Tasira
Instruments & Services

MASS

Resistant temperature detector with head
Model RTH

General purpose and Ex-proof

Features

- High stability sensor
- Mineral insulated for flexibility and durability
- General purpose with spring loaded sensor
- Available with weatherproof or explosion proof head
- Custom designs for specific applications

Ranges

-200 up to 600 °C
-325 up to 1100 °F

Applications

Chemical, petrochemical and refineries
Power, Steel, Cement
Machine and apparatus construction
Pharmaceuticals, Dairy & Food process industry
Pulp and paper industry

Technical specification	RTH
Head types	Compact, Sanitary, Weatherproof and Ex-proof heads.
Element	Pt100, Pt500, Pt1000
Element type	Simplex or duplex
Range	From -200 to 600 °C
Sheath diameter	3mm, 4mm, 4.5mm, 5mm, 6mm, 6.4mm, 8mm, 10mm, others on request
Sheath length	Rigid up to 300mm,flexible up to 30m
Process connection	1/4", 1/2", 3/4" NPT/BSP, adjustable, Nipple or Nipple union nipple connections
Material	
Process connection	Stainless steel 304, 316, CS Zinc Coated
Sheath	Stainless steel 316, optional 316L, 321, Inconel 600, SS316 with PTFE Coated
Head*	Aluminum epoxy coated, SS304, SS316, PP
Electrical specification	
Wiring configuration	2 wire, 3 wire and 4 wire
Terminal	Ceramic block with nickel plated brass terminal, optional spring-loaded terminal
Ex-proof*	CCOE : Zone 1 & 2 IIA / IIB / IIC T6 FM/CSA : Class I Div.1 Group B,C, D. Class II/III Div. 1 Group E, F, G. ATEX /IECEx : II 2GD, Ex db IIC Gb, Ex tb IIIC Db, Ta = -40°C to +85°C
Insulation	100 MΩ minimum insulation when measured at 100 VDC
Electrical connection*	1/2" NPT(F) Standard, others on request. (Sanitary Head, standard M16x1)
General specification	
Accuracy	Class "A" and Class "B" as per IEC 60751, optional 1/3rd & 1/10th DIN
Stability	±0.04 maximum ice-point resistance shift following 1,000 hrs. at maximum specified temperature
Protection IEC 60529*	IP65, IP66, IP67, IP68, NEMA 4X
Accessories, options	Thermowell, Head mounted transmitters, etc.

* Depending on Head type

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Order information

Head Type	Element	Element type	Accuracy class	Sheath material	Sheath Dia	Sheath length	Process connection	Connection Type	Electrical connection	Options
(E) Compact	**Pt100**	**(S2)** Simplex 2 wire	**(1)** 1/10th Din	**(S)** SS316	**(D3)** 3 mm	**55 to 25000 mm**	(e) None	(e) None	(e4) Threaded [3]	**(NH)** Tagging wired
(H) Hinge type	**Pt500**	**(S3)** Simplex 3 wire	**(3)** 1/3rd Din	**(L)** SS316L	**(D4)** 4 mm		**(0D)** 1/4" NPT(M)	**(F)** Fixed Hex nut	**(B1)** Ni plated brass double compression cable gland[5]	**(ST)** Spring loaded terminal
(K) Weather-proof	**Pt1000**	**(S4)** Simplex 4 wire	**(A)** Class A -70/300C	**(SA)** SS321	**(D4.5)** 4.5 mm		**(D4)** 1/2" NPT(M)	**(N1008)** Zinc plated CS Nipple 100mm [2]	**(C1)** Ni plated brass CCOE (IIA/IIB) cable gland [7]	**(HT)** Head mounted transmitter
(W) Weather-proof		**(D2)** Duplex 2 wire	**(B)** Class B -70/500C	**(S6)** Inconel 600	**(D5)** 5 mm		**(D5)** 3/4" NPT(M)	**(U1508)** Zinc plated CS Nipple union Nipple 150mm [2]	**(D1)** Ni plated brass CCOE (IIC) cable gland[7]	**(DE)** Double entry for head [10]
(B) CCOE certified IIA/IIB		**(D3)** Duplex 3 wire	**(EA)** Extended temperature Class A -200/600C	**(SJ)** SS316 with PTFE coating[6]	**(D6)** 6 mm		**(13)** 1/4" BSP(M)	**(N100C)** SS304 Nipple 100mm [2]	**(E1)** Ni plated brass ATEX cable gland[5]	**(DR)** Double entry with Aluminum plugged [10]
(C) CCOE certified IIC		**(D4)** Duplex 4 wire			**(D6.4)** 6.4mm		**(15)** 1/2" BSP(M)	**(U150C)** SS304 Nipple union Nipple 150mm [2]	**(F1)** SS double compression cable gland[5]	**(DC)** Double entry with SS304 plugged [10]
(G) Weather-proof					**(D8)** 8 mm		**(17)** 3/4" BSP(M)	**(N1005)** SS316 Nipple 100mm [2]	**(G1)** SS CCOE (IIA/IIB) cable gland [7]	**(DS)** Double entry with SS316 plugged [10]
(A) Weather-proof					**(D10)** 10 mm		**(16)** M20x1.5(M)	**(U1508)** SS316 Nipple union Nipple 150mm [2]	**(H1)** SS CCOE (IIC) cable gland [7]	**(TTS)** Teflon-Teflon, SS braided extension cable [10]
(S) Sanitary							**(S15)** 1.5" Tri-clamp	**(O)** adjustable connection sliding on stem	**(I1)** Plastic cable gland PG13.5 [7]	**(TT)** Teflon-Teflon, extension cable [10]
Refer drawing for more details							**(M12x1.5M)** M12x1.5(M)		**(J1)** SS ATEX cable gland [7]	**(EE16)** Electrical Entry M20x1.5[8]
							(M27x2M) M27x2(M)		**(7P)** 7 Pin connector	**(EE05)** Electrical Entry 3/4" NPT[8]
									(9P) 9 Pin connector	**(EE99)** Electrical Entry 3/4" ET[8]
										(C4) Calibration Certificate

1) Specify length in meter EG. TTS1.5 = TTS with 1.5m
2) Only with connection "04, 05, 16, 18", length available 75, 100, 125, 150mm
3) Standard electrical entry is ½" NPT(F), see options for other threads, refer drawing for possible threads in head. (Sanitary Head, standard M16x1)
4) Maximum temperature limit 200°C
5) Only for limited head types, refer drawing
6) Max temperature limit for extension cable is 250°C
7) For two cable glands, specify the codes as B2, C2… applicable only for (DE)
8) Refer drawing for possible threads and head combination

How to order

Head Type	Model	Element	Element type	Accuracy Class	Sheath Material	Sheath Diameter	Sheath Length	Process Connection	Connection Type	Electrical Connection	Option
K	RTH	Pt100	S3	A	S	D6	100	04	D	=	ST

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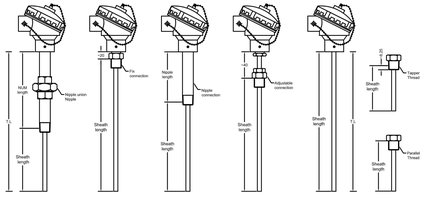
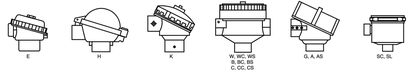
General dimensions in mm



Types of Head



Head Type	Material	IP Rating	No of Cable Entries	Cable Entry Thread	Approvals
E	Aluminium	IP65	Single	½" NPT, ¾" ET	-
H	Aluminium	IP65	Single	½" NPT, ¾" ET	-
K	Aluminium	IP67	Single	½" NPT	-
W	Aluminium				
WC	SS304	IP66 / IP67	Single / Double	½" NPT, ¾" ET, ¾" NPT, M20x1.5	-
WS	SS316				
B	Aluminium				
BC	SS304	IP66 / IP67	Single / Double	½" NPT, ¾" ET, ¾" NPT, M20x1.5	CCOE : IIA/IIB Zone 1 & 2 T6
BS	SS316				
C	Aluminium				
CC	SS304	IP66 / IP67	Single / Double	½" NPT, ¾" ET, ¾" NPT, M20x1.5	CCOE : IIC Zone 1 & 2 T6
CS	SS316				
G	Aluminium	IP66	Single	½" NPT, ¾" NPT, M20x1.5	-
A	Aluminium	IP66 / IP68 NEMA 4X	Single	½" NPT, ¾" NPT, M20x1.5	FM/CSA : Class I Division 1 Group B,C, D. Class II/III Division 1 Group E, F, G. ATEX /IECEx : II 2GD, Ex db IIC Gb. Ex tb IIIC Db, Ta = -40°C to +85°C
AS	SS316				
SC	SS304	IP65	Single	M16x1	-
SL	SS316				

Standard electrical connection is 1/2" NPT(F), for others use optional code. (Sanitary Head, standard M16x1)

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