SANITARY RTDs

RHS600

Pt100/Pt1000, 3-wire/4-wire
Simplex/Duplex/Triplex

Range
-50 to 250°C (-58 to 482°F)

Accuracy
Class A / AA to IEC 60751

Protection
IP66/67/68
(≈NEMA 4X/6/6P)

SANITARY RTDs

RHS600

ABOUT RHS600

RHS600 RTDs are used for temperature measurement in sanitary, hygienic, clean-in-place (CIP), food, dairy, beverage, biopharmaceutical & chemical processes where absence of contamination/cleanliness is essential. It complies with industry standards for sanitary applications. Sanitary fittings are polished to meet 3-A Sanitary Council Standards. The highly polished finish prevents the growth of bacteria or other corrosive accumulation.

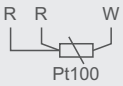
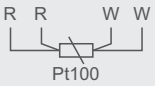
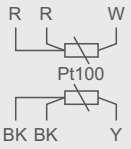
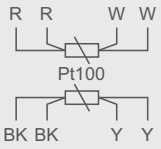
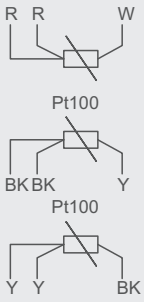
SPECIFICATIONS

RTD type	Pt100, 3-wire/4-wire; Pt1000, 3-wire/4-wire (See Fig 1)
No. of elements	Simplex/Duplex/Triplex (See Fig 1)
Accuracy	Class A / AA (1/3 DIN) to IEC 60751
Sheath diameter	See Ordering Information
Sheath length	See Ordering Information
Sheath material	SS316L
Tip rating	-50 to 250ºC (-58 to 482ºF)
Process connection	Triclover connection in ½" (25 mm), ¾" (25 mm), 1 ½" (50.4 mm), 2" (64 mm) & 2.5" (77.5 mm) sizes
Terminal head	See Fig 9
Termination	See Ordering Information; also see Fig 2, 3 & 4
Cable gland(s)	See Terminal head design - Fig 9
Options	a) NABL calibration b) Head mounted transmitter

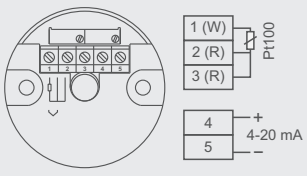
SANITARY RTDs

RHS600

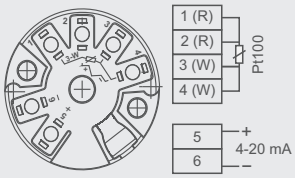
WIRING DIAGRAMS - Fig 1

3-WIRE, SIMPLEX	4-WIRE, SIMPLEX	3-WIRE, DUPLEX	4-WIRE, DUPLEX	3-WIRE, TRIPLEX
				

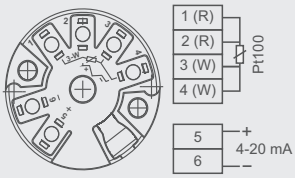
TYPE OF TRANSMITTERS - Fig 2



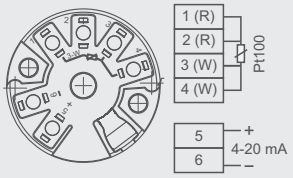
A - Transmitter, TX1HM
Pt100, non-isolated



B - Transmitter, SCC641
Pt100, isolated

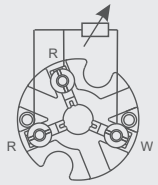
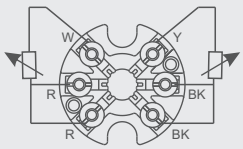
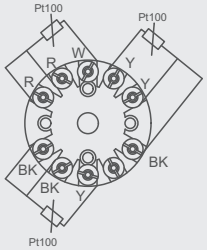


C - Transmitter, SCC642
Pt100, non-isolated, programable

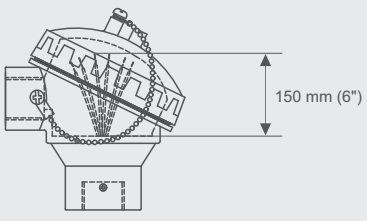


D - Transmitter, SCC631
Pt100, isolated, HART

TERMINAL BLOCKS - Fig 3

3-WIRE, SIMPLEX	3-WIRE, DUPLEX	3-WIRE, TRIPLEX
		

FLYING LEADS (L) - Fig 4



radix®

CONSTRUCTION mm (inch) - Fig 5 to 8

Fig 5: Fixed distance from head with reduced tip (SL< 50 mm (2")

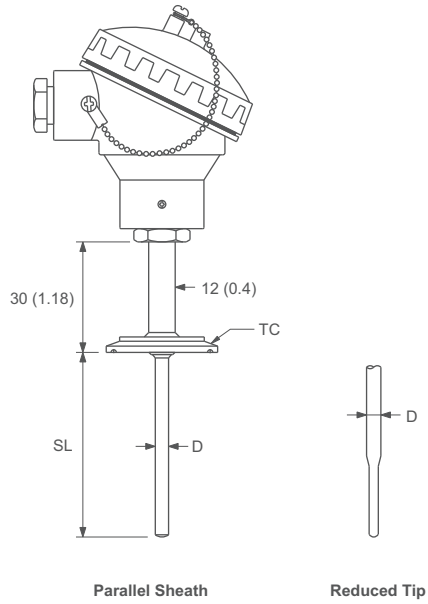


Fig 6 : Fixed below head (SL> 50 mm (2")

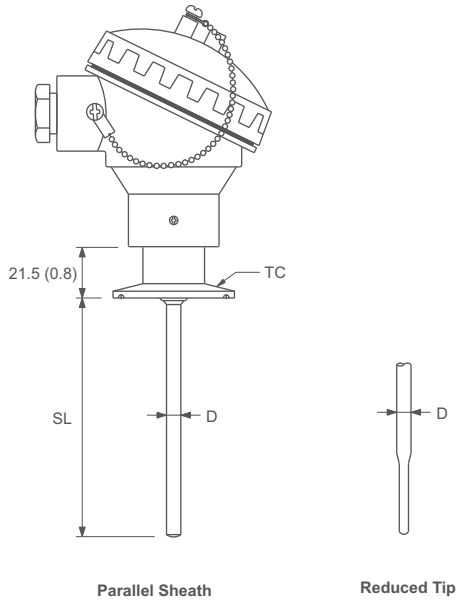


Fig 7 : Adjustable triclover

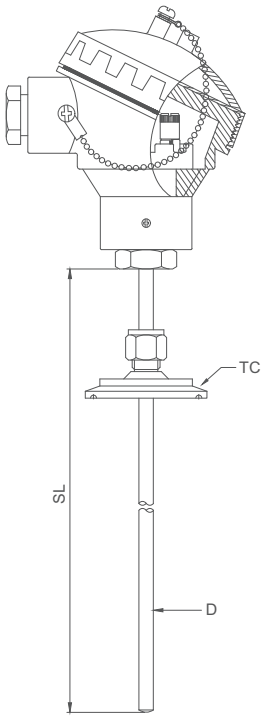
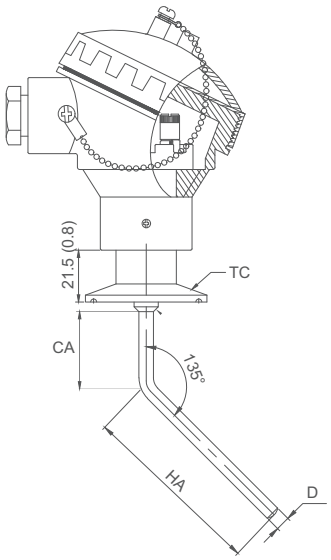
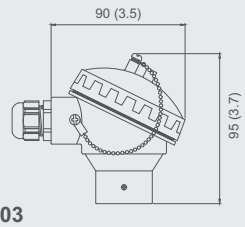


Fig 8 : Angular assembly



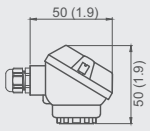
Abbreviations
D - Sheath diameter, SL - Sheath length, TC - Triclover, HA - Hot arm, CA - Cold arm

TERMINAL HEADS - Fig 9



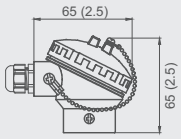
W03

Cable entry : M20x1.5 P
Cable gland type : Polyamide



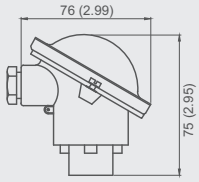
W04*#

Cable entry : M16x1.5 P
Cable gland type : Polyamide



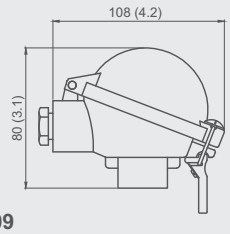
W05*

Cable entry : M16x1.5 P
Cable gland type : Polyamide



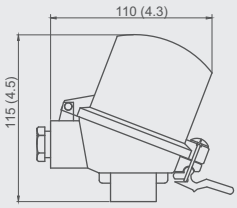
W08

Cable entry : 1/2" BSP
Cable gland type : Brass nickel plated



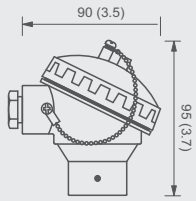
W09

Cable entry : 1/2" BSP
Cable gland type : Brass nickel plated



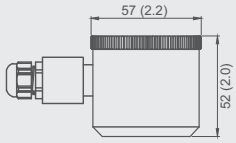
W14

Cable entry : 1/2" BSP
Cable gland type : Brass nickel plated



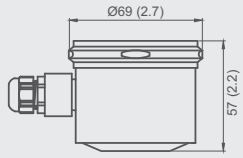
W15

Cable entry : 1/2" BSP
Cable gland type : Brass nickel plated



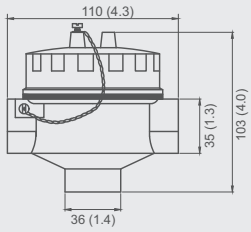
S05

Cable entry : M16x1.5
Cable gland type : Polyamide



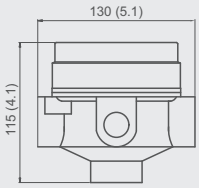
S07

Cable entry : M20x1.5 P
Cable gland type : Polyamide



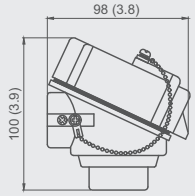
F01/F02/F03/F0A/F0C/FA3/FC3

Cable entry : 1/2" NPT
Cable gland type : Brass nickel plated/ Polyamide/SS



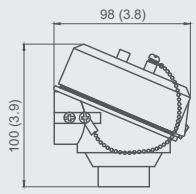
F05

Cable entry : 4x1/2" NPT
Cable gland type : Brass nickel plated



AAL

Cable entry : M20x1.5 /1/2" NPT
Cable gland type : Brass nickel plated/ Polyamide/SS



AAC

Cable entry : M20x1.5
Cable gland type : Brass nickel plated/ Polyamide/SS

* Note 1 : W04/W05 head is not suitable for head mounted transmitter
\# Note 2 : W04 head is not suitable for 3-wire/4-wire duplex assemblies

SANITARY RTDs

RHS600

TECHNICAL DATA

ACCURACY			
Pt100 (IEC 60751)	Class B	±0.3°C at 0°C ± (0.3 + 0.005 × t)°C	±0.54°F at 32°F ± (0.54 + 0.005 × t)°F
	Class A	±0.15°C at 0°C ± (0.15 + 0.002 × t)°C	±0.27°F at 32°F ± (0.27 + 0.002 × t)°F
	1/3 DIN	±0.1°C at 0°C ± 1/3 × (0.3 + 0.005 × t)°C	±0.18°F at 32°F ±1/3 × (0.54 + 0.005 × t)°F
	1/5 DIN	± 0.06°C at 0°C ± 1/5 × (0.3 + 0.005 × t)°C	±0.108°F at 32°F ±1/5 × (0.54 + 0.005 × t)°F
Pt1000 (IEC 60751)	Class B	±0.3°C at 0°C ± (0.3 + 0.005 × t)°C	±0.54°F at 32°F ± (0.54 + 0.005 × t)°F
	Class A	±0.15°C at 0°C ± (0.15 + 0.002 × t)°C	±0.27°F at 32°F ± (0.27 + 0.002 × t)°F
SURFACE FINISH OF WETTED PARTS		Ra ≤ 0.4 µm	

FEATURES SUMMARY

- Triclover connection in ½" (25 mm), ¾" (25 mm), 1 ½" (50.4 mm), 2" (64 mm) & 2.5" (77.5 mm) sizes
- Operating pressure 10 bar
- Wetted parts made of SS316L (1.4404)
- Roughness value (Ra) ≤ 0.8 µm and ≤ 0.4 µm for non-wetted and wetted parts respectively
- CE certification

ORDERING INFORMATION (See Preferred Order Codes - Table 1 also)

CODE	SPECIFICATIONS	1	2	3	4	5	6	7
RHS600								
1	**Construction (See Fig 5 to 8)**							
	Fixed distance from head with reduced tip (SL <50 mm (2")) (Fig 5)	1						
	Fixed below head (SL >50 mm (2")) (Fig 6)	2						
	Adjustable triclover (Fig 7)	3						
	Angular assembly (Fig 8)	9						
2	**No. of elements**							
	Simplex		S					
	Duplex		D					
	Triplex		T					
3	**Terminal head (See Fig 9)**							
	Weatherproof, aluminium, threaded cap, IP68 (≈NEMA 6P), cable entry M20x1.5			W03				
	Weatherproof, aluminium, threaded cap, IP68 (≈NEMA 6P), cable entry M16x1.5			W04				
	Weatherproof, aluminium, threaded cap, IP68 (≈NEMA 6P), cable entry M16x1.5			W05				
	Weatherproof, aluminium, threaded cap, IP68 (≈NEMA 6P), cable entry 1/2" BSP			W08				
	Weatherproof, aluminium, hinged cap, IP68 (≈NEMA 6P), cable entry 1/2" BSP			W09				
	Weatherproof, aluminium, hinged cap, IP68 (≈NEMA 6P), cable entry 1/2" BSP			W14				
	Weatherproof, aluminium, threaded cap, IP67 (≈NEMA 6), cable entry 1/2" BSP / 1/2" NPT			W15				
	Weatherproof, SS, threaded cap, cable entry M16x1.5			S05				
	Weatherproof, SS, threaded cap, IP68 (≈NEMA 6P), cable entry M20x1.5			S07				
	Flameproof, aluminium, threaded cap, IP67 (≈NEMA 6), IIB, cable entry 1/2" NPT			F01				
	Flameproof, aluminium, threaded cap, IP67 (≈NEMA 6), IIB, cable entry 2x1/2" NPT			F02				
	Flameproof, aluminium, threaded cap, IP67 (≈NEMA 6), IIC, cable entry 2x1/2" NPT			F03				
	Flameproof, aluminium, threaded cap, IP67 (≈NEMA 6), IIB, cable entry 4x1/2" NPT			F05				
	Flameproof, SS304, threaded cap, IP67 (≈NEMA 6), IIB, cable entry 2x1/2" NPT			F0A				
	Flameproof, SS316, threaded cap, IP67 (≈NEMA 6), IIB, cable entry 2x1/2" NPT			F0C				
	Flameproof, SS304, threaded cap, IP67 (≈NEMA 6), IIC, cable entry 2x1/2" NPT			FA3				
	Flameproof, SS316, threaded cap, IP67 (≈NEMA 6), IIC, cable entry 2x1/2" NPT			FC3				
	ATEX, aluminium, threaded cap, IP68 (≈NEMA 6P), cable entry M20x1.5 / 1/2" NPT			AAL				
	ATEX, SS316, threaded cap, IP68 (≈NEMA 6P), cable entry M20x1.5			AAC				
4	**RTD type**							
	Pt100, 3-wire				B			
	Pt100, 4-wire				C			
	Pt1000, 3-wire				E			
	Pt1000, 4-wire				F			
5	**Accuracy**							
	Class A					1		
	Class B					2		
	1/3 DIN*					3		
	1/5 DIN*#					4		
6	**Process connection**							
	1/2" (25.0 mm)						12	
	3/4" (25.0 mm)						19	
	1/1.5" (50.4 mm)						25	
	2" (64 mm)						50	
	2.5" (77.5 mm)						63	
7	**Sheath diameter (D - See Fig 5 to 8)**							
	3 mm (0.12")							003
	4 mm (0.16")							004
	6 mm (0.24")							006
	6 mm (0.24") reduced to 4 mm (0.16")							06R
	8 mm (0.32")							008
	8 mm (0.32") reduced to 5 mm (0.20")							08R
	9.5 mm (0.38")							095
	10 mm (0.40")							010
	10 mm (0.40") reduced to 6 mm (0.24")							012
	12 mm (0.48")							10R
	12 mm (0.48") reduced to 6 mm (0.24")							12R

* Note 1 : Not offered in Pt1000 assemblies
# Note 2 : 1/5 DIN is available for limited configurations/construction/design

ORDERING INFORMATION (See Preferred Order Codes - Table 1 also)

CODE	SPECIFICATIONS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
RHS600																				
8	**Sheath length (SL - See Fig 5 to 8)**																			
	30 mm (1.18")								030											
	60 mm (2.36")								060											
	100 mm (3.93")								100											
	150 mm (5.9")								150											
	300 mm (11.8")								300											
	Customer to specify								XXX											
	ACCESSORIES																			
9	**Cable gland**									G										
10	**Blind plug**										P									
11	**Termination**																			
	Terminal block											T								
	Flying leads (in place of terminal block)											L								
	TX1HM: 2-wire, temperature transmitter											A								
	SCC641: 2-wire, isolated temperature transmitter											B								
	SCC642: 2-wire, non-isolated temperature transmitter											C								
	SCC631: 2-wire, isolated temperature transmitter, HART											D								
12	**Transmitter range**																			
12.1	**Standard**																			
	0 to 100°C (32 to 212°F)												00.100							
	-50 to 150°C (-58 to 302°F)												50.150							
12.2	**Custom**																			
	Range - low (customer to specify)												XXXX							
	Range - high (customer to specify)												XXXX							
	Unit (°C or °F)												XX							
13	**Cable length & type**																			
	1m (3.28 ft), PTFE/PTFE													1TT						
	5 m (16.4 ft), PTFE/PTFE/SS Braiding													5TS						
14	**CE certification**														CE					
15	**Calibration type**																			
	NABL-traceable calibration															TR				
	NABL-accredited calibration															NB				
16	**No. of calibration points (For 15)**																			
	3 point																3			
	5 point																5			
17	**Tag plate**																			
	Required																	TA		
18	**Future parameter A**																			
	For future use																		FA	
19	**Future parameter B**																			
	For future use																			FB

CODE-1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19

Order Code Format : XXXXXX-X-X-XXX-X-X-XX-XXX-XXX-XX-XX-XX-XX.XXX-XXX-XX-XX-X-XX-FA-FB

Example

Without accessories
RHS600, Fixed below head (SL> 50 mm (2")), simplex element, weatherproof, aluminium, threaded cap, IP68 (≈NEMA6P),
cable entry M20x1.5 (W3), Pt100, 3-wire, Class A, 1/1.5" triclover (50.4 mm), sheath diameter 6 mm (0.24"), sheath length 100 mm (3.93")
RHS600-2-S-W03-B-1-25-06-100

With accessories
RHS600, Fixed below head (SL> 50 mm (2")), simplex element, weatherproof, aluminium, threaded cap, IP68 (≈NEMA6P),
cable entry M20x1.5 (W3), Pt100, 3-wire, class A, 1/1.5" triclover (50.4 mm), sheath diameter 6 mm (0.24"), sheath length 100 mm (3.93"),
with cable gland, SCC641 transmitter having range 0 to 100°C (32 to 212°F), cable length of 1 m (3.28 ft) and CE certified
RHS600-2-S-W03-B-1-25-06-100-G-B-00.100-1TT-CE

The Preferred Order Codes in the Table 1 below will be available with shorter deliveries and/or better prices.

TABLE 1 : PREFERRED ORDER CODES

Order code	Construction	No. of elements	Accuracy	Process connection	Sheath diameter	Sheath length
RHS600-2-S-W03-B-1-25-06-200	Fixed below head	Simplex	Class A	1" (50.4 mm)	6 mm (0.24")	200 mm (7.87")
RHS600-3-D-W03-B-1-25-06-1910	Adjustable triclover	Duplex	Class A	1" (50.4 mm)	6 mm (0.24")	200 mm (7.87")
RHS600-1-S-W03-B-1-19-6R-50-A-00.120	Fixed distance from head with reduced tip	Simplex	Class A	3/4" (25 mm)	6 mm (0.24") reduced 4 mm (0.17")	50 mm (2")
RHS600-2-D-W03-B-1-25-06-80-A-00.100	Fixed below head	Duplex	Class A	1.5" (50.4 mm)	6 mm (0.24")	80 mm (3.15")
RHS600-1-D-W03-B-3-25-6R-50-TR-5	Fixed distance from head with reduced tip	Duplex	Class 1/3 DIN	1" (50.4 mm)	6 mm (0.24") reduced 4 mm (0.17")	50 mm (2")
RHS600-9-S-W03-B-1-25-06-155	Angled assembly	Simplex	Class A	1" (50.4 mm)	6 mm (0.24")	155 mm (6.1")

ENQUIRIES
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