

RPNS300 Remote Pressure Sensor

- ▶ Rotatable indicator
- ▶ Low cost
- ▶ Separated sensing and display unit
- ▶ All-metal housing, 4-digit LEDs with digital display
- ▶ 4 to 20mA / 0 to 20mA / 1 to 5V / 0 to 5V output programmable
- ▶ PNP/NPN programmable
- ▶ Rotatable indicator



RPNS300 is designed with a separated sensing unit and display unit for pressure measuring.

Specifications

Power Supply	12 to 30VDC
Current Consumption	≤30mA (power supply 24VDC, no-load)
Switching Output	
Output	Push-pull (compatible with PNP/NPN)
	NC/NO configurable
S1, S2 Output Current	<500mA
Response Time	<10ms
Voltage Drop	<1V
Accuracy	±0.5% of F.S.
Current Analog Output	
Output	3-wire 0 to 20mA / 4 to 20mA programmable
Load RA	RA≤0.5KΩ
Voltage Analog Output	
Output	3-wire 0 to 5V / 1 to 5V programmable
Load RA	RA>10KΩ
Wiring Protection	Reverse polarity, overvoltage and short-circuit
Display	

Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
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Набережные Челны (8552)20-53-41
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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)312-96-26-47

Россия (495)268-04-70



Казахстан (772)734-952-31

Design	8mm height, red 4-digit LED
Display Range	-1999 to 9999
Accuracy	≤±0.5% of F.S., optional ±0.25% of F.S.
Stability (Drift/Year)	≤±0.3% of F.S.
Temperature	
Medium/Ambient	-40 to +100°C / -40 to +85°C
Material	
Display Head	Zinc Alloy
Housing/Wetted Parts	304 stainless steel/316 stainless steel
Protection Class	IP67
Electrical Connection	M12×1 plug

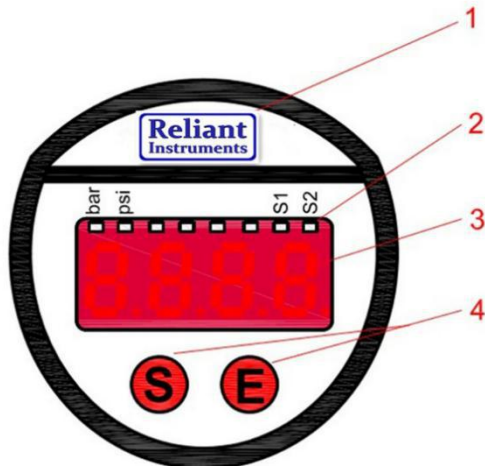
Applications

- ▶ Circulating water/Cooling liquids
- ▶ Hydraulics and pneumatics
- ▶ Oil and Gas
- ▶ Machinery manufacturing
- ▶ Water treatment

Technical Data

Pressure Range	bar	1	2	5	10	16	25	40	60	100	160	250	400	600
	psi	15	30	75	145	230	370	580	900	1500	2300	3600	6000	9000
Overload Pressure		x5			x3			x2			x1.5			x1.3
Burst Pressure		x6			x4			x3			x2			x1.6

Panel Setting



- 1 - LOGO
- 2 - 8 state lights
- 3 - 4-digit LED display window
- 4 - Keys

S + E	Press and hold for 2 seconds to enter setting mode/verification
S	Shift down the menu / change values
E	Shift up the menu / change the setting

Menu

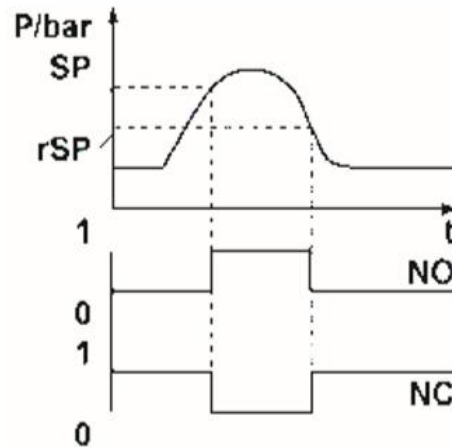
Display	Item	Description	Options
<i>unit</i>	unit	unit	psi/bar
<i>SP1</i>	SP1	set point of output 1	2% ...100% of F.S.
<i>rP1</i>	rP1	reset point of output 1	lower limit ... 98% of F.S.
<i>out1</i>	out1	output mode	hysteresisNC/NO window NC/NO
<i>SP2</i>	SP2	set point of output 2	2% ...100% of F.S.
<i>rP2</i>	rP2	reset point of output 2	lower limit ...98% of F.S.
<i>out2</i>	out2	output mode	hysteresisNC/NO window NC/NO
<i>SFun</i>	sfun	output function	PNP / NPN

Display	Item	Description	Options
<i>Aout</i>	Aout	current analog output	0...20mA or 4...20mA
		voltage analog output	0...5V or 1...5V
<i>ASt</i>	Ast	analog output start point	lower limit ...75% of F.S.
<i>AEd</i>	AEd	analog output end point	25%...100% of F.S.
<i>Sto</i>	Sto	Save	Yes/No

Functional Specifications

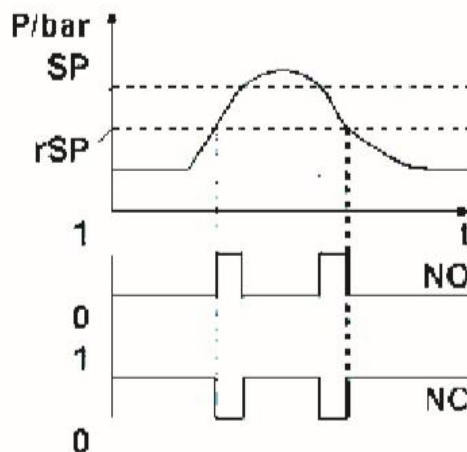
Hysteresis Mode

The hysteresis keeps the switching output stable if the pressure fluctuates around the setpoint. Output switches when rising pressure reaches set point (SP1); As pressure falls, the output switches back only if the reset point (rP1) is reached

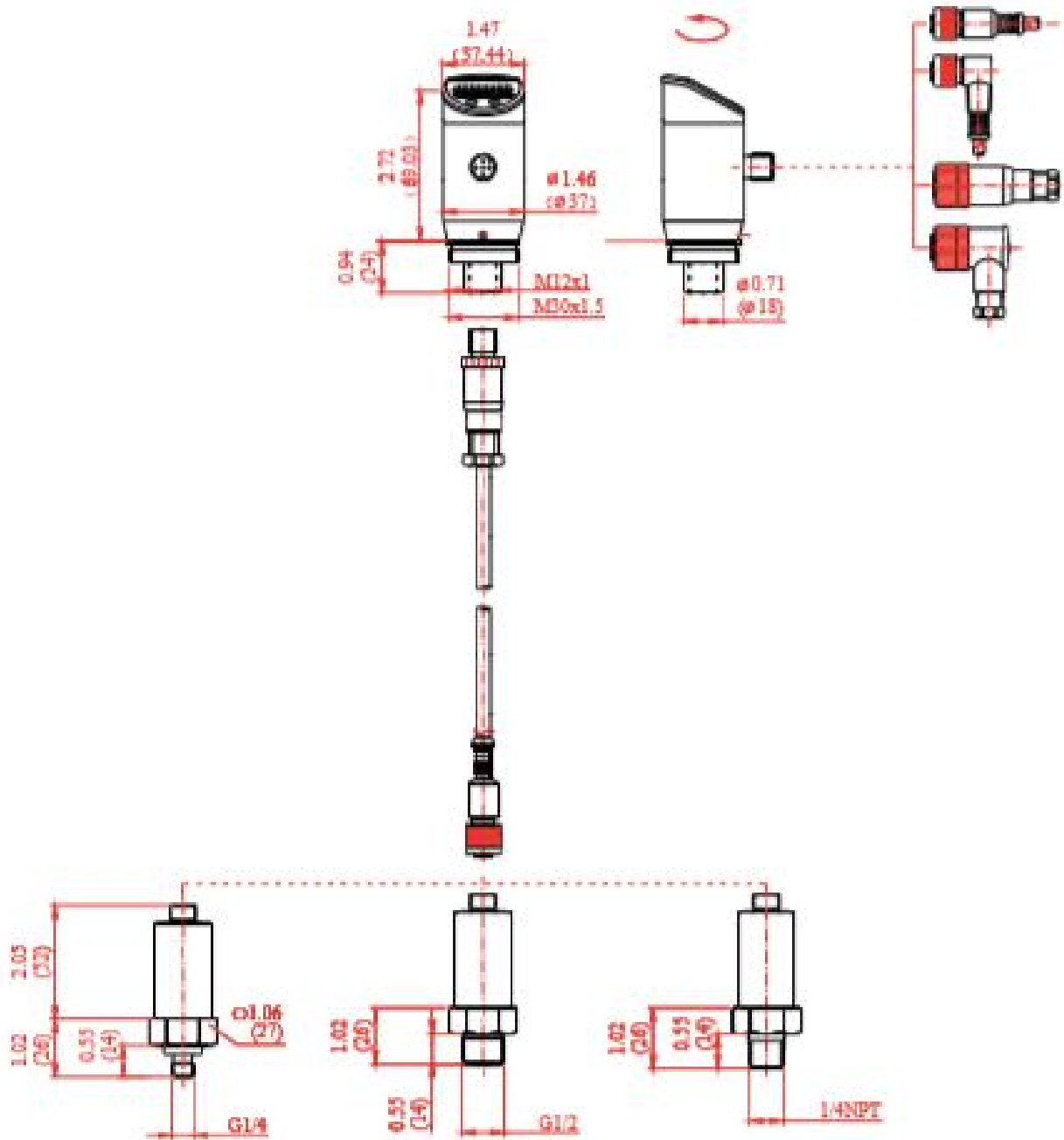


Window Mode

The window function allows the monitoring of a defined range. If the pressure is between set point (SP1) and reset point (rP1), the output is activated (NO), otherwise it is deactivated (NC).

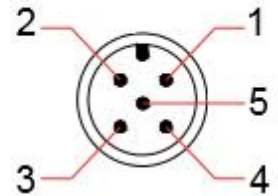


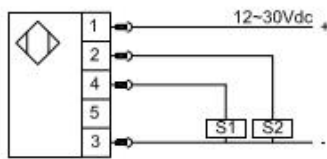
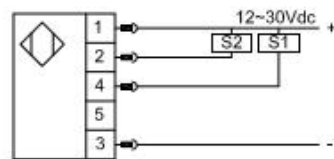
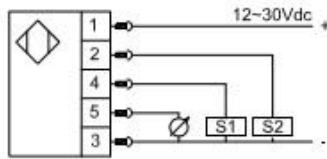
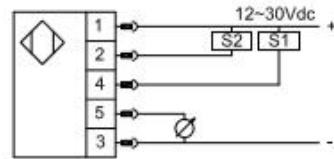
Dimensions in inches (mm)



Display Wiring

Signal	Plug	Cable
U+	1	Brown
U-	3	Blue
Switching output 1	4	Black
Switching output 2	2	White
Analog output (Current or Voltage)	5	Gray



PNP output	NPN output
<p>2xPNP</p> 	<p>2xNPN</p> 
<p>2xPNP + analog output</p> 	<p>2xNPN + analog output</p> 

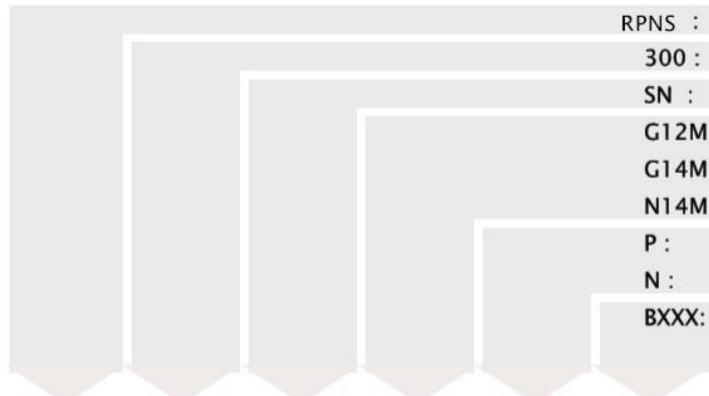
Order Code For Display



- RPNS** Remote pressure sensor
- 300** Series#
- DH** Display unit
- 20** 2 switching outputs
- 21** 2 switching outputs+1 analog (0 to 20/4 to 20mA) output
- 22** 2 switching outputs + 1 analog (0 to 5/1 to 5V) output
- S** M12X1 5-pin plug

RPNS	300/	DH	21	S
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Order Code For Sensor

	RPNS :	Remote pressure sensor with digital display
	300 :	Series#
	SN :	Sensor
	G12M :	G1/2 male thread
	G14M :	G1/4 male thread
	N14M :	NPT1/4 male thread
	P :	Positive pressure
N :	Negative pressure	
BXXX :	Pressure range e.g. : B100 : 100bar	

RPNS	300/	SN	G12M	P	B100
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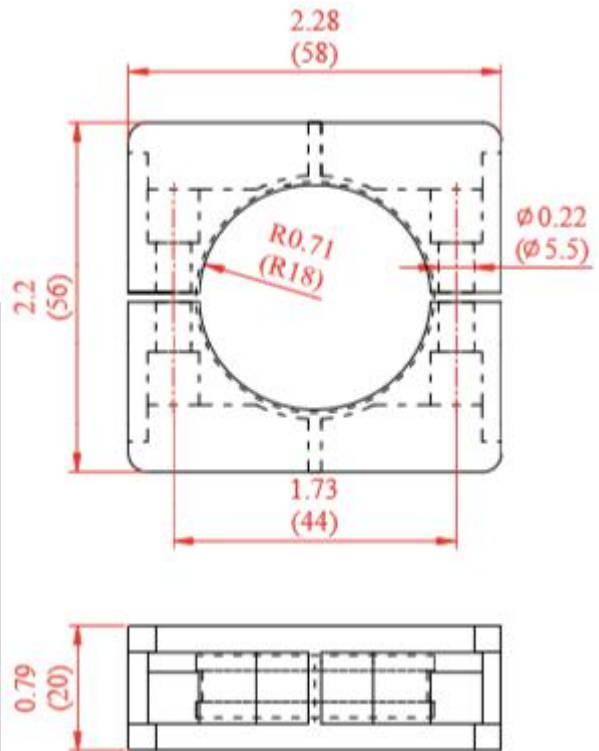
Accessory 1 - Both-end Cable



	ECFM :	Both-end patch cable
	2m :	Cable length 2m
	5m :	Cable length 5m
	10m :	Cable length 10m

ECFM-	2m
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Accessory 2 - Installation Bracket





Warning

- Ensure the explosion-proof class marked on the nameplate to meet or exceed the required rating of the relevant installation environment.
- Ensure that the enclosure rating indicated on the nameplate to meet the requirements of the installation environment.
- Ensure that the ambient and process temperature ranges marked on the nameplates to meet the application requirements.

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