

EZS COMPONENTS

DETECTORS:



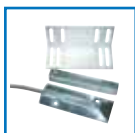
PIR motion detector JS-20 „LARGO“



Broken glass detector GBS-210 „VIVO“



Magnetic door contact SA-200, SA-201



Crossing metal magnetic detector SA-220



Optical smoke detector SD-212SP



Combustible gases detector GS-133

Components of security system are supplied by voltage 12V DC.

These are connected to INELS system either directly or by input modules IM2-80B and IM2-140M, which are equipped by an output of supply voltage 12V DC and enable connection of a sensor with balanced output.

SIRENS:



Interior siren SA-913



External siren OS-365



PIR motion detector JS-20 „LARGO“



- PIR motion detector JS-20 „LARGO“ is designed for area security of a subject.
- JS-20 process signal by method of multiple analysis of signal. This method insures excellent sensitivity and high resistance against false alarms. Detection analysis can be additional increased by setting jumper (when product mounted in problematic area).
- In sensor can be exchanged basic lens by version for long corridors or by version with free zone on the floor (for motion of pets).
- For easier connection of distribution the product is equipped by a pair of free applicable terminals (GBS).
- Sensor is highly resistive against high-frequency interference and other false signals. Sensor is designed for level surface and in-corner mounting.
- Product complies with European mark of conformity CE.

TECHNICAL PARAMETERS

Supply voltage/current:	12 V DC ± 25% /max. 35 mA
Detection distance:	12 m
Detection angle:	120° (with standard lens)
Recommended high of mounting:	2,5 m above floor level
Time of activation after it is switched on:	max. 180 s
Loadability of output PIR:	switch max. 60V / 50 mA internal resistance max. 30 Ω
Loadability of sabotage output TMP:	switch max. 60 V / 50 mA internal resistance max.16 Ω
Environment according to ČSN EN 50131-1:	internal general
Operation temperature:	-10 to +55 °C
Classification according to ČSN EN 50131:	level 2. (medium-low)
Max. cable size:	1 mm ²
Installation:	level surface mounting
Dimensions:	110 x 60 x 55 mm
Weight:	120 g

GBS-210 „VIVO“ glass breaking detector



- Glass breaking detector GBS-210 serves to guard glassed areas and detects their destruction.
- GBS-210 applies for detection dual method which evaluates slight changes of air pressure in a room (impact into a glassed area) and subsequent noise of glass breaking. This solution is highly reliable reaction by breaking of glass plate (filler). Detector of sensitivity can be simply adjusted according to distance and dimensions of protected windows. Glass breaking detector is additionally equipped with selectable memory indication.
- The product is equipped with red signal light to test its activation.
- Sensor is highly resistive against high-frequency interference and other false signals.

TECHNICAL PARAMETERS

Supply voltage/current:	12 V DC ± 25%/max. 35 mA
Loadability of sabotage output:	switch max. 60 V / 50 mA internal resistance max. 16 Ω
Loadability of an alarm output:	switch max. 60 V / 50 mA internal resistance max. 30 Ω
Detection distance:	do 9 m
Minimal size of window pane:	0,6 x 0,6 m
Stabilization time after switched ON:	max. 60 s
Classification according to EN 50131-1:	level 3 (middle to high risk)
Environment according to EN 50131-1:	II. internal general
Operating temperature:	-10 °C to +40 °C
Max. cable size:	1 mm ²
Installation:	level surface mounting
Dimensions:	100 x 40 x 24 mm
Weight:	120 g
Product is marked by a European mark of conformity CE	

Magnetic door contact SA-200/SA-201

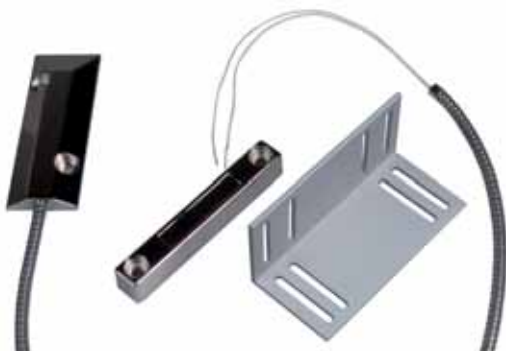


- Magnetic door contact SA-200 and miniature magnetic door contact SA-201 are designed for security of „openable“ parts of the object.
- SA-200 is a standard magnetic detector with terminal board.
- SA-201 is a standard magnetic detector with outlets 25cm.
- Detectors are in plastic case. They serve for level surface mounting by self-adhesive tape or by screws, on door and window frames of all materials. In contact construction is used a quality ferreous switch. This magnets have highly stabilized parameters and reliability.

TECHNICAL PARAMETERS

	SA-200	SA-201
Operating space:	15 mm	15 mm
Type:	NC	NC
Colour:	white	white
Service cable length:	-	25 cm
Dimensions:	50 x 22 x 30 mm	33 x 15 x 9 mm

Heavy-duty magnetic detector SA-220



- Heavy-duty magnetic detector SA-220 is designed for security of „openable“ parts of the object.
- SA-220 is used for big metal door with wire outlet in armoured shoulder.
- Cars are allowed to pass over this SA-220 detector.

TECHNICAL PARAMETERS

Operating distance:	75 mm
Dimensions:	106 x 38 x 10 mm
Weight:	230 g



Optical detector of smoke SD-212SP

- Optical detector of smoke SD-212SP is designed to detect fire.
- SD-212SP has built-in internal acoustic siren for local warning.
- Electronic relay provides output for alarm signal and detector is equipped by an adjustable function of alarm memory. Internal auto test of detector is carried out on regular basis.
- Principle of infralight dispersion on firm parts of optical chamber is used to detect smoke. Detector well reacts to visible smoke coming up from smoldering for example wood, paper, textile etc.
- Less suitable use is for detection of open fires with small volume of smoke and with fast temperature growth (spirit etc.). For this reason the detector is equipped by an auxiliary thermo sensor which activates alarm in case of temperature + 60.. +70°C (depending on temperature growth)



TECHNICAL PARAMETERS

Supply voltage/current:	10- 15 V DC/3mA
Output el.relay:	loadability 0,1 A / 60 V, max 16 Ω
Detector sensitivity:	m= 0,06 to 0,08 dB with 1 m/s (according to EN 54-7)
Detection method:	optical light dispersion
Temperature detection:	+60 to +70 °C (according to rapidity of temperature)
Resistance against HF disturbances:	30 V/m
Acoustic siren output:	95 dB/m
Designed for environs:	internal general
Operating temperature:	-10 °C to +55 °C
Relative humidity	25 % - 75 %
Storage temperature:	-20 °C to +70 °C
Protection degree:	IP 40 (EN 60 529)
Installation:	level surface mounting
Dimensions:	φ 120 x 40 mm
Weight:	150 g

Gas detector GS-133



- Detector GS-133 serves to indicate leaking of flammable gases.
- Detector detects all types of flammable gases (Natural Gas, Methane, Propane, Butene, Acetylene, Hydrogen, etc.)and reacts in two levels of concentration.
- Characteristic features of GS-133 are high stability and sensitivity, long life and small dimensions.
- Device signalizes leaking of the gas optical and acoustical way. It is as well equipped by output relay with selectable function.

TECHNICAL PARAMETERS

Supply voltage/current:	12 V DC \pm 20% /150 mA
Tone signalling:	94 dB / 0.3 m
Relay output:	250 V / 5 A (selectable reaction to 1. or 2. level)
Output type:	changeover contact max. 230 V / 5A
Operation temperature:	-10 °C to +40 °C
Relative humidity:	25% - 75%
Storage temperature:	-20°C to +50° C
Time of stabilisation:	60 s
Warm-up time in clean air:	60 s
Warm-up time in standard calibration gas:	60 s
Latency:	max. 10 s
Detection method:	catalytic burning
Protection degree:	IP 30 (ČSN EN 60 529)
Recommended cable size:	1,5 mm ²
Installation:	level surface mounting
Dimensions:	100 x 70 x 39 mm
Weight:	112 g

Constructed for operation in common atmospheric pressures (86-10 kPa)

Designed for environment without noted danger - BE 1 (EN 2000-3)

Sensitivity:	Methane:	ISO-butane:
I. level:	10 \pm 2% DMV (0,44% methane)	15 \pm 3% DMV (0,20% ISO-butane)
II. level:	17 \pm 3% DMV (0,75% methane)	30 \pm 3% DMV (0,39% ISO-butane)

rem. DMV = lower limit of explosibility, all calibrated by ISO-butane



Interior siren SA-913

- Heavy-duty siren SA-913 with piezoelectric membrane is used as an acoustic device in interior and exterior of the protected object.
- During alarm they create unbearable noise in monitored area, which makes it more difficult for the offender to act.
- It is difficult to localize such siren and disarm it.



TECHNICAL PARAMETERS

Supply voltage/current:	11 - 14 V DC/250 mA
Sound intensity:	110 dB/m
Installation:	level surface mounting
Dimensions:	120 x 72 x 40 mm
Weight:	140 g

Exterior siren OS-365

- Exterior siren OS-360/365 is used as external acoustic device in protected object.
- Siren OS-360/365 is external siren backed-up by inbuilt NiCd accumulator. All siren functions are operated by microprocessor.
- OS-360 is equipped by a crystal transducer.
- OS-365 is equipped by an electro-dynamic transducer and it is used in house-building areas or for detached houses.
- Siren is equipped by a pair of sabotage contacts for detection in case the cover of siren opens or the siren is pulled down from a wall. There is a powerful indicator which ensures good optical localisation of an active siren. The body of a siren is manufactured from a mechanically resistant plastic with high colour stability and resistance against UV radiation and weather conditions. Resistance of electronic parts against humidity is ensured by two-layered and polished PCBs. Reed contacts are used as sabotage contacts.



TECHNICAL PARAMETERS

Supply voltage/current:	10 - 17 V DC / < 50 mA / 12 V
Back-up accumulator:	NiCd pack 4,8V/ 1800mAh
Crystal transducer (OS-360):	113 dB /1 m
With additional crystal transducer ACM-OS360:	118 dB /1 m
Electrodynamic transducer (OS-365):	110 dB /1 m
Time of siren hooping:	19 minutes
Time of indicator flashing:	60 minutes
Resistance of sabotage loop:	< 70 Ω
Protection degree:	IP 34D
Safety level 3 (with internal cover):	according to EN 50131-1
Safety level 2 (without internal cover):	according to EN 50131-1
Environmental class:	IV. external general -25 .. +60 °C
Installation:	level surface mounting
Dimensions:	230 x 158 x 75 mm
Weight:	120 g

ACCESSORIES

DEVICES RELATING WITH INELS:



IR remote controller
IR remote controller Kameleon URC8206



Thermo-drive ALPHA AA 0-10 V
Thermo-drive ALPHA AA 230 V
Thermo-drive ALPHA AA 24 V



Power supply PS-100/INELS



Operation panels Touch11/PCB, Touch51/PCB



Thermal sensors TC, TZ



Dimmable ballast DIML

Data protectors DTNVEM 1/CIB



IR remote controller basic

- It is used in system INELS in connection with Sophy unit and its IR interface.
- Controller can be used for controlling Sophy unit by its IR interface.
- Controller has 6 buttons and these buttons can be assigned for any functions of INELS system, and also for other devices controlled by IR signal at home (TV, DVD, VCR ...).
- Sophy is programmed by a „teaching mode“.
- Universal devices are programmed by using a chart of codes, which is a part of delivery.

Delivery according to up-to-date assortment.



illustrative photo

IR remote controller comfort - Kameleon URC8206

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- Controller can be used for controlling Sophy unit by its IR interface.
- Controller has 6 buttons and these buttons can be assigned for any functions of INELS system, and also for other devices controlled by IR signal at home (TV, DVD, VCR ...).
- Sophy is programmed by a „teaching mode“.
- Universal devices are programmed by using a chart of codes, which is a part of delivery.
- Operates up to six devices of any brand, including TV, VCR, DVD, SAT/Cable (including Freeview Boxes) and Audio control.
- Macro functionality enables any sequence of commands to be performed from a single button for the ultimate in 'one touch' convenience Includes learning feature to add extra functions from original remote Built-in modem keeps the Kameleon 6 future-proof by enabling it to be upgraded with the latest codes.
- Upgrading can be done by phone or Internet download.
- Screen activates when touched and unique Electro Luminous display shows only the keys you need.
- Special features include: menu, teletext, fasttext, surround sound control, adjustable screen timeout.
- Ergonomic and stylish design with gloss black display and high brightness green keys.
- Features hard keys for Menu operation and Channel and Volume operation.

Delivery according to up-to-date assortment.



illustrative photo

Thermo-drive ALPHA AA 0-10 V

- Thermo-regulation drive ALPHA AA 0-10 V is used in INELS system for regulation of heating in connection with DAC units.
- The drive operates in a mode of gradual regulation by using control voltage 0-10 V.
- Thermo-electric principle fulfills requirements:
 - accurate regulation conduct
 - long lifetime
 - noiseless operation
- Thermo-regulation drive ALPHA AA has a valve connection according to an adapter, which is not a part of delivery and it is necessary to order it independently.



Thermo-drive with an built-in electronics for gradual (proportional) management of thermostatic valves.

Advantages:

- smooth (proportional) upstroke
- suitable for fast heating

TECHNICAL PARAMETERS

Operation voltage:	24 V, 50/60 Hz
Operational output:	1,5 W
Control voltage on input:	0 - 10 V DC
Wire:	3 x 0,22 mm ²
Middle levelling time:	30 s/mm
Wire length:	1m
Color:	white
Dimensions h/w/d:	48+6/43/53 mm

Thermo-drive ALPHA AA 230 V



- **Use**
Regulation of thermostatic valves of floor, radiator, and convector heating.

- Thermo-electric drive ALPHA AA 230 V serves to regulate heating in INELS system.
- It is possible to use a actuator of INELS system to its control.
- Drive operates in mode open/closed.
- Thermo-electric drive is designed for zone or individual regulation with high differential pressures for all thermostatic valves.
- Main features:
 - long-term reliable function
 - mounting without necessity of using special tools
 - noiseless drive
 - type with no voltage open/ with no voltage closed
 - visual indicator of valve position

TECHNICAL PARAMETERS

Operation voltage:	230 V, 50/60 Hz
Input:	1,8 W
Protection degree:	IP 54/II
Setting:	4 mm
Levelling strenght:	100 N ± %
Connection:	2 x 0,75 mm ²
Wire length:	1 m
Color:	white RAL 9003
Dimensions h/w/d:	55+5/44/61 mm

Thermo-drive ALPHA AA 24 V



- **Use**
Regulation of thermostatic vavles of floor, radiator, and convector heating.

- Thermo-electric drive ALPHA AA 24 V serves to regulate heating in INELS system.
- It is possible to use any switching actuator of INELS system.
- Drive works in mode open/closed.
- Thermo-electric drive is designed for zone or individual regulation with high differential pressures for all thermostatic valves.
- Main features:
 - long-term reliable function
 - mounting without a necessity of using special tools
 - noiseless operation
 - type no voltage open/ no voltage closed
 - visual indicator of valve position

TECHNICAL PARAMETERS

Operation voltage:	24 V AC, 50/60 Hz
Input:	1,8 W
Protection degree:	IP 54/II
Setting:	4 mm
Levelling strngth:	100 N ± %
Connection:	2 x 0,75 mm ²
Wire length:	1 m
Color:	white RAL 9003
Dimensions h/w/d:	55+5/44/61 mm



Thermo sensors TC, TZ



TC

TZ

Range:	0..+70 °C	-40..+125 °C
Scanning element:	NTC 12K 5 %	NTC 12K 5 %
τ65 - in air/ in water:	92 s / 23 s	62 s / 8 s
τ95 - in air/ in water:	306 s / 56 s	216 s / 23 s
Cable material:	PVC with higher thermal immunity	silicone
Terminal material:	PVC with higher thermal immunity	nicel-coated copper
Protection degree:	IP 67	IP 67
Protection class:	II (double insulation)	II (double insulation)

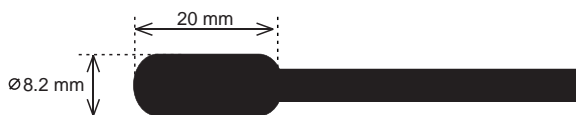
τ65 (95): time, in witch is sensor warmed on 65 (95)% of temperature of the environment, in which is sensor located.

Temperature (°C)	Sensor resistance(kΩ)
20	14,7
30	9,8
40	6,6
50	4,6
60	3,2
70	2,3

Thermal sensor for range 0 .. +70 °C

- TC-0 - sensor connected to terminal (length 100 mm)
- TC-3 - sensor 3 m, double insulation
- TC-6 - sensor 6 m, double insulation
- TC-12 - sensor 12 m, double insulation

Sensor TC drawing



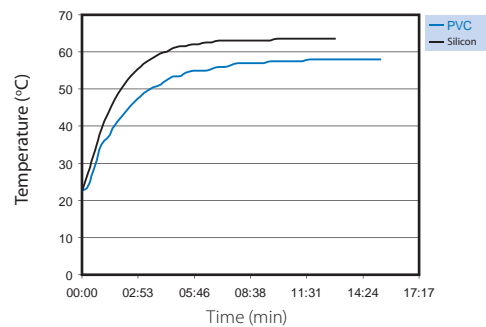
Sensor TC-3 photo



- Thermal sensors TC and TZ are designed for temperature sensing.
- Thermal sensors are made from NTC, and sealed in a metal tube by thermoconductive glue.
- Hight electrical strenght according to requirements to double insulation.
- Thermal contact between thermistor and thermal sensor surroundings.
- Sensor TZ is suitable mainly in extreme temperatures.
- 2 types of thermal sensors:

- TC - service wire to sensor TC is made of conductor CYSY 2D x 0.5 mm
- TZ - sensor TZ is made of wire VO3SS-F 2D x 0.5mm with silicon insulation
- Dimensions of the sensors TC
- Dimensions of the sensors TZ
- TC-0 - 5 g
- TZ-0 - 4,5 g
- TC-3 - 108 g
- TZ-3 - 106 g
- TC-6 - 213 g
- TZ-6 - 216 g
- TC-12 - 466 g
- TZ-12 - 418 g

Diagram of sensor warm up via air



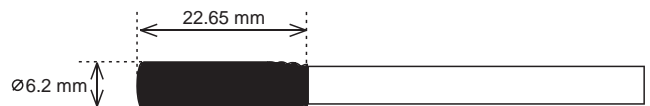
PVC - reaction to air temperature from 22.5 °C to 58 °C

Silicone - reaction to air temperature from 22.5 °C to 63.5 °C

Thermal sensor for range -40 .. +125 °C

- TZ-0 - sensor connected to terminal
- TZ-3 - sensor 3 m, double insulation silicone
- TZ-6 - sensor 6 m, double insulation silicone
- TZ-12 - sensor 12 m, double insulation silicone

Sensor TZ drawing



Sensor TZ-3 photo



Power supply PS-100/INELS



- Stabilized switching power supply
- Serves for supplying of control automats in intelligent electro-installation INELS
- Used in M and R (measuring and regulation) areas
- Output voltage is galvanically separated from the circuit
- Power supply with the set output voltage DC 27V and DC 12V, stabilized 100W
- Supplies 12V and 27V have the same terminal GND
- Output is disconnected while circuit breakout
- Output current is limited by electronic fuse
- Supply voltage: AC 230V
- PS-100/INELS in version 6-MODULE is designed for mounting into switchboard on DIN rail EN60715

TECHNICAL PARAMETERS

INPUT

Supply voltage:	AC 230V / 50-60Hz
Supply voltage tolerance:	-20% +10%
No-load input:	max. 6VA / 1W
Max-load input:	max. 195VA / 118W
Protection:	fuse T3,15A

OUTPUT

Output voltage DC/max. current:	27.2V / 3.7A	12.2V / 0.3.A
Output voltage tolerance:	+/-2%	
Output voltage ripple:	27.2V	12.2V
- no load	55mV	100mV
-max. load	5mV	50mV
Effectivity:	cca 82%	
Electronic protection:	white breakout, current and temperature overload	
Time delay after connection:	max 0.5s	

OTHER DATA

El. stability input-output:	4kV
Output indication:	green LED
Terminal jumper:	max. 1x2,5 mm ² /2x1,5 mm ² , with a ferrule 1x1,5mm ²
Operation air humidity:	20 .. 90 % RH
Operation temperature:	-20 .. +40 °C
Storage temperature:	-40 .. +85 °C
Protection degree:	IP20 device, IP40 mounting in the switchboard
Overvoltage category:	III.
Pollution degree:	2
Operation position:	any
Installation:	into installation box DIN rail EN 60715
Version:	6-MODULE
Dimension:	90 x 105 x 65 mm
Weight:	371 g
Standards:	EN 61000-4-2,3,4,5,6,8,11, EN 55022/B, EN 61558-2-17



Operation panels Touch 11/PCB, Touch 51/PCB

- Operation panels TOUCH 11/PCB and TOUCH 51/PCB serves as visual and control units, which are part of the building control system.
- Equipped with TFT LCD display and touch screen
- Communication through Ethernet 1Gb/s
- Panels are designed for mounting into the wall, in metal mounting box, which is part of delivery. This metal box contains break-out barriers for input of cables. Operation panel, by itself, is mounted into this box with 4 screws M4. After mounting and cables connection, panel get a wooden covering frame.
- Panels are distributed with / without operation system Windows XP Embedded.

Touch 11/PCB



TECHNICAL PARAMETERS

TOUCH 11 / PCB

Display:	TFT LCD , diagonal 5,7"
Display resolution:	640x480 points, 262 144 colours
Display backlight:	white LED
Touch panel:	with resistive technology

PROCESOVÝ MODUL

Processor:	AMD GEODE LX800
Memory:	256 MB RAM, CompactFlash 512 MB
Main desk, periphery:	VGA, 2x RS232, 4x USB, 1x Ethernet RJ-45, 1x LPT, 1x PS2 (keyboard and mouse), 1x IRDA 115 kb/s, 1x audio

TOUCH 51 / PCB

Display:	colourful LCD display size 10,4", 800x600 points
Touch panel:	with resistive technology
Operation memory:	256 MB
Compact Flash:	512 MB
Ethernet:	10/100 MBit
Mounting in the wall:	Yes

Touch 51/PCB

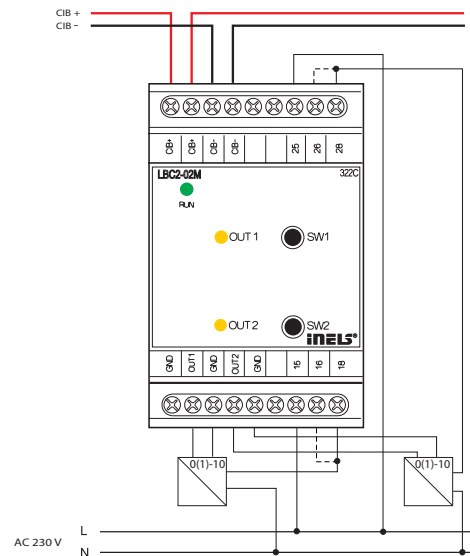
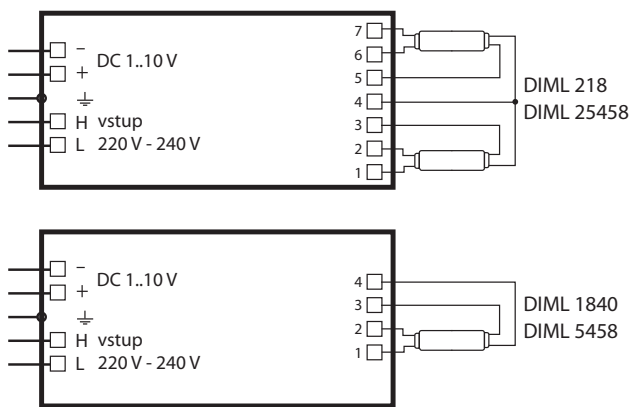


Dimmable ballast DIML



- Dimmable ballast DIML serves for regulation of brightness of fluorescent lights with tubes T8 (diameter 26 mm).
- In case this ballast is not installed already by a light manufacturer, it is possible to mount it additionally into it. Retrofit is also possible – it means you replacement of an original equipment by this dimmable ballast.
- Advantage (except for function dimming) is so called „soft start“ meaning gradual dimming up. This extends lifetime of light sources.
- Dimmable ballast is controlled by signal 1-10 V and it is to be connected to bus of INELS system by converters DAC2-04M, DAC2-04B or LBC2-02M.
- It comes in four types, according to output of used light sources (fluorescent tubes) see chart.

Connection



TECHNICAL PARAMETERS

Article	V min-max	A	1x...	W LAMPADA	λ	ta °C	tc °C	[mm]	g	L [mm]	P [mm]	H [mm]	Code		
DIML1840	220÷240	0,103	18 T8	16	0,98	10...+60	75	0,5÷1,5	340	359	29	26	1	DL118-40	
			25 T8	25											
			30 T8	27											
			36 T8	32											
			18 TC-L	16											
			24 TC-L	22											
			36 TC-L	32											
			40 TC-L	40											
			18 TC-F	16											
			24 TC-F	24											
			36 TC-F	32											
			24 T5	22,5											
			39 T5	38											
22 FC-T5C	22														
40 FC-T5C	40														
DIML22440	220÷240	0,175	18 T8	16	0,98	10...+60	75	0,5÷1,5	340	359	29	26	1	DL224-40	
			18 TC-L												
			18 TC-F												
			25T8												
			30 T8												27
			36 T8												32
			24 TC-L												22
			36 TC-L												32
			40 TC-L												40
			24 TC-F												22
36 TC-F	32														
24 T5	22,5														
39 T5	38														
22 FC-T5C	19														
40 FC-T5C	40														



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TECHNICAL PARAMETERS

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Display backlight:	white LED
Touch panel:	with resistive technology

PROCESOVÝ MODUL

Processor:	AMD GEODE LX800
Memory:	256 MB RAM, CompactFlash 512 MB
Main desk, periphery:	VGA, 2x RS232, 4x USB, 1x Ethernet RJ-45, 1x LPT, 1x PS2 (keyboard and mouse), 1x IRDA 115 kb/s, 1x audio

TOUCH 51 / PCB

Display:	colourful LCD display size 10,4", 800x600 points
Touch panel:	with resistive technology
Operation memory:	256 MB
Compact Flash:	512 MB
Ethernet:	10/100 MBit
Mounting in the wall:	Yes

Inside scheme of changeable module connection

DTNDEM 1/CIB is connected with output in direction of protected device

