



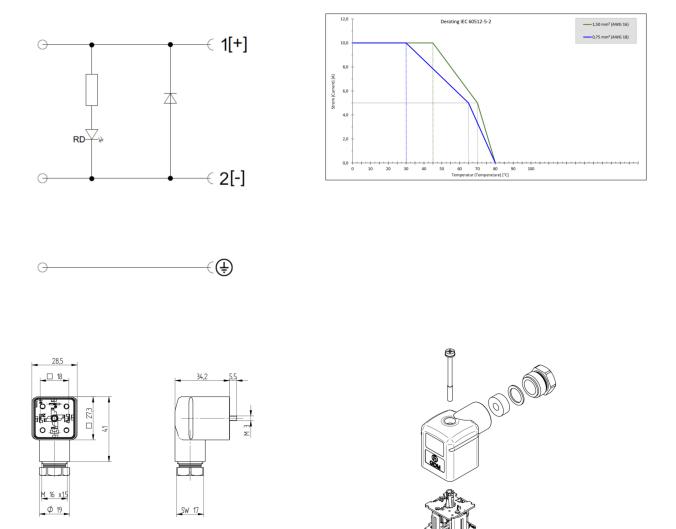
## Product: <u>GDM21F9-D2C-10D</u> <sup>□</sup>

DIN Valve Connector, Form A, Field Attachable, 2+Ground, PG 9, Translucent Housing, with LED and Protective Circuit, 24 V

## **Product Description**

GDM - 175301-803 (DIN 43650), Form A, Female, 18mm, Translucent Housing, 2+Ground (Protective Earth). screw contacts, PCB with Red LED and Diode, 24 V DC, 8A, black cable gland PG9 thread

### **Technical Drawing**



#### **Technical Data**

Product Family:Valve ConnectorsProduct Sub Family:GDM StandardBrand:HirschmannConnector Type:Field AttachableType of Contact / Gender:Field AttachableConnector Design:AngledNumber of Pins:Parle (E across cable outlet)Coding:ACoding:AContact Yope:Valve GraveSteidding:Contal ScrewRated Voltage:A/VRated Inpulse Voltage:A/VVoltage:A/VRated Inpulse Voltage:A/VStandard ScrewScrewRated Inpulse Voltage:A/VOrdard ScrewScrewRated Inpulse Voltage:A/VAndort ScrewScrewRated Current**D/AStalabe Carrent**Sin OnhonInsulation Resistance:Sin OnhonInsulation Resistance:Sin OnhonStalabe CarlestSin OnhonConductor Cross Section:Sic Sin		
BradiHischmanConector Type:Field AttachableConector Segin:FinaleConector Design:AlgedNumber of Pins:SPE (PE across cable outlet)Coding:ASheidelin:InshiededSheidelin:Sender Secolar Seco	Product Family:	Valve Connectors
AndConnector SpeiFindameConnector SpeiAgleConnector SpeinAgleNumber of PinsAPE (PE across cable outlet)Coding:AShidking:InshieldedShidking:ShidkingAttachmen Type:Contral ScrewRaded Voltage:AVAttachment Type:AVShidking:Avit (PCBA 2.0 kV)Raded Voltage:AVAttachment Type:ShidkingAttachment Type:AVRaded Notage:AVAttachment Type:ShidkingAttachment Type: <t< td=""><td>Product Sub Family:</td><td>GDM Standard</td></t<>	Product Sub Family:	GDM Standard
Type of Condct / Gender:FendeConnector Design:AjeleNumber of Pins:2+PE (PE across cable outlet)Coding:AShielding:NubledShielding:VinbleddeAtachmen Type:0Atachmen Type:4/VRade Voltage:4/VRade Voltage:4/VContact Resistance:10AContact Resistance:10ANubled Colonce10*OMang Cycles:0Solding:0 <trr>Solding:0Soldin</trr>	Brand:	Hirschmann
Connector Design:AngledNumber of Pins:2+PE (PE across cable outlet)Coding:AShielding:UnbieldedAttachment Type:Contral ScrewRaded Voltage:4/VRaded Voltage:0.kV (PCBA 2.0 kV)Operating Voltage:0.kV (PCBA 2.0 kV)Contact Resistance:10.ANumber of Pins:10.ANumber of Voltage:10.AContact Resistance:10.PNumber of Pins:50.PContact Resistance:9.9Contact Resistance:0.9Contact Resistance:0.9Stability Operation:5.0Stability Operation:0.9Contact Resistance:0.9Contact Resistance:0.9Stability Operation:0.9Stability Operation:0.9Conductor Cross Section:0.5Stability Contaction:0.5Orductor Cross Section:0.5Orductor Cross Section:0.5Orductor Degree / IP Rating:IPSOrductor Cross Section:0.5Orductor Cross Section:0.5Orductor Degree / IP Rating:IPSOrductor Degree:0.5Orductor Cross Section:0.5Orductor Cross Se	Connector Type:	Field Attachable
Number of Pins:2+PE (PE across cable outlet)Coding:ACoding:InsiledidedShielding:UnsiledidedAttachment Type:Central ScrewRated Voltage:24 VRated Voltage:4.0kV (PCBA 2.0 kV)Operating Voltage:24 V DCRated Current*:10 AContact Resistance:5.10mOnInsulation Resistance:5.0Yoe Of Connection:5.0Conduct Orsos Section:0.9Operating Voltage:0.9Conduct Cross Section:0.5.15mm*Sultable Cables:0.5.15mm*Sultable Cables:0.5.15mm*Soltable Cabl	Type of Contact / Gender:	Female
Coding:ACoding:UnshieldedAttachment Type:Central ScrewRated Voltage:24 VRated Joulage Voltage:40 kV (PCBA 2.0 kV)Operating Voltage:24 VDCRated Current*:10 AContac Resistance:10 nohmInsulation Resistance:50Yope of Connection:50Conduct Or Coss Section:05-15 nm*Suitable Cables:04.5 nm*Ambient Temperature (Operating Voltage):05-15 nm*Protection Degree / IP Rating*:165Portection Degree / IP Rating*:105Polution Degree:0000001; VDE 0110-11Cierance / Creepage Distance:0000001; VDE 0110-1	Connector Design:	Angled
Shielding:UnshieldedAttachment Type:Central ScrewRaded Voltage:24 VRaded Inpulse Voltage:0.0 KV (PCBA 2.0 KV)Operating Voltage:24 V DCRaded Current*:0.4 A0 A3.0 MContact Resistance:10.4Insulation Resistance:>10.9 OnmMating Cycles:5.07 per of Connection:Screw, M3X35Conduct Cross Section:0.5 1.5 mm²Anbient Temperature (Operature)9.6 CAnbient Temperature (Operature)9.6 CProtection Degree / IP Rating*196Potention Degree / IP Rating*19.6 NIN STOAL ROSAL	Number of Pins:	2+PE (PE across cable outlet)
Attachment Type:Central ScrewRated Voltage:4VRated Impulse Voltage:40 kV (PCBA 2.0 kV)Operating Voltage:40 kV (PCBA 2.0 kV)Rated Current*:04Ondact Resistance:10 nOhmInsulation Resistance:>10*9 OhmMating Cycles:50Type of Connection:Screw, M3x35Conduct Orcos Section:0.5 1.5 nm*Suitable Cables:2.5 0.5 nm*Ambient Temperature (Operature)F65Protection Degree / IP Rating*:F65Design Standard:NEN 175301-803.4. ISO 4400Polution Degree:3ac. to DIN EN 60664.1 (VDE 0110-1)Cierance / Creepage Distance:IN EN 60664.1 (VDE 0110-1)	Coding:	A
Rad Voltage:24 VRade Impulse Voltage:4.0 kV (PCBA 2.0 kV)Operating Voltage:24 V DCRade Current*:10 AContact Resistance:5.0 mOnInsulation Resistance:>10*9 OhmMating Cycles:5.0Type of Connection:6.0Conductor Cross Section:0.5 - 1.5 mm²Suitable Cables:0.5 - 1.5 mm²Anbient Temperature (Operation):9.6 CPrefetor Degree // P Rating*:10.5 CPolution Degree:0.5 NENTSO160401Polution Degree:0.5 NENTSO160401Contact Cross Definition:0.5 NENTSO160401Polution Degree:0.5 NENTSO160504100Polution Degree:0.5 NENTSO160504101501001Corance / Croepage Distance:0.5 NENTSO1601011; VDE 0110-1	Shielding:	Unshielded
Rated Impulse Voltage:4.0 kV (PCBA 2.0 kV)Operating Voltage:24 V DCRated Current*:10.4Contact Resistance:3.0 nOhmInsulation Resistance:>10.9 OhmMating Cycles:>50Zype of Connection:Scow, M3x35Conduct Cross Section:0.5 - 1.5 ma <sup>2</sup> Suitable Cables:0.4 - 5.9 maAnbient Temperature (Operation):Sco <sup>5</sup> C + 80°CPretection Degree / IP Rating*:IPSPolution Degree:0.5 non Scottage 1.0 monFolduton Degree:MINE N175301-803-A, ISO 4400Clearance / Creepage Distance:INIE N166664.1 (VDE 0110-1)	Attachment Type:	Central Screw
Operating Voltage:24 V DCRated Current*:10 AContact Resistance:> 10 mOhmInsulation Resistance:> 10^9 OhmMating Cycles:> 50Yop of Connection:Scow, M3x35Cable Gland:PG9Conductor Cross Section:0.25 - 15 mm²Suitable Cables:04.5 - 9 mmAmbient Temperature (Operations):25° C - +80°CProtection Degree / IP Rations*:PG5Polution Degree:0.15 NITSO1-803-A, ISO 4400Polution Degree:IN EN 06664-1 (VDE 0110-1)Clearance / Creepage Distance:IN EN 06664-1 (2080/1); VDE 0110-1	Rated Voltage:	24 V
Rated Current*10 ARated Current*10 AContact Resistance:<10 nOhm	Rated Impulse Voltage:	4.0 kV (PCBA 2.0 kV)
Contact Resistance:Solonact Resistance:> 10°9 OhmInsulation Resistance:> 10°9 OhmMating Cycles:< 50	Operating Voltage:	24 V DC
InstantionFormationInsulation Resistance:> 10*9 OhmMating Cycles:≤ 50Type of Connection:Screw, M3x35Cable Gland:PG9Conductor Cross Section:0.25 - 1.5 mm²Suitable Cables:Ø 4.5 - 9 mmAmbient Temperature (Operation):25° C + 80°CProtection Degree / IP Rations*IP65Design Standard:DIN EN 175301-803-A, ISO 4400Pollution Degree:3 acc. to DIN EN 60664-1 (VDE 0110-1)Clearance / Creepage Distance:DIN EN 60664-1 (2080/01); VDE 0110-1	Rated Current*:	10 A
Adding Cycles:         Solution           Mating Cycles:         ≤ 50           Type of Connection:         Scew, M3x35           Cable Gland:         PG9           Conductor Cross Section:         0.25 1.5 mm²           Suitable Cables:         Ø4.5 - 9 mm           Ambient Temperature (Operature):         Sc °c + 80 °C           Protection Degree / IP Rating:         IP65           Design Standard:         DIN EN 175301-803-A, ISO 4400           Pollution Degree:         Sacc to DIN EN 60664-1 (VDE 0110-1)           Clearance / Creepage Distance:         DIN EN 60664-1 (2008/01); VDE 0110-1	Contact Resistance:	≤ 10 mOhm
Type of Connection:Screw, M3x35Cable Gland:PG9Conductor Cross Section:0.25 - 1.5 mm²Suitable Cables:0.4.5 - 9 mmAmbient Temperature (Operation)*-25 °C - +80 °CProtection Degree / IP Rating**:IP65Design Standard:DIN EN 175301-803-A, ISO 4400Pollution Degree.3 acc. to DIN EN 6064-1 (VDE 0110-1)Clearance / Creepage Distance:DIN EN 6064-1 (2008/01); VDE 0110-1	Insulation Resistance:	> 10^9 Ohm
Cable Gland:PG9Conductor Cross Section:0.25 - 1.5 mm²Suitable Cables:04.5 - 9 mmAmbient Temperature (Operation):-25 °C - +80 °CProtection Degree / IP Rating**:IP65Design Standard:DIN EN 175301-803-A, ISO 4400Pollution Degree.3 acc. to DIN EN 60664-1 (VDE 0110-1)Clearance / Creepage Distance:DIN EN 60664-1 (2008/01); VDE 0110-1	Mating Cycles:	≤ 50
ActionActionConductor Cross Section:0.25 · 1.5 mm²Suitable Cables:Ø 4.5 · 9 mmAmbient Temperature (Operation)*-25 °C · +80 °CProtection Degree / IP Rating**:IP65Design Standard:DIN EN 175301-803-A, ISO 4400Pollution Degree:3 acc. to DIN EN 60664-1 (VDE 0110-1)Clearance / Creepage Distance:DIN EN 60664-1 (2008/01); VDE 0110-1	Type of Connection:	Screw, M3x35
Suitable Cables:     Ø 4.5 - 9 mm       Ambient Temperature (Operation)*     -25 °C - +80 °C       Protection Degree / IP Rating**:     IP65       Design Standard:     DIN EN 175301-803-A, ISO 4400       Pollution Degree:     3 acc. to DIN EN 60664-1 (VDE 0110-1)       Clearance / Creepage Distance:     DIN EN 60664-1 (2008/01); VDE 0110-1	Cable Gland:	PG9
Ambient Temperature (Operation)*       -25 °C - +80 °C         Protection Degree / IP Rating**:       IP65         Design Standard:       DIN EN 175301-803-A, ISO 4400         Pollution Degree:       3 acc. to DIN EN 60664-1 (VDE 0110-1)         Clearance / Creepage Distance:       DIN EN 60664-1 (2008/01); VDE 0110-1	Conductor Cross Section:	0.25 - 1.5 mm <sup>2</sup>
Protection Degree / IP Rating**:     IP65       Design Standard:     DIN EN 175301-803-A, ISO 4400       Pollution Degree:     3 acc. to DIN EN 60664-1 (VDE 0110-1)       Clearance / Creepage Distance:     DIN EN 60664-1 (2008/01); VDE 0110-1	Suitable Cables:	Ø 4.5 - 9 mm
Design Standard:         DIN EN 175301-803-A, ISO 4400           Pollution Degree:         3 acc. to DIN EN 60664-1 (VDE 0110-1)           Clearance / Creepage Distance:         DIN EN 60664-1 (2008/01); VDE 0110-1	Ambient Temperature (Operation)*:	-25 °C - +80 °C
Pollution Degree:         3 acc. to DIN EN 60664-1 (VDE 0110-1)           Clearance / Creepage Distance:         DIN EN 60664-1 (2008/01); VDE 0110-1	Protection Degree / IP Rating**:	IP65
Clearance / Creepage Distance: DIN EN 60664-1 (2008/01); VDE 0110-1	Design Standard:	DIN EN 175301-803-A, ISO 4400
	Pollution Degree:	3 acc. to DIN EN 60664-1 (VDE 0110-1)
Overvoltage Category: III acc. to DIN EN 60664-1 (VDE 0110-1)	Clearance / Creepage Distance:	DIN EN 60664-1 (2008/01); VDE 0110-1
	Overvoltage Category:	III acc. to DIN EN 60664-1 (VDE 0110-1)

#### **Materials**

Contact Base Material:	CuZn
Contact Plating:	Cu/Sn
Contact Bearer Material:	PA GF
Contact Bearer Color:	Black
Flammability Class (Contact Bearer):	UL 94 HB
Housing Material:	PA GF
Housing Color:	Translucent
Flammability Class (Housing):	UL 94 HB
Cable Gland Material:	PA GF
Cable Gland Gasket:	NBR
Cable Gland Color:	Black
Attachment Material:	Steel, Philips combi slot
Gasket Material:	Sold separately

## **Protection Circuitry**

Function Indicator:	Red LED
Protective Circuit:	Diode

#### Additional Technical Data

Fastening Torque (Contact Screw):	(40-50) Ncm for conductor size 0.25 - 1.5 mm <sup>2</sup> ; (30-40) Ncm for conductor size 0.34 mm <sup>2</sup> ; (25-30) Ncm for conductor size 0.25 mm <sup>2</sup>
Fastening Torque (Cable Gland):	(150-200) Ncm
Fastening Torque (Attachment):	(50-60) Ncm

## Approvals

VDE:	Yes
SEV:	Yes

#### Safety & Environmental Compliance

RoHS Compliant:	Yes
Notes	
Note Derating:	Notice derating
Note Derating: Protection Degree / IP Rating Note:	Notice derating ** only if mounted and locked in combination with Hirschmann / Lumberg Automation connector.

© 2024 Belden, Inc All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or guality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

# **Mouser Electronics**

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Hirschmann:

GDM21F6-D2C-10D