



IPAQ

C520 / C520X
R520 / R520X

HANDBOOK / User Manual



INOR

INOR

SPECIALISTS IN INDUSTRIAL TEMPERATURE MEASUREMENT

6.4.2 Output load diagram

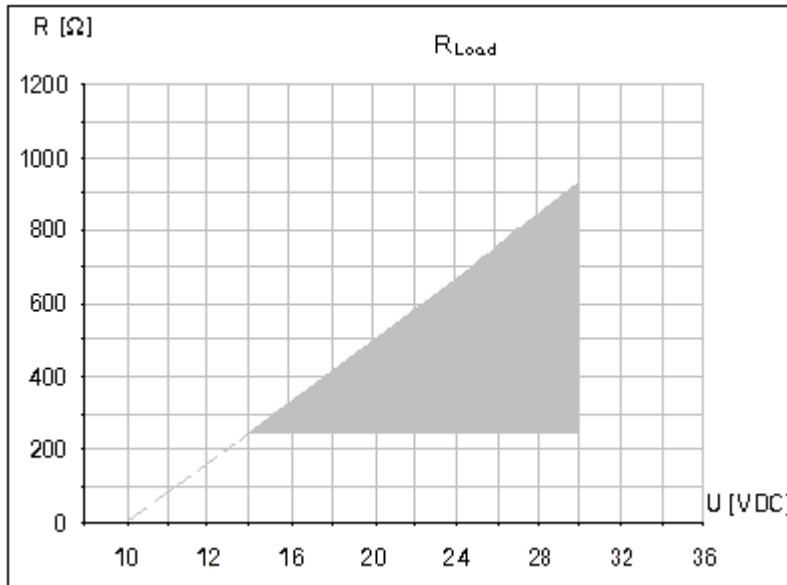


Figure 26: R520X output load diagram

Formula for the maximum permissible output load: R520X permissible $R_{Load} (\Omega) = (U-10)/0.022$

R	Total output load [Ω]
U	Power supply [VDC]

6.4.3 Dimensions

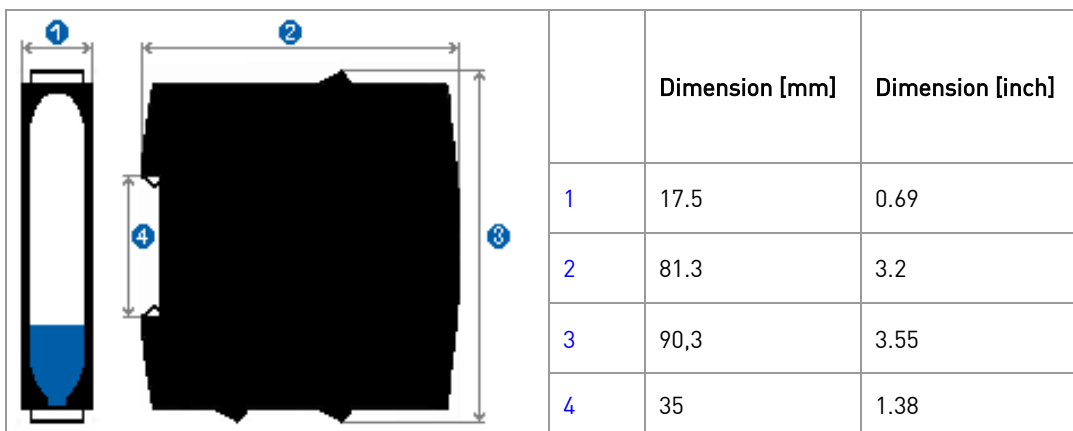


Figure 27: R520X dimensions

6.4.4 Output and input data



Output terminals 21, 22		Input terminals 1 to 8	
$U_i = V_{max}$:	≤ 30 VDC	$U_o = V_{oc}$:	≤ 6.6 VDC
$I_i = I_{max}$:	≤ 100 mA	$I_o = I_{sc}$:	≤ 27.3 mA
$P_i = P_{max}$:	≤ 900 mW	P_o :	≤ 46 mW
L_i :	$10 \mu\text{H}$	L_o :	25 mH
C_i :	12.1 nF	C_o :	581 nF

Table 16: Electrical data for outputs-inputs of R520X

6.4.5 Ambient temperature data for areas with potentially explosive atmospheres



Temperature class	Ambient temperature
T6	$-20^\circ\text{C} \leq T_a \leq +50^\circ\text{C} / -4^\circ\text{F} \leq T_a \leq +122^\circ\text{F}$
T5	$-20^\circ\text{C} \leq T_a \leq +65^\circ\text{C} / -4^\circ\text{F} \leq T_a \leq +149^\circ\text{F}$
T4	$-20^\circ\text{C} \leq T_a \leq +70^\circ\text{C} / -4^\circ\text{F} \leq T_a \leq +158^\circ\text{F}$

Table 17: R520X temperature data

6.5 RTD and T/C accuracy table for C520/C520X / R520/R520X transmitters

CJC error not included.
Conformance level 95% (2 σ)

Input type	Temp. range	Min span	Accuracy Max of:	Temp. influence (Dev. fr. ref.temp. 20°C)
RTD Pt100	-200...+850°C	10°C	$\pm 0.10^\circ\text{C}$ or $\pm 0.05\%$ of span	$\pm 0.005\%$ of span per K
RTD Pt1000	-200...+850°C	10°C	$\pm 0.10^\circ\text{C}$ or $\pm 0.05\%$ of span	$\pm 0.005\%$ of span per K
RTD PtX	Corr. to max. 4 k Ω	10°C	$\pm 0.10^\circ\text{C}$ or $\pm 0.05\%$ of span	$\pm 0.005\%$ of span per K
RTD Ni100	-60...+250°C	10°C	$\pm 0.10^\circ\text{C}$ or $\pm 0.05\%$ of span	$\pm 0.005\%$ of span per K
RTD Ni120	-60...+250°C	10°C	$\pm 0.10^\circ\text{C}$ or $\pm 0.05\%$ of span	$\pm 0.005\%$ of span per K
RTD Ni1000	-50...+180°C	10°C	$\pm 0.10^\circ\text{C}$ or $\pm 0.05\%$ of span	$\pm 0.005\%$ of span per K
RTD Cu10	-50...+260°C	83°C	$\pm 1.5^\circ\text{C}$ or $\pm 0.1\%$ of span	$\pm 0.01\%$ of span per K
T/C type B	+400...+1800°C	700°C	$\pm 1^\circ\text{C}$ or $\pm 0.1\%$ of span	$\pm 0.005\%$ of span per K
T/C type C	0...+2315°C	200°C	$\pm 1^\circ\text{C}$ or $\pm 0.1\%$ of span	$\pm 0.005\%$ of span per K
T/C type D	0...+2315°C	200°C	$\pm 1^\circ\text{C}$ or $\pm 0.1\%$ of span	$\pm 0.005\%$ of span per K
T/C type E	-200...+1000°C	50°C	$\pm 0.25^\circ\text{C}$ or $\pm 0.1\%$ of span	$\pm 0.005\%$ of span per K
T/C type J	-200...+1000°C	50°C	$\pm 0.25^\circ\text{C}$ or $\pm 0.1\%$ of span	$\pm 0.005\%$ of span per K
T/C type K	-200...+1350°C	50°C	$\pm 0.25^\circ\text{C}$ or $\pm 0.1\%$ of span	$\pm 0.005\%$ of span per K
T/C type N	-100...+1300°C	100°C	$\pm 0.25^\circ\text{C}$ or $\pm 0.1\%$ of span	$\pm 0.005\%$ of span per K
T/C type N	-250...+100°C	100°C	$\pm 1^\circ\text{C}$	$\pm 0.05\%$ of span per K
T/C type R	-50...+1750°C	300°C	$\pm 1^\circ\text{C}$ or $\pm 0.1\%$ of span	$\pm 0.005\%$ of span per K
T/C type S	-50...+1750°C	300°C	$\pm 1^\circ\text{C}$ or $\pm 0.1\%$ of span	$\pm 0.005\%$ of span per K
T/C type T	-200...+400°C	50°C	$\pm 0.25^\circ\text{C}$ or $\pm 0.1\%$ of span	$\pm 0.005\%$ of span per K

Table 18: RTD and T/C accuracy table for the C520/C520X / R520/R520X transmitters

7.1 Ordering information

Designation	Order No.
C520	70C5200010
C520, SIL 2 compatible	70C5200S10
C520X	70C520X010
C520X, SIL 2 compatible	70C520XS10
R520	70R5200010
R520, SIL 2 compatible	70R5200S10
R520X	70R520X010
R520X, SIL 2 compatible	70R520XS10
ICON, PC configuration kit (USB-connection)	70CFGUS001
Head mounting kit	70ADA00017
DIN-rail adapter	70ADA00015
Configuration ex works	70CAL00001

Table 19: Ordering information

7.2 Disposal

To address proper recovery, recycling, and disposal of customer end-of-life electronic equipment that is consistent with legislative or regulatory requirements, product and packaging materials should be disposed according with the respective waste treatment and disposal regulations of the region or country to which the device is supplied.

This product should not be mixed with other kind of scrap, after usage. It should be handled as an electronic/electric device.



7.3 Maintenance

The C520/C520X / R520/R520X are completely encapsulated; therefore there are no components, which could be repaired or replaced.

7.4 Product liability and guarantee

Use of IPAQ 520 series transmitters for other than the intended purpose or improper installation and operation may lead to loss of the guarantee. The guarantee shall likewise be void if the device is damaged or its function otherwise impaired.

INOR Process AB, or any other affiliated company within the INOR Group (hereinafter jointly referred to as "INOR"), hereby warrants that the Product will be free from defects in materials or workmanship for a period of five (5) years from the date of delivery ("Limited Warranty"). This Limited Warranty is limited to repair or replacement at INOR's option and is effective only for the first end-user of the Product. Upon receipt of a warranty claim, INOR shall respond within a reasonable time period as to its decision concerning:

- 1 Whether INOR acknowledges its responsibility for any asserted defect in materials or workmanship; and, if so,
- 2 the appropriate cause of action to be taken (i.e. whether a defective product should be replaced or repaired by INOR).

This Limited Warranty applies only if the Product:

- 1 is installed according to the instructions furnished by INOR;
- 2 is connected to a proper power supply;
- 3 is not misused or abused; and
- 4 there is no evidence of tampering, mishandling, neglect, accidental damage, modification or repair without the approval of INOR or damage done to the Product by anyone other than INOR.

This Limited Warranty is provided by INOR and contains the only express warranty provided. INOR SPECIFICALLY DISCLAIMS ANY EXPRESS WARRANTY NOT PROVIDED HEREIN AND ANY IMPLIED WARRANTY, GUARANTEE OR REPRESENTATION AS TO SUITABILITY FOR ANY PARTICULAR PURPOSE, PERFORMANCE, QUALITY AND ABSENCE OF ANY HIDDEN DEFECTS, AND ANY REMEDY FOR BREACH OF CONTRACT, WHICH BUT FOR THIS PROVISION, MIGHT ARISE BY IMPLICATION, OPERATION OF LAW, CUSTOM OF TRADE OR COURSE OF DEALING, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. EXCEPT AS PROVIDED HEREIN, INOR FURTHER DISCLAIMS ANY RESPONSIBILITY FOR LOSSES, EXPENSES, INCONVENIENCES, SPECIAL, DIRECT, SECONDARY OR CONSEQUENTIAL DAMAGES ARISING FROM OWNERSHIP OR USE OF THE PRODUCT.

Products that are covered by the Limited Warranty will either be repaired or replaced at the option of INOR. Customer pays freight to INOR, and INOR will pay the return freight by post or other "normal" way of transport. If any other type of return freight is requested, customer pays the whole return cost.

7.5 Support

Inor Process AB PO Box 9125 SE-200 39 MALMÖ Sweden Phone: +46-(0)40-31 25 60 Fax: +46-(0)40-31 25 70 E-mail: support@inor.se	Inor Transmitter Oy Unikkotie 13 FI-01300 VANTAA Finland Phone: +358-(0)10-4217900 Fax: +358-(0)10-4217901 E-mail: myynti@inor.fi	Inor Transmitter GmbH Am See 24 D-47279 Duisburg Germany Phone: +49-(0)203 7382 762 0 Fax: +49-(0)203 7382 762 2 E-mail: info@inor-gmbh.de
---	---	---



INOR

www.inor.com, www.inor.se