APKTEX-ΦT-06-1

It is made of high quality stainless steel. It is intended for connection of the pipe of 6 mm to valve block, external thread 1/4» NPT. Special long version. It allows for compensation of thickness of the module for the sake of more convenient connection. It is used to connect a drainage line and by integral mounting of a valve block.



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