

## DIFA 3351 Series Pressure Transmitter



### DIFA3351 Series

"Pressure Transmitter; a reliable solution for precise measurement, process control, and system diagnostics with high efficiency."

**HART**  
COMMUNICATION PROTOCOL



## GENERAL

DIFA 3351 DP/GP Series is a digital differential pressure transmitter designed for industrial Pressure measurement applications.

The DF 3351 can configure to provide integrated solutions.

For a broad range of pressure and flow measurement applications.

## FEATURES

Updating time of current in 90ms, increased accuracy and greater stability

Two years stability of 0.1%, 0.075% accuracy parameter setting by keypad directly

4-20 mA output plus direct digital HART communication

Automatic zero calibration by Press-button

Explosion proof and weatherproof housing IP 65

## STANDARD SPECIFICATION

Process Fluid	Liquid, Gas or vapor	Application	
Application	Absolute Pressure, Gauge Pressure Differential Pressure	Accuracy	
Measuring Range	0-0.16 KPa~0-1.0 KPa (Minimum) 0-4.0 MPa~0-20.0 MPa (Maximum)		
Stability	+/-0.15% of URL for 2 years		
Working Temperature	-25 to +95 °Ct		
Max. Pressure	70 MPa		
Flange/Adaptor	Connection: SUS 304 / SUS 316		
Housing	Housing: Low copper cast aluminum alloy whit polyurethane, light orange paint / Stainless steel		
Diaphragm	Diaphragm: SUS 316L / Tantalum/etc		
Name / Tag Plate	Stainless Steel 304 / Stainless Steel 316		
Bolts & Nuts	Carbon Steel / Stainless Steel		
Mounting Bracket	Carbon steel / Stainless Steel 304 / 316		
Name / Tag Plate	Stainless Steel		
Protection Class	IP65 (Standard) Intrinsically Safe EEx ia IIC T5 (Standard) Explosion proof Ex D IIB T5		
Display	5 Digits programmable & 0-100% Barograph		
Display Unit	Standard 22 different engineering unit 5 digits programmable for special unit		
Keypad	3 Internal keys for programming and output setting		
Current Output	4 - 20 mA 2 wires with Hart signal (Compatible) Load: Rohm=(Vdc-9) *50		
Power Supply	9 - 36 VDC		
Damping	0 - 32 seconds		
Response Time	100 mS		
Mounting	Direct installation or bracket on 2" pipe		
Humidity Limit	0 to 100% Relative Humidity		
Turn on Time	2 Seconds with minimum damping		
Zero Calibration	Automatic zero calibration by press-button		
Cable Entry	M20 Conduit Threads / 1/2" NPT (Female)		
Temperature Effect	+/-0.18% ~ +/-0.5% of span per 20 °C		
Process connection	1/2" NPT, 1/2" BSP		
Ambient Temperature	-25 to +85 °C		
Dimensions	102mm (W) * 160mm (H) * 130mm (D)		
Weight	1.3 kg		
Accuracy	+/- 0.75 % & +/-0.1 % of span		

## Pressure Transmitter

### MODEL Code

Item	Code	Specification
DF3351TG		Gauge Pressure Transmitter
DF3351TA		Absolute Pressure Transmitter
Measurement Range	A	0-0.217~1.087 psi (-0.015~0.075 bar)
	B	-14.5~5.4244 psi (-1~0.3739 bar)
	0	-14.5~26.97 psi (-1~1.86 bar)
	1	-14.5~100.07 psi (-1~6.9 bar)
	2	-14.5~299.9 psi (-1~20.68 bar)
	3	-14.5~999.3 psi (-1~68.9 bar)
	4	-14.5~2999.3 psi (-1~206.8 bar)
	5	-14.5~6000.2 psi (-1~413.7 bar)
	C	Customized
Output	A	4-20mA, HART Protocol, Linear output
Diaphragm Material	2	Stainless Steel 316L
	3	Hastelloy C
	G	Stainless Steel 316L + Gold Coated
	C	Customized
Fill Fluid	1	Silicone Oil
	2	Fluorine Oil
Housing Material/Cable Entry	A	Epoxy-coated ALUMINIUM 1/2 NPT
	B	Epoxy-coated ALUMINIUM M20*1.5
	S	Stainless Steel 1/2"NPT
	K	Stainless Steel M20*1.5
Body/Process Connection Material	B1	Stainless Steel 304
	B2	Stainless Steel 316
Process Connection	D	1/2" NPT-F
	E	1/2" NPT-M
	A	M20*1.5-F
	C	1/2" G-F
	M	Customized

## Pressure Transmitter

### MODEL Code

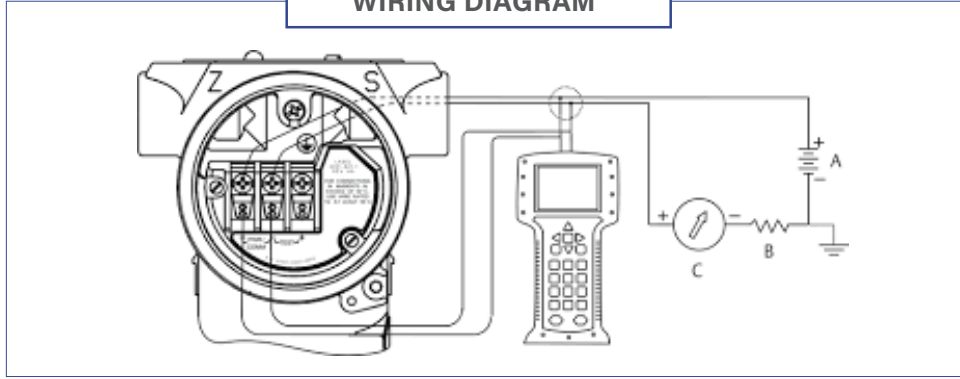
Item	Code	Specification
Integral Assembly	N0	None
	S1	Assemble to 1199 Diaphragm seal
	S5	Assemble to Integral 2 Valve Manifold
	ACC	Other accessories(Cooling element, Syphon, ...)
Mounting BracketOutput	B0	None
	B4	Tube type2-in. pipe (stainless steel)
	B6	Wall mounting bracket (carbon steel)
	B7	Wall mounting bracket (stainless steel)
Product Certification	I1	Intrinsically Safe (Exia IIC T4~T6) ATEX
	E8	Explosion proof (Exd IIC T6 Gb) ATEX
	K8	Intrinsically Safe (Exia) & Explosion proof (Exd)
	WO	Without Certification
Display and Interface Options	M5	LCD Display
Calibration	Q4	Calibration Certificate
Optional	Q8	Material Certificate
	Q7	PMI Test (Only For Body and Housing)
	Q15	NACE Certificate
	P1	Hydrostatic Test
	C4	Lightning Protection
	K1	Degreasing Treatment
Nameplate	Y2	SST Nameplate

DF 3351 TG  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -

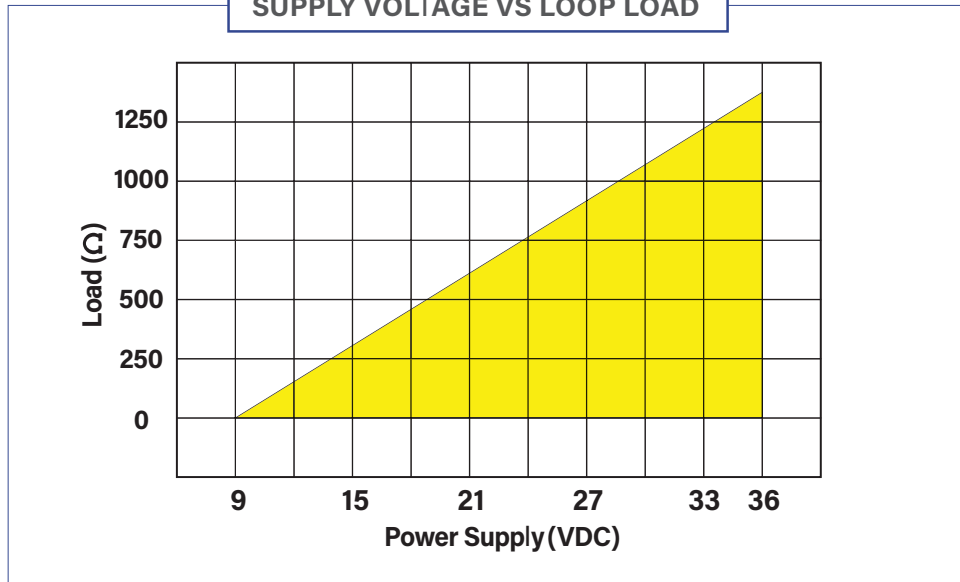
1    2    3    4    5    6    7    8    9    10    11    12    13    14    15    16

Example: DF 3351TG-2-A-2-1-B-B2-E-N0-B5-I1-M5-Q4

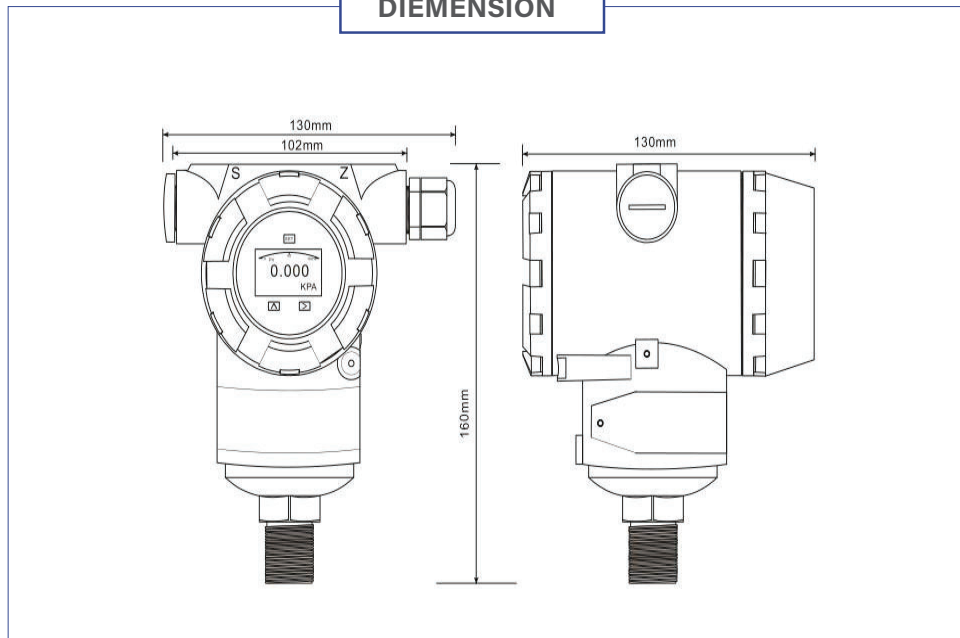
WIRING DIAGRAM



SUPPLY VOLTAGE VS LOOP LOAD



DIEMENSION



**Certificato di esame UE del tipo**  
**EU-type examination certificate**  
**n. ECM 24 ATEX-B UN60**  
 Rilasciato ai sensi della direttiva 2014/34/UE – Allegato III – Modulo B  
 Issued according to 2014/34/UE Directive – Annex III - Module B

**Richiedente**  
**Applicant:** Dibagaran Farayand Engineering Company (DIFACO)  
**Ragione Sociale**  
**Company Name:** Dibagaran Farayand Engineering Company (DIFACO)  
**Indirizzo**  
**Address:** No7, East Goltzar Alley, Adl Blvd., Pounak, Tehran, Iran  
**Apparecchiatura**  
**Equipment:** Pressure Transmitter (Differential Pressure Transmitter)  
**Modelli**  
**Models:** DF3351-Series

Questa apparecchiatura o sistema di protezione e le sue eventuali varianti accettate sono descritte nel presente Certificato e i relativi requisiti sono descritti nell'allegato dello stesso.

ECMA, Organismo Notificato n° 1282 in conformità all'art. 17 della Direttiva 2014/34/UE del Parlamento europeo e del Consiglio del 26 febbraio 2014, certifica che questa apparecchiatura o sistema di protezione verificata secondo la procedura di cui all'allegato III, Modulo B, è conforme ai requisiti essenziali di sicurezza e salute per il progetto e la costruzione di apparecchiature e sistemi di protezione destinati ad essere utilizzati in atmosfere potenzialmente esplosive, definiti nell'allegato I della Direttiva.

Le verifiche ed i risultati di prova sono registrati nel rapporto di carattere riservato n° PRD-2024-UN60.

The essential health and safety requirements are assured by compliance with applied Standard: EN 60079-0:2018, EN 60079-1:2014, EN 60079-11:2012.

This EU-type examination certificate relates only to the design, project, affixation and all the tests specified equipment in accordance with protection specified in accord with the Directive 2014/34/UE. Further requirements of the Directive shall be observed in the construction of the manufacturing process and supply condition: these production and equipment of the apparatus or system of protection requirements are not covered by this certificate.

The examination and test results are recorded in confidential report character reserved n° PRD-2024-UN60.

Questo Certificato di esame UE del tipo è relativo soltanto al progetto, all'esame ed alle prove dell'apparecchiatura o sistema di protezione specificato in accordo con la Direttiva 2014/34/UE. Ulteriori requisiti di questa direttiva si applicano al processo di produzione e fornitura dell'apparecchiatura o sistema di protezione. Questi requisiti non sono oggetto del presente certificato.

L'apparecchiatura o il sistema di protezione deve riportare i seguenti contrassegni:  
 The equipment shall be marked with the following symbols:

Ex II 2 G Ex db IIC T6 Gb  
 II 2 G Ex db IIC T6 Gb  
 Protection Level: IP 66

Valiamoggia (BO)  
 Data - Date: 01/04/2024  
 Timbro  
 Scadenza - Expiry date: 31/03/2029

Firma autorizzata  
 Authorized signature  
 Amadisa Payan  
 (Deputy Manager)

Test Report / Technical Construction File no. DF20240320-25ATEX

Questo certificato, incluso l'allegato, può essere riprodotto solo integralmente e senza alcuna variazione.  
 This certificate, annex included, can only be reproduced in its entirety and without any change.

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Ente Certificazione Macchine srl  
 Via Cò Bella 243 – Loc. Castello di Serravalle – 40053 Valmaggia (BO)  
 ☎ +39 0515070843 ☎ +39 0515070355 ✉ info@entecerma.it www.entecerma.it

**SIL**  
**Functional Safety Certificate**

No. 41231013.DFECC80  
 Test Report / Technical Construction File no. SIL-YL8525(23)-51

**Certificate's Holder:** Dibagaran Farayand Engineering Company (DIFACO)  
 No. 7, East Goltzar Alley, Adl Blvd., Pounak, Tehran, Iran

**Product:** Pressure Transmitter (Differential Pressure Transmitter)  
**Model(s):** DF3351-Series

**Standard:** Has been assessed per the relevant requirements of:  
 IEC 61508:2010 Parts 1-7  
 And meets requirements providing a level of integrity for:  
 Systematic Capability: SIL 3 (Capable)  
 Random Capability: Type B Element  
 SIL 2 @ IFF=0, SIL 3 @ IFF=1; Route 2n  
 PFDavg and Architecture Constraints must be verified each application

**Safety function:**  
 The pressure transmitter measures the level, density and pressure of liquids, gases or vapors and converts them into 4-20 mA DC signal outputs.  
 \* It is suitable to be safety function according to this description and the configuration defined in Annex I.

**Verification Mark:**  
 The Verification Mark can be affixed on the product. It is NOT permitted to alter the Verification Mark in any way.

**Remark:** This SIL Verification of Compliance has been issued on a voluntary basis. ECM confirms that a Test Report is existent for the above listed product(s) and found to meet the requirements of above standards for application in safety related system up to Safety Level of SIL 3. The unit must be properly designed into a Safety Instrument Function as per the requirements in the Safety Manual. The Verification Mark shown above can be affixed on the product. It is NOT permitted to alter the Verification Mark in any way. In addition this Verifier's holder is NOT allowed to transfer the Verification to third parties. This certificate can be checked for validity at: www.entecerma.it

Date of Issue 13 October 2023  
 Expiry date 12 October 2028

For online check:  
 QR Code

Approver  
 Ente Certificazione Macchine  
 Legal Representative  
 Luca Bedonni

Ente Certificazione Macchine  
 Via Cò Bella, 243 - 40053 Valmaggia Loc. Castello di Serravalle (Bo) Italy  
 ☎ +39.051.6705141 ☎ +39.051.6705156 ✉ info@entecerma.it www.entecerma.it

**TEST REPORT**  
**IEC 60079-0:2017**  
**Explosive atmospheres – Part 0:**  
**Equipment – General requirements**

Test Report Number: H1-70491-0  
 Prepared by + signature (EXTL): M. Ghanbariha

Reviewed by + signature (EXTL): A. Mobini

Endorsed by + signature (EXCB): S.M. Mirsadi/ S.M. Mirfalah

Date of issue: December 30, 2025  
 Ex Testing Laboratory (EXTL): Ex EPIL  
 Address: Kavosh research city, Supa bld, 8th km, Karaj-Qazvin freeway, Iran  
 Applicant's name: Dibagaran Farayand Engineering Company (DIFACO)  
 Address: No. 7, East Goltzar Alley, Adl Blvd., Pounak, Tehran, Iran  
 Standards: IEC 60079-0:2017  
 Test procedure: IEC 60079-0:2017

Possible test case verdicts:  
 - test case does not apply to the test item: N/A  
 - test item does meet the requirement: Pass

General remarks:  
 The test results presented in this Test Report relate only to the item or product tested.  
 \* ("Refer to Appendix #") refers to additional information appended to this document.  
 \* ("Refer appended Doc #") refers to a document table that is linked to this document.  
 Throughout this document, a point is used as the decimal separator.  
 The technical content of this Ex Test Report shall not be reproduced except in full without the written approval of the Issuing NS and TL.

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**Energy and Power Industries Laboratories Co**  
**Assessment Report**

Document No: LQP-708-35  
 Date of Issue/Revise: 99/09/04  
 Revision no: 00  
 Page: 1 of 3

**Section 1 - General**

Assessment report number: EP.12222022  
 Prepared by + signature: M. Ghanbariha  
 Reviewed by + signature: S. Jamshidi  
 Approved by + signature: S.M. Mirsadi

Date of issue: December 22, 2022

**Note:**  
 This assessment report includes:  
 1- EXTR No: H1-70013  
 2- Supplementary Technical Documents No: DL-AT-12222022

Ex Testing Laboratory: EPIL Co  
 Address: Unit 12, No.2, Boujari Sefat Dead-End, Corner of Farimar St., Bozorgmehr St., Vail-Asr Ave., Tehran- Iran  
 Manufacturer: Dibagaran Farayand(Difaco)  
 Address: Unit 2, No.9, Sanalee St., Karimkhan-e-zand, Tehran, Iran

Reference Standards: EN 60079-0: 2018, EN 60079-1: 2014

**General remarks:**  
 The test results presented in this report relate only to the object tested.

**Test and/or assessed item description:**  
 Equipment/Component: Pressure Transmitter  
 Model/type reference: DF3351  
 Trademark: Difaco

Ex Code: Ex db IIC T6 Gb  
 Rating: :  
 Rated voltage: 24 VDC  
 Rated current: Max. 20 mA  
 Rated power: Max. 0.45 W

ASSESSMENT REPORT REFERENCE: EP.12222022  
 Document validity status: Obsolete  Valid