Rosemount 5301 and 5302 Level and/or Interface in Liquids

Rosemount 5301 and 5302 Guided Wave Radar Level Transmitters provide industry leading measurement capabilities and reliability in liquids. Characteristics include:

- Direct Switch Technology and Probe End Projection to handle low reflective media and long measuring ranges
- Wide range of probe styles, materials, and temperatures and pressures for application flexibility
- HART 4-20 mA, FOUNDATION™ Fieldbus, Modbus, or IEC 62591 (*Wireless*HART®) with the THUM Adapter
- Safety-certified to IEC 61508 (option code QT)
- Advanced diagnostics (option code D01 or DA1)
- Proof Test Reflector (option code HL1, HL2, or HL3)

CONFIGURE > VIEW PRODUCT >

Required model components

Model

Code	Description	
5301	Guided Wave Radar Liquid Level or Interface Transmitter (interface available for fully submerged probe)	★
5302	Guided Wave Radar Liquid Level and Interface Transmitter	★

Signal output

Code	Description	
H	4-20 mA with HART communication (default output from factory is HART 7, add option code HR5 for HART 5)	★
F	FOUNDATION Fieldbus	★
M	RS-485 with Modbus communication	★
U	Rosemount 2410 Tank Hub connectivity	

Related information

4-20 mA HART
FOUNDATION Fieldbus
Modbus

Housing material

Code	Description	
A	Polyurethane-covered Aluminum (Aluminum alloy A360, maximum 0.6 percent Cu)	★
S	Stainless Steel, Grade CF8M (ASTM A743)	

Conduit / cable threads

Code	Description		
1	½ - 14 NPT	1 plug included	★
2	M20 x 1.5 adapter	1 adapter and 1 plug included	★
4	2 pcs M20 x 1.5 adapter	2 adapters and 1 plug included	★

Code	Description		
G[1][2]	Metal cable gland (½ - 14 NPT)	2 glands and 1 plug included	★
E[3]	M12, 4-pin, male connector (eurofast®)	1 plug included	★
M[3]	A size Mini, 4-pin, male connector (minifast®)	1 plug included	★

(1) *Not available with explosion-proof or flameproof approvals.*
(2) *Minimum temperature is -20 °C (-4 °F).*
(3) *Not available with explosion-proof, flameproof, or increased safety approvals.*

Operating temperature and pressure

Process seal rating. Final rating depends on Material of construction, Flange, and O-ring selection.

Code	Description		Probe type	
Standard (Std)				
S	Design and operating temperature: -40 to 302 °F (-40 to 150 °C)	Design and operating pressure: -15 to 754 psig (-1 to 52 bar)[1]	1A, 2A, 3A, 3B, 3C, 4A, 4B, 4S, 5A, and 5B	★
High Pressure (HP)				
P[2]	Design temperature: -76 to 752 °F (-60 to 400 °C)[3]	Design and operating pressure: -15 to 5000 psig (-1 to 345 bar)	3A, 3B, 3C, 4A, 4B, 4S, 5A, and 5B	★
	Operating temperature: -76 to 500 °F (-60 to 260 °C)[4]			
High Temperature / High Pressure (HTHP)				
H[2][5]	Design and operating temperature: -76 to 752 °F (-60 to 400 °C)	Design and operating pressure: -15 to 5000 psig (-1 to 345 bar)	3A, 3B, 3V, 4A, 4B, 4S, 4U, 5A, and 5B	★
Cryogenic Temperature (C)				
C[2]	Design and operating temperature: -320 to 392 °F (-196 to 200 °C)	Design and operating pressure: -15 to 5000 psig (-1 to 345 bar)	3A, 3B, 3C, 4A, 4B, 4S, 5A, 5B (Only SST)	

(1) *Maximum pressure is 580 psig (40 bar) for O-ring material code B (Nitrile Butadiene), Overfill prevention code U1, and Material of construction code 2 or 3.*
(2) *Requires option None for sealing (no O-ring).*
(3) *Pressure retaining parts are designed for up to 752 °F (400 °C), maximum operating temperature is 500 °F (260 °C).*
(4) *Maximum operating temperature is 482 °F (250 °C) for option code U1.*
(5) *For applications where operating temperature cycles exclusively below 500 °F / 260 °C, and other applications where a large amount of contamination is present, the High Pressure (HP) or Standard (Std) seal should be used, if process conditions allow.*

Related information

Process temperature and pressure rating
Flange rating
Plate design
Tri Clamp rating

Material of construction: Process connection / probe

For other materials, consult the factory.

Code	Description	Probe type	Valid operation temperature and pressure	
1[1]	316/316L/EN 1.4404	All	S, H, P, C	★
2	Alloy C-276 (UNS N10276). With plate design if flanged version. Up to class 600/PN 63 for HTHP/HP process seals.	3A, 3B, 4A, 4B, 5A, 5B	S, H, P	
3	Alloy 400 (UNS N04400). With plate design if flanged version.	3A, 3B, 4A, 4B, 5A, 5B	S	
7	PTFE covered probe and flange. With plate design.	4A and 5A	S	
8	PTFE covered probe	4A and 5A	S	
H	Alloy C-276 (UNS N10276) process connection, flange, and probe	3A, 3B, 4A, 4B, 5A, 5B	S, H, P	
D	Duplex 2205 (EN 1.4462/UNS S31803) process connection, flange, and probe	4B, 5A, 5B	S, H, P	
E	Alloy 825 (UNS N08825) process connection, flange, and probe	4B, 5A, 5B	S, H, P	

(1) *ASME flanges dual certified 316/316L.*

Sealing O-ring material

For other materials, consult the factory.

Code	Description	
N[1]	None	★
V	Fluoroelastomer (FKM)	★
E	Ethylene Propylene (EPDM)	★
K	Kalrez® Perfluoroelastomer (FFKM)	★
B	Nitrile Butadiene (NBR)	★
F	Fluorsilicone (FVMQ)	★

(1) *Requires Operating Temperature and Pressure code H, P, or C.*

Probe type

Code	Description	Process connections	Probe lengths	
3B	Coaxial, perforated. For level and interface measurement.	Flange / 1-in.[1], 1½-in., 2- in.[1] Thread	Min: 1 ft. 4 in. (0.4 m) Max: 19 ft. 8 in. (6 m)	★
3C[2]	Large coaxial, perforated. For level and interface measurement.	Flange / 1½-in., 2- in.[1] Thread	Min: 1 ft. (0.3 m) Max: 19 ft. 8 in. (6 m)	★
3V[3][4][5]	Integrated Still Pipe Vapor Probe. For 3-in. chambers and above. Refer to "Options" to specify reference reflector length.	Flange	Min: 2 ft. 11 in. (0.9 m) for the short reflector (R1 option) Min: 3 ft. 7 in. (1.1 m) for the long reflector (R2 option) Max: 13 ft. 1 in. (4 m)	★
4A	Rigid Single Lead (8 mm)	Flange / 1- in.[1], 1½-in., 2- in.[1] Thread / Tri Clamp	Min: 1 ft. 4 in. (0.4 m) Max: 9 ft. 10 in. (3 m)	★

Code	Description	Process connections	Probe lengths	
4B	Rigid Single Lead (13mm)	Flange / 1-in., 1½-in., 2-in. Thread / Tri Clamp	Min: 1 ft. 4 in. (0.4 m) Max: 19 ft. 8 in. (6 m)	★
4U(3)(4)(5)	Single Rigid Vapor Probe (equip with a 1½-in. centering disc). For 2-in. chambers. Refer to "Options" to specify reference reflector length.	Flange / 1½-in. Thread	Min: 2 ft. 11 in. (0.9 m) for the short reflector (R1 option) Min: 3 ft. 7 in. (1.1 m) for the long reflector (R2 option) Max: 9 ft. 10 in. (3 m)	★
5A(6)	Flexible Single Lead with weight	Flange / 1-in.(1), 1½-in., 2-in.(1) Thread / Tri Clamp	Min: 3 ft. 4 in. (1 m) Max: 164 ft. (50 m)(7)(8)	★
5B(9)	Flexible Single Lead with chuck	Flange / 1-in.(1), 1½-in., 2-in.(1) Thread / Tri Clamp	Min: 3 ft. 4 in. (1 m) Max: 164 ft. (50 m)(7)	★
1A(1)	Rigid Twin Lead	Flange / 1½-in., 2-in.(1) Thread	Min: 1 ft. 4 in. (0.4 m) Max: 9 ft. 10 in. (3 m)	
2A(1)	Flexible Twin Lead with weight	Flange / 1½-in., 2-in.(1) Thread	Min: 3 ft. 4 in. (1 m) Max: 164 ft. (50 m)	
3A(10)	Coaxial (for level measurement)	Flange / 1-in.(1), 1½-in., 2-in.(1) Thread	Min: 1 ft. 4 in. (0.4 m) Max: 19 ft. 8 in. (6 m)	
4S	Segmented Rigid Single Lead (13mm)	Flange / 1-in., 1½-in., 2-in.Thread / Tri Clamp	Min: 1 ft. 4 in. (0.4 m) Max: 32 ft. 9 in. (10 m)	

(1) *Only available with Operating Temperature and Pressure code S.*
(2) *Requires firmware version 2.L3 or later.*
(3) *Only available with Operating Temperature and Pressure code H.*
(4) *Not available with Remote housing code B1 or B2.*
(5) *Probe type 3V or 4U together with flanges Class 2500/PN250 or higher requires installation option code HS (Heat sink).*
(6) *0.79 lb (0.36 kg) standard weight for flexible single lead probe. L=5.5 in. (140 mm). For PTFE covered probes: 2.2 lb (1 kg) standard weight for flexible single lead probe. L=17.1 in. (434 mm).*
(7) *Maximum probe length for Duplex 2205 probes is 105 ft (32 m).*
(8) *Maximum probe length for PTFE covered probes is 98 ft (30 m).*
(9) *Extra length for fastening is added in factory.*
(10) *Requires model 5301.*

Probe length units

Code	Description	
E	English (feet, inches)	★
M	Metric (meters, centimeters)	★

Total probe length (feet/m)

Probe weight included if applicable. Give the total probe length in feet and inches or meters and centimeters, depending on selected probe length unit. If tank height is unknown, please round up to an even length when ordering. Probes can be cut to exact length in field. Maximum allowable length is determined by process conditions.

Code	Description	
XXX	0-164 ft. or 0-50 m	★

Related information

Total probe length

Total probe length (inch/cm)

Probe weight included if applicable. Give the total probe length in feet and inches or meters and centimeters, depending on selected probe length unit. If tank height is unknown, please round up to an even length when ordering. Probes can be cut to exact length in field. Maximum allowable length is determined by process conditions.

Code	Description	
XX	0 - 11 in. or 0-99 cm	★

Related information

Total probe length

Process connection - size / type

For other process connections, consult the factory.

Code	Description			
ASME flanges[1]		Material of construction	Operating temperature and pressure	
AA[2]	2-in. Class 150, RF (Raised Face Type)	1, 2, 3, 7, 8, H, D, E	S, H, P, C	★
AB[2]	2-in. Class 300, RF (Raised Face Type)	1, 2, 3, 7, 8, H, D, E	S, H, P, C	★
AC	2-in. Class 600, RF (Raised Face Type)	1, 2, H, D, E	H, P, C	★
AD	2-in. Class 900, RF (Raised Face Type)	1, H, D, E	H, P, C	★
BA[2]	3-in. Class 150, RF (Raised Face Type)	1, 2, 3, 7, 8, H, D, E	S, H, P, C	★
BB[2]	3-in. Class 300, RF (Raised Face Type)	1, 2, 3, 7, 8, H, D, E	S, H, P, C	★
BC	3-in. Class 600, RF (Raised Face Type)	1, 2, H, D, E	H, P, C	★
BD	3-in. Class 900, RF (Raised Face Type)	1, H, D, E	H, P, C	★
CA[2]	4-in. Class 150, RF (Raised Face Type)	1, 2, 3, 7, 8, H, D, E	S, H, P, C	★
CB[2]	4-in. Class 300, RF (Raised Face Type)	1, 2, 3, 7, 8, H, D, E	S, H, P, C	★
CC	4-in. Class 600, RF (Raised Face Type)	1, 2, H, D, E	H, P, C	★
CD	4-in. Class 900, RF (Raised Face Type)	1, H, D, E	H, P, C	★
AE	2-in. Class 1500, RF (Raised Face Type)	1, H, D, E	H, P, C	
AF	2-in. Class 2500, RF (Raised Face Type)	1	H, P, C	
AI	2-in. Class 600, RTJ (Ring Type Joint)	1, H, D, E	H, P, C	
AJ	2-in. Class 900, RTJ (Ring Type Joint)	1, H, D, E	H, P, C	
AK	2-in. Class 1500, RTJ (Ring Type Joint)	1, H, D, E	H, P, C	
BE	3-in. Class 1500, RF (Raised Face Type)	1, H, D, E	H, P, C	
BF	3-in. Class 2500, RF (Raised Face Type)	1	H, P, C	
BI	3-in. Class 600, RTJ (Ring Type Joint)	1, H, D, E	H, P, C	
BJ	3-in. Class 900, RTJ (Ring Type Joint)	1, H, D, E	H, P, C	
BK	3-in. Class 1500, RTJ (Ring Type Joint)	1, H, D, E	H, P, C	
CE	4-in. Class 1500, RF (Raised Face Type)	1, H, D, E	H, P, C	
CI	4-in. Class 600, RTJ (Ring Type Joint)	1, H, D, E	H, P, C	
CJ	4-in. Class 900, RTJ (Ring Type Joint)	1, H, D, E	H, P, C	
CK	4-in. Class 1500, RTJ (Ring Type Joint)	1, H, D, E	H, P, C	

Code	Description			
DA	6-in. Class 150, RF (Raised Face Type)	1, 2, 3, 7, 8, H	S, H, P, C	
DB	6-in. Class 300, RF (Raised Face Type)	1, 2, 3, 7, 8, H	S, H, P, C	
EN 1092-1 flanges		Material of construction	Operating temperature and pressure	
HB	DN50, PN40, Type A flat face	1, 2, 3, 7, 8	S, H, P, C	★
HC	DN50, PN63, Type A flat face	1, 2, 3	H, P, C	★
HD	DN50, PN100, Type A flat face	1	H, P, C	★
IA	DN80, PN16, Type A flat face	1, 2, 3, 7, 8	S, H, P, C	★
IB	DN80, PN40, Type A flat face	1, 2, 3, 7, 8	S, H, P, C	★
IC	DN80, PN63, Type A flat face	1, 2, 3	H, P, C	★
ID	DN80, PN100, Type A flat face	1	H, P, C	★
JA	DN100, PN16, Type A flat face	1, 2, 3, 7, 8	S, H, P, C	★
JB	DN100, PN40, Type A flat face	1, 2, 3, 7, 8	S, H, P, C	★
JC	DN100, PN63, Type A flat face	1, 2, 3	H, P, C	★
HI	DN50, PN40, Type E spigot face	1, 8	S, H, P, C	
HP	DN50, PN16, Type C tongue face	1, 8	S, H, P, C	
HQ	DN50, PN40, Type C tongue face	1, 8	S, H, P, C	
IE	DN80, PN160, Type B2 raised face	1	H, P, C	
IH	DN80, PN16, Type E spigot face	1, 8	S, H, P, C	
II	DN80, PN40, Type E spigot face	1, 8	S, H, P, C	
JE	DN100, PN160, Type B2 raised face	1	H, P, C	
JH	DN100, PN16, Type E spigot face	1, 8	S, H, P, C	
JI	DN100, PN40, Type E spigot face	1, 8	S, H, P, C	
JQ	DN100, PN40, Type C tongue face	1, 8	S, H, P, C	
KA	DN150, PN16, Type A flat face	1, 2, 3, 7, 8	S, H, P, C	
KB	DN150, PN40, Type A flat face	1, 2, 3, 7, 8	S, H, P, C	
KH	DN150, PN16, Type E spigot face	1, 8	S, H, P, C	
NI	DN65, PN40, Type E spigot face	1, 8	S, H, P, C	
JIS flanges		Material of construction	Operating temperature and pressure	
UA	50A, 10K, RF (Raised Face Type)	1, 2, 3, 7, 8	S, H, P, C	★
VA	80A, 10K, RF (Raised Face Type)	1, 2, 3, 7, 8	S, H, P, C	★
XA	100A, 10K, RF (Raised Face Type)	1, 2, 3, 7, 8	S, H, P, C	★
Threaded connections		Material of construction	Probe type	
RA	1½-in. NPT thread	Std: 1, 2, 3, 8, H, D HTHP: 1	1A, 2A, 3A, 3B, 3C, 4A, 4B, 4S, 4U, 5A, 5B	★
RC	2-in. NPT thread	1, 8	1A, 2A, 3A, 3B, 3C, 4A, 4B, 4S, 5A, 5B, standard temperature and pressure	★
RB	1-in. NPT thread	1, 8	3A, 3B, 4A, 4B, 4S, 5A, 5B, standard temperature and pressure	

Code	Description			
SA	1½-in. BSP (G 1½-in.) thread	Std: 1, 2, 3, 8, H, D HTHP: 1	1A, 2A, 3A, 3B, 3C, 4A, 4B, 4S, 4U, 5A, 5B	
SB	1-in. BSP (G 1-in.) thread	1, 8	3A, 3B, 4A, 4B, 4S, 5A, 5B, standard temperature and pressure	
Tri Clamp fittings[3]		Material of construction	Probe type	
FT	1½-in. Tri Clamp	1, 7, 8	4A, 5A, 5B standard temperature and pressure	
AT	2-in. Tri Clamp	1, 7, 8	4A, 4B, 5A, 5B, 4S standard temperature and pressure	
BT	3-in. Tri Clamp	1, 7, 8	4A, 4B, 5A, 5B, 4S standard temperature and pressure	
CT	4-in. Tri Clamp	1, 7, 8	4A, 4B, 5A, 5B, 4S standard temperature and pressure	
Proprietary flanges		Material of construction	Operating temperature and pressure	
TF	Fisher - proprietary 316/316L (for 249B, 259B chambers) Torque Tube Flange	1, 7, 8	S, H, P, C	★
TT	Fisher - proprietary 316/316L (for 249C chambers) Torque Tube Flange	1, 7, 8	S, H, P, C	★
TM	Masoneilan - proprietary 316/316L Torque Tube Flange	1, 7, 8	S, H, P, C	★

(1) *Design according to ASME B31.3. No code stamp or ASME certificate available.*
(2) *Forged one-piece flange provided for Standard (Std) seal together with Material of construction code 1, 7 or 8, and Probe type code 3A, 3B, 3V, 4A, 4B, 4U, 4S, 5A, or 5B. Welded construction provided for other combinations.*
(3) *Follows ISO 2852 standard.*

Hazardous locations certifications

Code	Description	
NA	No Hazardous Locations Certifications	★
E1[1]	ATEX Flameproof	★
E3[1]	China Flameproof	★
E5[1]	USA Explosion-proof	★
E6[1]	Canadian Explosion-proof	★
E7[1]	IECEx Flameproof	★
I1	ATEX Intrinsic Safety	★
IA[2]	ATEX FISCO Intrinsic Safety	★
I3	China Intrinsic Safety	★
IC[2]	China FISCO Intrinsic Safety	★
I5	USA Intrinsic Safety and Non-Incendive	★
IE[2]	USA FISCO Intrinsic Safety	★
I6	Canadian Intrinsic Safety	★
IF[2]	Canadian FISCO Intrinsic Safety	★
I7	IECEx Intrinsic Safety	★
IG[2]	IECEx FISCO Intrinsic Safety	★

Code	Description	
E2[1]	INMETRO Flameproof	
EM[1]	Technical Regulations Customs Union (EAC) Flameproof	
I2	INMETRO Intrinsic Safety	
IB[2]	INMETRO FISCO Intrinsic Safety	
IM	Technical Regulations Customs Union (EAC) Intrinsic Safety	
IN[2]	Technical Regulations Customs Union (EAC) FISCO Intrinsic Safety	
EW	India PESO Flameproof	
IW	India PESO Intrinsic Safety	
E4[1]	Japan Flameproof	
EP[1][3]	Republic of Korea Flameproof	
KA[1]	ATEX, USA, Canadian Flameproof/Explosion-proof	
KB[1]	ATEX, USA, IECEx Flameproof/Explosion-proof	
KC[1]	ATEX, Canadian, IECEx Flameproof/Explosion-proof	
KD[1]	USA, Canadian, IECEx Flameproof/Explosion-proof	
KE	ATEX, USA, Canadian Intrinsic Safety	
KF	ATEX, USA, IECEx Intrinsic Safety	
KG	ATEX, Canadian, IECEx Intrinsic Safety	
KH	USA, Canadian, IECEx Intrinsic Safety	
KI[2]	FISCO - ATEX, USA, Canadian Intrinsic Safety	
KJ[2]	FISCO - ATEX, USA, IECEX Intrinsic Safety	
KK[2]	FISCO - ATEX, Canadian, IECEX Intrinsic Safety	
KL[2]	FISCO - USA, Canadian, IECEX Intrinsic Safety	
N1	ATEX Increased Safety	
N7	IECEx Increased Safety	

(1) *Probes are intrinsically safe.*
(2) *Requires FOUNDATION Fieldbus signal output (U_i parameter listed in Product Certifications).*
(3) *The EP (Republic of Korea Flameproof) certificate is based on the E7 (IECEx Flameproof) certificate, therefore model code E7 is stated in the certificate instead of EP.*

Related information

Product certifications

Additional options

Display

Code	Description	
M1	Integral digital display	★

Communication

Code	Description	
HR5	4–20 mA with digital signal based on HART 5 protocol (default output from factory is HART 7, add option code HR5 for HART 5)	★

Hydrostatic testing

Available for tank connection with flange.

Code	Description	
P1	Hydrostatic testing, including certificate	★

Factory configuration

Code	Description	
C1	Factory configuration per Configuration Data Sheet	★

Alarm limits

Code	Description	
C4	NAMUR alarm and saturation levels, high alarm	★
C5	NAMUR alarm and saturation levels, low alarm	★
C8(1)	Standard Rosemount alarm and saturation levels, low alarm	★

(1) *The standard alarm setting is high.*

Welding procedure qualification record documentation

Only applies to flanged process connections with welded construction or protective plate design.

Weldings in accordance with EN/ISO standards.

Code	Description	
Q66	Welding Procedure Qualification Record (WPQR)	★
Q67	Welder Performance Qualification (WPQ)	★
Q68	Welding Procedure Specification (WPS)	★

Special quality assurance

Code	Description	
Q4	Calibration data certificate	★

Material traceability certification

Certificate includes all pressure retaining wetted parts.

Code	Description	
Q8	Material traceability certification consistent with ISO10474-3.1:2013 / EN10204-3.1:2004	★

Safety certifications

Only available with HART 4-20 mA output (output code H).

Code	Description	
QS	Prior-use certificate of FMEDA Data	★
QT	Safety-certified to IEC 61508 with certificate of FMEDA data	★

Country certification

Code	Description	
J1	Canadian Registration Number (CRN)	★
J2[(1)]	ASME B31.1	★

(1) *Design and manufacturing according to ASME B31.1. No code stamp or ASME certificate available. Welding in accordance with ASME IX.*

Dye penetration test certificate

Only applies to flanged process connections with welded construction or protective plate design.

Code	Description	
Q73	Certificate of liquid penetrant inspection	★

Positive material identification certificate

Code	Description	
Q76	Positive material identification certificate of conformance	★

Materials certification

Available for probe type 3A, 3B, 3C, 4A, 4B, 4S, and PTFE-coated 5A.

Code	Description	
N2	NACE® material recommendation per NACE MR0175/ISO 15156 and NACE MR0103/ISO 17945	★

Marine / shipboard approvals

Transmitters with aluminum housing are not approved for open deck installations.

Code	Description	
SBS	American Bureau of Shipping Type Approval	★
SDN	Det Norske Veritas (DNV) Type Approval	★
SLL	Lloyd's Register Type Approval	★
SKR	Korean Register Type Approval	★
SBV	Bureau Veritas Type Approval	★
SNK	Nippon Kaiji Kyokai Type Approval	★

Installation options

Code	Description	
LS[1]	Long stud 9.8 in (250 mm) for flexible single lead probe to prevent contact with wall/nozzle. Standard stud length is 3.9 in (100 mm) for probes 5A and 5B.	★
BR	316L Mounting Bracket for 1½-in. NPT Process Connection (RA)	
HS[2]	Heat sink	

(1) *Not available with PTFE covered probes.*
(2) *Requires Remote housing code B3, and Probe type code 3V or 4U.*

Related information

Dimensional drawings

Weight and anchoring options for flexible single probes

Code	Description	
W3	Heavy Weight (for most applications)	★
W2	Short Weight (when measuring close to the probe end)	

Related information

Dimensional drawings

Weight assembly options for flexible single probes

Code	Description	
WU	Weight or chuck not mounted on the probe	★

Transient protection

Code	Description	
T1	Transient Protection Terminal Block. Selectable with HART 4-20 mA output (output code H). Already included in all FOUNDATION Fieldbus variations.	★

Diagnostic functionality

Code	Description	
D01	FOUNDATION Fieldbus Diagnostics Suite (includes Signal Quality Metrics diagnostics[1])	★
DA1	HART Diagnostics Suite (includes Signal Quality Metrics diagnostics[1])	★

(1) *Signal Quality Metrics diagnostics is not compatible with interface measurement where the probe is fully submerged.*

Related information

Diagnostics Suite