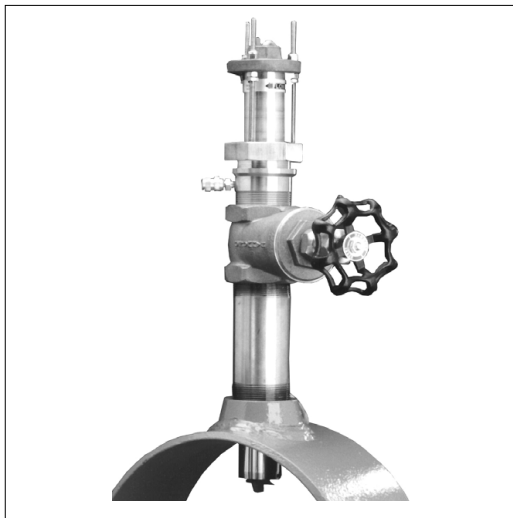




Badger Meter Europa

Hot tap flow sensors

Models 225BR/226BR/226SS



Description

The series 200 flow sensors feature a six bladed impeller design with a proprietary non-magnetic sensing mechanism. The forward swept impeller shape provides higher, more consistent torque and is less prone to be fouled by water borne debris. The forward curved shape coupled with the absence of magnetic drag provides improved operation and repeatability even at lower flow rates. This is especially true where the impeller is exposed to metallic or rust particles found in steel or iron pipes. As the liquid flow turns the impeller, a low impedance square wave signal is transmitted with a frequency proportional to the flow rate. The signal can travel up to 600 m between the flow sensor and the display unit without the need for amplification. All sensors except irrigation versions are supplied with 6 m of 2-conductor 20 AWG shielded U.L. type PTLC 105°C cable.

Features

- Easy flow measurement
- For pipe diameters from 3" to 40" (DN80 – DN1000)
- Special version up to 120"
- Hot tap model for quick installation or dismantling during the process

Model 225BR and 226BR/226SS sensors

The model 225BR and 226BR/226SS sensors are used for flow measuring applications in most metallic or non-metallic pipes where it would be difficult to shut down or drain the line for installation or service. The model 225 features a gate valve for isolation and the model 226 a ball valve. If the pipe is too hot tapped, the ball valve is recommended. The sensor mounts in a 2" NPT pipe saddle or Thredolet® for installation in pipe sizes from 3" to over 40". Positioning nuts on the three threaded retaining rods allow the sensor to be accurately positioned to a standard insertion depth of 1 ½" into the pipe. When this insertion depth is maintained and there are at least 10 upstream and 5 downstream diameters of straight uninterrupted flow, an accuracy of ±1% of full scale can be obtained between flow velocities of 0,1 to 9 m/s. Each sensor is equipped with an isolation valve and pipe nipple to allow the sensor to be installed in a pressurized pipe. This is accomplished by first attaching a saddle or Thredolet® to the pipe and screwing the nipple and isolation valve into the saddle or thredolet fitting. A hole is then drilled through the pipe using a commercial tapping machine. When completed, the tapping apparatus is removed, the isolation valve is closed and the sensor is installed using a model HTT hot tap tool.

Note that the overall length of the sensor tube is 457 mm (18"), however, a clearance height of 127 mm (5") should be allowed for the fully extended length of the sensor tube outside the isolation valve.

Архангельск (8182)63-90-72
Астана +7(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
Иркутск (395) 279-98-46

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

Киргизия (996)312-96-47

Казахстан (772)734-952-31

Таджикистан (992)427-82-92-69

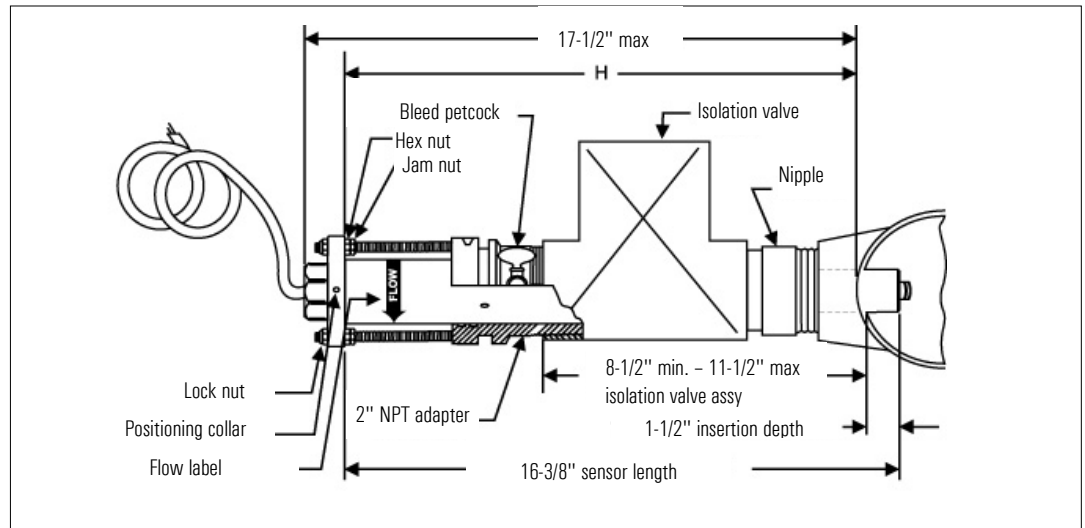
Эл. почта bdg@nt-rt.ru || Сайт: <http://badger.nt-rt.ru>



Technical data

Wetted materials for all sensors	See ordering matrix		
Sensor sleeve and hex adapter for 225BR and 226BR	Sleeve: Admiralty brass, UNS C44300 Hex Adapter: Valve bronze, UNS C83600		
Sensor sleeve and hex adapter for 226SS	316 series stainless steel		
Temperature ratings	Standard version: 105°C (221°F) continuous service Irrigation electronics: 66°C (150°F) High temperature version: 140.6°C (285°F) continuous service, 150°C (305°F) peak temperature (limited duration)		
Pressure ratings		At 24°C	At 135°C
	225B	300 psi	210 psi
	226B	400 psi	250 psi
	226SS	400 psi	300 psi
Recommended design flow range	0,1 to 9 m/s Initial detection below 0,09 m/s		
Accuracy	± 1.0% of full scale over recommended design flow range ±4.0% of reading within calibration range		
Repeatability	±0.3% of full scale over recommended design flow range		
Linearity	±0.2% of full scale over recommended design flow range		
Transducer excitation	Quiescent current 600uA@8 VDC to 35 VDC max. Quiescent voltage (Vhigh) supply voltage-(600uA*supply impedance) ON state (Vlow) max. 1.2 VDC@40 mA current limit (15 Ω + 0.7 VDC)		
Output frequency	3.2 Hz to 200 Hz		
Output pulse width	5 msec ±25%		
Electrical cable for standard sensor electronics	6 m of 2-conductor 20 AWG shielded U.L. type PTLC wire provided for connection to display or analog transmitter unit. Rated to 105°C. May be extended to a maximum of 600 m with similar cable and insulation appropriate for application.		
Electrical cable for IR sensor electronics	1,2 m of U.L. style 116666 copper solid AWG 18 wire with direct burial insulation. Rated to 105°C.		

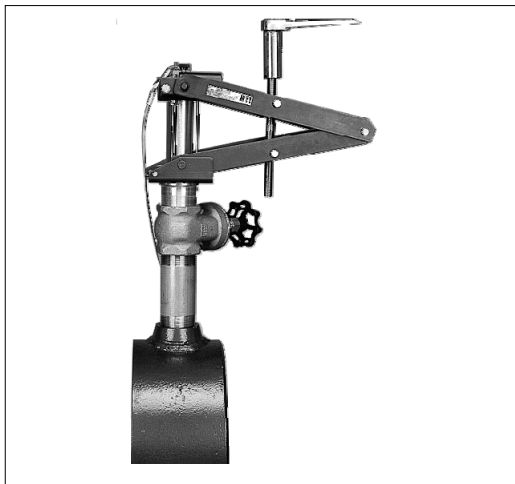
Dimensions of model 225 & 226



Note: All dimensions are for reference only. To remove the flow sensor there must be 35" of clearance above the outside

wall of the pipe. A cutting tool may require additional clearance.

Model HTT (hot tap tool)



Model 226 SS



200 series hot tap matrix (sizes 3" and up)

Example:	2	25	BR	00	0	5	--	1	2	1	1
Style											
	Hot tap insert gate valve	25									
	Hot tap insert ball valve	26									
Material											
	Brass		BR								
	Stainless steel		SS								
Size											
	Insert style			00							
Electronics housing											
	PPS				0						
Electronics											
	Magnetic					2					
	FM/CSA approved					4					
	Standard					5					
	IR-irrigation					6					
O-ring											
	Viton®						0				
	EPDM						1				
	Kalrez®						2				
	Food grade silicone						3				
	Neoprene						4				
	Chemraz®						5				
	Teflon encapsulated Viton®						6				
	Teflon encapsulated Silicone						7				
	Buna N						8				
Shaft											
	Zirconia ceramic							0			
	Hastelloy C							1			
	Tungsten carbide							2			
	Titanium							3			
	Monel							5			
	316 stainless steel							6			
	Tantalum							7			
Impeller											
	Nylon									1	
	Tefzel®									2	
Bearing											
	Pennlon										1
	Tefzel®										2
	Teflon®										3

Архангельск (8182)63-90-72
 Астана +7(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
 Иркутск (395) 279-98-46

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
 Краснодар (861)203-40-90
 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