NAT 8252

Industrial Pressure Transmitter

Applications

- Machine tools
- Hydraulics
- HVAC
- Refrigeration
- Process technology
- Water treatment

Features

- Smallest design
- Completely welded steel sensor system without additional seals
- Excellent long-term stability
- Optional: 5-fold overpressure resistance
- Optional: Switching output 1 or 2 PNP

Product description

The industrial pressure transmitter NAT 8252 features an exceptionally long-term stable thin-film-on-steel sensor cell with triple (optionally 5-fold) overpressure safety. Optionally, the NAT 8252 is available as a pressure switch with 1 or 2 switching outputs. The robust design and the wide temperature range from -40°C to +125°C qualify the NAT 8252 as the ideal solution for a wide range of demanding applications.

CE EMC: 2014/30/EU

UKCA S.I. 2016 No. 1091

RoHS/Reach compliant

UL-listed version

Technical Data

Measuring principle	Thin-film-on-steel
Measuring range	0 ... 2.5 to 0 ... 1000 bar 0 ... 30 to 0 ... 10000 psi
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC and more, 0.5 ... 4.5 VDC ratiometric, Switching output: 1 or 2 PNP
Media temperature	–40°C ... +125°C
Ambient temperature	max. -40°C ... +125°C (UL-rated ambient temperature: -20°C ... +80°C) Details see section: Electrical Connection

Additional information

Data sheet	www.trafag.com/H72303
Instructions	www.trafag.com/H73303
Accessories	www.trafag.com/H72258
Video	https://youtu.be/GbFBrcBekvk

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Ordering information/Type code

								8252	XX	XX	XX	XX	XX	XX
Measuring range [1]	**Pressure measurement range [bar]**	**Over pressure [bar]**	**Burst pressure [bar]**		**Pressure-measurement-range [psi]**	**Over pressure [psi]**	**Burst pressure [psi]**							
	0 ... 2.5	7.5	50	**75**	0 ... 30	90	700	**G5**						
	0 ... 4	12	60	**76**	0 ... 50	150	850	**G6**						
	0 ... 6	18	100	**77**	0 ... 100	300	1450	**G7**						
	0 ... 10	30	200	**78**	0 ... 150	450	2500	**G8**						
	0 ... 16	48	200	**79**	0 ... 200	600	2500	**GA**						
	0 ... 25	75	300	**80**	0 ... 250	750	2500	**G9**						
	0 ... 40	120	300	**81**	0 ... 300	900	4000	**HA**						
	0 ... 60	180	400	**82**	0 ... 400	1200	4000	**H0**						
	0 ... 100	300	500	**83**	0 ... 500	1500	4000	**H1**						
	0 ... 160	480	750	**85**	0 ... 1000	3000	5000	**H2**						
	0 ... 250	750	1000	**74**	0 ... 1500	4500	7000	**H3**						
	0 ... 400	1000	2000	**84**	0 ... 2000	6000	10000	**H5**						
	0 ... 600	1500	2500	**86**	0 ... 3000	9000	14500	**G4**						
	0 ... 700	1500	2500	**87**	0 ... 5000	12500	21750	**H4**						
	0 ... 1000	1500	2500	**88**	0 ... 7500	18750	29000	**H6**						
					0 ... 10000	18750	29000	**H7**						
	Option 5P:	Fivefold overpressure			Option:	Maximum Overpressure								
	0 ... 2.5	12.5	60	**55**	0 ... 30	150	1450	**E5**						
	0 ... 4	20	100	**56**	0 ... 50	180	1450	**E6**						
	0 ... 6	30	200	**57**	0 ... 100	450	3500	**E7**						
	0 ... 10	50	200	**58**	0 ... 150	700	4250	**E8**						
	0 ... 16	80	300	**59**	0 ... 200	700	4250	**EA**						
	0 ... 25	125	300	**60**	0 ... 250	1150	5750	**E9**						
	0 ... 40	200	400	**61**	0 ... 300	1150	5750	**FA**						
	0 ... 60	300	500	**62**	0 ... 400	1800	8500	**F0**						
	0 ... 100	500	750	**63**	0 ... 500	1800	8500	**F1**						
	0 ... 160	800	1000	**65**	0 ... 1000	4600	19000	**F2**						
Sensor	Relative pressure, accuracy: 0.5 %								**25**					

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		8252	XX	XX	XX	XX	XX	XX
Pressure connection	G1/4" male, Seal: DIN 3869				17			
	G1/4" male, with integrated damping Ø 0.5 mm, seal: DIN 3869 [2]				15			
	G1/4" male (Manometer) EN 837				53			
	G1/8" male DIN 3852-E [3]				54			
	1/4" NPT male				30			
	1/8" NPT male [4]				43			
	3/8"-24UNF-2A male, SAE J1926-2 (Heavy Duty) [5]				68			
	7/16"-20UNF female, SAE J512 with valve opener [6]				24			
	7/16"-20UNF female, SAE J512 without valve opener [6]				44			
	7/16"-20UNF male, DIN3866 [6]				18			
	7/16"-20UNF-2A male, SAE J1926-2 (Heavy Duty) [5]				69			
	9/16"-18UNF-2A male, SAE J1926-2 (Heavy Duty) [5]				67			
	R1/4" male, DIN 3858				19			
	R1/4" male, DIN 2999 [7]				20			
	R1/8" male, DIN 3858 [3]				16			
	M10x1 male, DIN EN ISO 6149-2 [8]				32			
	M10x1 male, ISO 9974-2 [9]				70			
	M12x1 male, DIN EN ISO 6149-2 [8] [10]				64			
	M12x1.25 male, DIN EN ISO 6149-2 [8] [10]				65			
	M12x1.5 male, DIN EN ISO 9974-2				49			
	M14x1.5 male DIN EN ISO 6149-2 [7]				31			
Electrical connection	Male electrical connector, industrial standard, contact distance 9.4 mm, Material PA, EN 175301-803C					01		
	Male electrical connector M12x1, 4-pole, Material PA, IEC 61076-2-101					32		
	Male electrical connector M12x1, 5-pole, Material PA, IEC 61076-2-101					35		
	Male electrical connector MIL-C 26482, 6-pole, Metal					02		
	Male electrical connector Deutsch DT04-3P, 3-pole					D3		
	Male electrical connector Deutsch DT04-4P, 4-pole					D4		
	3 Way M Delphi MetriPack 1.5 sealed connector, Material PA66 [17]					51		
	Cable material PVC, IP67/IP68, 2 x 2 x 0.14 mm^2, max. traction on cable: 2 N [11]					22		
	Cable material PUR, IP67/IP68, 4 x 0.25 mm^2, shielded [11]					24		
	Cable material EPD Raychem FDR25, IP67, 4 x 0.2 mm^2, shielded [11]					08		
	Cable material Radox Tenuis, IP67/IP68, 4 x 0.5 mm^2, shielded [11]					88		
	Compact design: Cable material PVC, IP40, 2 x 2 x 0.14 mm^2, shielded, max. traction on cable: 2 N [7] [12]					A1		
	JST (or compatible) Board to Cable/Wire Disconnectable Crimp style connector, BM04B-SRSS-TB, IP20, 4-pole [7]					J4		

					8252	XX	XX	XX	XX	XX	XX
Output signal	**Output signal**	**Load resistance**	**I (supply)**	**U (supply)**							
	4 ... 20 mA	See graphic	(= signal output)	24 (9 ... 32) VDC							**19**
	0.5 ... 4.5 VDC	≥ 5.0 kΩ to U_s –	≤ 20 mA	24 (9 ... 32) VDC							**20**
	0 ... 5 VDC	≥ 5.0 kΩ to U_s –	≤ 20 mA	24 (9 ... 32) VDC							**14**
	0.1 ... 4.1 VDC	≥ 5.0 kΩ to U_s –	≤ 20 mA	24 (9 ... 32) VDC							**28**
	0.1 ... 5.1 VDC	≥ 5.0 kΩ to U_s –	≤ 20 mA	24 (9 ... 32) VDC							**29**
	0.5 ... 5 VDC	≥ 5.0 kΩ to U_s –	≤ 20 mA	24 (9 ... 32) VDC							**22**
	1 ... 5 VDC	≥ 5.0 kΩ to U_s –	≤ 20 mA	24 (9 ... 32) VDC							**25**
	0.5 ... 5.5 VDC	≥ 5.0 kΩ to U_s –	≤ 20 mA	24 (9 ... 32) VDC							**24**
	1 ... 6 VDC	≥ 5.0 kΩ to U_s –	≤ 20 mA	24 (9 ... 32) VDC							**16**
	0 ... 10 VDC	≥ 5.0 kΩ to U_s –	≤ 15 mA	24 (15 ... 32) VDC							**17**
	1 ... 10 VDC	≥ 5.0 kΩ to U_s –	≤ 15 mA	24 (15 ... 32) VDC							**26**
	0.1 ... 10.1 VDC	≥ 5.0 kΩ to U_s –	≤ 15 mA	24 (15 ... 32) VDC							**13**
	0.5 ... 4.5 VDC ratiom.	≥ 5.0 kΩ to U_s –	≤ 10 mA	5 (4.75 ... 5.25) VDC							**23**
	2 PNP transistors [13]		≤ 10 mA	24 (9 ... 32) VDC							**PS**
	1 PNP transistor [14]		≤ 10 mA	24 (9 ... 32) VDC							**T1**
Accessories	Female electrical plug M12x1, 5-pole [15]										**33**
	Female electrical plug industrial standard (for electrical connection 01), EN 175301-803C										**34**
	Pressure peak damping element ø 1.0 mm										**40**
	Pressure peak damping element ø 0.4 mm										**44**
	Seal FKM, -18°C ... +125°C										**61**
	Seal EPDM, -40°C ... +125°C										**63**
	Seal NBR, -25°C ... +100°C										**83**
	Cable length 0.5 m										**EM**
	Cable length 1.0 m										**1M**
	Cable length 2.0 m										**2M**
	Parametrisation according to customer specification for output signal PS, T1 (see table: Parameters)										**ZC**
	Parametrisation standard for output signal PS, T1 (see table: Parameters)										**ZS**
	Multiple packaging [16]										**VM**
	UL-listed, see table: Possible combinations for UL-listed variants										**UL**
	Pin configuration, see table: Electrical connection										

[01] Customized pressure ranges upon request
[02] For measuring ranges ≥ 2 bar
[03] max. allowable pressure range 160 bar (2320 psi) at 480 bar (6961 psi) overpressure
[04] max. allowable pressure range 400 bar (5800 psi) at 600 bar (8700 psi) overpressure
[05] Measuring range max. 630 bar according to SAE J1926-2 (Heavy Duty)
[06] max. allowable pressure range 60 bar (870 psi) at 180 bar (2610 psi) overpressure
[07] Upon request, whereas minimum order quantities may apply
[08] max. allowable pressure range 250 bar (3626 psi) at 750 bar (10878 psi) overpressure
[09] max. pressure range 0 .. 160 bar, overpressure 480 bar
[10] Without seal, use seal geometry according DIN EN ISO 6149-2
[11] Cable length, see Accessories
[12] Cable length 2m only, with accessory 2M
[13] Only with electrical connections 32, 22, 24, 08, 88
[14] Only with electrical connections 32, 22, 24, 08, 88, D3
[15] For electrical connections 32 and 35
[16] The order quantity must be a multiple of 50, only for electrical connections 01, 32, 35, 02, D3, D4, not for pressure connection 30 with electrical connections 02, D3, D4
[17] Not available with switching output signals (codes PS / T1)

Compatibility matrix pressure connection and accessories

		Damping		Seal		
Code	**Pressure connection**	Ø 1.0 mm (Code 40)	Ø 0.4 mm (Code 44)	FKM (Code 61)	EPDM (Code 63)	NBR (Code 83)
17	G1/4" male, Seal: DIN 3869	✓	✓	✓	✓	✓
15	G1/4" male, with integrated damping Ø 0.5 mm, Seal: DIN 3869			✓	✓	✓
53	G1/4" male (Manometer) EN 837					
54	G1/8" male DIN 3852-E	✓	✓	✓	✓	
30	1/4" NPT male	✓	✓			
43	1/8" NPT male	✓	✓			
68	3/8"-24UNF-2A male, SAE J1926-2 (Heavy Duty)	✓	✓	✓	✓	
24	7/16"-20UNF female, SAE J512 with valve opener					
44	7/16"-20UNF female, SAE J512 without valve opener					
18	7/16"-20UNF male, DIN 3866					
69	7/16"-20UNF-2A male, SAE J1926-2 (Heavy Duty)	✓	✓	✓	✓	
67	9/16"-18UNF-2A male, SAE J1926-2 (Heavy Duty)	✓	✓	✓	✓	
19	R1/4" male, DIN 3858	✓	✓			
20	R1/4" male, DIN 2999	✓	✓			
16	R1/8" male, DIN 3858	✓	✓			
32	M10x1 male, DIN EN ISO 6149-2	✓	✓	✓		
70	M10x1 male, ISO 9974-2	✓	✓	✓		
64	M12x1 male, DIN EN ISO 6149-2	✓	✓			
65	M12x1.25 male, DIN EN ISO 6149-2	✓	✓			
49	M12x1.5 male, DIN EN ISO 9974-2	✓	✓	✓		
31	M14x1.5 male DIN EN ISO 6149-2	✓	✓	✓		

Ordering information: Possible type code combinations for UL-listed versions

	Combination with UL
Measuring range	All ranges on datasheet
Sensor	All codes on datasheet
Pressure connection	All codes on datasheet
Electrical connection	All codes on datasheet
Output signal	All codes on datasheet
Accessories	All codes except GA, GS and GU

Signal processing

Code	**Cut-off frequency f_G**	**Rise time (10 ... 90 % nominal pressure)**	**Output signal**			
			4 ... 20 mA	**0.5 ... 4.5 VDC ratiometric**	**0 ... 6 VDC**	**0 ... 10 VDC**
GA [1)]	11 Hz	32 ms	x	x	-	-
Standard specification	350 Hz	1 ms	x	x	x	x

[1)] Upon request

Standard configurations

Product No.	Type Code	Pressure range [bar]	Overpressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
NAT2.5A	8252 75 2517 01 0000 0000 19 34 44 61	0 ... 2.5	7.5	9 ... 32	±0.5
NAT4.0A	8252 76 2517 01 0000 0000 19 34 44 61	0 ... 4	12	9 ... 32	±0.5
NAT6.0A	8252 77 2517 01 0000 0000 19 34 44 61	0 ... 6	18	9...32	±0.5
NAT10.0A	8252 78 2517 01 0000 0000 19 34 44 61	0 ... 10	30	9...32	±0.5
NAT16.0A	8252 79 2517 01 0000 0000 19 34 44 61	0 ... 16	48	9 ... 32	±0.5
NAT25.0A	8252 80 2517 01 0000 0000 19 34 44 61	0 ... 25	75	9 ... 32	±0.5
NAT40.0A	8252 81 2517 01 0000 0000 19 34 44 61	0 ... 40	120	9 ... 32	±0.5
NAT60.0A	8252 82 2517 01 0000 0000 19 34 44 61	0 ... 60	180	9 ... 32	±0.5
NAT100.0A	8252 83 2517 01 0000 0000 19 34 44 61	0 ... 100	300	9 ... 32	±0.5
NAT250.0A	8252 74 2517 01 0000 0000 19 34 44 61	0 ... 250	750	9 ... 32	±0.5
NAT400.0A	8252 84 2517 01 0000 0000 19 34 44 61	0 ... 400	1000	9 ... 32	±0.5
NAT600.0A	8252 86 2517 01 0000 0000 19 34 44 61	0 ... 600	1500	9 ... 32	±0.5
NAT2.5V	8252 75 2517 01 0000 0000 17 34 44 61	0 ... 2.5	7.5	15 ... 32	±0.5
NAT4.0V	8252 76 2517 01 0000 0000 17 34 44 61	0 ... 4	12	15 ... 32	±0.5
NAT6.0V	8252 77 2517 01 0000 0000 17 34 44 61	0 ... 6	18	15 ... 32	±0.5
NAT10.0V	8252 78 2517 01 0000 0000 17 34 44 61	0 ... 10	30	15 ... 32	±0.5
NAT16.0V	8252 79 2517 01 0000 0000 17 34 44 61	0 ... 16	48	15 ... 32	±0.5
NAT25.0V	8252 80 2517 01 0000 0000 17 34 44 61	0 ... 25	75	15 ... 32	±0.5
NAT40.0V	8252 81 2517 01 0000 0000 17 34 44 61	0 ... 40	120	15 ... 32	±0.5
NAT 60.0V	8252 82 2517 01 0000 0000 19 34 44 61	0 ... 60	180	9 ... 32	±0.5
NAT100.0V	8252 83 2517 01 0000 0000 17 34 44 61	0 ... 100	300	15 ... 32	±0.5
NAT250.0V	8252 74 2517 01 0000 0000 17 34 44 61	0 ... 250	750	15 ... 32	±0.5
NAT400.0V	8252 84 2517 01 0000 0000 17 34 44 61	0 ... 400	1000	15 ... 32	±0.5
NAT600.0V	8252 86 2517 01 0000 0000 17 34 44 61	0 ... 600	1500	15 ... 32	±0.5
NAT2.5AM	8252 75 2517 32 0000 0000 19 33 44 61	0 ... 2.5	7.5	9 ... 32	±0.5
NAT4.0AM	8252 76 2517 32 0000 0000 19 33 44 61	0 ... 4	12	9 ... 32	±0.5
NAT6.0AM	8252 77 2517 32 0000 0000 19 33 44 61	0 ... 6	18	9 ... 32	±0.5
NAT10.0AM	8252 78 2517 32 0000 0000 19 33 44 61	0 ... 10	30	9 ... 32	±0.5
NAT16.0AM	8252 79 2517 32 0000 0000 19 33 44 61	0 ... 16	48	9 ... 32	±0.5
NAT25.0AM	8252 80 2517 32 0000 0000 19 33 44 61	0 ... 25	75	9 ... 32	±0.5
NAT40.0AM	8252 81 2517 32 0000 0000 19 33 44 61	0 ... 40	120	9 ... 32	±0.5
NAT60.0AM	8252 82 2517 32 0000 0000 19 33 44 61	0 ... 60	180	9 ... 32	±0.5
NAT100.0AM	8252 83 2517 32 0000 0000 19 33 44 61	0 ... 100	300	9 ... 32	±0.5
NAT160.0AM	8252 85 2517 32 0000 0000 19 33 44 61	0 ... 160	480	9 ... 32	±0.5
NAT250.0AM	8252 74 2517 32 0000 0000 19 33 44 61	0 ... 250	750	9 ... 32	±0.5
NAT400.0AM	8252 84 2517 32 0000 0000 19 33 44 61	0 ... 400	1000	9 ... 32	±0.5
NAT600.0AM	8252 86 2517 32 0000 0000 19 33 44 61	0 ... 600	1500	9 ... 32	±0.5

Standard configurations

Product No.	Type Code	Pressure range [bar]	Overpressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
NAT2.5PS	8252 75 2517 32 0000 0000 PS 44 61 ZS	0 ... 2.5	7.5	9 ... 32	±0.5
NAT4.0PS	8252 76 2517 32 0000 0000 PS 44 61 ZS	0 ... 4	12	9 ... 32	±0.5
NAT6.0PS	8252 77 2517 32 0000 0000 PS 44 61 ZS	0 ... 6	18	9 ... 32	±0.5
NAT10.0PS	8252 78 2517 32 0000 0000 PS 44 61 ZS	0 ... 10	30	9 ... 32	±0.5
NAT16.0PS	8252 79 2517 32 0000 0000 PS 44 61 ZS	0 ... 16	48	9 ... 32	±0.5
NAT25.0PS	8252 80 2517 32 0000 0000 PS 44 61 ZS	0 ... 25	75	9 ... 32	±0.5
NAT40.0PS	8252 81 2517 32 0000 0000 PS 44 61 ZS	0 ... 40	120	9 ... 32	±0.5
NAT60.0PS	8252 82 2517 32 0000 0000 PS 44 61 ZS	0 ... 60	180	9 ... 32	±0.5
NAT100.0PS	8252 83 2517 32 0000 0000 PS 44 61 ZS	0 ... 100	300	9 ... 32	±0.5
NAT160.0PS	8252 85 2517 32 0000 0000 PS 44 61 ZS	0 ... 160	480	9 ... 32	±0.5
NAT250.0PS	8252 74 2517 32 0000 0000 PS 44 61 ZS	0 ... 250	750	9 ... 32	±0.5
NAT400.0PS	8252 84 2517 32 0000 0000 PS 44 61 ZS	0 ... 400	1000	9 ... 32	±0.5
NAT600.0PS	8252 86 2517 32 0000 0000 PS 44 61 ZS	0 ... 600	1500	9 ... 32	±0.5

Parameters of switching output

Name	Standard setting (accessory ZS)	Value range	Short name	Customer adjustment (accessory ZC)
Switch point SP1 (hysteresis mode) Upper switch point FH1 (window mode)	75 % Measuring range	> RP1, FL1 (2 ... 99 %) Hysteresis ≥ 1 % FS	SP1	
Reset point RP1 (hysteresis mode) Lower switch point FL1 (window mode)	25 % Measuring range	< SP1, FH1 (1 ... 98 %) Hysteresis ≥ 1 % FS	RP1	
Switch point SP2 (hysteresis mode) Upper switch point FH2 (window mode)	75 % Measuring range	> RP2, FL2 (2 ... 99 %) Hysteresis ≥ 1 % FS	SP2	
Reset point RP2 (hysteresis mode) Lower switch point FL2 (window mode)	25 % Measuring range	< SP2, FH2 (1 ... 98 %) Hysteresis ≥ 1 % FS	RP2	
Switch point delay time SP1 / RP1 (hysteresis mode) Switch point delay time FH1 / FL1 (window mode)	0	0; approx. 2^x [ms], x = 3, 4 ... 16	dS1	
Switch point delay time SP2 / RP2 (hysteresis mode) Switch point delay time FH2 / FL2 (window mode)	0	0; approx. 2^x [ms], x = 3, 4 ... 16	dS2	
Functions switching output 1	Hysteresis, closer (Hno)	Hysteresis NO (Hno) Hysteresis NC (Hnc) Window NO (Fno) Window NC (Fnc)	ou1	
Functions switching output 2	Hysteresis, closer (Hno)	Hysteresis NO (Hno) Hysteresis NC (Hnc) Window NO (Fno) Window NC (Fnc) Device ready	ou2	

Specifications

Electrical data	Output / supply voltage	4 ... 20 mA: 24 (9 ... 32) VDC 0 ... 6 VDC ranges: 24 (9 ... 32) VDC 0 ... 10.1 VDC ranges: 24 (15 ... 32) VDC 0.5 ... 4.5 VDC ratiometric: 10 ... 90 % U_s: 5 ± 0.25 VDC 1 or 2 PNP transistors: 24 (9 ... 32) VDC
	Rise time of supply voltage	typ. 1 ms, 10 ... 90 % nominal pressure
	Power-on delay time pressure transmitters	100 ms
	Power-on delay time pressure switches	50 ms + switching delay time
	Inverse-polarity protection, short-circuit strength @ 25°C during 5 min.	4 ... 20 mA: to U_s = 32 VDC 0 ... 6 VDC ranges, 0 ... 10.1 VDC ranges: to U_s = 28 VDC 0.5 ... 4.5 VDC ratiometric: to U_s = 14 VDC 1 or 2 PNP transistors: to U_s = 32 VDC
	Resistance of insulation	> 10 MΩ, 50 VDC
	Dielectric strength	50 VAC, 50 Hz
	Current limiting output signal	4 ... 20 mA: 24 mA (Overload)
Environmental conditions	Media temperature	-40°C ... +125°C
	Ambient temperature	max. -40°C ... +125°C (UL-rated ambient temperature: -20°C ... +80°C) Details see section: Electrical Connection
	Storage temperature	-20°C ... +40°C
	Protection	IP20, IP40, IP65, IP67, IP68 Details see section: Electrical Connection
	Humidity	max. 95 % relative
	Vibration	15 g RMS (20 ... 2000 Hz) (EN 60068-2-64) 25 g sin (80 ... 2000 Hz), 1 oct./min, (1x @ 25°C) (EN 60068-2-6)
	Shock	50 g/11 ms 100 g/6 ms Male electrical plug M12x1 (EN 60068-2-27) [2)]
EMC protection [1)]	Emission	EN/IEC 61000-6-3
	Immunity	EN/IEC 61000-6-2
Mechanical data	Sensor (wetted parts)	1.4542 (AISI 630)
	Pressure connection (wetted parts)	1.4542 (AISI 630)
	Housing	1.4301 (AISI 304)
	Sealing	FPM, EPDM, NBR
	Male electrical connector	See ordering information
	Weight	~ 50 g
	Mounting torque	25 Nm

[1)] Electrical connection J4 not EMC tested
[2)] For electrical connections 32 and 35

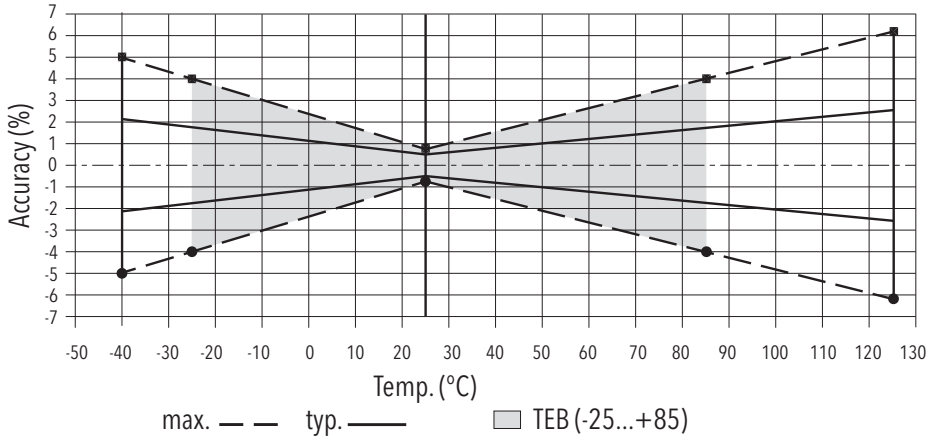
Analogue output

			≥ 0 bar ≤ 1000 bar
Accuracy	TEB @ -25 ... +85°C	[% FS typ.]	± 1.75
	Accuracy @ +25°C	[% FS typ.]	± 0.5
	NLH @ +25°C (BSL)	[% FS typ.]	± 0.2
	TC zero point and span	[% FS/K typ.]	± 0.03
	Long term stability 1 year @ +25°C	[% FS typ.]	± 0.1
Rise time	typ. 1 ms / 10 ... 90 % nominal pressure		

Switchpoint accuracy

Accuracy	TEB @ -25 ... +85°C	[% FS typ.]	± 1.75
	Accuracy @ +25°C	[% FS typ.]	± 0.5
	Long term stability 1 year @ +25°C	[% FS typ.]	± 0.1
Setting range of switchpoints	1 ... 99 % FS		
Distance switch point Switch point > reset point	≥ 1.0 % FS Switchpoint > reset point		
Switching resistance	≤ 3 Ω		
Output function	Hysteresis, Window; normally closed (NO), normally open (NC)		
Switching current	-40°C ... +85°C +85°C ... +125°C	(Ambient and media temperature) (Ambient and media temperature)	≤ 400 mA, total of both switching outputs ≤ 200 mA, total of both switching outputs
Current limiting	integrated		
Life time	>100 x 10^6 cycles		
Delay time	0; approx. 2^x [ms], x = 3, 4 ... 16		
Switching frequency	max. 60 Hz (at switching delay time = 0)		

Measuring accuracy



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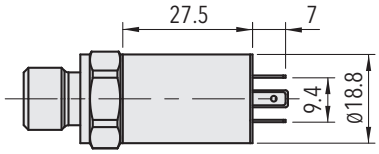
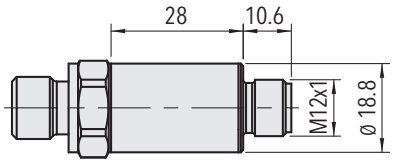
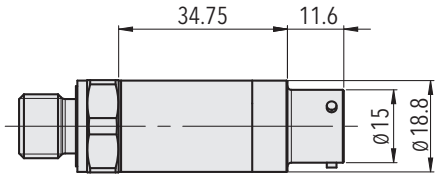
Dimensions



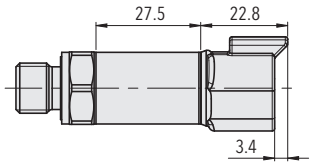
8252.XX.XXXX.**01**.XX.XX



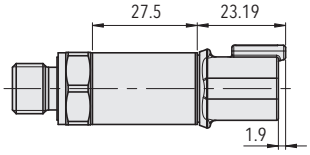
8252.XX.XXXX.**32**/**35**.XX.XX



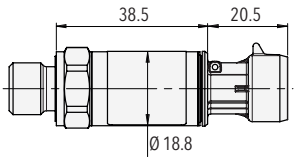
8252.XX.XXXX.**02**.XX.XX



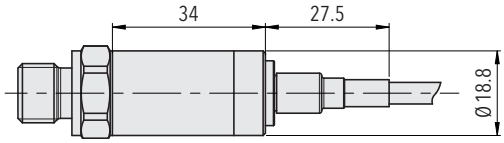
8252.XX.XXXX.**D3**.XX.XX



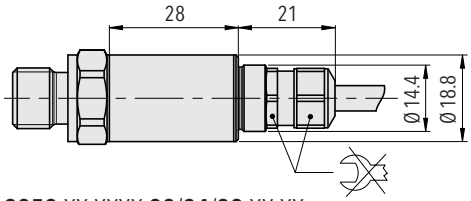
8252.XX.XXXX.**D4**.XX.XX



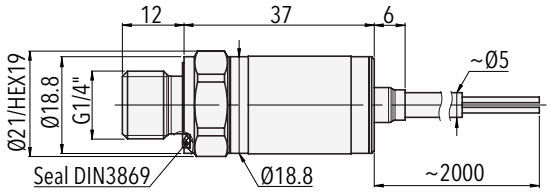
8252.XX.XXXX.**51**.XX.XX



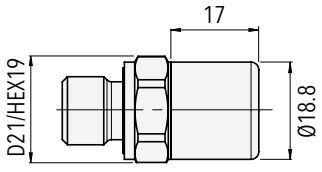
8252.XX.XXXX.**08**.XX.XX



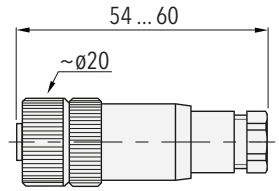
8252.XX.XXXX.**22**/**24**/**88**.XX.XX



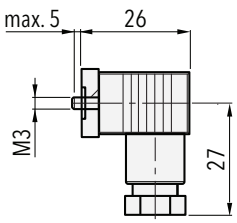
8252.XX.XXXX.**A1**.XX.XX



8252.XX.XXXX.**J4**.XX.XX



8252.XX.XXXX.XX.XX.**33**



8252.XX.XXXX.XX.XX.**34**

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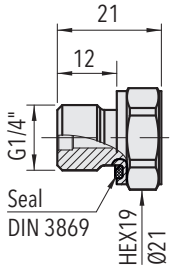
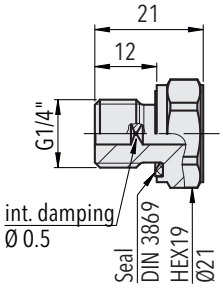
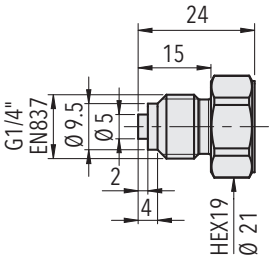
Dimensions



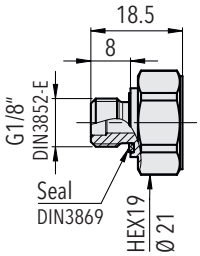
8252.XX.XX**17**.XX.XX.XX



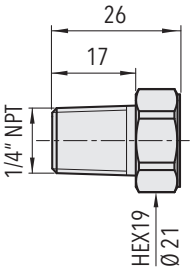
8252.XX.XX**15**.XX.XX.XX



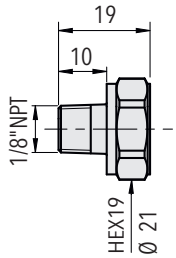
8252.XX.XX**53**.XX.XX.XX



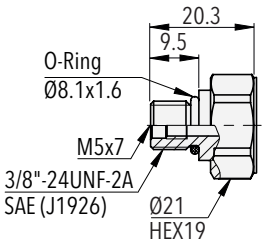
8252.XX.XX**54**.XX.XX.XX



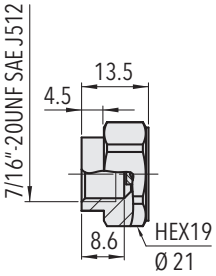
8252.XX.XX**30**.XX.XX.XX



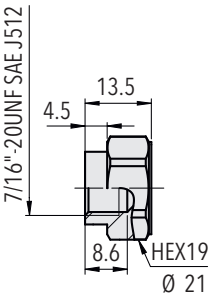
8252.XX.XX**43**.XX.XX.XX



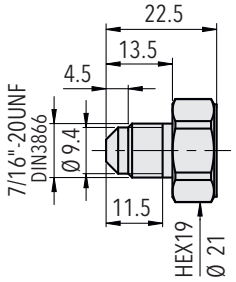
8252.XX.XXXX.**68**.XX.XX



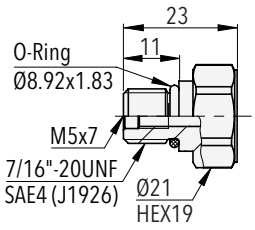
8252.XX.XX**24**.XX.XX.XX



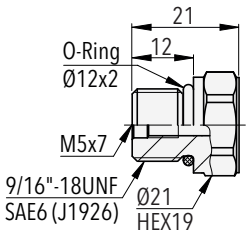
8252.XX.XX**44**.XX.XX.XX



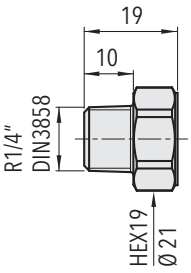
8252.XX.XX**18**.XX.XX.XX



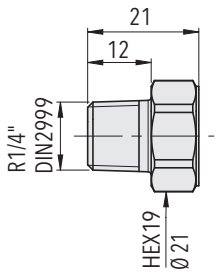
8252.XX.XX**69**.XX.XX.XX



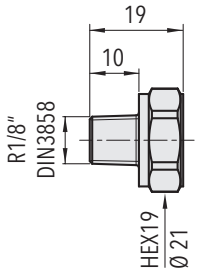
8252.XX.XX**67**.XX.XX.XX



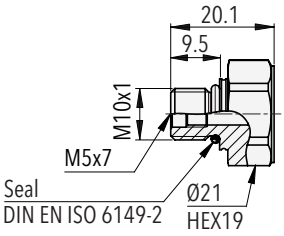
8252.XX.XX**19**.XX.XX.XX



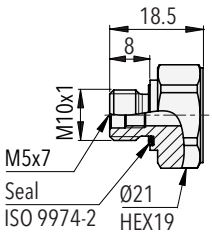
8252.XX.XX**20**.XX.XX.XX



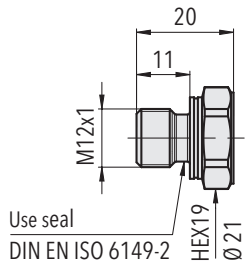
8252.XX.XX**16**.XX.XX.XX



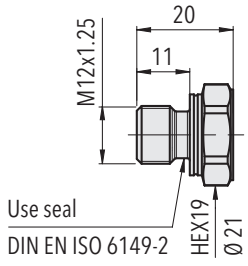
8252.XX.XX**32**.XX.XX.XX



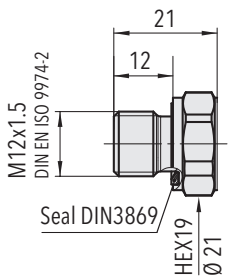
8252.XX.XX**70**.XX.XX.XX



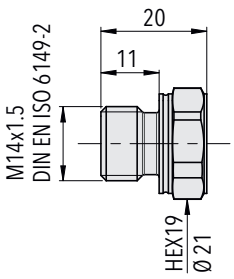
8252.XX.XX**64**.XX.XX.XX



8252.XX.XX**65**.XX.XX.XX

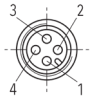
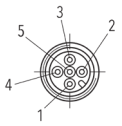
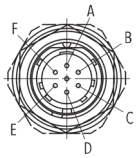


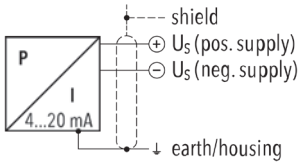
8252.XX.XX**49**.XX.XX.XX

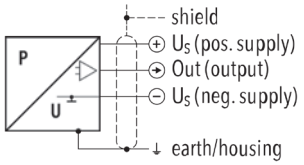


8252.XX.XX**31**.XX.XX.XX

Electrical connection

	Industrial standard, contact distance 9.4 mm	M12x1, 4-pole	M12x1, 5-pole	MIL-C 26482
				
Electrical connection type code	01	32	35	02
IP protection	IP65 [1) 2)]	IP67 [1) 2)]	IP67 [1) 2)]	IP67 [1) 2)]
Ambient temperature	-40°C ... +80°C	-40°C … +125°C	-40°C … +125°C	-40°C … +125°C
UL-rated ambient temperature	-20°C … +80°C	-20°C … +80°C	-20°C … +80°C	-20°C … +80°C

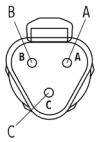
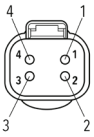
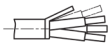
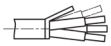
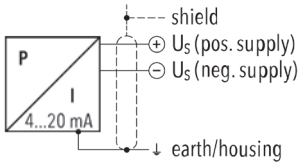
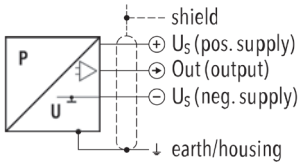
Pin assignment type code		**90**	**92**		**E1**	**E6**	**F4**	**F5**	**G2**	**G5**	**G8**			
Output signal **8252.xx.xxxx.xx.19**  shield ⊕ U_S (pos. supply) ⊖ U_S (neg. supply) ⏚ earth/housing	2 1 4	2 4 3	1 2 4	1 3 4	1 2 4	1 4 2	1 2 	1 3 	1 2/3 4	1 4 	3 2 4	4 1 5	A B E	

Pin assignment type code		**91**	**E3**	**E9**		**95**	**96**	**E2**	**F6**	**F7**	**G1**			**F3**
Output signal **8252.xx.xxxx.xx.13/14/16/17/20/22/23/24/25/26/28/29**  shield ⊕ U_S (pos. supply) ⊕ Out (output) ⊖ U_S (neg. supply) ⏚ earth/housing	1 2 3 4	2 1 4 3	3 1 2 4	1 3 2 4	1 2 3 4	1 3 4 2	1 4 3 2	1 3 2 4	1 2 4 3	1 2 3 	1 4 3 	2 4 3 5	A B C/D E	A C B/D E

[1)] Provided female electrical plug is mounted according to instructions
[2)] Ventilation via male electric plug/cable end
[3)] IP68, 20 bar, 30 min.
[4)] IP68, 100 mbar, 4h

Empty 'Pin Assignment Type Code' field: Default pinout

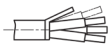
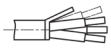
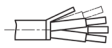
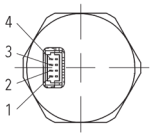
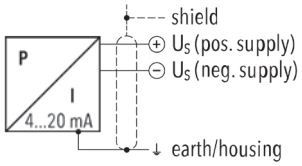
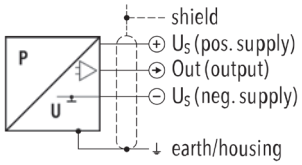
Electrical connection

	DT04-3P, 3-pole	DT04-4P, 4-pole	3 Way M MetriPack 1.5 sealed connector	Cable	Cable
					
Electrical connection type code	D3	D4	51	22	24
IP protection	IP67, IP68 [1) 4)]	IP67, IP68 [1) 4)]	IP67 [1)]	IP67, IP68 [2) 3)]	IP67, IP68 [2) 3)]
Ambient temperature	-40°C … +125°C	-40°C … +125°C	-40°C … +125°C	-30°C ... +80°C	-40°C ... +70°C
UL-rated ambient temperature	-20°C … +80°C	-20°C … +80°C	-20°C … +80°C	-20°C … +80°C	-20°C ... +70°C
Pin assignment type code		**F0**	**G3**		**E4**		
Output signal **8252.xx.xxxx.xx.19**  	A B	A C	2 3	2 1 3	1 2	1 3	White Brown Yellow	White Brown Yellow
Pin assignment type code		**F1**		**G4**		**99**		
Output signal **8252.xx.xxxx.xx.13/14/16/17/20/22/23/24/25/26/28/29**  	A C B	A B C	2 4 1 3	2 1 3	1 3 2	1 2 3	White Green Brown Yellow	White Green Brown Yellow

[1)] Provided female electrical plug is mounted according to instructions
[2)] Ventilation via male electric plug/cable end
[3)] IP68, 20 bar, 30 min.
[4)] IP68, 100 mbar, 4h

Empty 'Pin Assignment Type Code' field: Default pinout

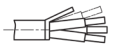
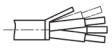
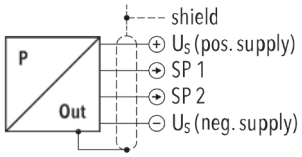
Electrical connection

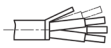
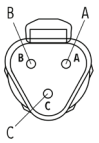
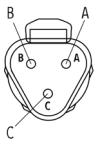
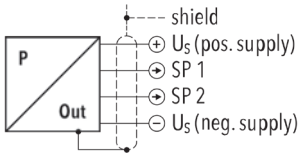
	Cable	Cable	Cable	JST SH Series
				
Electrical connection type code	08	88	A1	J4
IP protection	IP67 [2]	IP67, IP68 [2] [3]	IP40	IP20
Ambient temperature	-40°C … +125°C	-40°C ... +100°C	-30°C ... +80°C	-40°C … +125°C
UL-rated ambient temperature	-20°C … +80°C	-20°C … +80°C	-20°C … +80°C	-20°C … +80°C
Pin assignment type code				
Output signal **8252.xx.xxxx.xx.19** 	Red Black Green	Brown Black Yellow/Green	Brown White Yellow	1 2 4
Pin assignment type code				
Output signal **8252.xx.xxxx.xx.13/14/16/17/20/22/23/24/25/26/28/29** 	Red White Black Green	Brown Blue Black Yellow/Green	Brown Green White Yellow	1 3 2 4

[2] Ventilation via male electric plug/cable end
[3] IP68, 20 bar, 30 min.

Empty 'Pin Assignment Type Code' field: Default pinout

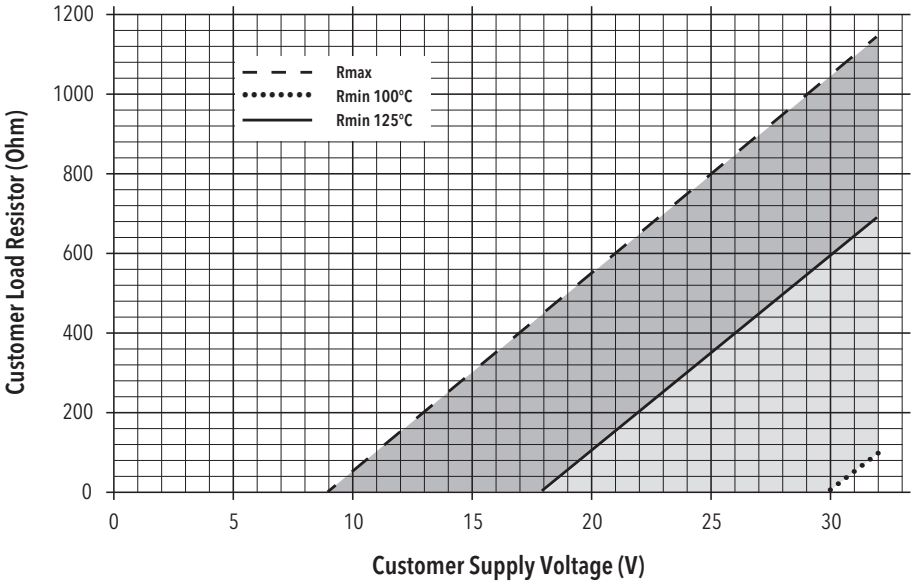
Electrical connection

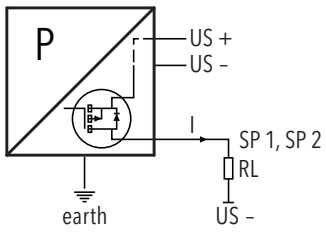
	M12x1, 4-pole		Cable		Cable	
						
Electrical connection type code	32		22		24	
IP protection	IP67 [1] [2]		IP67, IP68 [2] [3]			
Ambient temperature	-40°C … +125°C		-30°C ... +80°C		-40°C ... +70°C	
UL-rated ambient temperature	-20°C … +80°C		-20°C … +80°C		-20°C ... +70°C	
Pin assignment type code	**PS**	**T1**	**PS**	**T1**	**PS**	**T1**
Output signal **8252.xx.xxxx.xx.PS/T1** 	1 4 2 3	1 4 – 3	White Green Yellow Brown	White Green – Brown	White Green Yellow Brown	White Green – Brown

	Cable		Cable		DT04-3P, 3-pole	
						
Electrical connection type code	08		88		D3	
IP protection	IP67 [2]				IP67, IP68 [1] [4]	
Ambient temperature	-40°C … +125°C		-40°C ... +100°C		-40°C … +125°C	
UL-rated ambient temperature	-20°C … +80°C		-20°C … +80°C		-20°C … +80°C	
Pin assignment type code	**PS**	**T1**	**PS**	**T1**	**T1**	
Output signal **8252.xx.xxxx.xx.PS/T1** 	Red White Green Black	Red White – Black	Brown Blue Yellow/Green Black	Brown Blue – Black	A C – B	

[1] Provided female electrical plug is mounted according to instructions
[2] Ventilation via male electric plug/cable end
[3] IP68, 20 bar, 30 min.
[4] IP68, 100 mbar, 4h

4...20mA: min./max resistor vs. supply voltage @ Pmax = 100%

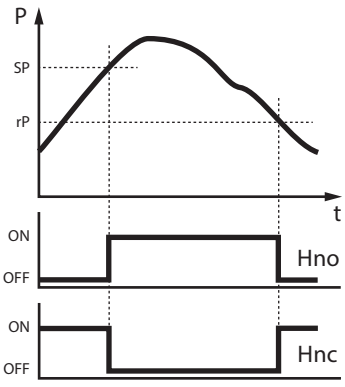




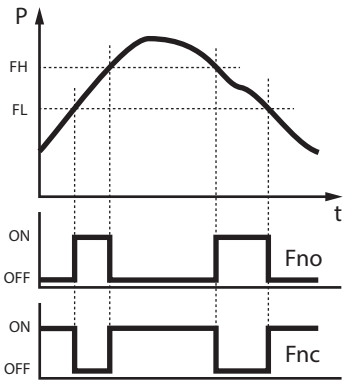
Connection of loads
to switching contacts

Functions switching output

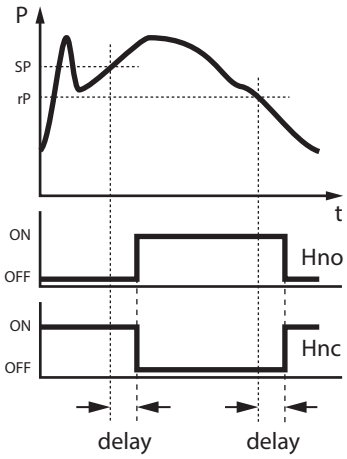
Hysteresis



Window



Delay



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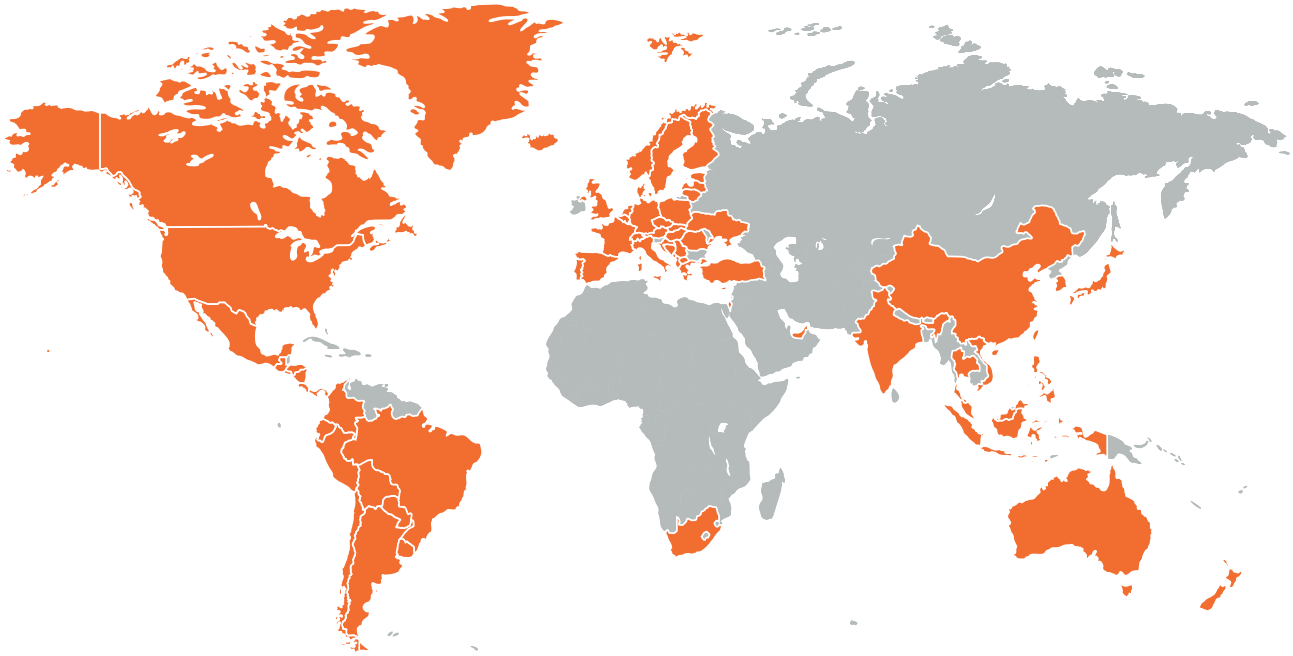

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