



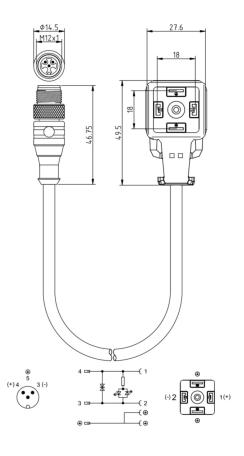
Product: <u>RST 5-3-GAN22LU-S24-241</u> ☐

M12-Form A | M12- Male 0° | #Contacts: 3 | Form A - Female 90° | #Contacts: 2+2 PE | Suppression diode (TVS) & yellow LED | 24 V | Cable: Orange (PUR); 0.50 mm²; IEC | cURus

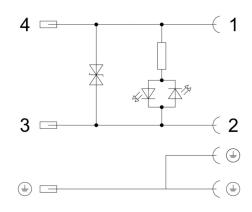
Product Description

M12 - Form A, Double-Ended Cordset | M12- Male Straight | #Contacts: 3, A-coded | Form A - Female Angled Cordset | #Contacts: 2+2 PE | Suppression diode (TVS) & yellow LED | 24 V / 4 A | Cable: Orange PUR Jacket; 3x0.50 mm² (20 AWG); IEC | UL 2238; cURus

Technical Drawing



S2 - Suppression Diode (TVS) and LED



Technical Specifications

Face View Side 1

Pin 3	Pin 4	Pin 5
blue	brown	green-yellow

Face View Side 2

Pin 1	Pin 2	PE1	PE2
brown	blue	green-yellow	green-yellow

Product Description

Product Family: Valve Connectors

Brand:	Hirschmann
Connector Type:	Cordset, double ended
Shielding:	Unshielded
Replacement for:	RST 5-3-VAD 1B-1-3-241
Rated Voltage:	24 V
Rated Impulse Voltage:	4.0 kV (PCBA 2.0 kV)
Rated Current*:	4 A

Technical Data Side 1

Product Sub Family:	
•	RST - M12 Standard
Type of Contact / Gender:	Pin Contact / Male
Connector Design:	Straight (0°) Body
Attachment Type:	Coupling Screw
Number of Pins:	3
Coding:	A
Contact Resistance:	≤ 10 mOhm
Insulation Resistance:	> 10^9 Ohm
Mating Cycles:	≤ 100
Conductor Cross Section:	0.50 mm ²
Ambient Temperature (Operation)*:	- 40 °C - + 90 °C
Protection Degree / IP Rating**:	IP65, IP67, IP68 (1 m / 24 h), IP69K
Design Standard:	IEC 61076-2-101
Pollution Degree:	3 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)
Contact Base Material:	Copper Alloy (CuSn)
Contact Plating:	Gold over Copper (Cu/Au)
Contact Bearer Material:	Thermoplastic Polyurethane (TPU)
Contact Bearer Color:	Orange
Flammability Class (Contact Bearer):	UL 94 HB
Molded Body Material:	Thermoplastic Polyurethane (TPU)
Molded Body Color:	Grey Translucent
Flammability Class (Molded Body):	UL 94 HB
Attachment Material:	Brass (CuZn)
Attachment Plating:	Nickel (Ni)
Fastening Torque (Attachment):	M 12x1: (50-60) Ncm, hand-tight

Cable Data

Cable Number:	241
Conductor Size:	0.5 mm ²
Number of Wires:	3
Minimal Bending Radius (Fixed Inst):	>5×D
Minimal Bending Radius (Flexible Inst):	>10 x D
Cycles (Bending):	> 5 mio
Conductor material:	Cu
Cable Jacket Material:	Polyurethane (PUR)
Cable Jacket Color:	Orange
Cable Diameter D:	Ø 3.25 mm [0.128 "]
Wire Insulation Material:	High-density polyethylene (HDPE)
Insulated Wire Diameter:	Ø 1.50 mm [0.06]"
Ambient Temperature (Fixed Installation):	- 40 °C to + 90 °C (UL: + 80 °C)

Ambient Temperature (Flex Installation):	- 20 °C to + 90 °C (UL: + 80 °C)
Ambient Temperature (Drag Chain Inst):	- 25 °C to + 60 °C
UL Cable Type:	AWM: 20549
Flammability Class (Cable Jacket):	DIN EN 50265-2-2, VDE 0482-265-2-2, IEC 60332-2-2, CSA FT2
Cable Characteristics:	Flexibility: Excellent Abrasion Resistance: Excellent Oil & Chemical Resistance: Excellent UV Resistance: Good to excellent Low Temp Performance: Excellent (flexible to -40°C) Flame Retardance: Varies Halogen-Free: Yes Mechanical Durability: High (resists impact, tear, and flex) Environmental Suitability: Outdoor, oily, wet, or rough environments

Technical Data Side 2

Product Disp Family, Side 2 OAN - CURNE 2258		
Side 2 Side 52 Actachmont Type, Side 22 Actachmont Type, Side 22 Certal Screw Number of Pins, Side 22 A2 PE Coronal Cited Screw Coronal Resistance, Side 2 4 To mohin Insulation Resistance, Side 32 1 To mohin Insulation Resistance, Side 32 5 10 mohin Ambient Tromperature 22 * C + 8 * C (Extended Temperature - 40 * C + + 105 * C with additional gasket accessory, 934887001] Cyberation, Side 2** 25 * C + 8 * C (Extended Temperature - 40 * C + + 105 * C with additional gasket accessory, 934887001] Protection Degree / IP Protection Degree / IP Prote	Product Sub Family, Side 2:	GAN - cURus 2238
Attachment Type, Side 2: Central Sciew		Socket Contact / Female
Number of Priss, Side 2: A Condist, Side 2: A Contact Resistance, Side 2: 1 to Mohin Insulation Resistance, Side 2: 5 to Mohin Insulation Transprature (Operations), Side 2: 5 to S Ambient Transprature (Operations), Side 2: 2 5 °C + 85 °C (Extended Temperature + 40 °C + 105 °C with additional gasket accessory, 934887001] Protection Degree / IP Rating, Side 2: 10 NE N 175301-803-A, ISO 4400 Design Standard, Side 2: 2 Side 2 'T. Pollution Degree, Side 2: 3 acc. to DIN EN 60664-1 (VDE 0110-1) Clearance / Creapage Distance, Side 2: DIN EN 175301-803-A, ISO 4400 Overvoltage Category, Side distance, Side 2: DIN EN 60664-1 (VDE 0110-1) Contact Beaver Material, Side 2: Copper over Tin (Cul'Sn) Contact Beaver Material, Side 2: Copper over Tin (Cul'Sn) Contact Beaver Color, Side 2: Black Flammability Class (Contact) Us 94 V-0 Moided Body Material, Side 2: Crey Translucent Moided Body Color, Side 2: Crey Translucent Flammability Class (Moided Side 2) Steel, Philips comb side Attachment Material, Side 2: Crey Translucent	Connector Design, Side 2:	Angled (90°) Body
Contact Rase Material, Side 2: A Contact Rase M	Attachment Type, Side 2:	Central Screw
Contact Resistance, Side 2: \$10 mOhm	Number of Pins, Side 2:	2+2 PE
Insulation Resistance, Side 2 10'9 Ohm 2 10'9 Ohm 2 10'9 Ohm 2 10'9 Ohm 3	Coding, Side 2:	A
2. Anbient Temperature (Operation), Side 2: 5 50 Ambient Temperature (Operation), Side 2: P65, IP67 (IP69K: without additional gasket accessory, 934887001) Protection Degree IP Rating, Side 2: DIN EN 175301-803-A, ISO 4400 Pellution Degree, Side 2: DIN EN 175301-803-A, ISO 4400 Pellution Degree, Side 2: DIN EN 175301-803-A, ISO 4400 Pollution Degree, Side 2: DIN EN 16664-1 (VDE 0110-1) Clearance / Creepage Distance, Side 2: DIN EN 66664-1 (VDE 0110-1) Contact Base Material, Side 2: Copper over Tin (Cu/Sn) Contact Base Material, Side 2: Copper over Tin (Cu/Sn) Contact Base Material, Side 2: Copper over Tin (Cu/Sn) Contact Baser Material, Side 2: Copper over Tin (Cu/Sn) Contact Baser Material, Side 2: Copper over Tin (Cu/Sn) Contact Baser Color, Side 2: Copper over	Contact Resistance, Side 2:	≤ 10 mOhm
Ambient Temperature (Operation), Side 2*: Protection Degree / P Rating, Side 2*: Design Standard, Side 2: Design Standard, Side 2: Din EN 175301-803-A ISO 4400 Pollution Degree, Side 2: 3 acc. to Din EN 6064-1 (VDE 0110-1) Clearance / Creepage Distance, Side 2: Overvoltage Category, Side 2: 2: Contact Base Material, Side 2: Contact Base Material, Side 2: Contact Base Material, Side 2: Contact Baser Material, Side 2: Contact Baser Material, Side 2: Contact Baser Color, Side 2: Contact Baser Color, Side 2: Contact Baser Color, Side 2: Moided Body Material, Side 2: Moided Body Material, Side 2: Moided Body Color, Side 3: Moided Body Color, Side 3: Moided Body Color, Side 4: Moided Body Color, Side 5:		> 10^9 Ohm
Protection Degree Prot	Mating Cycles, Side 2:	≤ 50
Pasign Standard, Side 2: DIN EN 175301-803-4, ISO 4400 Pollution Degree, Side 2: 3 acc. to DIN EN 60664-1 (VDE 0110-1) Clearance / Creepage Distance, Side 2: DIN EN 60664-1 (VDE 0110-1) Cervoltage Category, Side 2: DIN EN 60664-1 (VDE 0110-1) 2: Contact Base Material, Side 2: Copper over Tin (Cul'Sn) Contact Plating, Side 2: Copper over Tin (Cul'Sn) Contact Bearer Material, Side 2: Copper over Tin (Cul'Sn) Contact Bearer Material, Side 2: Copper over Tin (Cul'Sn) Contact Bearer Color, Side 2: Molded Body Material, Side 2: Thermoplastic Polyurethane (TPU) 2: Molded Body Material, Side 2: Grey Translucent Flammability Class (Molded Body Material, Side 2: Grey Translucent Flammability Class (Molded Body Material, Side 2: Stee, Phillips combi slot Attachment Material, Side 2: Molded Indicator, Side 2: Stee, Phillips combi slot Gasket Material, Side 2: Stee, Phillips combi slot Flammability Class (Molded Body Material, Side 2: Stee, Phillips combi slot Gasket Material, Side 2: Molded Indicator, Side 2: Suppression dlode (TVS) Fastening Torque (Attachment), Side 2: Suppression dlode (TVS)		- 25 °C - + 85 °C [Extended Temperature - 40 °C - + 105 °C with additional gasket accessory, 934887001]
Pollution Degree, Side 2: 3 acc. to DIN EN 60664-1 (VDE 0110-1) Clearence / Creepage Distance, Side 2: DIN EN 60664-1 (2008/01); VDE 0110-1 Overvoltage Category, Side 2: Contact Base Material, Side 2: Contact Base Material, Side 2: Copper over Tin (Cu/Sn) Contact Baerer Material, Side 2: Copper over Tin (Cu/Sn) Contact Baerer Material, Side 2: Black Flammability Class (Contact Bearer, Side 2: Molded Integrated Gasket Flammability Class (Contact Baerer Material, Side 2: Molded Body Material, Side 2: Thermoplastic Polyurethane (TPU) 2. Attachment Material, Side 2: Steel, Philips combi slot Gasket Material, Side 2: Steel, Philips		IP65, IP67 (IP69K: without additional gasket; max. +80 °C)
Clearance / Creepage Distance, Side 2: Overvoltage Category, Side Ill acc. to DIN EN 60664-1 (2008/01); VDE 0110-1) 2: Contact Base Material, Side 2: Contact Bearer Material, Side Black Contact Bearer Material, Side Black 2: Contact Bearer Color, Side Black 2: Molded Body Material, Side 2: Molded Body Color, Side 2: Molded Body Color, Side 2: Flammability Class (Molded Body Color, Side 2: Grey Translucent UL 94 HB Attachment Material, Side 2: Molded Body Side 2: Molded Body Color, Side 2: Molded Body Color, Side 2: Flammability Class (Molded Body Color, Side 2: Flammability Class (Molded Body Color, Side 2: Flammability Class (Molded Body Color, Side 2: Molded Body Color, Side 2:	Design Standard, Side 2:	DIN EN 175301-803-A, ISO 4400
Distance, Side 2: Distance, Side 2: Contact Base Material, Side 2: Copper over Tin (Cu/Sn) Contact Base Material, Side 2: Copper over Tin (Cu/Sn) Contact Baser Material, Side 2: Copper over Tin (Cu/Sn) Contact Bearer Color, Side 2: Glass-filled Polyamides (PA GF) Contact Bearer Color, Side 2: UL 94 V-0 Black Flammability Class (Contact Bearer, Side 2: Molded Body Material, Side 2: Grey Translucent Molded Body Material, Side 2: Grey Translucent La HB Molded Body Color, Side 2: Grey Translucent La HB Molded Body Color, Side 2: Steel, Philips combi slot Gasket Material, Side 2: Molded Integrated Gasket Function Indicator, Side 2: Vellow LED Protective Circuit, Side 2: Suppression diode (TVS) Fastening Torque (Altachment), Side 2: Suppression diode (TVS) Fastening Torque (Altachment), Side 2: Suppression diode (TVS) Fastening Torque (Altachment), Side 2: Suppression diode (TVS)	Pollution Degree, Side 2:	3 acc. to DIN EN 60664-1 (VDE 0110-1)
2: Contact Base Material, Side 2: Copper over Tin (Cu/Sn) Contact Bearer Material, Side 2: Copper over Tin (Cu/Sn) Contact Bearer Material, Side 2: Copper over Tin (Cu/Sn) Contact Bearer Color, Side 2: Black Contact Bearer Color, Side 2: UL 94 V-0 Molded Body Material, Side 2: Thermoplastic Polyurethane (TPU) Molded Body Color, Side 2: Grey Translucent Flammability Class (Molded Body Color, Side 2: Steel, Philips combi slot Gasket Material, Side 2: Molded Integrated Gasket Function Indicator, Side 2: Yellow LED Protective Circuit, Side 2: Suppression diode (TVS) Fastening Torque (Attachment), Side 2: Suppression diode (TVS) Fastening Torque (So-60) Ncm 34887001 - GAN EPDM gasket and holding clip		DIN EN 60664-1 (2008/01); VDE 0110-1
2: Contact Plating, Side 2: Copper over Tin (Cu/Sn) Contact Bearer Material, Side 2: Glass-filled Polyamides (PA GF) Contact Bearer Color, Side 2: Black Planmability Class (Contact Bearer), Side 2: UL 94 V-0 Molded Body Material, Side 2: Grey Translucent Planmability Class (Molded Body Color, Side 2: Grey Translucent Planmability Class (Molded Body Color, Side 2: Steel, Phillips combi slot Gasket Material, Side 2: Molded Integrated Gasket Function Indicator, Side 2: Yellow LED Protective Circuit, Side 2: Suppression diode (TVS) Fastening Torque (Attachment), Side 2: Go-60) Ncm Accessories to Order Separately, Side 2: 934887001 - GAN EPDM gasket and holding clip		III acc. to DIN EN 60664-1 (VDE 0110-1)
Contact Bearer Material, Side 2: Contact Bearer Color, Side 2: Flammability Class (Contact Bearer), Side 2: Molded Body Material, Side 2: Molded Body Color, Side 2: Molded Integrated Casket Molded Integrated Gasket Function Indicator, Side 2: Yellow LED Protective Circuit, Side 2: Suppression diode (TVS) Fastening Torque (Attachment), Side 2: 934887001 - GAN EPDM gasket and holding clip		Brass (CuZn)
Contact Bearer Color, Side 2: Contact Bearer Color, Side 2: Molded Body Material, Side 2: Molded Body Material, Side 2: Molded Body Color, Side 2: Thermoplastic Polyurethane (TPU) Molded Body Color, Side 2: Grey Translucent Flammability Class (Molded Body), Side 2: Grey Translucent Flammability Class (Molded Body), Side 2: Steel, Philips combi slot Gasket Material, Side 2: Molded Integrated Gasket Function Indicator, Side 2: Yellow LED Protective Circuit, Side 2: Suppression diode (TVS) Fastening Torque (Attachment), Side 2: (50-60) Ncm Accessories to Order Separately, Side 2: 934887001 - GAN EPDM gasket and holding clip	Contact Plating, Side 2:	Copper over Tin (Cu/Sn)
2: Black Flammability Class (Contact Bearer), Side 2: Thermoplastic Polyurethane (TPU) Molded Body Material, Side 2: Grey Translucent Flammability Class (Molded Body), Side 2: Grey Translucent Flammability Class (Molded Body), Side 2: Steel, Philips combi slot Attachment Material, Side 2: Steel, Philips combi slot Gasket Material, Side 2: Molded Integrated Gasket Function Indicator, Side 2: Yellow LED Protective Circuit, Side 2: Suppression diode (TVS) Fastening Torque (Attachment), Side 2: (50-60) Ncm Accessories to Order Separately, Side 2: 934887001 - GAN EPDM gasket and holding clip		Glass-filled Polyamides (PA GF)
Bearer), Side 2: Molded Body Material, Side 2: Molded Body Color, Side 2: Grey Translucent Flammability Class (Molded Body), Side 2: Attachment Material, Side 2: Gasket Material, Side 2: Molded Integrated Gasket Function Indicator, Side 2: Yellow LED Protective Circuit, Side 2: Suppression diode (TVS) Fastening Torque (Attachment), Side 2: 40-60) Ncm Accessories to Order Separately, Side 2: 934887001 - GAN EPDM gasket and holding clip		Black
2: Molded Body Color, Side 2: Grey Translucent Flammability Class (Molded Body), Side 2: UL 94 HB Attachment Material, Side 2: Steel, Philips combi slot Gasket Material, Side 2: Molded Integrated Gasket Function Indicator, Side 2: Yellow LED Protective Circuit, Side 2: Suppression diode (TVS) Fastening Torque (Attachment), Side 2: (50-60) Ncm Accessories to Order Separately, Side 2: 934887001 - GAN EPDM gasket and holding clip		UL 94 V-0
Flammability Class (Molded Body), Side 2: Attachment Material, Side 2: Steel, Philips combi slot Gasket Material, Side 2: Molded Integrated Gasket Function Indicator, Side 2: Yellow LED Protective Circuit, Side 2: Suppression diode (TVS) Fastening Torque (Attachment), Side 2: (50-60) Ncm Accessories to Order Separately, Side 2: 934887001 - GAN EPDM gasket and holding clip	Molded Body Material, Side 2:	Thermoplastic Polyurethane (TPU)
Body), Side 2: Attachment Material, Side 2: Steel, Philips combi slot Gasket Material, Side 2: Molded Integrated Gasket Function Indicator, Side 2: Yellow LED Protective Circuit, Side 2: Suppression diode (TVS) Fastening Torque (Attachment), Side 2: (50-60) Ncm Accessories to Order Separately, Side 2: 934887001 - GAN EPDM gasket and holding clip	Molded Body Color, Side 2:	Grey Translucent
Gasket Material, Side 2: Molded Integrated Gasket Function Indicator, Side 2: Yellow LED Protective Circuit, Side 2: Suppression diode (TVS) Fastening Torque (Attachment), Side 2: (50-60) Ncm Accessories to Order Separately, Side 2: 934887001 - GAN EPDM gasket and holding clip		UL 94 HB
Function Indicator, Side 2: Yellow LED Protective Circuit, Side 2: Suppression diode (TVS) Fastening Torque (Attachment), Side 2: (50-60) Ncm Accessories to Order Separately, Side 2: 934887001 - GAN EPDM gasket and holding clip	Attachment Material, Side 2:	Steel, Philips combi slot
Protective Circuit, Side 2: Suppression diode (TVS) Fastening Torque (Attachment), Side 2: (50-60) Ncm Accessories to Order Separately, Side 2: 934887001 - GAN EPDM gasket and holding clip	Gasket Material, Side 2:	Molded Integrated Gasket
Fastening Torque (Attachment), Side 2: (50-60) Ncm Accessories to Order Separately, Side 2: 934887001 - GAN EPDM gasket and holding clip	Function Indicator, Side 2:	Yellow LED
(Attachment), Side 2: Accessories to Order Separately, Side 2: 934887001 - GAN EPDM gasket and holding clip	Protective Circuit, Side 2:	Suppression diode (TVS)
Separately, Side 2:	Fastening Torque (Attachment), Side 2:	(50-60) Ncm
Note Side 2: 1 Denot connect or disconnect under lead 2. Extended temperature range of 40°C performed by Bolden in metad condition using EDDM seeket accessory.		934887001 - GAN EPDM gasket and holding clip
1. Do not connect or disconnect under load. 2. Extended temperature range of -40 C performed by beiden in mated condition using EPDM gasket accessory.	Note, Side 2:	1. Do not connect or disconnect under load. 2. Extended temperature range of -40°C performed by Belden in mated condition using EPDM gasket accessory.

Approvals

UL-File:	E315587
UL:	UL 2238; cURus
VDE:	Yes

Safety & Environmental Compliance

RoHS Compliant: Yes	
Notice Compliant.	

Resistances

Halogenfree:	Yes
Oil Resistance:	Good chemical and oil resistance

Notes

Note Derating:	Notice derating
Update and Revision:	Revision Number: 0.4 Revision Date: 07-05-2025

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