



**ANWENDUNG**

- ◆ Schiffbau
  -  GL, RINA
  - ◇ Motorenbau
  - ◇ Schienenfahrzeuge
- ◆ Maschinenbau
- ◆ Hydraulik
  - ◇ HLK
  - ◇ Kältetechnik
- ◆ Prozess Techn.
  - ◇ Wasseraufbereitung
  - ◇ Autoindustrie
  - ◇ Prüfstände
  - ◇ Ex
  - ◇ Lebensmittelindustrie
  - ◇ Autoklaven

**APPLICATIONS**

- ◆ Construction navale
  -  GL, RINA
  - ◇ Constr. de moteurs
  - ◇ Véhicules sur rail
- ◆ Machines-outils
- ◆ Hydraulique
  - ◇ CVC
  - ◇ Réfrigération
- ◆ Techn. de procédés
  - ◇ Traitement de l'eau
  - ◇ Industrie automobile
  - ◇ Banc d'essai à frein
  - ◇ Ex
  - ◇ Industrie alimentaire
  - ◇ Autoclaves

**APPLICATIONS**

- ◆ Shipbuilding
  -  GL, RINA
  - ◇ Engine manufacturing
  - ◇ Railways
- ◆ Machine tools
- ◆ Hydraulics
  - ◇ HVAC
  - ◇ Refrigeration
- ◆ Process technology
  - ◇ Water treatment
  - ◇ Automotive industry
  - ◇ Test benches
  - ◇ Ex
  - ◇ Food Industry
  - ◇ Autoclaves



**HAUPTMERKMALE**

- ◆ Sensor: Dünnschicht auf Stahl
- ◆ Messbereich: 0...2.5 bis 0...2000 bar
- ◆ Ausgangssignal: 4...20 mA  
0...10 VDC  
Relais  
Transistor
- ◆ NLH (BSL durch 0): ± 0.25 % d.S. typ.

**CARACTÈRES DISTINCTIFS**

- ◆ Capteur: Couche mince sur acier
- ◆ Plage de mesure: 0...2.5 à 0...2000 bar
- ◆ Signal de sortie: 4...20 mA  
0...10 VDC  
Relais  
Transistor
- ◆ NLH (BSL par 0): ± 0.25 % E.M. typ.

**MAIN CHARACTERISTICS**

- ◆ Sensor: Thin film on steel
- ◆ Measuring range: 0...2.5 to 0...2000 bar
- ◆ Signal output: 4...20 mA  
0...10 VDC  
Relays  
Transistor
- ◆ NLH (BSL through 0): ± 0.25 % FS typ.

**VORTEILE**

- ◆ Einfache Schalterpunktverstellung
- ◆ Beleuchtete LCD-Anzeige
- ◆ Ausgänge: 2 Relais oder 2 Transistoren  
4...20mA oder 0...10VDC
- ◆ Messung und Anzeige von Druck  
(inkl. Schalterzustand) und Sensortemperatur mit verschiedenen Einheiten
- ◆ Hohe Wechsellastfestigkeit
- ◆ EMV-Schutz, IEC 61000


**AVANTAGES PRINCIPAUX**

- ◆ Programmation facile
- ◆ Affichage LCD rétro-éclairé
- ◆ Sorties: 2 Relais ou 2 Transistors  
4...20mA ou 0...10VDC
- ◆ Mesure et affichage de la pression  
(incl. état de l'interrupteur) et de la température avec unités diverses
- ◆ Résistance mécanique élevée
- ◆ Protection CEM, CEI 61000

**MAIN FEATURES**

- ◆ Simple adjustment of switching points
- ◆ Back-lit LCD-Display
- ◆ Outputs: 2 Relays or 2 Transistors  
4...20mA or 0...10VDC
- ◆ Measurement and indication of pressure  
(incl. switch state) and sensor temperature in various units
- ◆ High resistance to pressure cycling
- ◆ EMC protection, IEC 61000

**BESTELLINFORMATION / INFORMATION POUR LA COMMANDE / ORDERING INFORMATION**

**Lager Code** (kurze Lieferzeiten)/ **Numéro de stock** (délai de livraison bref)/ **Code for stock products** (short delivery time): **DCS** (z.B./ Ex./e.g: DCS10.0AR)  
 siehe Katalog:/ regardez catalogue:/ see catalogue: „Standard Products“

**Varianten Code/ Numéro de variantes/ Custom build code** XXXX.XX.XXXX.XX.XX.XX...  
8864  
relativ/ relatif/ relative

<b>Bereich</b>	0 ... 1.0 *	<b>Überdruck</b>	max. 2	<b>Berstdruck</b>	30	<b>*71</b>
<b>Plage</b>	0 ... 2.5	<b>Surpression</b>	5	<b>Pression destruction</b>	100	<b>75</b>
<b>Range</b>	0 ... 4.0	<b>Over pressure</b>	8	<b>Burst pressure</b>	100	<b>76</b>
	0 ... 6.0		12		100	<b>77</b>
	0 ... 10		20		200	<b>78</b>
	0 ... 16		32		200	<b>79</b>
<b>[bar]</b>	0 ... 25	<b>[bar]</b>	50	<b>[bar]</b>	300	<b>80</b>
	0 ... 40		80		300	<b>81</b>
	0 ... 60		120		500	<b>82</b>
	0 ... 100		200		500	<b>83</b>
	0 ... 250		500		1000	<b>74</b>
	0 ... 400		800		1500	<b>84</b>
	0 ... 600		1200		2000	<b>86</b>
	0 ... 1000		1800		2800	<sup>1)</sup> <b>88</b>
	0 ... 1600		3000		4000	<sup>1)</sup> <b>89</b>
	0 ... 2000		3000		4000	<sup>1)</sup> <b>90</b>
Sonderbereich nach Kundenwunsch, z.B.: plage à spécifier par le client, p. ex.: -1 ... +4 bar, 0 ... 5 bar, 0 ... 12 bar						<b>XX</b>
customised ranges available on request, e.g.:						
* auf Anfrage/ sur demande/ on request <sup>1)</sup> Druckanschluss/ Raccord de pression/ Pressure connection						<b>29</b>

<b>Sensor</b>	relativ/ relatif/ relative	<b>23</b>
<b>Capteur</b>	(nur G1/4" innen, Bereich 2,5...40 bar)	
<b>Sensor</b>	absolut/ absolu/ absolute (seulement G1/4" femelle, plage 2,5 ... 40 bar) (only G1/4" female range 2,5 ... 40 bar)	<b>26</b>

<b>Druckanschluss</b>		(Dichtung DIN3869 und Druckspitzendämpfung)	
<b>Raccord de pression</b>	G 1/4" aussen/ mâle/ male	(Joint DIN3869 torique et élément d'amortissement à pointe de surpression)	<b>15</b>
<b>Pressure connection</b>		(Seal DIN3869 and pressure peak damping element)	
	G 1/4" aussen/ mâle/ male	(Dichtung/ Joint/ Seal: DIN3869)	<b>17</b>
	G 1/4" innen/ femelle/ female		<b>*10</b>
	G 1/2" aussen/ mâle/ male	DIN16288-B (Manometer/ Manomètre/ Manometer)	<b>*11</b>
	M18x1.5 aussen/ mâle/ male	(Kegeldichtung/ Joint conique/ Conical seal)	<b>*29</b>
	Flanschanschluss/ Connecteur à bride/ Flange connection		<b>*41</b>
* auf Anfrage/ sur demande/ on request			

<b>Ausführung</b>	Gerätestecker/ Embase mâle/ Male electrical plug	M12x1, 8-pol.	<b>38</b>
<b>Exécution</b>			
<b>Execution</b>			

<b>Ausgangssignal</b>	Output	Load resistance	$U_{SUPPLY}$	
<b>Signal de sortie</b>	4 ... 20 mA	≤250W	11... 32 V DC	<b>19</b>
<b>Output</b>	0 ... 10 V DC *	≥5.0 kW	15... 30 V DC	<b>*17</b>
* auf Anfrage/ sur demande/ on request				

<b>Zubehör</b>	2 Relais/ 2 relais/ 2 relay	<b>23</b>
<b>Accessoires</b>	2 Transistoren (open drain)/ 2 transistors (open drain)/ 2 transistors (open drain)	<b>27</b>
<b>Accessories</b>		

Kabeldose/ Fiche femelle/ Female electrical connector: **DCS CON**  
M12x1, 8-pol., incl.2m PUR-cable

Andere Varianten auf Anfrage/ Autres variantes sur demande/ Other variations on request

**SPEZIFIKATIONEN**

**HAUPTMERKMALE**

Sensor: Dünnfilm auf Stahl (s. Material)  
Messbereich: 0...2.5 bis 0...2000 bar  
Ausgangssignal: 4...20 mA, 0...10 VDC  
Relais, Transistor

**GENAUIGKEIT**

TEB @ -25...+80°C: ± 1.0 % d.S. typ.  
Genauigkeit @ +25°C: ± 0.5 % d.S. typ.  
NLH @ +25°C (BSL durch 0): ±0.25% d.S. typ.  
TK Nullpunkt und Spanne: ±0.01% d.S./K typ.  
Langzeitstabilität  
1 Jahr @ +25°C: ± 0.2 % d.S. typ.  
Sensor Temperatur: ±2.5°C (°F)

**ELEKTRISCHE DATEN**

Ausgangssignal/ Speisespannung  
4...20 mA: 24 (11...32) VDC  
0...10 VDC: 24 (15...30) VDC  
Stromaufnahme: < 70 mA  
Anstiegszeit: typ. 1 ms/ 10...90%  
Nenndruck  
Anzeige  
LCD-Display: beleuchtet  
4 Digit Auflösung: ≤ 0.2% d.S.  
Anzeigebereich: -5...125% d.S.  
Bedienung: menügeführt mittels 2 Tasten  
Einstellparameter: siehe Massbilder

**Relais** (Bestell.-Nr. 23)

Ausgang: 2 Relais, galvanisch getrennt  
30W (max.1A), 36 VAC/ DC  
Schaltzeit: 5...9999 ms, einstellbar  
Schalthysterese: typ. 1...99% d.S.

**Transistor** (Bestell.-Nr. 27)

Ausgang: 2 Transistoren, max. 0.5 A  
kurzschlussicher  
Schaltzeit: 5...9999 ms, einstellbar  
Schalthysterese: typ. 1...99% d.S.

**UMGEBUNGSBEDINGUNGEN**

Betriebstemperatur: -25...+80°C  
Medientemperatur: -25...+125°C  
Schutzart: <sup>1)</sup> min. IP65  
Feuchtigkeit: max. 95% relativ  
Vibration: 10g (25...2000 Hz)  
Schock: 50g/ 1 ms

**EMV-SCHUTZ**

(Ausgang: 4...20mA)

Emission: EN/IEC 61000-6-3  
Immunity: EN/IEC 61000-6-2

**MECHANISCHE DATEN**

Material  
Sensor: 1.4542/1.4435 (AISI630/316L)  
Gehäuse: 1.4301/1.4306 (AISI304/304L)  
Dichtung (medienberührend): NBR 70°Sh  
Gerätestecker: 8-polig (PA)  
U<sub>max.</sub> 30V AC/ 36V DC  
Anziehdrehmoment: 25 Nm  
Gewicht: ~ 200 g

**SPÉCIFICATIONS**

**CARACTÈRES DISTINCTIFS**

Capteur: Couche mince sur acier (voir matière)  
Plage de mesure: 0...2.5 à 0...2000 bar  
Signal de sortie: 4...20 mA, 0...10 VDC  
Relais, Transistor

**PRÉCISION**

TEB @ -25...+80°C: ± 1.0 % E.M. typ.  
Précision @ +25°C: ± 0.5 % E.M. typ.  
NLH @ +25°C (BSL par 0): ±0.25% E.M. typ.  
CT point zéro et écart: ± 0.01 % E.M./K typ.  
Stabilité à long terme  
1 année @ +25°C: ± 0.2 % E.M. typ.  
Température de capteur: ±2.5°C (°F)

**SPÉCIFICATIONS ÉLECTRIQUES**

Signal de sortie/ Tension d'aliment.  
4...20 mA: 24 (11...32) VDC  
0...10 VDC: 24 (15...30) VDC  
Consommation courant: < 70 mA  
Sensibilité de réponse: typ. 1 ms/ 10...90%  
pression nominale  
Indication  
Affichage LCD: rétro éclairé  
Résolution 4 Digits: ≤ 0.2% E.M.  
Domaine d'indication: -5...125% E.M.  
Programmation: commande par menu  
avec 2 touches  
Adjust. des paramètres: voir cotes  
d'encombrement

**Relais** (No. commande 23)

Sortie: 2 Relais, isolés galvaniquement  
30W (max.1A), 36 VAC/ DC  
Temps de réponse: 5...9999 ms, ajustable  
Hystérésis: typ. 1...99% E.M.

**Transistor** (No. commande 27)

Sortie: 2 Transistors, max. 0.5 A  
protégé contre le court-circuit  
Temps de réponse: 5...9999 ms, ajustable  
Hystérésis: typ. 1...99% E.M.

**CONDITIONS D'ENVONNEMENT**

Température de service: -25...+80°C  
Température de médias: -25...+125°C  
Protection: <sup>1)</sup> min. IP65  
Humidité: 95% max. relatif  
Vibration: 10g (25...2000 Hz)  
Choc: 50g/ 1 ms

**CEM PROTECTION**

(Signal de sortie: 4...20mA)

Emission: EN/CEI 61000-6-3  
Immunité: EN/CEI 61000-6-2

**SPÉCIFICATIONS MÉCANIQUES**

Matériau  
Capteur: 1.4542/1.4435 (AISI630/316L)  
Boîtier: 1.4301/1.4306 (AISI304/304L)  
Joint (contact. de médias): NBR 70°Sh  
Embase mâle: 8-poles (PA)  
U<sub>max.</sub> 30V AC/ 36V DC  
Couple de serrage: 25 Nm  
Poids: ~ 200 g

**SPECIFICATIONS**

**MAIN CHARACTERISTICS**

Sensor: Thin film on steel (see material)  
Measuring range: 0...2.5 to 0...2000 bar  
Signal output: 4...20 mA, 0...10 VDC  
Relays, Transistor

**ACCURACY**

TEB @ -25...+80°C: ± 1.0 % FS typ.  
Accuracy @ +25°C: ± 0.5 % FS typ.  
NLH @ +25°C (BSL through 0): ±0.25 % FS typ.  
TC zero point and span: ± 0.01 % FS/K typ.  
Long term stability  
1 year @ +25°C: ± 0.2 % FS typ.  
Sensor temperature: ±2.5°C (°F)

**ELECTRICAL DATA**

Output/ Supply voltage  
4...20 mA: 24 (11...32) VDC  
0...10 VDC: 24 (15...30) VDC  
Current consumption: < 70 mA  
Rise time: typ. 1 ms/ 10...90%  
nominal pressure  
Display  
LCD Display: back-lit  
4 Digits resolution: ≤ 0.2% FS  
Indication range: -5...125% FS  
Operation: menu selection with 2 buttons  
Adjustment parameters: see dimensions

**Relays** (Ordering No 23)

Output: 2 Relays, electrically isolated  
30W (max.1A), 36 VAC/ DC  
Switching time: 5...9999 ms, adjustable  
Switching diff.: typ. 1...99% FS

**Transistor** (Ordering No 27)

Output: 2 Transistors, max. 0.5 A  
short circuit proof  
Switching time: 5...9999 ms, adjustable  
Switching diff.: typ. 1...99% FS

**ENVIRONMENTAL CONDITIONS**

Operating temperature: -25...+80°C  
Media temperature: -25...+125°C  
Protection: <sup>1)</sup> min. IP65  
Humidity: max. 95% relative  
Vibration: 10g (25...2000 Hz)  
Shock: 50g/ 1 ms

**EMC PROTECTION**

(Output: 4...20mA)

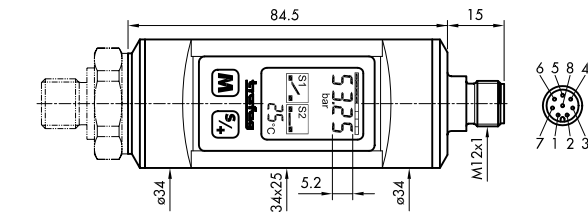
Emission: EN/IEC 61000-6-3  
Immunity: EN/IEC 61000-6-2

**MECHANICAL DATA**

Material  
Sensor: 1.4542/1.4435 (AISI630/316L)  
Housing: 1.4301/1.4306 (AISI304/304L)  
Seal (media contacting): NBR 70°Sh  
Apparatus connector: 8-poles (PA)  
U<sub>max.</sub> 30V AC/ 36V DC  
Mounting torque: 25 Nm  
Weight: ~ 200 g

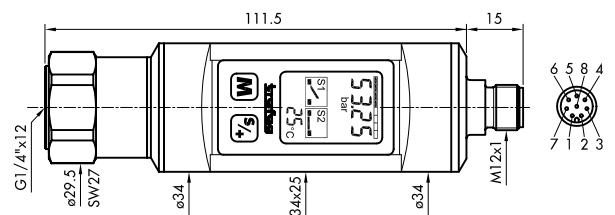
<sup>1)</sup> nur mit vorschriftsmässig montierter Kabeldose gültig/valable seulement avec fiche femelle montée selon instructions/provided female connector is mounted according to instructions

**MASSBILDER / COTES D'ENCOMBREMENT / DIMENSIONS**

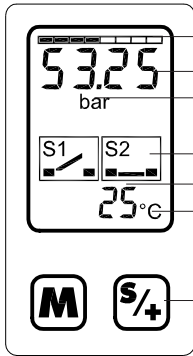


(1:1)

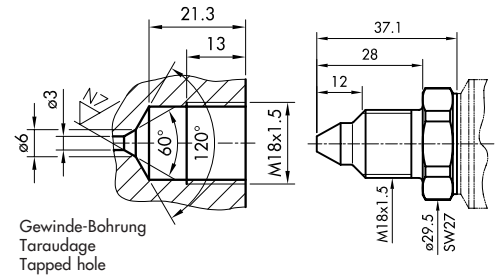
8864.XX.23XX.XX.XX.XX



8864.XX.2610.XX.XX.XX  
8864.XX.2310.XX.XX.XX

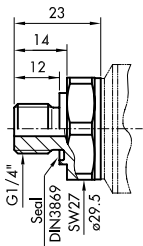


- Bargraph
- Druck/ Pression / Pressure
- Druckeinheiten/ Unités de pression/ Pressure scale (bar, mbar, Pa, kPa, MPa, psi, kpsi, mWg)
- Schaltzustand/ Etat d'interrupteur/ Switch state: (ON/OFF position)
- Sensortemperatur/ Température de capteur/ Sensor temperature
- Temperatureinheiten/ Unités de température/ Temperature scale (°C, °F)
- Tastatur/ Touches/ Buttons

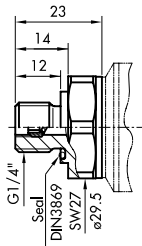


Einstellparameter/ Adjust. de paramètres/ Adjustment parameters

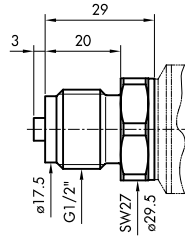
8864.XX.2329.XX.XX.XX



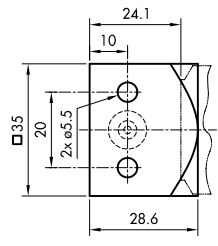
8864.XX.2317.XX.XX.XX



8864.XX.2315.XX.XX.XX

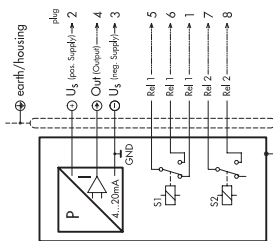


8864.XX.2311.XX.XX.XX



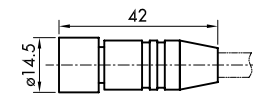
8864.XX.2341.XX.XX.XX

**ELEKTRISCHER ANSCHLUSS / RACCORDEMENT ÉLECTRIQUE / ELECTRICAL CONNECTION**



**4...20 mA / 2 relays**

8864.XX.XXXX.XX.19.23

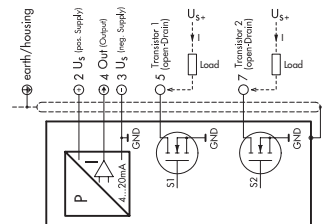


Länge/ Longueur/ Length: 2m  
Material/ Matériaux/ Material: PUR

- 1 = weiss/ blanc/ white
- 2 = braun/ brun/ brown
- 3 = grün/ vert/ green
- 4 = gelb/ jaune/ yellow
- 5 = grau/ gris/ grey
- 6 = rosa/ rose/ pink
- 7 = blau/ bleu/ blue
- 8 = rot/ rouge/ red

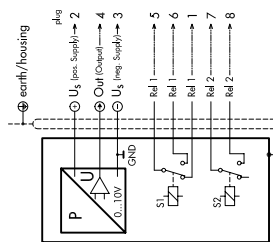
Abschirmung/ écran/ shield: an Mutter/ dans écrou/ on screw

**DCS CON**



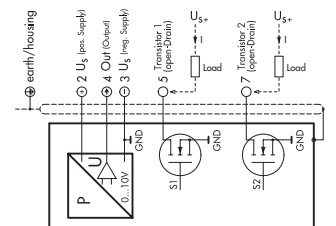
**4...20 mA / 2 transistors (open drain)**

8864.XX.XXXX.XX.19.27



**0...10 VDC / 2 relays**

8864.XX.XXXX.XX.17.23



**0...10 VDC / 2 transistors (open drain)**

8864.XX.XXXX.XX.17.27

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