



aerospace  
climate control  
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**fluid & gas handling**  
hydraulics  
pneumatics  
process control  
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# SCT Temperature Sensor

Temperature measurement analog and CAN



ENGINEERING YOUR SUCCESS.



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## Temperature measurement SCT analogue

- High-pressure-resistant temperature sensors
- For measuring temperatures up to 1,000 °C
- Flexible operation
- Inline or probe-type sensor



In hydraulics, temperature measurements serve to locate faults and avoid the kind of damage caused by excessive temperatures in critical parts such as pumps and proportional valves.

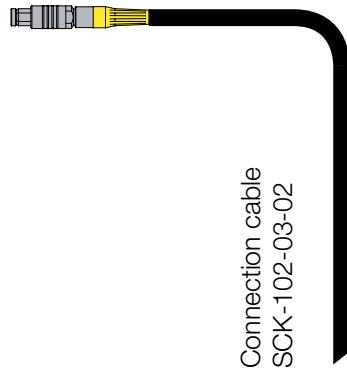
To obtain the exact temperature, the measurement is done directly in the tube or hose line.

The inline sensors from the SCT-190 series can also be used in the turbine flow meters SCFT-xxx-02-02 to measure temperatures.

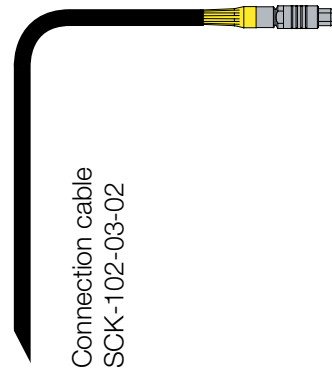
## Function specifications



The Parker Service Master *Plus*  
SCM-500-01-xx or  
The Parker Service Master *Easy*  
SCM-330/340



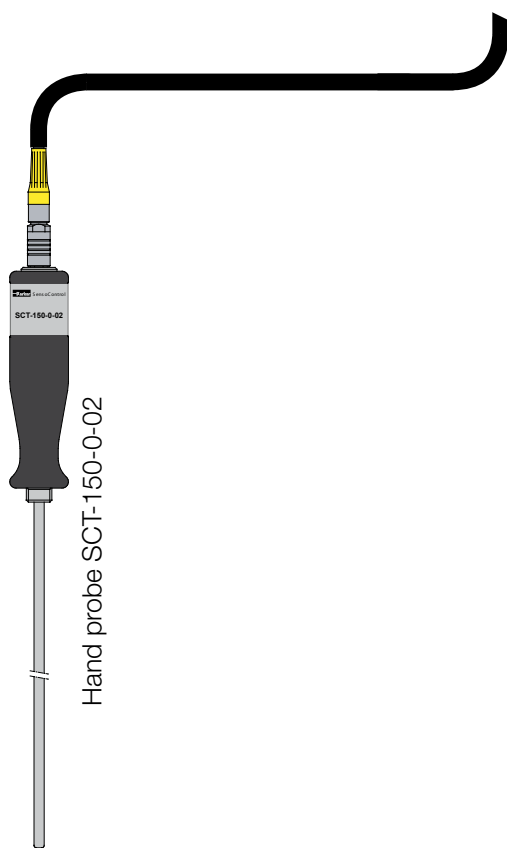
Connection cable  
SCK-102-03-02



Connection cable  
SCK-102-03-02



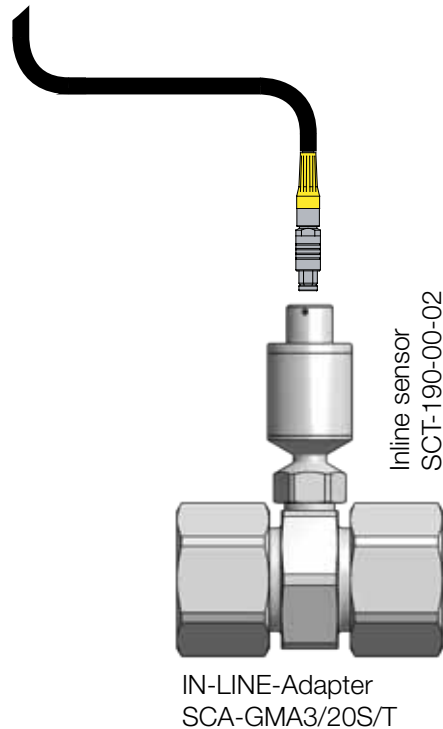
Parker Serviceman  
Plus SCM-155-0-02



Hand probe SCT-150-0-02

### Hand probe SCT-150 (-25 °C...+125 °C)

Temperatures in tanks and containers are measured with the hand probe SCT-150-0-02



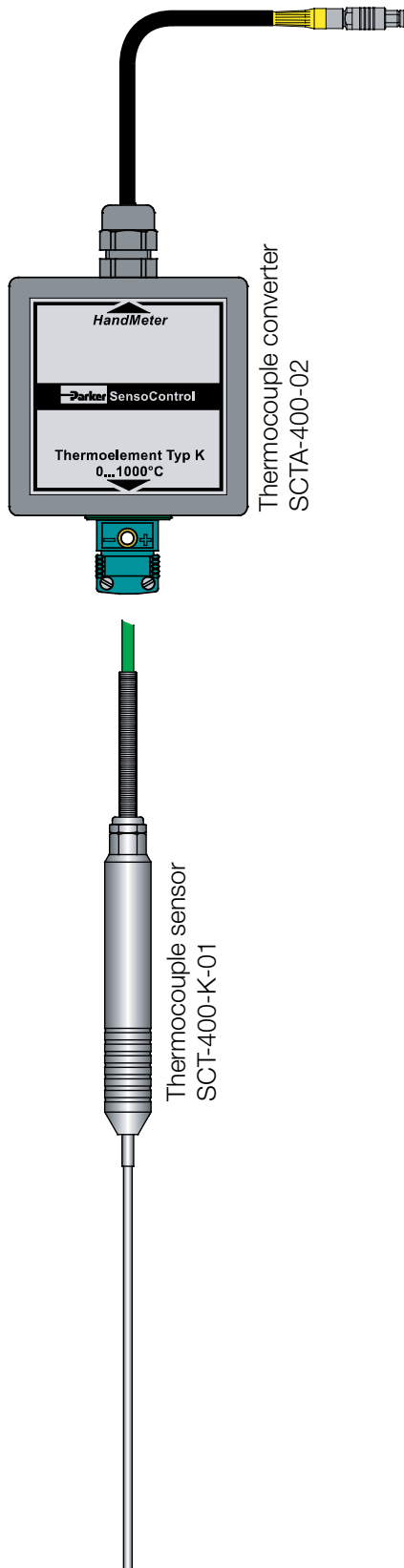
Inline sensor  
SCT-190-00-02

IN-LINE-Adapter  
SCA-GMA3/20S/T

### Inline sensor SCT-190 (-40 °C...+150 °C)

The inline sensor SCT-190-00-02 can be adapted to the hydraulic system up to a system pressure of 630 bar. The male stud is compatible with the measuring connections of the GMA3/20 series and with the turbine flow meter SCFT-xxx.

## Function specifications



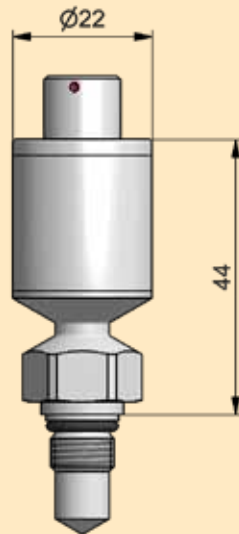
The Parker Service Master *Plus*  
SCM-500-01-xx or  
The Parker Service Master *Easy*  
SCM-330/340

### **Thermocouple sensor SCT-400-K-01 with Thermocouple converter SCTA-400-02**

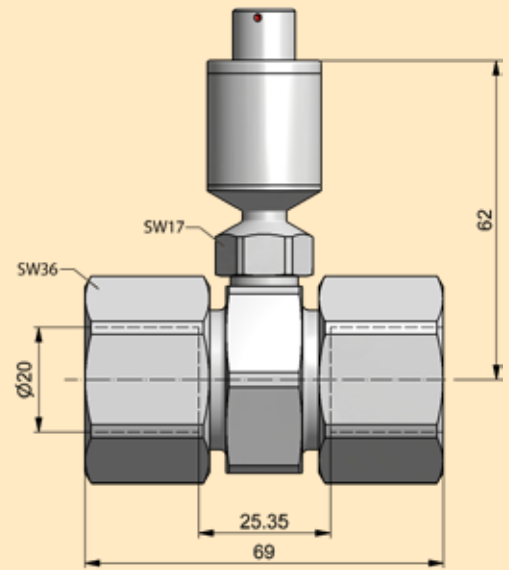
High-temperature-proof thermocouple sensors are used for the measurement of exhaust-gas temperatures of up to 1,000 °C in dieses engines.

The thermocouple converter SCTA-400-02 is compatible with all thermocouple sensors of K type.

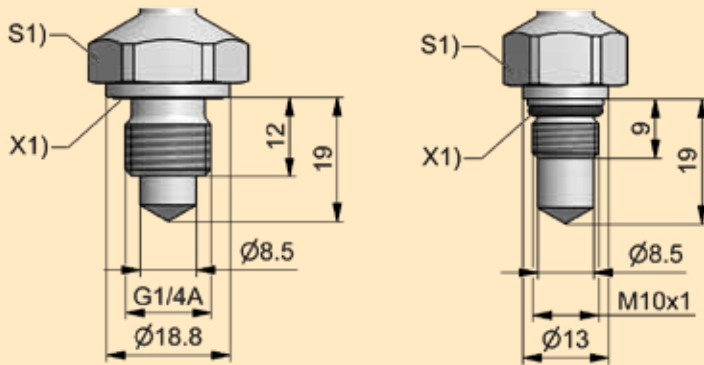
## Technical data



Inline sensor



Inline sensor  
SCT-190-00-02  
with IN-LINE-adapter  
SCA-GMA3/20S/T

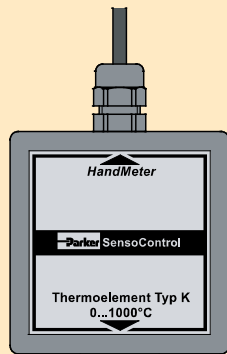


SCT-190-04-02

G1/4" connection  
S1) = SW22  
X1) = ED-Seal 14x1,5

SCT-190-00-02

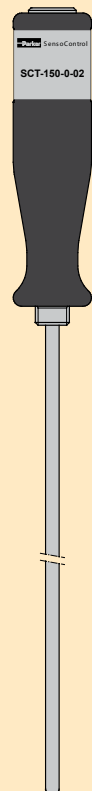
M10x1 connection  
S1) = SW17  
X1) = O-ring 7.65x1.78



Thermocouple converter  
SCTA-400-02



Thermocouple  
sensor  
SCT-400-K-01



Probe  
SCT-150-0-02

## Technical data

Type	SCT-190-04-02	SCT-190-00-02	SCT-150-0-02	SCT-400-K-01	SCTA-400-02
<b>Accuracy</b>					
Measuring range (°C)	-40 ... +150	-40 ... +150	-25...+125	0...+1.000	0...+1.000
Accuracy	± 1,0% FS*	± 1,0% FS*	±1,5 K	±1,5 K	±1,0 % FS*
Response time	$T_{50} \leq 4s, T_{90} \leq 14s$	$T_{50} \leq 4s, T_{90} \leq 12s$	$T_{90} \leq 9,1s$	$T_{90} \leq 5s$	-
<b>Material</b>					
Housing	Stainless steel	Stainless steel	Probe stainless steel Grip: Delrin	Stainless steel with 2-m fixed cable	ABS with 30-cm fixed cable
Seal	FKM**	FKM**	-	-	-
Weight (g)	70	55	120	150	-
Parts in contact with media	Stainless steel	Stainless steel	Stainless steel	Stainless steel	-
<b>Ambient conditions</b>					
Ambient temperature (°C)	-40 ... +85 @ $m_{\text{eas},T} \leq 85$	-40 ... +85 @ $m_{\text{eas},T} \leq 85$	-25...+70	-20...+150	0...+50
Storage temperature (°C)	-40 ... +85	-40 ... +85	-25...+80	-20...+80	-25...+60
Operating pressure (bar)	630	630	-	-	-
Overload pressure (bar)	800	800	-	-	-
Burst pressure (bar)	2,000	2,000	-	-	-
* FS = Full scale (measuring range end value) ** for temperatures of -25...+150 °C, other materials on request					

## Supply range and accessories

<b>SCT temperature sensors</b>		<b>Order code</b>
Inline sensor (M10x1)		SCT-190-00-02
Inline sensor (G1/4" BSPP male)		SCT-190-04-02
Hand probe		SCT-150-0-02
IN-LINE adapter tube assembly (M10x1)		SCA-GMA3/20S/T
<b>SCT temperature sensors (<math>T_{\text{max}} = 1,000 \text{ °C}</math>)</b>		<b>Order code</b>
Thermocouple converter		SCTA-400-02
Thermocouple sensor		SCT-400-K-01
<b>SCK analogue connection cable</b>		<b>Order code</b>
3 m (male 5 pin - male 5 pin)		SCK-102-03-02
5-m extension cable (male 5 pin - female 5 pin)		SCK-102-05-12
<b>SCT temperature sensors with calibration certificate as per ISO 9001*</b>		<b>Order code</b>
Inline sensor (M10x1)		K-SCT-190-00-02
Inline sensor (G1/4" BSPP male)		K-SCT-190-04-02
Hand probe		K-SCT-150-0-02
* calibrated range -25...+100 °C		

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## Temperature measurement SCT CAN

- High-pressure-resistant temperature sensors for hydraulic measurements
- For measuring temperatures of up to 150°C
- Flexible operation
- Inline sensor
- Sensor identification LED
- Accuracy  $\pm 0,66\%$
- Quick-plug-screw connection SPEEDCON®
- Suitable for long cables



In hydraulics, temperature measurements serve to locate faults and avoid the kind of damage caused by excessive temperatures in critical parts such as pumps and proportional valves.

To obtain the exact temperature, the measurement is done directly in the tube or hose line.

SCT-190 inline sensors can also be used with the SCFT turbine flow meters for measuring temperatures.

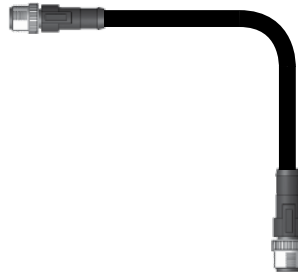


## Function specifications



The Parker Service Master *Plus*  
SCM-500-xx-xx

Connection cable  
SCK-401-02-4F-4M



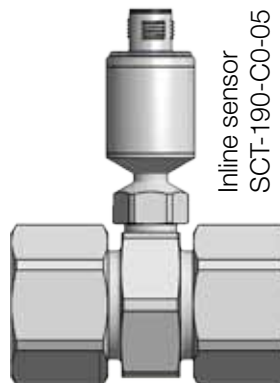
Connection cable  
SCK-401-02-4F-4M



Parker Serviceman  
Plus SCM-155-2-05



Terminating  
resistor  
SCK-401-R



Inline sensor  
SCT-190-C0-05

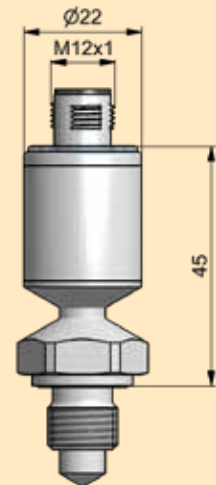
IN-LINE-adapter  
SCA-GMA3/20S/T

### **Inline sensor SCT-190 (-40 °C...+150 °C)**

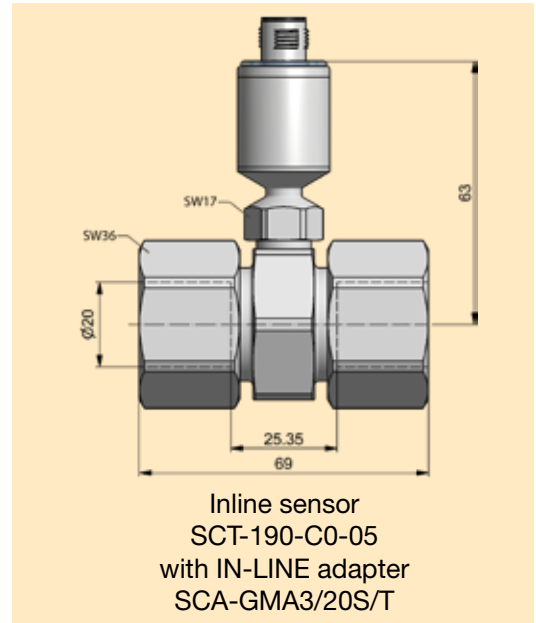
The inline sensor SCT-190-C0-05 can be adapted to the hydraulic system up to a system pressure of 630 bar.

The male stud is compatible with the measuring connections of the GMA3/20 series and the turbine flow meter SCFT-xxx.

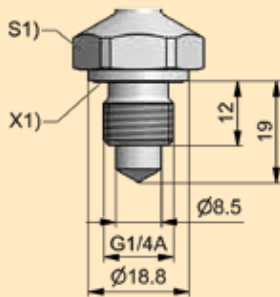
## Technical data



Inline sensor

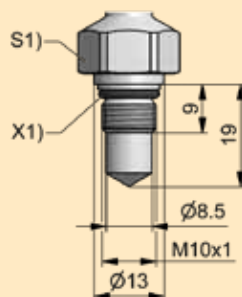


Inline sensor  
SCT-190-C0-05  
with IN-LINE adapter  
SCA-GMA3/20S/T



SCT-190-C4-05

G1/4" connection  
S1) = SW22  
X1) = ED seal 14x1,5



SCT-190-C0-05

M10x1 connection  
S1) = SW17  
X1) = O-ring 7,65x1.78

Type	SCT-190-C0-05	SCT-190-C4-05
Measuring range (°C)	-40 ... +150	-40 ... +150
Accuracy	± 0,66% FS	± 0,66% FS
Response time	$T_{50} \leq 4s, T_{90} \leq 12s$	$T_{50} \leq 4s, T_{90} \leq 14s$
Ambient temperature (°C)	-40 ... +85 @ meas.T ≤ 85 °C -40 ... +70 @ meas.T > 85 °C	-40 ... +85 @ meas.T ≤ 85 °C -40 ... +70 @ meas.T > 85 °C
Storage temperature (°C)	-40 ... +85	-40 ... +85
Operating pressure (bar)	630	630
Overload pressure (bar)	800	800
Burst pressure (bar)	2,000	2,000
Housing	Stainless steel	Stainless steel
Seal	FKM**	FKM**
Weight (g)	55	70
Parts in contact with media	Stainless steel	Stainless steel

\* FS = Full scale (measuring range end value)

\*\* for temperatures -25...+150 °C, other materials on request

## Supply range and accessories

SCT temperature sensors CAN	Order code
Inline sensor (M10x1)	SCT-190-C0-05
Inline sensor (G1/4" BSPP male)	SCT-190-C4-05
IN-LINE adapter tube assembly (M10x1)	SCA-GMA3/20S/T

SCK connection cable CAN*	Order code
0,5 m (male 5 pin - female 5 pin)	SCK-401-0.5-4F-4M
2 m (male 5 pin - female 5 pin)	SCK-401-02-4F-4M
5 m (male 5 pin - female 5 pin)	SCK-401-05-4F-4M
10 m (male 5 pin - female 5 pin)	SCK-401-10-4F-4M
20 m (male 5 pin - female 5 pin)	SCK-401-20-4F-4M
CAN Y-junction	SCK-401-Y
CAN Y-junction incl. 0.3-m cable	SCK-401-0.3-Y
CAN T-junction	SCK-401-T
Terminating resistor** CAN (female 5 pin - female 5 pin)	SCK-401-R

\* Other lengths available on request

\*\*Each can network requires a terminating resistor.

SCT temperature sensors CAN with calibration certificate as per ISO 9001*	Order code
Inline sensor (M10x1)	K-SCT-190-C0-05
Inline sensor (G1/4" BSPP male)	K-SCT-190-C4-05

\* calibrated range -25...+100 °C

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### US Product Information Centre

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