



## IPAQ C520

### Smart HART-compatible Dual-input 2-wire Transmitter



The IPAQ C520 transmitters are universal, isolated, dual-input temperature transmitters with additional voltage and resistance input. C520X/C520XS are Intrinsically Safe versions for use in Ex-Zone 0, 1 and 2. The transmitters are compatible with the HART 6 protocol. Typical characteristics are the high accuracy, stability and reliability combined with a robust housing.

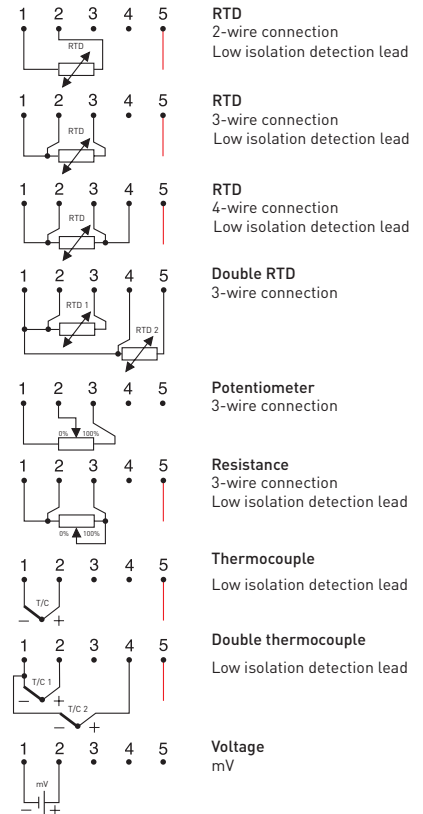
- Universal, dual-input for RTD and T/C
- SIL 2 compatible according to IEC 61508-2
- 5 year guaranteed stability
- Withstands 10 g vibrations
- Complies with NAMUR NE 21, NE 43, NE 53, NE 89 and NE 107
- EMC immunity according to Criteria A
- Sensor Backup
- Sensor Drift Monitoring
- Sensor Isolation Monitoring
- Sensor matching
- 50 point customized linearization
- Integrated in Emerson AMS and Siemens PDM systems

### Specifications:

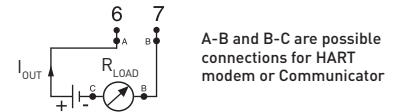
<b>Input RTD</b>		
Pt100	(IEC 60751, $\alpha=0.00385$ )	-200 to +850 °C
PtX (10 ≤ X ≤ 1000)	(IEC 60751, $\alpha=0.00385$ )	Corresp. to max. 4 000 Ω
Pt100	(JIS C 1604, $\alpha=0.003916$ )	-200 to +850 °C
Ni100	(DIN 43760)	-60 to +250 °C
Ni120	(Edison Curve No. 7)	-60 to +250 °C
Ni1000	(DIN 43760)	-50 to +180 °C
Cu10	(Edison Cu Windings No. 15)	-50 to +200 °C
Input connections	One sensor	2-, 3- and 4-wire connection
	Two sensors	2- and 3-wire connection
<b>Input Thermocouple</b>	T/C types	B, C, D, E, J, K, N, R, S, T
<b>Input Resistance</b>	Potentiometer	100 to 4000 Ω, 2-, 3- and 4-wire connection
<b>Input Voltage</b>		-10 to +1000 mV
<b>Double inputs for RTD and Thermocouple</b>		
Measure mode		T1 or T2 or difference, average, min, max of T1 and T2
Sensor Redundancy		Automatic switchover to undamaged sensor
Sensor Drift Monitoring		Adjustable maximum temp. difference T1-T2
<b>Output</b>		
Output signal	Temperature linear	4-20 mA, 20-4 mA or customized
NAMUR compliance	Measure and fail currents	NAMUR, NE 43
Galvanic isolation		1500 VAC, 1 min
Ex-classifications	C520X/C520XS	ATEX: II 1G Ex ia IIC T6...T4 Ga
		IECEx: Ex ia IIC T6...T4 Ga
Power supply	C520/C520S	10...36.0 VDC, Standard power supply
	C520X/C520XS	10...30.0 VDC, I.S. power supply
Ambient temperature	Storage/operation	-40 to +85 °C
Accuracy	RTD (Pt and Ni sensors)	Max. of $\pm 0.1$ °C or $\pm 0.05$ % of span
	Thermocouple	Typical $\pm 0.05$ % of span
	Resistance/voltage	See data sheet
Long-term stability		Max. drift: $\pm 0.05$ % of span / 5 years
Mounting		DIN B head or larger, DIN-rail (with adapter)

### Input connections

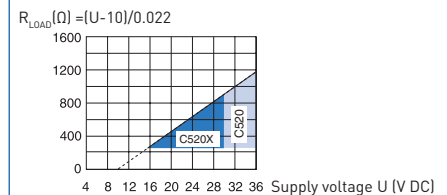
See data sheet for more alternatives



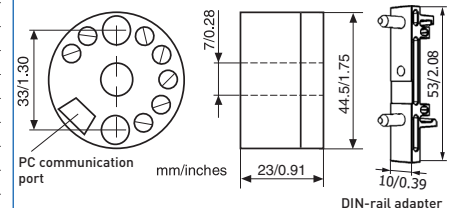
### Output connections



### Output load diagram



### Dimensions



### Ordering information

IPAQ C520	70C5200010
IPAQ C520S, SIL 2 compatible	70C5200S10
IPAQ C520 (ATEX, IECEx)	70C520X010
IPAQ C520XS, SIL 2 compatible (ATEX, IECEx)	70C520XS10
ICON-X, PC configuration kit	70CFGUSX01
Head mounting kit	70ADA00017