

UPORABA

Seriya 80 krmilniki se uporabljajo za regulacijo temperature in tlaka v procesih v industriji. Krmilniki Serije 80 se uporabljajo za krmiljenje tekočinskih, plinastih in parnih medijev. Zaznavanje temperature ali tlaka medija je neposredno, dejanska in nastavljena vrednost sta vidni neposredno na skali merilnega območja krmilnika. Glede na primerjavo merjene in nastavljene vrednosti daje krmilnik standardiziran izhodni krmilni signal $0.2 \div 1.0 \text{ bar}$ za izvršni krmilni element. Na razpolago so štiri različni tipi regulacij: ON-OFF, P, P+I in P+I+D. Krmilniki Serije 80 se uporabljajo za daljinsko krmiljenje procesov oziroma kot izvor pnevmatskega signala (z izhodom $0.2 \div 1.0 \text{ bar}$) ali kot sprejemnik krmilnega signala (vhod $0.2 \div 1.0 \text{ bar}$).

APPLICATION

For the control of temperature and pressure in industrial or process plants. The indicating controller is used for control of liquid, gaseous or vaporous media. The instrument senses the temp./press. of the measured medium directly, displays the operating value, compares the measured variable with the set point and puts out a pneumatic signal in the standard range of 0.2 to 1 bar or 3 to 15 psi. This output pressure actuates the final control element. Four control forms are available: ON-OFF, P, P+I, P+I+D. The units can be also used for remote control of process operating whether pneumatic transmitter (output $0.2 \div 1 \text{ bar}$ or $3 \div 15 \text{ psi}$) and receiver controller (input $0.2 \div 1 \text{ bar}$, $3 \div 15 \text{ psi}$).



Na voljo - Available
94/9/EC (ATEX): II 2 G D c IIC X

OSNOVNE LASTNOSTI

Dober dinamičen odziv.
Nezahtevno vzdrževanje.
Majhna poraba komprimiranega zraka.
Velika zanesljivost.
Lahko razstavljive komponente.
Kompatibilnost z vsemi pnevmatskimi ventili.
Nastavljivost proporcionalnega območja od ∞ do 200%
Nastavljiva smer delovanja - direktno ali obratno

FEATURES

Good dynamic response.
Low maintenance.
Low air consumption.
High reliability.
Easily removable components.
Compatible with every type of pneumatic valve.
Proportional band adjustable from ∞ to 200%.
Action reversible.

DODATKI

Blok s stikalom za avtomatski in ročni način model 251
Nosilec za vgradnjo na cev, dimenzije 2"
Filter z regulatorjem za komprimiran zrak mod. FR20
Filter z regulatorjem za komprimiran zrak mod. FR10

ACCESSORIES

Auto-Manual switch mod. 251
Mounting bracket for 2" pipe
Air filter regulator mod. FR20
Air filter regulator mod. FR10

OPCIJSKO

Zunanji gumb za nastavitev želene vrednosti.
Posebna zaščita ohišja (za tropske razmere).
Izhodni pnevmatski signal $0.4 \div 2.0 \text{ bar}$

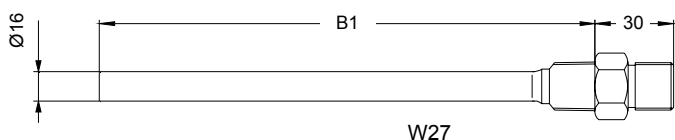
OPTIONS

External set point knob
Tropicalized box
Output signal 6 to 30 psi / 0.4 to 2 bar

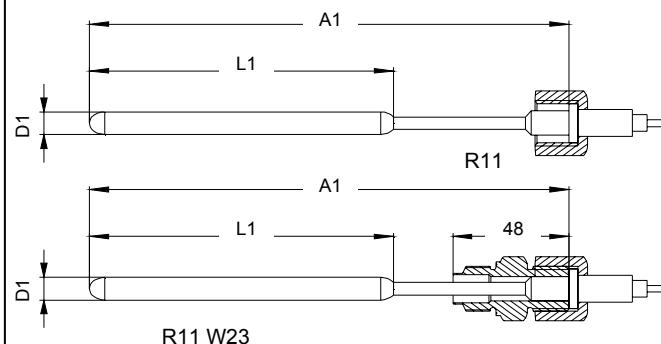
TEMPERATURA - TEMPERATURE

MODEL TYPE	DELOVANJE FUNCTION	MERILNI ELEMENT IN STANDARNI PRIKLJUČKI MEASURING ELEMENT AND STANDARD CONNECTIONS
81R11	ON- OFF	Temperaturno zaznavalo - polnitev z dušikom s standardno dolžino kapilare 2 m, priključek 3/4" za tekočine , material tipala: nerjaveče jeklo ASTM A240 316L Tipalo mora biti v celoti potopljeno v medij. V primeru vgradnje v tulko, zapolnite vmesni prostor z grafit oljem ali glicerinom. <i>Temperature-sensing nitrogen-filled, 2 mt. capillary length, conn. 3/4" GAS, bulb for liquids, material: S.S. ASTM A240 Type 316L</i> <i>The bulb must be completely immersed in the fluid. If the thermowell is required, fill the interspace of the bulb with graphite oil or glycerin.</i>
82R11	PROPORCIONALNO	
83R11	P+I	
84R11	P+I+D	
85R11	ODDAJNIK	
81R12	ON- OFF	Temperaturno zaznavalo - polnjeno z dušikom s standardno dolžino kapilare 2 m, priključek 3/4" za plinaste medije , material tipala: nerjaveče jeklo ASTM A240 316L Tipalo mora biti v celoti potopljeno v medij. <i>Temperature-sensing nitrogen-filled, 2 mt. capillary length, conn. 3/4" GAS, bulb for gasses, material: S.S. ASTM A240 Type 316L</i> <i>The bulb must be completely immersed in the fluid.</i>
82R12	PROPORCIONALNO	
83R12	P+I	
84R12	P+I+D	
85R12	ODDAJNIK	

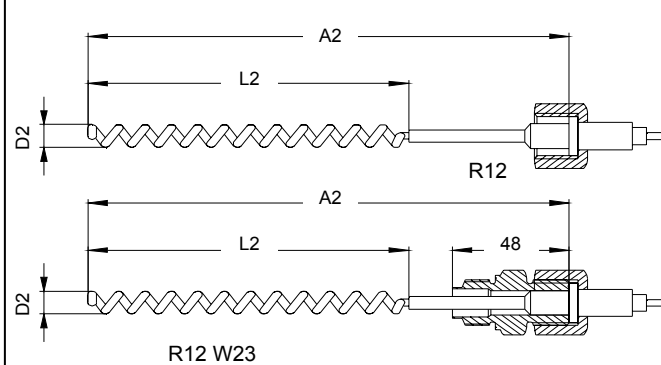
TULKA - THERMOWELL



TIPALO ZA TEKOČINE - SENSOR FOR LIQUIDS

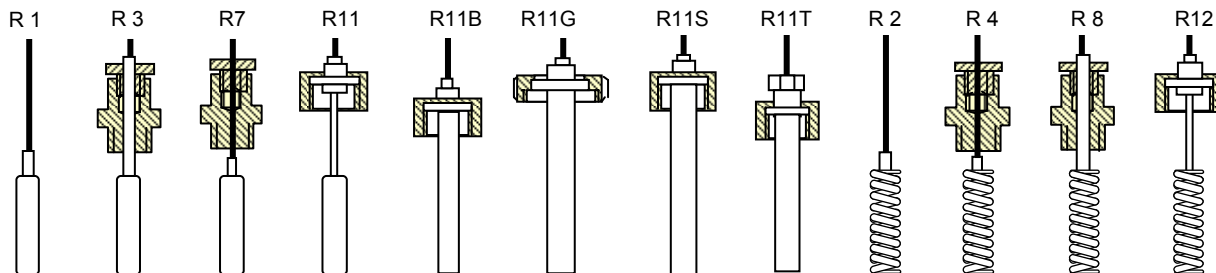
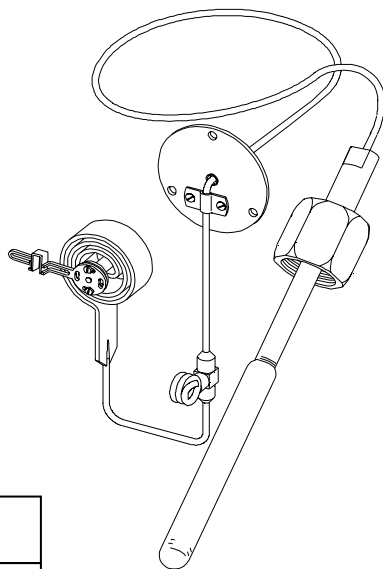


TIPALO ZA PLINE - SENSOR FOR GASSES



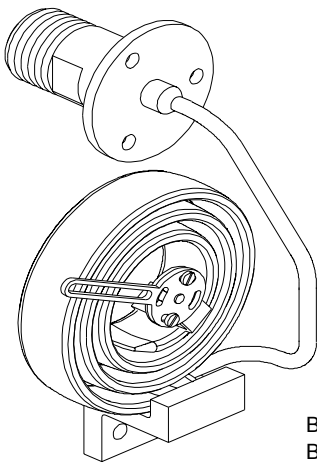
Priključki za tipalo *Special connections*

3/4"GAS-M	1/2"GAS-F	3/4"NPT-M
1/2"GAS-M	1/2"NPT-M	

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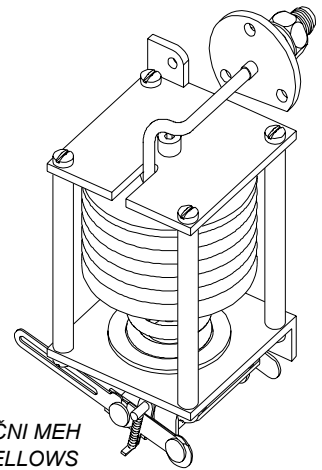
TLAK - PRESSURE

MODEL TIP	DELOVANJE FUNCTION	MERILNI ELEMENT IN STANDARDNI PRIKLJUČKI MEASURING ELEMENT AND STANDARD CONNECTIONS	OBMOČJA RANGES
81P	ON- OFF	Tlačno tipalo - Bourdonova cev, navojni priključek 1/2" BSP-M, material: nerjaveče jeklo ASTM A312 316L <i>Manometric, Bourdon Tube, conn. 1/2" BSP-M, material: S.S. ASTM A312 Type 316L</i>	bar
82P	PROPORCION.		0÷1; 0÷1,5; 0÷1,6; 0÷2; 0÷2,5; 0÷3; 0÷4; 0÷5; 0÷6; 0÷7; 0÷8; 0÷10; 0÷12; 0÷15; 0÷16; 0÷20; 0÷25; 0÷30; 0÷35; 0÷40; 0÷50; 0÷60; 0÷65; 0÷70; 0÷80; 0÷100; 0÷120; 0÷130; 0÷150; 0÷160; 0÷200; 0÷250; 0÷300; 0÷400; 0÷500; 0÷700; 0÷800; 0÷1000; 0÷1200
83P	P+I		
84P	P+I+D		
85P	TRANSMITTER		
81B0	ON- OFF	Tlačno tipalo - (nizko tlačni) meh (tombak), priključek 1/4"NPT, Manometric (low pressure), tombak bellows, conn. 1/4" NPT	mmH2O - mmWG
82B0	PROPORCION.		0÷400; 0÷600; 0÷1000; 0÷1600; 0÷2500; 0÷4000; 0÷6000; 0÷8000
83B0	P+I		
84B0	P+I+D		
85B0	TRANSMITTER		
81BX	ON- OFF	Tlačno tipalo - (nizko tlačni) meh iz nerjavečega jekla ASTM A240 316L , priključek 1/4" NPT-F Manometric (low pressure), S.S. ASTM A240 Type 316L bellows, conn. 1/4" NPT-F,	mmH2O - mmWG
82BX	PROPORCION.		0÷500; 0÷600; 0÷1000; 0÷1600; 0÷2500; 0÷4000; 0÷6000; 0÷8000
83BX	P+I		
84BX	P+I+D		
85BX	TRANSMITTER		



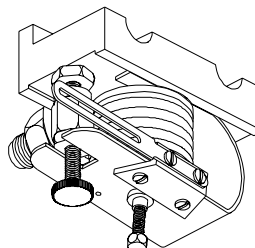
BOURDONOVA CEV
BOURDON TUBE

Posebni priključki Optional connections			
Tlak Pressure		Nizek tlak Low Pressure	
1/2"NPT-M	1/4"NPT-F	1/2"GAS-M	
1/2"NPT-F		1/2"NPT-M	



NIZKO TLAČNI MEH
LOW PRESSURE BELLWS

SPREJEMNIK - RECEIVER

MODEL TYPE	DELOVANJE FUNCTION	MERILNI ELEMENT IN PRIKLJUČKI MEASURING ELEMENT AND STANDARD CONNECTIONS	
81F5	ON- OFF	0.2÷1.0bar sprejemnik, mehaste izvedbe, priključek 1/4" NPT-F s pnevmatskimi fittingi 4x6 <i>3÷15 psi Receiver , Tombak bellows, conn. 1/4" NPT-F with fittings for 4mm pipe size</i>	
82F5	PROPORCION.		
83F5	P+I		
84F5	P+I+D		

TEHNIČNI PODATKI - TECHNICAL DATA

Ohišje - Body	aluminij zlitina prevlečena s proti korozijsko zaščito Die cast aluminium with anti corrosive paint	
Pokrov - Cover	ABS	
Stopnja zaščite - Degree of protection	IP54	
Vgradnja - Mounting	stenska ali v omaro - Wall or panel	
Pnevmatski priključki Pneumatic connections	1/4" NPT	
Dovod komprimiranega zraka - Supply air pressure	1.4 ± 0.1 bar / 20±1,5 psi	**2.4 ± 0.1 bar / 35 ± 1,5 psi
Izhod - Output	0.2÷1.0 bar / 3÷15 psi	**0.4÷2.0 bar / 6÷30 psi
Proporcionalno delovanje Proportional Action	Proporcionalno območje ∞÷200% Proportional Band ∞÷200%	
Integralno delovanje Integral Action	>0.....>10 pon./min. >0.....>10 rep./min.	
Diferencialno delovanje Derivativ Action	0.....>5 min. pon. 0.....>5 min. rep.	
Poraba komprimiranega zraka v mirovanju Steady state air consumption	dovod zraka 1.4 bar	0,13 Nm³/h
	Air supply 20 psi / 1.4 bar	
Največja dobava komprimiranega zraka Max. air delivery	dovod zraka 1.4 bar	2,6 Nm³/h
	Air supply 20 psi / 1.4 bar	
Točnost - Accuracy	≤ 1%	
Histereza- Histeresys	≤ 0,5%	
Linearnost - Non linearity	≤ 0,5%	
Ponovljivost - Repeatability	≤ 0,5%	
Dovoljena temperatura okolice Permissible ambient temperature	-20....+80°C	
Masa - Weight	~3Kg	

DIMENZIJE - DIMENSIONS

