## > Logic Controller millenium Slim

> A logic controller in a $17.5 \mathrm{~mm}(0.69$ ") width
> DIN rail mount and panel mount
> 8 I/Os: 4 digital inputs (convertibles to analog in DC versions) and 4 digital outputs (relay or static)
) Highspeed \& PWM inputs available in DC versions, PWM outputs available in static versions
> DC ( 24 V ) and AC (110-240V) power supply available
) Removable connectors
> Wireless Bluetooth to communicate with other MilleniumSlim logic controllers, retrieve datalog and program transfer
> Virtual display possible in mobile devices trough Crouzet app
> Intuitive \& easy-to-use graphical programming software (FBD)
> Certified CE, cULus Listed, NOM, RCM, SCM, UKCA


Product Selection

| Type | Total I/Os | Input | Output | Supply Voltage | Communication | Screen | Part Number |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CB8R (AC) | 8 | 4 Inputs <br> , $4 \times$ Digital | 4 Outputs <br> , $4 \times 6$ A Relay | 110-240 V ~ | Bluetooth Embedded | Via App: <br> Crouzet Virtual Display | 88983903 |
| CB8R (DC) | 8 | 4 Inputs <br> , $2 \times$ Convertibles to <br> - Digital <br> - Analog <br> - High-Speed <br> , $2 \times$ Convertibles to <br> - Digital <br> - Analog <br> - PWM | 4 Outputs <br> , $4 \times 6$ A Relay | $24 \mathrm{~V}=-$ | Bluetooth Embedded | Via App: <br> Crouzet Virtual Display | 88983901 |
| CB8S (DC) | 8 | 4 Inputs <br> , $2 \times$ Convertibles to <br> - Digital <br> - Analog <br> - High-Speed <br> , $2 \times$ Convertibles to <br> - Digital <br> - Analog <br> - PWM | 4 Outputs <br> , $4 \times 0.5 \mathrm{~A}$ <br> Static <br> (Transistor - <br> Sourcing) | $24 \mathrm{~V}=-$ | Bluetooth Embedded | Via App: <br> Crouzet Virtual Display | 88983902 |

## You have a project? Contact us on www.crouzet.com

## Description:

## Millenium Slim: The smallest logic controller ever!

Designed for space reduction in any control panel or machine thanks to its 17.5 mm ( 0.69 ") body, this multipurpose industrial logic controller with 8 highly configurable I/Os, can replace dozens of control panel products, and will give wireless capabilities to your applications via Bluetooth. Powered by the easiest-to-use and free programming software "CrouzetSoft", a virtual display from any smartphone or PC, remote program transferring and plenty of pre-programmed applications ready to quick-start your next small-scale automation project.

For more information about MilleniumSlim, please visit www.crouzet.com.

|  | Millenium Slim CB8R (AC) | Millenium Slim CB8R (DC) | Millenium Slim CB8S (DC) |
| :---: | :---: | :---: | :---: |
| General Characteristics |  |  |  |
| Part Number | 88983903 | 88983901 | 88983902 |
| Safety certifications | CE, cULus Listed, NOM, RCM, SCM, UKCA |  |  |
| Environmental certifications | Reach, RoHS |  |  |
| Conformity with programmable controllers' standard | CEI/EN 61131-2 (Open equipment) |  |  |
| Conformity with the RADIO directive (in accordance with 2014/53/UE) | - EN 61010-1 \& EN 61010-2-201: Safety requirements <br> - EN 301489-1 \& EN 301489-17: EMC requirements <br> - EN 61000-6-1, EN 61000-6-2, EN 61000-6-3 \& EN 61000-6-4: EMC requirements <br> - EN 300328: Radio requirements <br> - EN62311: Health requirements |  |  |
| Power supply earthing | None |  |  |
| Overvoltage category | II (in accordance with IEC/EN 60664-1) |  |  |
| Pollution Degree | 2 (in accordance with IEC/EN 61131-2) |  |  |
| Maximum utilization altitude | - Operation: 2000 m <br> - Transport: 3000 m |  |  |
|  |  |  |  |
| Mechanical resistance | - Immunity to vibrations IEC/EN 60068-2-6, Fc test <br> - Immunity to shock IEC/EN 60068-2-27, Ea test <br> - Degrees of protection provided by enclosures of electrical equipment against external mechanical impacts CEI62262: IK07 (test method: 500G steel ball drop, 40cm high) |  |  |
| Resistance to electrostatic discharge | Immunity to ESD IEC/EN 61000-4-2, level 3 |  |  |
| Resistance to HF interference (Immunity) | - Immunity to radiated electrostatic fields IEC/EN 61000-4-3, level 3 <br> - Immunity to fast transients (burst immunity) IEC/EN 61000-4-4, level 3 <br> - Immunity to shock waves IEC/EN 61000-4-5 <br> - Radio frequency in common mode IEC/EN 61000-4-6, level 3 |  |  |
| Conducted and radiated emissions (in accordance with EN 55032) | Class B |  |  |
| Bluetooth protocol | Bluetooth $\geq \mathrm{V} 5.0$ |  |  |
| Bluetooth range | $\leq 10 \mathrm{~m}$ (max. 20 m in free fields) |  |  |
| Operating temperature | Ventilated enclosure: $-20^{\circ} \mathrm{C}\left(-4^{\circ} \mathrm{F}\right)$ to $+60^{\circ} \mathrm{C}\left(140^{\circ} \mathrm{F}\right)$ <br> Non-ventilated enclosure: $-20^{\circ} \mathrm{C}\left(-4^{\circ} \mathrm{F}\right)$ to $+40^{\circ} \mathrm{C}\left(104^{\circ} \mathrm{F}\right)$ <br> UL: maximum surrounding air: $+50^{\circ} \mathrm{C}\left(122^{\circ} \mathrm{F}\right)$ |  |  |
| Storage temperature | $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $+80^{\circ} \mathrm{C}\left(176{ }^{\circ} \mathrm{F}\right)$ |  |  |
| Humidity | $95 \%$ max. (no condensation or dripping water) |  |  |
| Connecting capacity | - Flexible wire with ferrule: 1 conductor: 0.25 to $2.5 \mathrm{~mm}^{2}$ <br> - Flexible wire with ferrule: 2 conductors: 0.25 to $1 \mathrm{~mm}^{2}$ ( $1.5 \mathrm{~mm}^{2}$ with ferrule TWIN) <br> - Rigid wire: 1 conductor: 0.2 to $2.5 \mathrm{~mm}^{2}$ <br> - Rigid wire: 2 conductors: 0.2 to $1 \mathrm{~mm}^{2}$ <br> - Tightening torque: $0.5 \mathrm{~N} . \mathrm{m}$ ( $4.5 \mathrm{lb}-\mathrm{in}$ ) (screw M3, tighten using a flat screwdriver) <br> - Stripping length: 7 mm |  |  |
| Housing material | Makrolon, UL94V0 |  |  |
| Housing Color | Light Gray RAL 7035 |  |  |
| Degree of protection | - IP 40 on front panel <br> - IP 20 excluding terminal blocks |  |  |
| Weight | - Without packing: 103 g (88983903), 97 g (88983901), 79 g (88983902) <br> - With unitary packing: 119 g (88983903), 113 g (88983901), 95 g (88983902) |  |  |
| Dimensions | - Without packing: $18 \times 90 \times 69.6 \mathrm{~mm}$ (excluding terminal blocks and DIN rail clip) <br> - With unitary packing: $22 \times 137 \times 74 \mathrm{~mm}$ |  |  |
| Connectors Type | Removable Connectors with compatibility for Screw connectors or Cage Clamp connectors (see installation sheet for compatible connectors recommended) |  |  |
| DIN rail mounting | Mounting in 35 mm symmetrical DIN rail (see installation sheet of instructions), compatible with modular enclosures |  |  |
| Panel mounting | Flat panel mounting by screws (see installation sheet of instructions) |  |  |


|  | Millenium Slim <br> CB8R (AC) | Millenium Slim <br> CB8R (DC) |
| :--- | :--- | :--- | :--- |
| Processing Characteristics | 88983903 |  |
| Part Number (DC) |  |  |


| Power Supply |  |  |  |
| :---: | :---: | :---: | :---: |
| Part Number | 88983903 | 88983901 | 88983902 |
| Nominal supply voltage | $110 \mathrm{~V} \sim \rightarrow 240 \mathrm{~V} \sim$ | $24 \mathrm{~V}=-$ |  |
| Voltage supply tolerance | -15\% / + $10 \%$ | -15\% / +20\% |  |
| Operating limits | $93.5 \rightarrow 264 \vee \sim$ <br> * Accepts temporary overvoltage occurring on the power network | $20.4 \rightarrow 28.8 \mathrm{~V}=-$ <br> * Accepts temporary overvoltage occurring on the power network |  |
| AC supply voltage frequency | $\begin{aligned} & 50 / 60 \mathrm{~Hz}(-6 \% /+5 \%) \text { so } 47 \mathrm{~Hz} \\ & \rightarrow 53 \mathrm{~Hz} / 57 \rightarrow 63 \mathrm{~Hz} \end{aligned}$ | N/A |  |
| Immunity to power micro cuts | $\leq 10 \mathrm{~ms}$ (repetition 20 times) | $\leq 1 \mathrm{~ms}$ (repetition 20 times) |  |
| Max. absorbed power | - 6.9 VA @ 240 V~ <br> - 6 VA @ 240 V~ I/Os = 0 | -1.2 W @ 24 V=- <br> -1.56 W @ 28.8 V---, <br> - 0.5 W @ 24 V --- I/Os = 0 | -0.75 W @ $24 \mathrm{~V}=-$ <br> - 0.8 W @ 28.8 V--- <br> - 0.5 W @ 24 V -- $\mathrm{I} / \mathrm{Os}=0$ |
| Protection against polarity inversions | Not applicable | Yes |  |
| Power monitoring | Yes, but no value available through the application "FB Status" | Yes, and value available through the application "FB Status", $1 / 10 \mathrm{~V}, 5 \%$ of full scale |  |


|  | Millenium Slim CB8R (AC) | Millenium Slim CB8R (DC) | Millenium Slim CB8S (DC) CB8S (DC) |
| :---: | :---: | :---: | :---: |
| Inputs |  |  |  |
| Part Number | 88983903 | 88983901 | 88983902 |
| Used as Digital Inputs |  |  |  |
| Quantity | 4 digital inputs -> from 11 to 14 |  |  |
| Rated voltage | $110 \mathrm{~V} \sim \rightarrow 240 \mathrm{~V} \sim$ | $24 \mathrm{~V}=-$ |  |
| Voltage tolerance | -15\% / +10\% | -15\% / +20\% |  |
| Operating limits | $93.5 \rightarrow 264 \mathrm{~V} \sim$ | $20.4 \rightarrow 28.8 \mathrm{~V}=-$ |  |
| Input current | - 0.25 mA @ $93.5 \mathrm{~V} \sim$ <br> - $0.3 \mathrm{~mA} @ 110 \mathrm{~V} \sim$ <br> - 0.6 mA @ $230 \mathrm{~V} \sim$ <br> - $0.7 \mathrm{~mA} @ 265 \mathrm{~V} \sim$ | $\begin{aligned} & \text { • } 1.8 \mathrm{~mA} @ 20.4 \mathrm{~V} \\ & \cdot 2.1 \mathrm{~mA} @ 24 \mathrm{~V} \\ & \text { • } 2.5 \mathrm{~mA} @ 28.8 \mathrm{~V} \end{aligned}$ |  |
| Input frequency | $\begin{aligned} & 50 / 60 \mathrm{~Hz}(-6 \% /+5 \%) \text { so } 47 \% \\ & \rightarrow 53 \mathrm{~Hz} / 57 \rightarrow 63 \mathrm{~Hz} \end{aligned}$ | N/A |  |
| Input impedance | $559 \mathrm{k} \Omega$ | $11.7 \mathrm{k} \Omega$ |  |
| Logic 1 voltage threshold | $\geq 79 \mathrm{~V} \sim$ | $\geq 11 \mathrm{~V}-\mathrm{-}$ |  |
| Making current at logic state 1 | $\geq 0.2 \mathrm{~mA}$ | $\geq 1 \mathrm{~mA}$ |  |
| Logic 0 voltage threshold | $\leq 45 \mathrm{~V} \sim$ | $\leq 9 \mathrm{~V}=-$ |  |
| Release current at logic state 0 | $\leq 0.1 \mathrm{~mA}$ | $\leq 0.8 \mathrm{~mA}$ |  |
| Response time | 1 to 2 cycle times |  |  |
| Sensor type | Contact or 3-wire PNP |  |  |
| Conforming to IEC/EN 61131-2 | Type 1 |  |  |
| Input type | Resistive |  |  |
| Isolation between power supply and inputs | None |  |  |
| Isolation between inputs | None |  |  |
| Protection against polarity inversions | Not applicable | Yes |  |
| Status indicator | Yes, on Virtual Display (CVD \& Crouzet Soft) |  |  |
| Cable length | $\leq 30 \mathrm{~m}$ |  |  |


| Used as High-Speed Inputs |  |  |
| :---: | :---: | :---: |
| Quantity | N/A | 2 High-Speed inputs -> from I1 to I2 |
| Input voltage | N/A | $24 \mathrm{~V}=-$ |
| Voltage tolerance | N/A | -5\% / +20\% |
| Operating limits | N/A | $22.8 \rightarrow 28.8 \mathrm{~V}=-$ |
| Input current | N/A | $\begin{aligned} & \cdot 1.9 \mathrm{~mA} @ 22.8 \mathrm{~V} \\ & \cdot 2.1 \mathrm{~mA} @ 24 \mathrm{~V} \\ & \cdot 2.5 \mathrm{~mA} @ 28.8 \mathrm{~V} \\ & \hline \end{aligned}$ |
| Input impedance | N/A | $11.7 \mathrm{k} \Omega$ |
| Logic 1 voltage threshold | N/A | $\geq 22.8 \mathrm{~V}$--- |
| Making current at logic state 1 | N/A | $\geq 1.9 \mathrm{~mA}$ |
| Logic 0 voltage threshold | N/A | $\leq 12 \mathrm{~V}-\mathrm{-}$ |
| Release current at logic state 0 | N/A | $\leq 1 \mathrm{~mA}$ |
| Maximum counting frequency | N/A | - 2 independent counters: 5 kHz * <br> - Function: UP and DOWN <br> * with a time cycle $\leq 10 \mathrm{~ms}$ and a ton $/$ toff $=50 \% \pm 5 \%$, level 0 <br> $<12 \mathrm{~V}$ and level $1>22.8 \mathrm{~V}$ |
| Cable length | N/A | $\leq 3 \mathrm{~m}$ with shielded twisted cable |


|  | Millenium Slim CB8R (AC) | Millenium Slim CB8R (DC) | Millenium Slim CB8S (DC) |
| :---: | :---: | :---: | :---: |
| Used as PWM Inputs |  |  |  |
| Quantity | N/A | 2 PWM inputs -> from I3 to 14 |  |
| Input voltage | N/A | $24 \mathrm{~V}=-$ |  |
| Voltage tolerance | N/A | -5\% / + $20 \%$ |  |
| Operating limits | N/A | $22.8 \rightarrow 28.8 \mathrm{~V}=-$ |  |
| Input current | N/A | $\begin{aligned} & \text { - } 1.9 \mathrm{~mA} @ 22.8 \mathrm{~V} \\ & =2.1 \mathrm{~mA} @ 24 \mathrm{~V} \\ & \cdot 2.5 \mathrm{~mA} @ 28.8 \mathrm{~V} \end{aligned}$ |  |
| Input impedance | N/A | $11.7 \mathrm{k} \Omega$ |  |
| Logic 1 voltage threshold | N/A | $\geq 22.8 \mathrm{~V}=-$ |  |
| Making current at logic state 1 | N/A | $\geq 1.9 \mathrm{~mA}$ |  |
| Logic 0 voltage threshold | N/A | $\leq 12 \mathrm{~V}=-$ |  |
| Release current at logic state 0 | N/A | $\leq 1 \mathrm{~mA}$ |  |
| Input frequency | N/A | from 10 Hz to 1 KHz |  |
| Restitution | N/A | 0 to 100\% duty cycle reading |  |
| Accuracy | N/A | $5 \%$ with duty cycle between $10 \%$ and $90 \%$ |  |
| Cable length | N/A | $\leq 30 \mathrm{~m}$ |  |
| Used as Analog Inputs |  |  |  |
| Quantity | N/A | 4 analog inputs -> from I1 to I4 |  |
| Measuring range | N/A | $.0 \rightarrow 10 \mathrm{~V}$ <br> - $0 \rightarrow$ V power supply or Voltmeter |  |
| Input impedance | N/A | $11.7 \mathrm{k} \Omega$ |  |
| Maximum value without destruction | N/A | - 28.8 V--- max for $0 \rightarrow 10 \mathrm{~V}$ and $0 \rightarrow \mathrm{~V}$ power supply <br> - 30.5 V --- max for Voltmeter |  |
| Input type | N/A | Common mode |  |
| Resolution | N/A | 12 bits at maximum input voltage (10 bits at 10 V ) |  |
| Value of LSB | N/A | 7.03 mV |  |
| Conversion time | N/A | Controller cycle time |  |
| Maximum error in 0-10V mode | N/A | - $\pm 3.5 \%$ of full scale at $25^{\circ} \mathrm{C}\left(77^{\circ} \mathrm{F}\right)$ <br> - $\pm 5 \%$ of full scale at $55^{\circ} \mathrm{C}\left(131^{\circ} \mathrm{F}\right)$ |  |
| Maximum error in 0-V power supply mode | N/A | - $\pm 5 \%$ of full scale at $25^{\circ} \mathrm{C}\left(77^{\circ} \mathrm{F}\right)$ <br> - $\pm 6.2 \%$ of full scale at $55^{\circ} \mathrm{C}\left(131^{\circ} \mathrm{F}\right)$ |  |
| Repeat accuracy at $55^{\circ} \mathrm{C}\left(131{ }^{\circ} \mathrm{F}\right)$ | N/A | $\pm 2$ \% |  |
| Voltmeter | N/A | from 0 to 30.5 V <br> Accuracy: $\pm 5 \%$ of full scale at $25^{\circ} \mathrm{C}\left(77^{\circ} \mathrm{F}\right)$ <br> $\pm 6.2 \%$ of full scale at $55^{\circ} \mathrm{C}\left(131^{\circ} \mathrm{F}\right)$ |  |
| Isolation between analogue channel and power supply | N/A | None |  |
| Protection against polarity inversions | N/A | Yes |  |
| Potentiometer control | N/A | $2.2 \mathrm{k} \Omega$ / 0.5 W (recommended), $10 \mathrm{~K} \Omega$ max. |  |
| Cable length | N/A | $\leq 10 \mathrm{~m}$ with shielded twisted cable (sensor not isolated) |  |



|  | Millenium Slim CB8R (AC) | Millenium Slim CB8R (DC) | Millenium Slim CB8S (DC) |
| :---: | :---: | :---: | :---: |
| Isolation between power supply and outputs | N/A |  | None |
| Isolation between outputs | N/A |  | None |
| Wiring | N/A |  | PNP (Load Common at 0V) |
| Status indicator | N/A |  | Yes, on Virtual Display (CVD \& Crouzet Soft) |
| Cable length | N/A |  | $\leq 10 \mathrm{~m}$ |

Static PWM Outputs

| Quantity | N/A | $\begin{aligned} & 4 \text { static outputs -> from O1 to } \\ & \text { O4 } \end{aligned}$ |
| :---: | :---: | :---: |
| PWM frequency | N/A | 20 Hz to 1500 Hz |
| PWM duty cycle | N/A | $0 \rightarrow 100$ \% |
| PWM Max. error | N/A | < 2\% (de 10\% à 90\%) |
| Built-in protections | N/A | - Against overloads and shortcircuits: Yes <br> - Against over voltages (*): Yes <br> (*) In the absence of a volt-free contact between the output of the logic controller and the load <br> - Against inversions of power supply: Yes <br> - Current limitation (min: 1.1A, max: 2.6A, @VCC: 24 V ---, Rload < 10 mOhms ) |
| Cable length | N/A | $\leq 10 \mathrm{~m}$ |


|  | Millenium Slim <br> CB8R (AC) | Millenium Slim <br> CB8R (DC) | Millenium Slim <br> CB8S (DC) |
| :--- | :--- | :--- | :--- |

Product Dimensions
Side and Front Dimensions
Dimensions valid for: 88983903-88983901-88983902
Without connectors
With connectors


Electronic \& Wiring Diagrams
Inputs
Digital Inputs (AC Voltage)
Millenium Slim - Type CB8R AC - $88983903 \rightarrow$ Inputs I1, I2, I3 and I4

## Electronic Diagram



Wiring Diagram

${ }^{\text {(1) }} 1 \mathrm{~A}$ (UL248) quick blowing fuse, circuit breaker, or circuit protector (US)
L: Line
N : Neutral

## Inputs

Digital Inputs (DC Voltage)
Millenium Slim - Type CB8R DC - $88983901 \rightarrow$ Inputs I1, I2, I3 and I4
Millenium Slim - Type CB8S DC - $88983902 \rightarrow$ Inputs I1, I2, I3 and I4

Electronic Diagram
I1... 14 0/1

(1) Contact

2 3-wire PNP sensor
(3) Digital Input

I1.. I4: Inputs I1, I2, I3 and I4

## Wiring Diagram


${ }^{\text {(1) }} 1 \mathrm{~A}$ (UL248) quick blowing fuse, circuit breaker, or circuit protector (US)
${ }^{(2)}$ Isolating source
BN: Brown cable of the 3-Wire PNP sensor
BL: Blue cable of the 3-Wire PNP sensor
BK: Black cable of the 3 -Wire PNP sensor

## Inputs <br> High-Speed Inputs (Wiring of 3-wire PNP sensors)

Millenium Slim - Type CB8R DC - $88983901 \rightarrow$ Inputs I1 and I2
Millenium Slim - Type CB8S DC - $88983902 \rightarrow$ Inputs I1 and I2

Electronic Diagram
11, 12


## (1) Contact <br> 2 3-wire PNP sensor <br> (3) Digital Input

I1, I2: Inputs I1 and I2

${ }^{\text {(1) }} 1 \mathrm{~A}$ (UL248) quick blowing fuse, circuit breaker, or circuit protector (US)
(2) Isolating source

BN: Brown cable of the 3-Wire PNP sensor
BL: Blue cable of the 3-Wire PNP sensor
BK: Black cable of the 3-Wire PNP sensor

Inputs
High-Speed Inputs (Wiring of Encoders)
Millenium Slim - Type CB8R DC - $88983901 \rightarrow$ Inputs 11 and I2
Millenium Slim - Type CB8S DC - $88983902 \rightarrow$ Inputs I1 and I2


Hz

(1) Encoder
${ }^{(1)} 1$ (UL248) quick blowing fuse, circuit breaker, or circuit protector (US)
(2) Isolating source

I1, I2: Inputs I1 and I2


## Inputs

Analog Inputs
Millenium Slim - Type CB8R DC - $88983901 \rightarrow$ Inputs I1, I2, I3 and I4
Millenium Slim - Type CB8S DC - $88983902 \rightarrow$ Inputs I1, I2, I3 and I4


(1) 1 A (UL248) quick blowing fuse, circuit breaker, or circuit protector (US)
(2) Isolating source

## (1) $0-10 \mathrm{~V}$

NTC Probe
Potentiometer
Analog Input

I1... I4: Inputs I1, I2, I3 and I4

## Outputs

Relay Outputs
Millenium Slim - Type CB8R AC - $88983903 \rightarrow$ Outputs O1, O2,
O3 and O4
Millenium Slim - Type CB8R DC - $88983901 \rightarrow$ Outputs O1, O2,
O 3 and O 4

Electronic Diagram

## 01 ... 04



(*) Protection
*PLC: Millenium Slim Logic Controller

Wiring Diagram
6 A


Common limits currents
O1+O2= 10A max @25C (8A @40C, 4A @55C, 2.6 @ 60C)
O3+O4=8A max @25C (8A @40C, 4A @ 55C, 2.6 @ 60C)

## Outputs

Static / PWM Outputs
Millenium Slim - Type CB8S DC - $88983902 \rightarrow$ Outputs O1, O2 O 3 and O 4

## Electronic Diagram

01 ... 04
咨

(3) Inductive load
*PLC: Millenium Slim Logic Controller

## Wiring Diagram

J. 5 A

(1) 1 A (UL248) quick-blowing fuse, circuit-breaker, or circuit protector (US)
(2) Isolating source
${ }^{(2)}$ Isolating source

BLUETOOTH DONGLE
Description

| USB Dongle |
| :--- |
| Bluetooth, CE, FCC |
| and IC certified |

$\mathbf{8 8 9 8 0 1 2 4}$

SIGNAL CONVERTER

|  | Description | Part Number |
| :---: | :---: | :---: |
| ... |  |  |
| … | $0-20 \mathrm{~mA}$ to 0-10 V | $\mathbf{8 8 9 5 0 1 0 8}$ |

TEMPERATURE PROBES

| Description | Part Number |
| :---: | :---: |
| NTC2, PVC probe | $\mathbf{8 9 7 5 0 1 7 4}$ |
| NTC1, TPE probe | $\mathbf{8 9 7 5 0 1 8 0}$ |
| NTC2, INOX probe | $\mathbf{8 9 7 5 0 1 8 2}$ |
| NTC2, POM probe | $\mathbf{8 9 7 5 0 1 8 5}$ |

NTC3, SILICONE probe
89750186

TEMPERATURE CONVERTERS
Description Part Number

| Pt1000 3-wire | $\mathbf{8 8 9 5 0 1 5 0}$ |
| :--- | :--- |
| Pt100 3-wire $\left(-40 \rightarrow+40^{\circ} \mathrm{C}\right)$ | $\mathbf{8 8 9 5 0 1 5 1}$ |
| Pt100 3-wire $\left(0 \rightarrow+100^{\circ} \mathrm{C}\right)$ | $\mathbf{8 8 9 5 0 1 5 2}$ |
| Pt100 3-wire $\left(0 \rightarrow+250^{\circ} \mathrm{C}\right)$ | $\mathbf{8 8 9 5 0 1 5 3}$ |
| Thermocouple J | $\mathbf{8 8 9 5 0 1 5 4}$ |
| Thermocouple K | $\mathbf{8 8 9 5 0 1 5 5}$ |

NTC3, SILICONE probe 89750186

## POWER SUPPLIES

| Description | Part Number |
| :---: | :---: |
| Modular of 10W | 89451001 |
| Modular of 30W | 89451003 |
| Modular of 60W | 89451006 |
| Modular of 100W | 89451010 |

TEMPERATURE SENSORS

| Description | Part Number |
| :---: | :---: |
| Dir Sensor | 89750190 |
| External Probe | 89750191 |

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## X-ON Electronics

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61FGPN8DAC120 CV500SLK21 70177-1011 F03-03 HAS C F03-31 81550401 FT1A-C12RA-W H2CAC24A H2CRSAC110B R88A-CRGB003CR-E R88ARR080100S R88A-TK01K DCN1-1 AFP0RT32CT DRT2ID08C DTB4896VRE DTB9696LVE E53-AZ01 E53E01 E53E8C E5C4Q40J999FAC120 E5CWLQ1TCAC100240 E5GNQ03PFLKACDC24 B300LKL21 NSCXDC1V3 NSH5-232CW-3M NT20SST122BV1 NV-CN001 OAS-160-N C40PEDRA K31S6 K33-L1B K3MA-F 100-240VAC K3TX-AD31A 89750101 L595020 SRM1-C02 SRS2-1 G32X-V2K 2654680326546805 PWRA440A CPM1AETL03CH CV500SLK11 3G2A5BI081 3G2A5IA122 3G2A5LK010E 3G2A5OA223 3G2A5OD211 3G2A5PS223E

