

# SA SERIES – US CAR

## GENERAL FEATURES

Pressure ranges	100 to 3600 kPa (abs) typical (other pressure range and transfer function available on request)
Over pressure	5300 kPa (abs) typical
Burst pressure	9000 kPa (abs) typical
Pressure connection	Female, M10 x 1.25 (other connections available on request)
Pressure connection material	Aluminum (other materials available on request)
Tightening torque	5.5 to 12 Nm
Electrical connection	Optionally compatible with (other connections available on request): Packard connector UScar connector
Electrical connection material	PBT GF30

## ELECTRICAL FEATURES

Power supply (Vdd)	5Vdc $\pm$ 10%. (Protected against polarity inversion and short circuit)
Supply current (Idd)	< 10 mA @ 5,5Vdc (8,5 mA typical)
Output voltage (Vout)	10% Vdd to 90% Vdd typical
Output current (Iout)	5mA typical
Output load	4,7 K $\Omega$ min. typical
Output response time	10 ms typical
Power supply overvoltage	18Vdc
Reverse voltage	-14Vdc

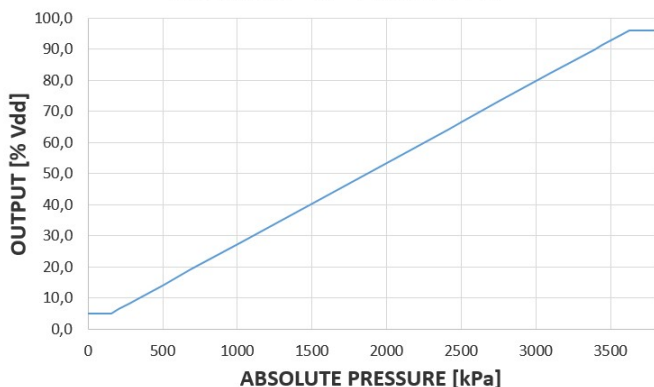
## PERFORMANCE FEATURES

Operating temperature	-40°C to 135°C
Storage temperature	-40°C to 150°C
Accuracy	$\pm$ 2% Vdd typical (0°C to 25°C) $\pm$ 3% Vdd typical (-40°C to 135°C) (linearity, hysteresis, repeatability and calibration)
Cycle life	10 millions F.S. cycles
IP code	IP67 (with connector female IP67 plugged)
Fluids compatibility	HVAC refrigerants, new R1234yf refrigerant and associated oils. (other fluids compatibilities available on request)
Vacuum pressure (referred to refrigerant circuit)	0 bar (abs)
Drop (any axis)	1,5m
Weight	14 grams typical

Note: F.S. (full scale): MAX output – Min output = 4V typical

### EXAMPLE OF TRANSFER FUNCTION

$$V_{out} (\% V_{dd}) = K_2 * P [kPa \text{ abs}] + K_1$$



### TOLERANCE ERROR

$$\text{Error } (\% V_{dd}) = (\text{Output value} - \text{Nominal value}) / V_{dd} * 100$$

Generic error for temperature value outside the range = 4%

