

Архангельск (8182)63-90-72

Астана (7172)727-132

Астрахань (8512)99-46-04

Барнаул (3852)73-04-60

Белгород (4722)40-23-64

Брянск (4832)59-03-52

Владивосток (423)249-28-31

Волгоград (844)278-03-48

Вологда (8172)26-41-59

Воронеж (473)204-51-73

Екатеринбург (343)384-55-89

Иваново (4932)77-34-06

Ижевск (3412)26-03-58

Казань (843)206-01-48

Калининград (4012)72-03-81

Калуга (4842)92-23-67

Кемерово (3842)65-04-62

Киров (8332)68-02-04

Краснодар (861)203-40-90

Красноярск (391)204-63-61

Курск (4712)77-13-04

Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13

Москва (495)268-04-70

Мурманск (8152)59-64-93

Набережные Челны (8552)20-53-41

Нижний Новгород (831)429-08-12

Новокузнецк (3843)20-46-81

Новосибирск (383)227-86-73

Омск (3812)21-46-40

Орел (4862)44-53-42

Оренбург (3532)37-68-04

Пенза (8412)22-31-16

Пермь (342)205-81-47

Ростов-на-Дону (863)308-18-15

Рязань (4912)46-61-64

Самара (846)206-03-16

Санкт-Петербург (812)309-46-40

Саратов (845)249-38-78

Севастополь (8692)22-31-93

Симферополь (3652)67-13-56

Смоленск (4812)29-41-54

Сочи (862)225-72-31

Ставрополь (8652)20-65-13

Сургут (3462)77-98-35

Тверь (4822)63-31-35

Томск (3822)98-41-53

Тула (4872)74-02-29

Тюмень (3452)66-21-18

Ульяновск (8422)24-23-59

Уфа (347)229-48-12

Хабаровск (4212)92-98-04

Челябинск (351)202-03-61

Череповец (8202)49-02-64

Ярославль (4852)69-52-93

michell.nt-rt.ru || mhc@nt-rt.ru

ПРИБОРЫ С ОХЛАЖДАЕМЫМ ЗЕРКАЛОМ

ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ

S8000 Remote High Precision Chilled Mirror Hygrometer

The S8000 Remote has all the great features of the other S8000 Series chilled mirror hygrometers, but with a convenient and compact remote sensor design.

The field-proven sensor boasts superior upgraded temperature control for extremely accurate dew-point measurement. Coupled with the standard $\pm 0.1^{\circ}\text{C}$ accuracy ambient temperature sensor, it provides fundamentally derived, high precision relative humidity readings necessary for validating the results of environmental tests.



Product Features

- Fundamental, accurate and drift-free measurement
- Remote sensor
- Open design allows remote sensor to be mounted into a sample flow or simply placed in an environment to be monitored
- -40 to $+90^{\circ}\text{C}$ dew-point range with $\pm 0.1^{\circ}\text{C}$ accuracy
- Data logging to USB or SD card
- 'FAST' guarantees frost formation below 0°C
- Sensor operates in pressures up to 20 barg

Optidew

Optical Dew-Point Transmitter

The Optidew precision optical dew-point transmitter is based on the proven, fundamental optical dew-point measurement principle, giving long-term drift-free performance. It offers a wide measurement range from the equivalent of <0.5 to 100% RH at ambient temperature (dew point range: -40 to $+90^{\circ}\text{C}$, and up to $+130^{\circ}\text{C}$ with high temperature option).

The Optidew is ideal for industrial applications and is supplied in a rugged NEMA 4X (IP66) stainless steel wall mount enclosure. The transmitter provides two linear $0/4-20$ mA outputs and RS232 serial communications, allowing configuration and monitoring by a suitable computer or PLC system or via specific Optidew logging software. An adjustable isolated alarm contact allows Optidew to be used for direct process control.

Product Features

- Precision process dew point, %RH and temperature measurement
- Measurement Range: <0.5 to 100% RH, -40 to $+90^{\circ}\text{Cdp}$
- $\pm 0.2^{\circ}\text{Cdp}$ accuracy ($\pm 0.15^{\circ}\text{C}$ optional)
- Fundamental drift free dew-point measurement
- Rugged NEMA 4X industrial housing



High temperature sensor option to +130°C

Optional local display

Technical Specification

Performance

Measurement Accuracy*	±0.2°Cdp ±0.15°Cdp accuracy optional ±0.1°C temperature
Measurement Units	°C, °F dew point; %RH; °C, °F temperature; g/m ³ ; g/kg; a _w ; Δ (t-t dew point)
Response Speed	1°C/sec plus settling time (dew point dependant)
Power Supply	90 to 264 V AC OR 127 to 370 V DC, 47 to 440 Hz, 20 W max internally fused, 4A quick blow

Dew-Point Sensor

Sensor	1 Stage	2 Stage	High Temperature PEEK	Climatic or Aluminium head
Dew-Point Range	-30°Cdp @ sensor temperature of 20°C +90°Cdp @ sensor temperature of 90°C	-40°Cdp @ sensor temperature of 20°C +90°Cdp @ sensor temperature of 90°C	-40°Cdp @ sensor temperature of 20°C +130°Cdp @ sensor temperature of 130°C	-10°Cdp @ sensor temperature of 20°C +130°Cdp @ sensor temperature of 130°C
Temperature Range	-40 to +90°C	-40 to +90°C	-40 to +130°C	-40 to +130°C
%RH Range	<2 to 100%	<0.5 to 100%	<0.5 to 100%	10 to 100%
Min Measured Dew Point @ 20°C	-30°C	-40°C	-40°C	-10°C
Mirror Material Options	Gold plated copper (standard) Gold stud 316 stainless steel stud** Platinum stud**			
Sensor Body Material Options	Acetal (standard) High temperature PEEK 316 stainless steel** Anodized aluminum**			
Temperature Measurement	4 wire Pt100, 1/3 DIN class B			
Sample Flow	0.1 to 2 Nl/min (in sampling block)			
Maximum Velocity	10 m/sec direct insertion 30 m/sec with sintered guard			
Pressure	Standard unit: 2 Mpa / 20 barg (max) Ingress Protection: IP66 High Pressure version: 25 Mpa / 250 barg (max) Ingress Protection: IP65			
Sensor Cable	Standard Cable: PVC insulator material, +70°C max temperature High Temperature Cable: Silicone insulator material, +180°C max temperature			
Cable Length	2m; 50m maximum (up to 250m on special request)			

Remote PRT

Temperature Measurement	4-wire Pt100 1/10 DIN class B
Remote PRT Cable	Standard Cable: PVC insulator material, +70°C max temperature High Temperature Cable: PTFE insulator material, +250°C max temperature
Cable Length	2m; 50m maximum (up to 250m on special request)

Transmitter Electronics

Resolution	0.1 for °C, °F and %RH 0.01 for g/m ³ and g/kg
------------	--

Outputs	Analog: Two channels 0/4-20 mA Digital: RS232 (RS485 optional) Alarm: Volt free contact, 2 A @ 30 V DC
Status LEDs	DCC / Alarm Status
Operating Temperature	-20 to +50°C ambient
Environmental Conditions	Up to 98% RH non-condensing
Enclosure	304 stainless steel
Ingress Protection	IP66 (NEMA 4X)
Cable Pack	Power and RS232 cables
General	
Calibration	4-point traceable in-house calibration as standard, UKAS accredited calibrations optional – please consult Michell Instruments

**Measurement accuracy means maximum deviation between instrument under test and corrected reference. To this must be added the uncertainties associated with the calibration system and the environmental conditions during testing and subsequent use*

***Recommended for special applications only, consult Michell Instruments before ordering*

Optidew Vision Precision Dew-Point Hygrometer

The Optidew Vision precision dew-point meter is based on the proven, fundamental optical dew-point measurement principle, giving long-term drift-free performance. It offers a wide measurement range from the equivalent of <0.5 to 100% RH at ambient temperature (dew point range: -40 to +90°C (-40 to +194°F), and up to +130°C (+266°F) with high temperature option).

The Optidew is an excellent entry level calibration reference, supplied as standard with a fully traceable in-house calibration or optional UKAS-certified calibration. Its simple operation makes it possible for anyone to use with minimum training. Simply connect the instrument, power it up and measurement will begin automatically.

Product Features

Fundamental drift-free dew-point measurement
Measurement range: <0.5 to 100% RH from -40 to +90°C ambient
±0.2°Cdp (±0.36°Fdp) accuracy; optional higher accuracy available
High temperature sensor option to +130°C (+266°F)
Rugged NEMA 12 bench-top housing
High pressure sensor option to 25 MPa (250 barg/ 3626 psig)
Purpose-designed climatic chamber reference sensor option



Technical Specification

Performance	
Measurement Accuracy*	±0.2°Cdp (±0.36°F) ±0.15°Cdp (±0.27°Fdp) accuracy optional ±0.1°C (±0.18°Fdp) temperature
Measurement Units	°C, °F dew point; %RH; °C, °F temperature; g/m ³ ; g/kg; a _w ; Δ (t-t dew point)
Response Speed	1°C/sec (1.8°F/sec) plus settling time (dew point dependant)
Power Supply	90 to 264 V AC or 127 to 370 V DC, 47 to 440 Hz, 20 W max. internally fused, 4A quick blow
Dew-Point Sensor	

Sensor	1 Stage	2 Stage	High temperature PEEK	Climatic or Aluminum head
Dew-Point Range	-30°Cdp @ sensor temp of 20°C +90°Cdp @ sensor temp of 90°C	-40°Cdp @ sensor temp of 20°C +90°Cdp @ sensor temp of +90°C	-40°Cdp @ sensor temp of 20°C +130°Cdp @ sensor temp of 130°C	-10°Cdp @ sensor temp of +20°C +130°Cdp @ sensor temp of +130 °C
Temperature Range	-40 to +90°C (-40 to +194°F)	-40 to +90°C (-40 to +194°F)	-40 to +130°C (-40 to +266°F)	-40 to +130°C (-40 to +266°F)
%RH Range	<2 to 100%	<0.5 to 100%	<0.5 to 100%	10 to 100%
Min Measured Dew Point @ +20°C (+68°F)	-30°C (-22°F)	-40°C (-40°F)	-40°C (-40°F)	-10°C (+14°F)
Mirror Material Options	Gold plated copper (standard) Gold stud 316 stainless steel stud** Platinum stud**			
Sensor Body Material Options	Acetal (standard) High temperature PEEK 316 stainless steel** Anodized aluminum**			
Temperature Measurement	4 wire Pt100, 1/3 DIN class B			
Sample Flow	0.1 to 2 NI/min (0.2 to 4 scfh) (in sampling block)			
Maximum Velocity	10 m/sec (32.8 f/sec) direct insertion 30 m/sec (98.4 f/sec) with sintered guard			
Pressure	Standard unit: 2 Mpa / 20 barg (300 psig) (max) Ingress Protection: IP66 High Pressure version: 25 Mpa / 250 barg (3626 psig) (max) Ingress Protection: IP65			
Sensor cable	Standard cable: PVC insulator material, +70°C (+158°F) max temperature High temperature cable: Silicone insulator material, +180°C (+356°F) max temperature			
Cable Length	2m (6.56'); 50m (164') up to 250m (820') on special request			
Remote PRT				
Temperature Measurement	4-wire Pt100 1/10 DIN class B			
Sensor cable	Standard cable: PVC insulator material, +70°C (+158°F) max temperature High temperature cable: PTFE insulator material, +250°C (+482°F) max temperature			
Cable Length	2m (6.56'); 50m (164') maximum up to 250m (820') on special request			
Transmitter Electronics				
Resolution	0.1 for °C, °F and %RH 0.01 for g/m ³ and g/kg			
Outputs	Analog: 4–20 mA or 0–20 mA over user-settable output, Accuracy: ±0.2°C (±3.6°F); 500 Ω maximum load resistance Digital: RS232 @ 9600 baud rate Alarm: Volt free contact, 2 A @ 30 V DC, 0.5 @ 120 V AC			
Status LEDs	DCC / Alarm Status			
Operating Temperature	-20 to +50°C (-4 to +122°F) ambient			
Environmental conditions	Up to 98% RH non-condensing			
Enclosure	Standing case with carry handle, Panel mounting kit optional			
Ingress Protection	IP54 (NEMA 2)			
Cable Pack	Mains, RS232 cable and output connector			
General				
Calibration	4-point traceable in-house calibration as standard, UKAS accredited calibrations optional – please consult Michell Instruments			

**#Agreement covers maximum deviation between instrument under test and accepted reference. To this must be added the uncertainties

**** Recommended for special applications only, consult Michell Instruments before ordering**

S4000 Remote Precision Dew-Point Hygrometer

he S4000 Remote is a precision laboratory dew-point hygrometer with the ultimate accuracy, reliability and long-term performance for humidity measurement and calibration. The product offers unmatched accuracy and reliability in dew-point measurements of air and gas systems in calibration laboratories.

Its powerful three-stage Peltier thermoelectric heat pump gives a depression capability of more than 70°C at normal laboratory temperature. The S4000 Remote comprises a free-standing sensor and a 19" x 3U monitor unit, connected by individual power and signal cables for the most stable and precise dew-point control.

Product Features

Super-sensitive dual optics
Three-stage Peltier cooling
Precision 4-wire Pt100 Sensor
0.1°Cdp accuracy
Dual multi-function LED display with unit indicator
Current, voltage outputs and RS232 digital communications



Technical Specification

Performance	
Measurement Technology	Cooled Mirror
Measurement Units	°Cdp, °Fdp, °C, °F temp; % RH, ppm _v , ppm _w , g/m ³ , g/kg, ppm _w for SF ₆
Measurement Range	-80 to +20°Cdp (remote) -80 to +85°Cdp (climatic sensor)
Temperature Measurement	4 wire 100 Ω 1/10 DIN class B Pt100
Accuracy	±0.1°Cdp (typical system accuracy)
Sensitivity	0.01°C
Response Speed	0.5°C/sec plus setting time (dew-point dependent)
Repeatability	Better than 0.1°C
Sample Flow Rate	0.1 to 0.7 l/min(recommended)
Sensor Pressure	1 MPa (1 barg) (max)
Electrical output/input	
Outputs	Analogue: 10 mV/ °Cdp, 4-20 mA Digital: RS232 - data hold, ABC status, optics alarm (logic)
Output Ranges	
Display Resolution	0.01 for all units
Power Supply	90 to 265 V AC; 50-60 Hz (monitor)
Operating conditions	
Sensor Operating Temperature	-30 to +30°C (remote) -30 to +90°C (climatic)

Mechanical specification	
Sensor Housing Type	Bench case; space frame (climatic version)
Dimensions	268 x 300 x 133mm (w x d x h)
Weight	5.5kg 4.8kg (climatic version)
Cable Length	50m (max)
Display	Dual 6-digit LED, with 2 digit eng unit indicators
Dual Optics Detection	Wide band red LED with dual photo sensors
Integrated Flow Meter	0 to 1 l/min

S8000 Integrale

The new generation S8000 Integrale provides fundamental measurements of dew point in the range of -60 to +40°Cdp, and is designed to be fast and straightforward to use in situations where measurement accuracy is of critical importance.

The analyzer provides direct measurements of dew point, temperature, flow and (optionally) pressure in a compact and lightweight package. The new RRS optical system allows precise control even in changing moisture conditions, making it ideal for process verification in addition to being a dependable calibration reference.

Product Features

- ±0.1°Cdp (±0.18°Fdp) accuracy
- Fundamental, accurate and drift-free measurement
- Simple configuration and operation via touch screen interface
- Precision measurements to -60°C (-76°F) dew point
- FAST – guaranteed frost formation below 0°C (+32°C)
- Measure at pressures up to 2 MPa (20 barg)
- USB, Ethernet, RS485 or RS232 connectivity
- Datalogging to SD card or via digital comms



Technical Specification

Dew-Point Sensor Performance	
Measurement Technology	Chilled Mirror
Measurement Range	-60 to +40°Cdp
Accuracy*	±0.1°Cdp
Reproducibility	±0.05°C
Operating Pressure	Low pressure version: 0 to 1 barg / 14.5 psig High pressure version: 0 to 20 barg / 290 psig
Sample Flow Rate	0.1 to 1 l/min (0.2 to 2.1 scfh)
Detection System	RRS Triple Detection
Remote PRT Probe (Optional)	
Temperature Measurement	4 wire Pt100, 1/10 DIN class B
Measurement Accuracy	±0.1°C

Cable Length	2m (250m max)
Flow Sensor	
Measurement Accuracy	Typical $\pm 5\%$ uncalibrated
Measurement Range	0 to 1000 ml/min
Integrated Pressure Sensor (Optional)	
Measurement Range	0 to 25 bara (0 to 377 psia)
Measurement Accuracy*	0.25% Full Scale
Measurement Units	psia, bara, KPa or MPa
Monitor	
Resolution	User-selectable to 0.001 dependant on parameter
Measurement Units	$^{\circ}\text{C}$ and $^{\circ}\text{F}$ for dew point and temperature %RH, g/m^3 , g/kg, ppm_V , ppm_W (SF_6), for calculated humidities
Outputs	Analog 3 channels, user selectable 4-20 mA, 0-20 mA or 0-1 V Digital Modbus RTU over USB, and optional Modbus RTU over RS232, RS485 or Modbus TCP over Ethernet Alarm Two volt-free changeover contacts, one process alarm, one fault alarm; 1 A @ 30 V DC
HMI	5.7" LCD with touchscreen, white on blue graphics
Data Logging	SD Card (512Mb supplied) and USB interface SD Card (FAT-16) — 2Gb max. that allows 24 million logs or 560 days, logging at 2 second intervals
Environmental Conditions	-20 to $+40^{\circ}\text{C}$
Power Supply	85 to 264 V AC, 47/63 Hz
Power Consumption	100 V A
EMC - Class A Emissions Industrial Location Immunity	Complies with EN61236:1997 (+A1/A2/A3)
Mechanical Specifications	
Dimensions	184 x 483 x 368mm (7.3 x 19 x 14.5") h x w x d
Weight	11kg
General	
Process Connections	6mm Swagelok [®] tube or 1/4" Swagelok [®] tube
Storage Temperature	-20 to $+50^{\circ}\text{C}$
Calibration	3-point traceable in-house calibration as standard UKAS accredited calibrations optional - please consult Michell

* Measurement accuracy means maximum deviation between instrument under test and corrected reference. To this must be added the uncertainties associated with the calibration system and the environmental conditions during testing or subsequent use.

S8000 RS High Precision Chilled Mirror Hygrometer

The S8000 RS chilled mirror sensor directly measures the formation of condensation, giving long-term and unmatched, drift-free readings of dew-point and relative humidity. It offers a wide measurement range from -90 to +20°C dew point. Fully automated control of the auxiliary cooling system means that no operator intervention is required even if the measured dew point changes from one end of the range to the other.



Product Features

- Accuracy of $\pm 0.1^{\circ}\text{C}$
- Precision measurement to -90°Cdp (100 ppb) with no need for additional cooling
- Simple configuration and operation via touch screen interface
- Sensor head optimised for fast response to low moisture levels
- Compact 19" x 4U package
- Lightweight at 17kg - less than half the weight of closest competitor
- Ethernet or USB connections
- SD card datalogging

Technical Specification

Dew-Point Sensor Performance	
Measurement Technology	Chilled Mirror
Measurement Range	RS80: -80 to $+20^{\circ}\text{Cdp}$ RS90: -90 to $+20^{\circ}\text{Cdp}$
Measurement Accuracy*	$\pm 0.1^{\circ}\text{C}$
Reproducibility	$\pm 0.05^{\circ}\text{C}$
Mirror	Gold plated copper
Temperature Measurement	4 wire Pt100, 1/10 DIN class B
Sample Flow Rate	500 to 1000 ml/min
Sample Gas Pressure	1 MPa (10 barg) max
Remote PRT	
Temperature Measurement	4 wire Pt100, 1/10 DIN class B
Measurement Accuracy	$\pm 0.1^{\circ}\text{C}$
Cable Length	2 metres (250 metres max)
Flow Sensor	
Measurement Range	0 to 1000ml/min
Optional Integrated Pressure Sensor	
Measurement Range	0 to 1.6 MPa (0 to 16 bara)
Measurement Accuracy	0.25% Full Scale
Measurement Units	barg, psig, kPa, MPa
Monitor	
Resolution	User selectable to 0.001°C , depending on parameter
Measurement Units	Moisture: $^{\circ}\text{C dp}$ or $^{\circ}\text{F dp}$, % RH, g/m^3 , g/kg , ppm_v , ppm_w (SF_6) Temperature: $^{\circ}\text{C}$ or $^{\circ}\text{F}$

	Pressure: barg, psig, kPa, Mpa
Outputs	Analog: Three channels, user selectable 4-20 mA, 0-20 mA or 0-1 V Digital: USB and Modbus TCP (over Ethernet) Alarm: Two volt-free changeover contacts, one process alarm, one fault alarm; 1 A @ 30 V DC
HMI	5.7" LCD with touchscreen, white on blue graphics
Data Logging	SD Card (512 Mb supplied) and USB interface Supports SD Card (FAT-32) - 32 GB max. that allows 24 million logs or 560 days, logging at 2 second intervals
Environmental Conditions	5 to 30°C, max 80% RH
Power Supply	85 to 264 V AC, 47/63 Hz
Power Consumption	250 VA

Mechanical Specification

Dimensions	177 x 440 x 550mm (h x w x d)
Weight	17kg
Sample Gas Circuit	316 Stainless steel
Sample Gas Connections	Inlet: ¼" VCR Outlet: ¼" Swagelok

General

Calibration	5-point in-house calibration, national standards traceable as standard UKAS accredited calibrations optional - please consult factory
-------------	--

* Measurement accuracy means maximum deviation between instrument under test and corrected reference. To this must be added the uncertainties associated with the calibration system and the environmental conditions during testing or subsequent use.

S4000 TRS Precision Dew-point Hygrometer

A precision laboratory dew-point hygrometer with the ultimate accuracy, reliability and long-term performance for humidity measurement and calibration.

Product Features

- 0.1°Cdp accuracy
- Measurement range: -100 to +20°Cdp
- Precision 100 Ω 4 wire platinum resistance thermometer
- Dual optics detection system
- Available with VCR couplings for optimum trace moisture sampling
- Dual multi-function LED display with unit indicator



Technical Specifications

Performance

Measurement Technology	Chilled Mirror
Measurement Range	-100 to +20°Cdp

Measurement Accuracy	±0.1°Cdp ±0.1°C temperature
Measurement Units	°Cdp, °Fdp; °C, °F temperature; % RH, ppm _v , ppm _w , g/m ³ , g/kg, ppm _w for SF&sub6
Response Speed	0.5°C/sec plus settling time (dew-point dependant)
Sensitivity	0.01°C
Repeatability	Better than 0.1°C
Resolution	0.01 (0.1 for % RH)
Dew-Point Sensor	
Mirror	Gold plated copper
Temperature Measurement	4 wire Pt100, 1/10 DIN class B
Sample Flow Rate	0.1 to 0.7 NL/min (recommended)
Integrated Flowmeter	0 to 1 NL/min
Sensor Pressure	Atmospheric
Auxiliary Cooling	Internal refrigeration
Remote PRT	
Temperature Measurement	4 wire Pt100 1/10 DIN class B
Monitor	
Resolution	0.01°C
Dual Optics Detection	Wide band red LED with dual photo sensors, all systems insulated
Outputs	Analog: 2 channels: 10mV/°Cdp, 4-20 mA Digital: RS232 Logic: Data hold ABC logic status, optics alarm
Auxiliary Input	Pressure transducer: 4-20 mA input for automatic compensation 0 - 0.34 MPa (0-50 psia) (optional)
Operating Temperature	0 to +40°C
Dimensions	560 x 600 x 860mm (w x d x h) - mini rack
Weight	85kg
Power Supply	Monitor: 90 to 265 V AC; 50/60 Hz Sensor: 100 to 115 or 220 to 240 V AC; 50/60 Hz

Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16

Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13

Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93