motralec Danfoss Pressure transmitter Type MEP For use in mobile hydrauli· DEMANDE DE PRIX >
4,8/5 sur +600 avis . Depuis 1976 . 3 agences : Herblay-sur-Seine (95), Sèvres (92), Étréchy (91) . www.motralec.com

ENGINEERING TOMORROW

Data Sheet

Pressure transmitter Type **MEP**

For use in mobile hydraulic, industrial hydraulic and air compressor applications



MEP 2200 and MEP 2250 versions:
- For use in mobile hydraulic applications
- Dual output

Output 1: Switch output
- Hysteresis 1% FS
- Time constant 1 ms

Output 2: Analogue output
- Ratiometric or absolute voltage output

MEP 2600 and MEP 2650 versions:
- For use in mobile hydraulic, industrial hydraulic and air compressor applications
- Single output

Output 1: Switch output
- Hysteresis 1 – 8% FS
- Time constant 8 – 512 ms
- Immunity towards VFD

The series are available in 2 versions:
- MEP 2200, MEP 2600 – without integrated pulse-snubber
- MEP 2250, MEP 2650 – with integrated pulse-snubber

The integrated pulse-snubber offers a high degree of protection against cavitations and liquid hammer. The well thought out design results in excellent vibration stability and an exceptional robustness. The high degree of EMI protection equips the electronic pressure switch to meet most requirements.

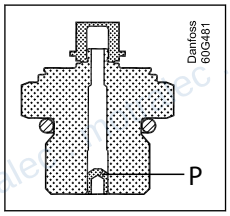
motralec ★★★★★ 4,8/5 . +600 avis DEMANDE DE PRIX >
4 rue Lavoisier, 95220 Herblay-sur-Seine . Tél. 01 39 97 65 10 . service-commercial@motralec.com . www.motralec.com

Features

- Designed for use in severe OEM applications
- Excellent long term stability with zero drift
- No leakages due to fully welded design
- Wetted parts made of stainless steel
- For medium and ambient temperatures up to 125 °C
- Dual output versions with switch function and an analogue output signal:
  0 – 5 V, 1 – 5 V, 1 – 6 V, 0 – 10 V, 10 – 90% ratiometric voltage as additional output
- Switch versions with customized hysteresis and time constant
- A wide range of pressure and electrical connections
- EMC protection up to 100 V/m
- Thermal overload protected

Application

Figure 1: Pulse-snubber



P	Pulse-snubber

The pulse-snubber protects the sensor element in the event of cavitation, liquid hammer and pressure peaks, which may occur in liquid filled systems with changes in flow velocity, e.g. fast closing of a valve or pump starts and stops.

The problem may occur on the inlet and outlet side, even at rather low operating pressures. The media viscosity has only little effect on the response time.

Even at viscosities up to 100 cSt, the response time will not exceed 4 ms.

motralec ★★★★★ 4,8/5 . +600 avis

4 rue Lavoisier, 95220 Herblay-sur-Seine . Tél. 01 39 97 65 10 . service-commercial@motralec.com . www.motralec.com

Product specification

Technical data

Table 1: Performance (EN 60770)

Type	MEP 2200 and MEP 2250	MEP 2600 and MEP 2650
	Dual output (Switch and Analogue - output)	Switch output (Switch - output)
Switch Hysteresis	~ 1% FS[1]	1 – 8% FS
Switch Time delay	1 ms	8 – 512 mS
Accuracy (incl. non-linearity, hysteresis and repeatability)	2% FS	2% FS (1 – 5% Hysteresis) 3% FS (6 – 8% Hysteresis)
Thermal accuracy	< ± 0.15% FS / 10K	< ± 0.15% FS / 10K

[1] For detailed information please contact Danfoss.

Table 2: Overload and burst pressure – without pulse-snubber

Features	Values													
Nominal pressure [bar]	10	16	25	40	60	100	160	250	400	500	600	1000[2]	1600[2]	2200[2]
Overload pressure	30	48	80	80	140	200	320	500	800	1400	1400	2000	2500	3000
Burst pressure	400	640	800	800	1400	2000	1600	2500	4000	> 4000	> 4000	> 4000	> 4000	> 4000

[2] Only available wih M12 × 11.5 P high pressure port, type FC06. Please contact Danfoss.

Table 3: Overload and burst pressure – with integrated pulse-snubber

Features	Values										
Nominal pressure [bar]	10	16	25	40	60	100	160	250	400	500	600
Overload pressure	30	48	120	120	210	300	480	750	1200	2100	2100
Burst pressure	400	640	800	800	1400	2000	1600	2500	4000	> 4000	> 4000

Table 4: Electrical specifications

Type	MEP 2200 and MEP 2250	MEP 2600 and MEP 2650
	Dual output (Switch and Analogue - output)	Switch output (Switch - output)
Max. load[3]	500 mA	500 mA
Electrical connector types	See Electrical connections	See Electrical connections
Max. inrush load	1.6 A	600 mA
Supply voltage	8 – 32 V	
Over/reverse voltage	± 36 V	± 33 V

[3] For inductive load limits, please contact Danfoss.

Table 5: Secondary output reference for MEP 2200 and 2250

Nom. output signal (Short-circuit protected)	NPN and PNP		NPN
	0 – 5, 1 – 5, 1 – 6 V	0 – 10 V	10 – 90% ratiometric
Supply voltage [UB], polarity protected	8 – 32 V	12 – 32 V	–
Supply – current consumption	4.5 mA	4.5 mA	4.5 mA
Output inpedance	≤ 90 Ω	≤ 90 Ω	≤ 90 Ω
Load [R_L] (connected to 0 V)	RL ≥ 10 kΩ	RL ≥ 10 kΩ	RL ≥ 5 kΩ
Load [R_L] (connected to + V)	Not possible	Not possible	RL ≥ 5 kΩ

Table 6: Technical data

Features		Values
Media temperature range		- 40 – 125 °C
Ambient temperature range		-40 – 125 °C
Compensated temperature range		- 40 – 125 °C
Transport temperature range		-55 – 150 °C
EMC – Emission		EN 61326-2-3: 2013
EMC Directive		2014/30/EU
EMC – Immunity RF field	100 V/m, 26 Mhz – 1 GHz	EN 61326-2-3 Cable < 30 m
	3 V/m, 1.4 GHz – 2.7 GHz	

motralec ★★★★★ 4,8/5 . +600 avis
4 rue Lavoisier, 95220 Herblay-sur-Seine . Tél. 01 39 97 65 10 . service-commercial@motralec.com . www.motralec.com

Features		Values
Electrical performance comply with		ISO 7637 pulse 1 – 4 V (MEP 26XX)
		ISO 7637-2 / ISO 16750 (MEP 22XX) (pulse 5b <45 V)
Vibration stability	20 g, 10 – 2000 Hz, sinus	EN 60068-2-6
Shock resistance	100 g	EN 60068-2-27
Enclosure (depending on electrical connection)		see page 8

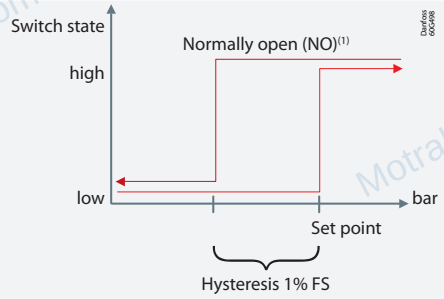
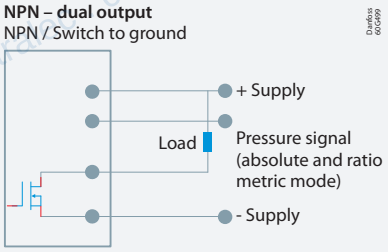
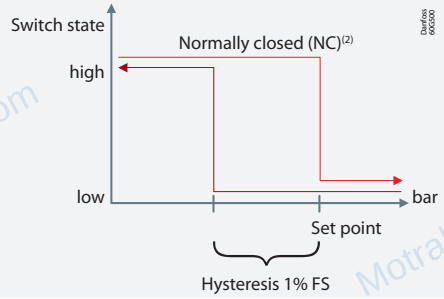
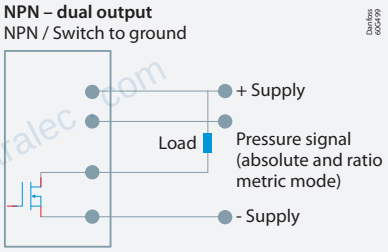
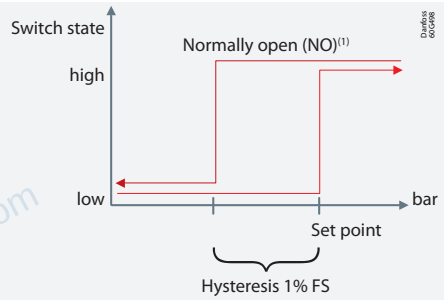
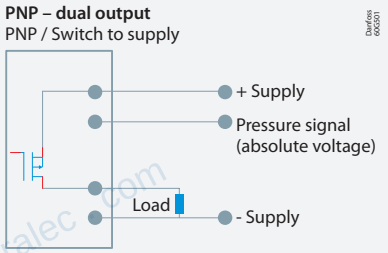
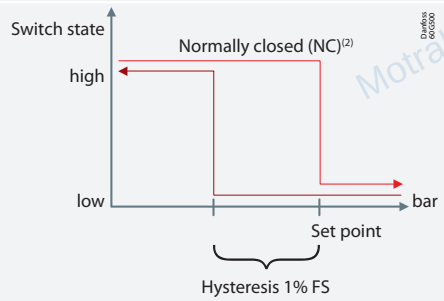
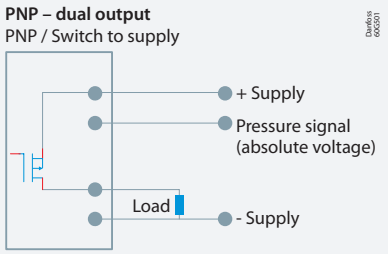
Table 7: Mechanical conditions

Materials	
Wetted parts	17 – 4 PH
Enclosure	AISI 304 or plastic
Pressure connection	17 – 4 PH
Electrical connection	See Electrical connections

Configuration codes

MEP 2200 and MEP 2250

Table 8: Configuration codes for MEP 2200 and MEP 2250

Code no.	Switch state change – NC and NO	NPN and PNP connection
Code 1		
Code 2		
Code 3		
Code 4		

(1) **NO:**

motralec ★★★★★ 4,8/5 . +600 avis

4 rue Lavoisier, 95220 Herblay-sur-Seine . Tél. 01 39 97 65 10 . service-commercial@motralec.com . www.motralec.com

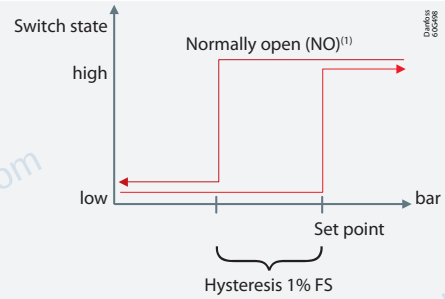
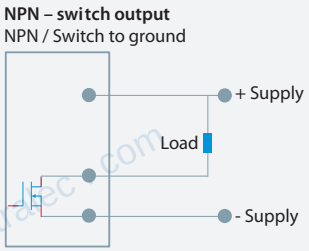
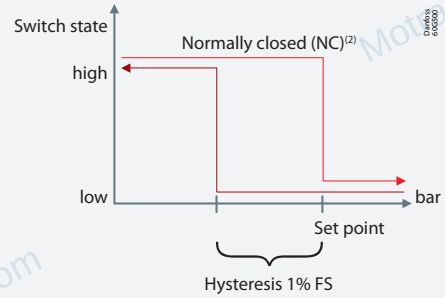
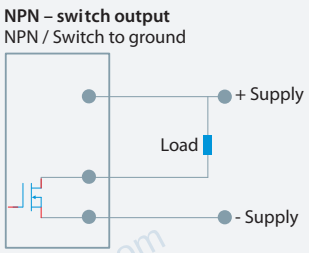
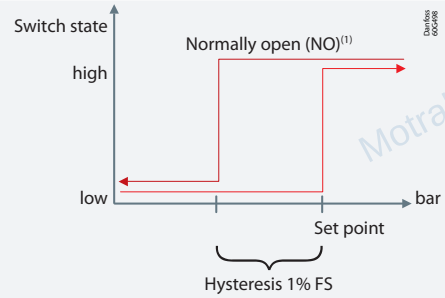
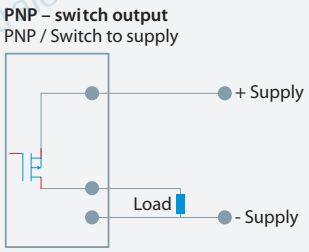
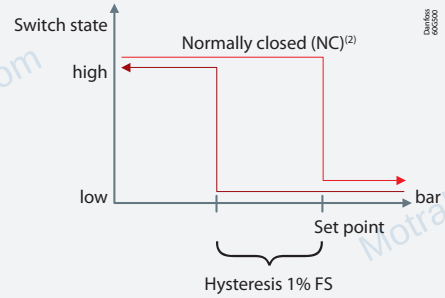
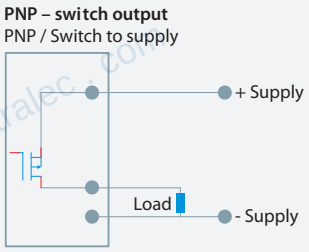
At rising pressure (P^0 - P^{Max}) when reaching the set point the switch will connect the applied load (switch state change from low to high).
At falling pressure (P^{Max} - P^0) when reaching the set point + hysteresis the switch will disconnect the applied load (switch state change from high to low).

(2) **NC:**

At rising pressure (P^0 - P^{Max}) when reaching the set point the switch will disconnect the applied load (switch state change from high to low).
At falling pressure (P^{Max} - P^0) when reaching the set point + hysteresis the switch will connect the applied load (switch state change from low to high).

MEP 2600 and MEP 2650

Table 9: Configuration codes for MEP 2600 and MEP 2650

Code no.	Switch state change – NC and NO	NPN and PNP connection
Code 5		
Code 6		
Code 7		
Code 8		

(1) NO:

At rising pressure (P^0 - P^{Max}) when reaching the set point the switch will connect the applied load (switch state change from low to high).
At falling pressure (P^{Max} - P^0) when reaching the set point + hysteresis the switch will disconnect the applied load (switch state change from high to low).

(2) NC:

motralec ★★★★★ 4,8/5 . +600 avis
4 rue Lavoisier, 95220 Herblay-sur-Seine . Tél. 01 39 97 65 10 . service-commercial@motralec.com . www.motralec.com

At rising pressure (P^0 - P^{Max}) when reaching the set point the switch will disconnect the applied load (switch state change from high to low).
At falling pressure (P^{Max} - P^0) when reaching the set point + hysteresis the switch will connect the applied load (switch state change from low to high).

Dimensions / Combinations

Table 10: Dimensions / Combinations

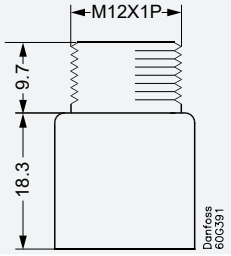
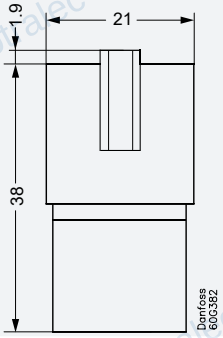
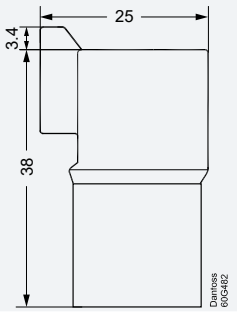
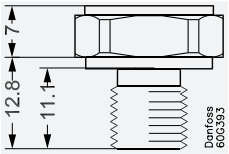
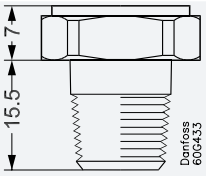
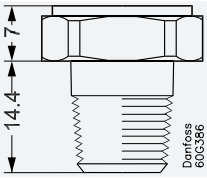
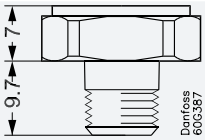
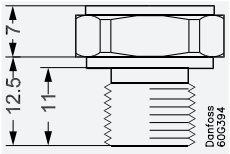
Type code	C1	C3	C7
	M12 × 1 EN60947-5-2	Deutsch DT04-4P	Deutsch DT04-3P
NOTE: The diameter of all housings is 19 mm.			

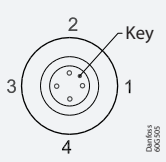
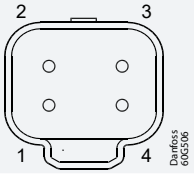
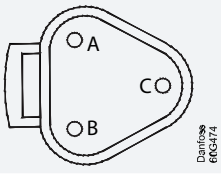
Table 11: Dimensions / Combinations with recommended torque

Type code	BD08	PT04	AC04/AF04	AC02/AF02	GB04
Recommended torque	18 – 20 Nm	2 – 3 turns after fnger tightend	2 – 3 turns after fnger tightend	2 – 3 turns after fnger tightend	30 – 35 Nm
					
	7/16 – 20 UNF-2A	1/4 – 19 Pt	1/4 – 18 NPT / NPTF	1/8 – 27 NPT / NPTF	G 1/4 A DIN 3852-E

NOTE:
HEX is 22 mm across flats.

Electrical connections

Table 12: Electrical connections

Type code	C1	C3	C7
			
	M12x1 EN60947-5-2	Deutsch DT04-4P	Deutsch DT04-3P
Enclosure	IP67	IP67	IP67
Material	SS, PBT 30% GFR Gold (Au) plated	Glass filled PBT 30% GFR Gold (Au) plated	Glass filled PBT 30% GFR Tin (Sn) plated
Electrical connections, MEP 22XX	Pin 1: + supply Pin 2: pressure output Pin 3: ÷ supply Pin 4: switch output	Pin 1: ÷ supply Pin 2: + supply Pin 3: switch output Pin 4: pressure output	Pin A: + supply Pin B: ÷ supply Pin C: switch output
Electrical connections, MEP 26XX	Pin 1: + supply Pin 2: switch output Pin 3: ÷ supply Pin 4: N/A buried		Pin A: + supply Pin B: ÷ supply Pin C: switch output

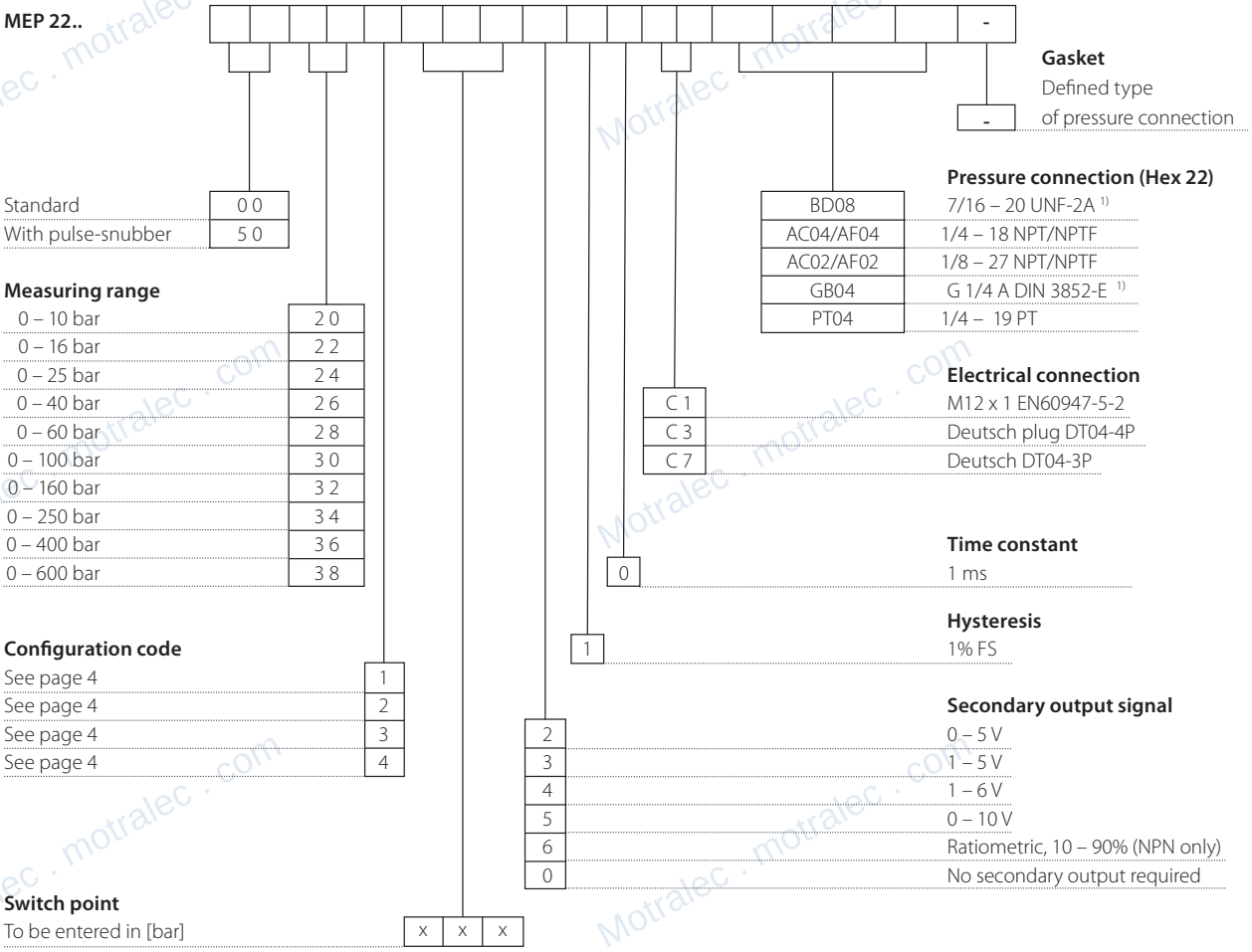
motralec ★★★★★ 4,8/5 . +600 avis
4 rue Lavoisier, 95220 Herblay-sur-Seine . Tél. 01 39 97 65 10 . service-commercial@motralec.com . www.motralec.com

Ordering

Dual output version, type MEP 2200 and MEP 2250

Figure 2: MEP 2200 and MEP 2250

Ordering standard for dual output version type MEP 2200 and MEP 2250



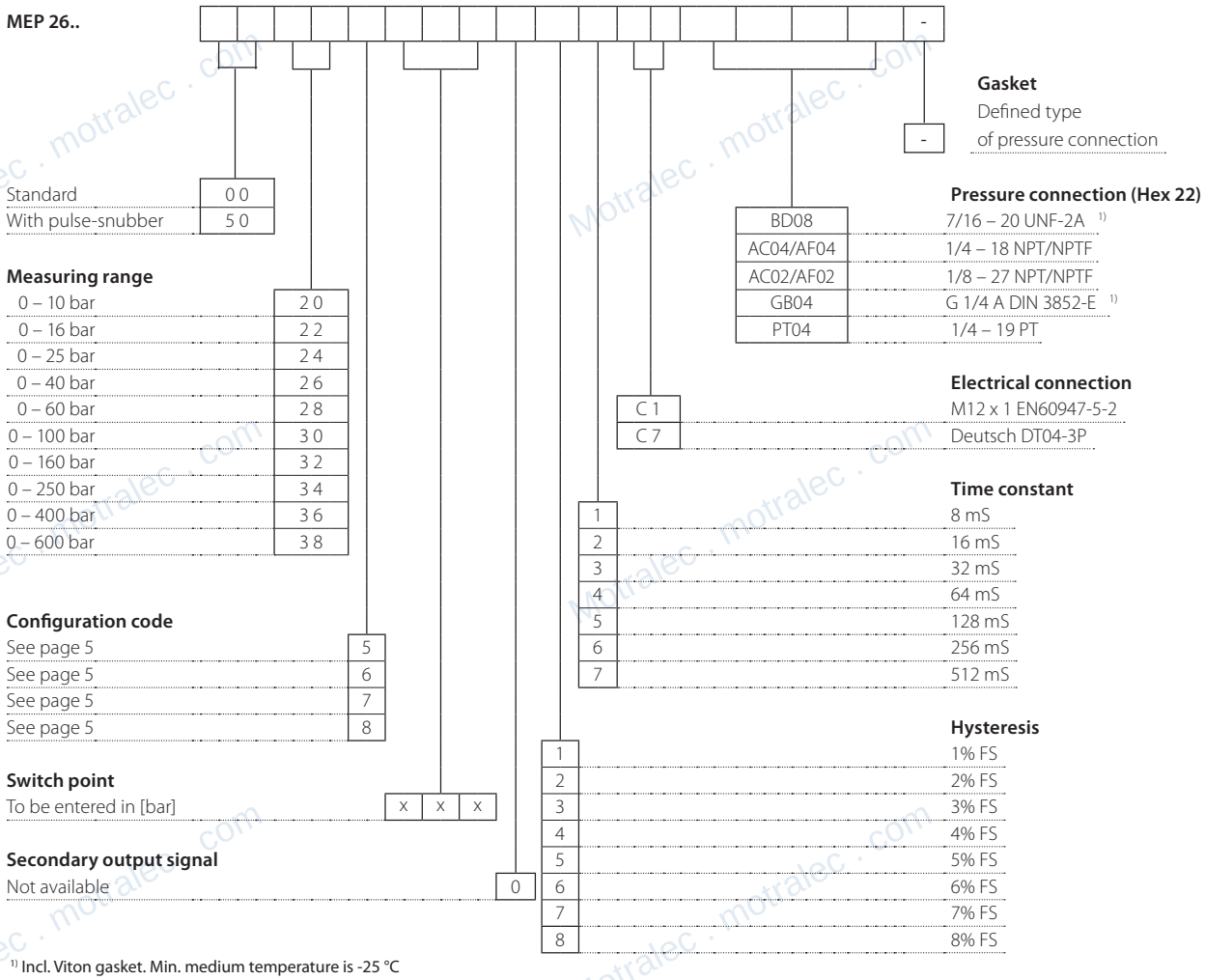
1)Incl. Viton gasket. Min. medium temperature is -25 °C

motralec ★★★★★ 4,8/5 . +600 avis
4 rue Lavoisier, 95220 Herblay-sur-Seine . Tél. 01 39 97 65 10 . service-commercial@motralec.com . www.motralec.com

Switch version type MEP 2600 and MEP 2650

Figure 3: MEP 2600 and MEP 2650

Ordering standard for switch version type MEP 2600 and MEP 2650



1) Incl. Viton gasket. Min. medium temperature is -25 °C

motralec ★★★★★ 4,8/5 . +600 avis
4 rue Lavoisier, 95220 Herblay-sur-Seine . Tél. 01 39 97 65 10 . service-commercial@motralec.com . www.motralec.com

Certificates, declarations, and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

Some approvals may change over time. You can check the most current status at danfoss.com or contact your local Danfoss representative if you have any questions.

Table 13: MEP 2200

File name	Document type	Document topic	Approval authority
063R1015	EU Declaration	EMCD/ROHS	Danfoss
063R1012	Manufacturers Declaration	China RoHS	Danfoss

Table 14: MEP 2250

File name	Document type	Document topic	Approval authority
063R1015	EU Declaration	EMCD/ROHS	Danfoss
063R1012	Manufacturers Declaration	China RoHS	Danfoss

Table 15: MEP 2600

File name	Document type	Document topic	Approval authority
063R1015	EU Declaration	EMCD/ROHS	Danfoss
063R1012	Manufacturers Declaration	China RoHS	Danfoss

Table 16: MEP 2650

File name	Document type	Document topic	Approval authority
063R1015	EU Declaration	EMCD/ROHS	Danfoss
063R1012	Manufacturers Declaration	China RoHS	Danfoss

motralec ★★★★★ 4,8/5 . +600 avis

4 rue Lavoisier, 95220 Herblay-sur-Seine . Tél. 01 39 97 65 10 . service-commercial@motralec.com . www.motralec.com

ENGINEERING TOMORROW

Online support

Danfoss offers a wide range of support along with our products, including digital product information, software, mobile apps, and expert guidance. See the possibilities below.

The Danfoss Product Store



The Danfoss Product Store is your one-stop shop for everything product related—no matter where you are in the world or what area of the cooling industry you work in. Get quick access to essential information like product specs, code numbers, technical documentation, certifications, accessories, and more.
Start browsing at store.danfoss.com.

Find technical documentation



Find the technical documentation you need to get your project up and running. Get direct access to our official collection of data sheets, certificates and declarations, manuals and guides, 3D models and drawings, case stories, brochures, and much more.

Start searching now at www.danfoss.com/en/service-and-support/documentation.

Danfoss Learning



Danfoss Learning is a free online learning platform. It features courses and materials specifically designed to help engineers, installers, service technicians, and wholesalers better understand the products, applications, industry topics, and trends that will help you do your job better.

Create your Danfoss Learning account for free at www.danfoss.com/en/service-and-support/learning.

Get local information and support



Local Danfoss websites are the main sources for help and information about our company and products. Find product availability, get the latest regional news, or connect with a nearby expert—all in your own language.

Find your local Danfoss website here: www.danfoss.com/en/choose-region.

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

motralec ★★★★★ 4,8/5 . +600 avis

4 rue Lavoisier, 95220 Herblay-sur-Seine . Tél. 01 39 97 65 10 . service-commercial@motralec.com . www.motralec.com

motralec

Expert en pompes, moteurs électriques et ventilateurs industriels depuis 1976.
Herblay-sur-Seine (95) . Sèvres (92) . Étréchy (91) . www.motralec.com

Besoin d'un prix ou d'un conseil technique ?

Danfoss Pressure transmitter Type MEP For use in mobile hydraulic industrial hydr?

4,8/5 . +600 avis

- Devis rapide et conseil technique par nos spécialistes
- Plus de 200 000 références et 30 marques distribuées
- Vente, réparation, bobinage et SAV en atelier
- Livraison partout en France, accompagnement avant et après-vente

DEMANDE DE PRIX >